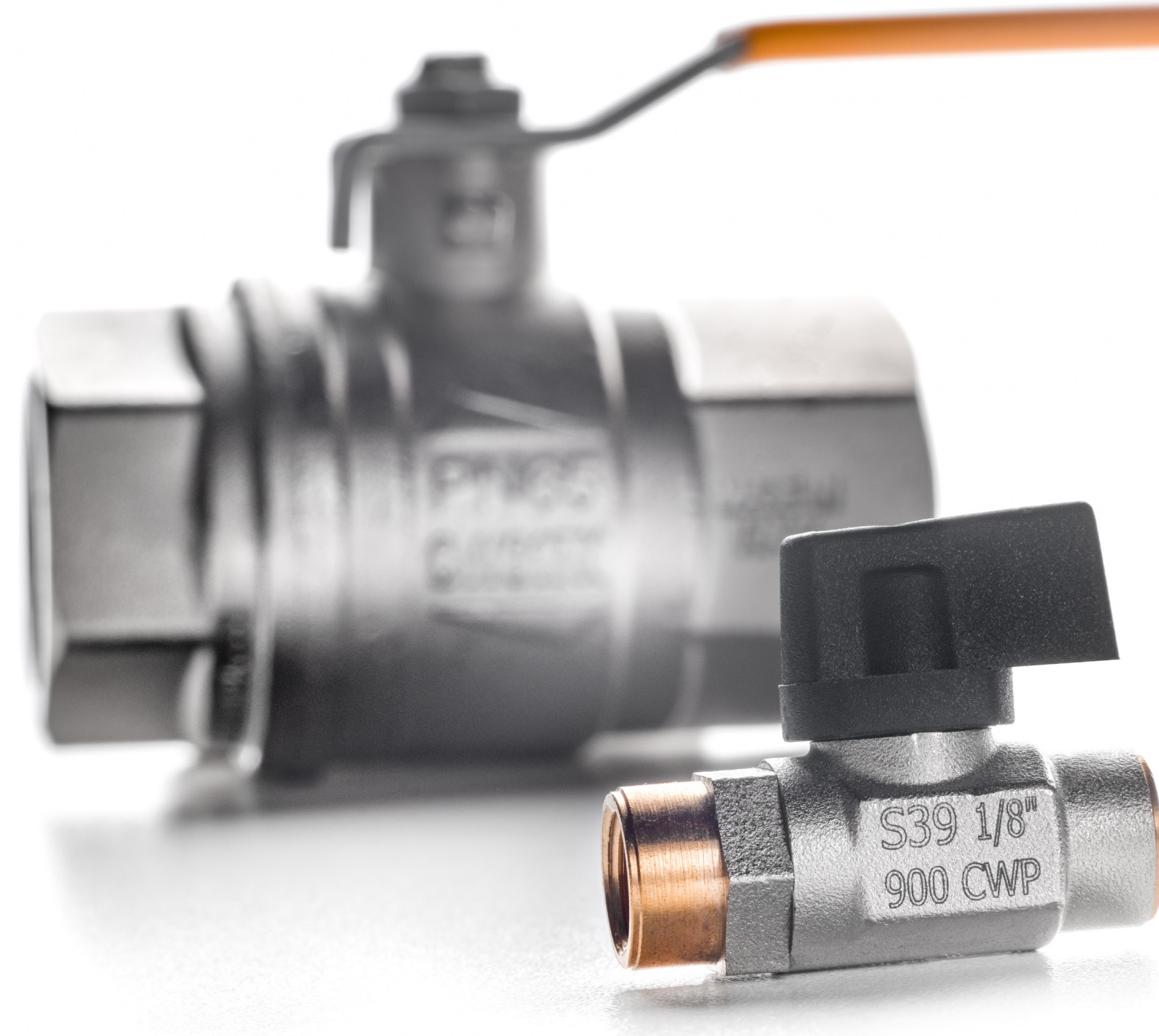
A BRAND OF BONOMI® INDUSTRIES

PRODUCT CATALOG



A BRAND OF BONOMI® INDUSTRIES

BONOMI INDUSTRIES is a manufacturer of high quality shut-off brass valves and actuators for a variety of applications, as well as engineered custom products.

BONOMI INDUSTRIES is part of Hadron, a private holding company which was established in 2018 as part of the reorganization of former ***Rubinetterie utensilerie Bonomi***. In that context, real estate company Shedstone was also started. Bonomi, the owners family name, continues to be the core of our brand since its foundation in 1828.

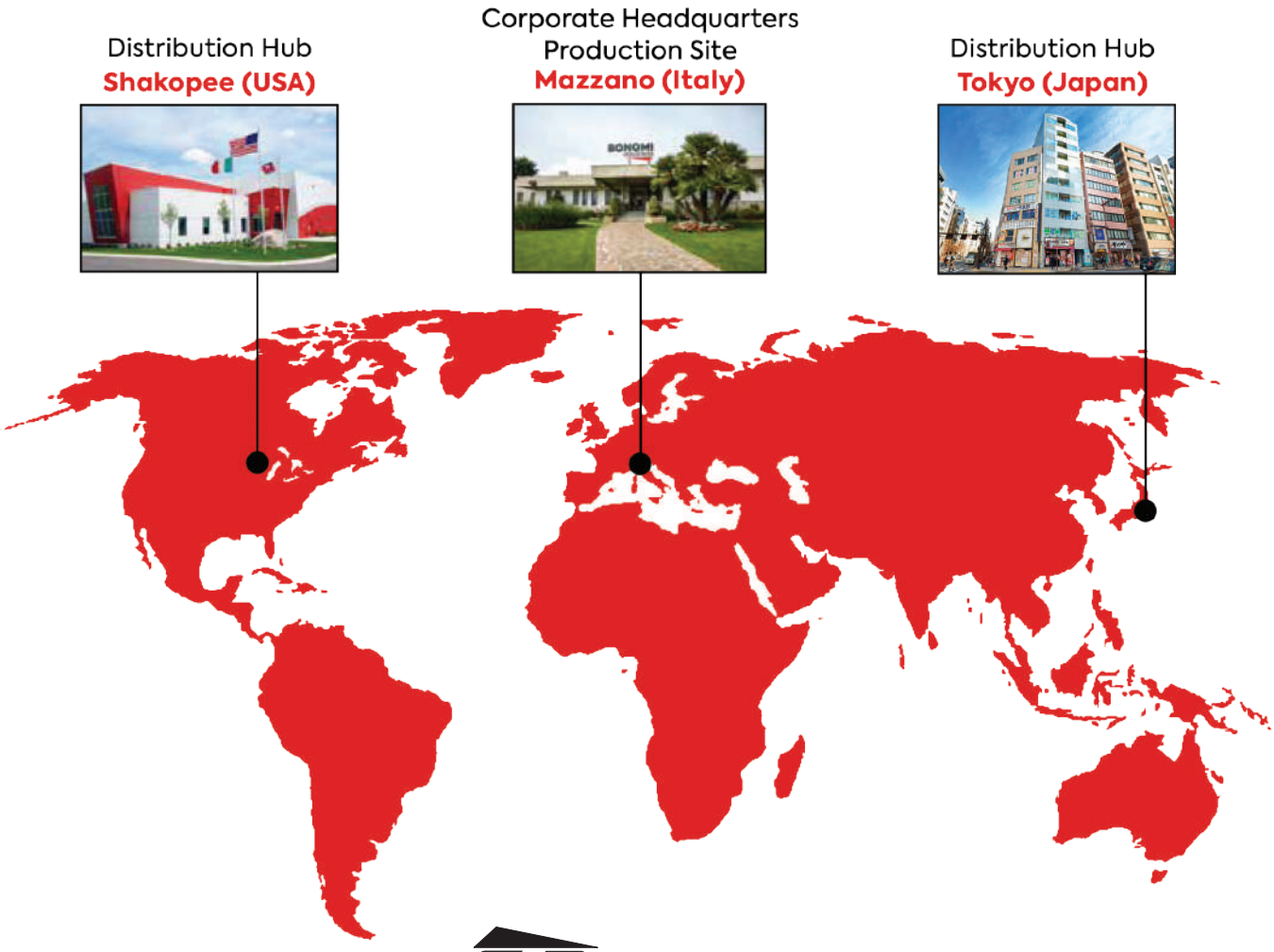
The family, strongly supports the healthy growth of the group with heavy investments in new technology for machining, assembly and logistics, an expansion of the manufacturing site, major upgrade of interconnectivity among equipment and ERP systems, employee motivational and carrier planning programs, improved customer support and stronger R&D and engineering professionality.

We are Bonomi
and we are industrial manufacturers:
we are **BONOMI** INDUSTRIES!

A BRAND OF BONOMI® INDUSTRIES


BONOMI
INDUSTRIES

OUR COMPANIES



A BRAND OF **BONOMI®** INDUSTRIES

BONOMI INDUSTRIES products are installed in five continents and perform through highly severe applications.

Our sales team promotes long-lasting relationships with distributors and OEMs offering quick feedback and technical support. First class certified products, understanding of local culture and regulations differentiate ourselves from most competitors, making **BONOMI** INDUSTRIES an easy choice for our customers.

In North America and Japan, local fully owned subsidiaries with local teams and logistics services, enhance our presence and brand recognition.


BONOMI
INDUSTRIES

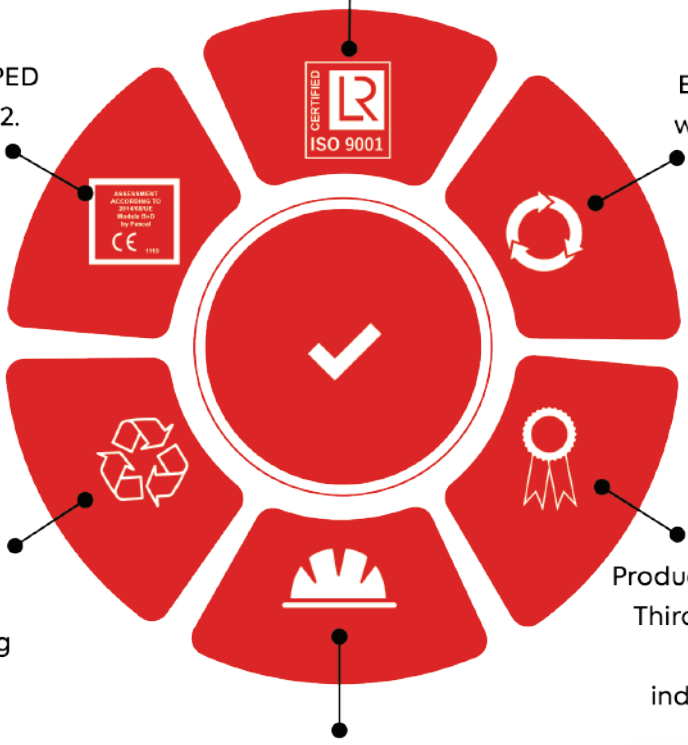
OUR QUALITY

"**Quality** you can **Trust**,
proven through generations of experience."

Quality Management System:
ISO9001 approved by Lloyd's
Register Quality
Assurance since 1994.
(ISO9002 in 1992)

In compliance with PED
Directive since 2002.

Environment : Air and
water are filtered and
recovered.
Scrap is recycled.



Use of recycled,
environmental
friendly packaging
materials.

Product Quality Assessments:
Third-party Certifications
awarded in most
industrialized countries
worldwide.

Safety: Compliance with prescriptions of
Decree 81/2008 for safety system, extensive
staff training and continous monitoring.

OUR CERTIFICATIONS

Approvals

- Deutsche Vereinigung des Gas und Wasserfaches e.V. Technisch-wissenschaftlicher Verein
- Deutsche Vereinigung des Gas und Wasserfaches
- ARGB-KVBG
- Schweizerischer Verein des Gas und Wasserfaches
- Attestation de Conformitè Sanitarie
- Система сертификации ГОСТ Р Госстандарт России
- Декларация соответствия
- Water Regulations Advisory Scheme
- British Standards Institution
- Kiwa - Swedcert
- The Australian Gas Association
- OSHA Compliant
- Factory Mutual Research Corporation
- Underwriter Laboratories Inc.
- CSA International for Drinking Water to NSF/ANSI 61- NSF/ANSI 372
- CSA - Canadian Standards Association
- CRN-TSSA
- KSFD -Kuwait Fire Service Directorate
- LIA - L.P Gas Instruments Inspections Association

Compliances

- ROHS
- Reach declaration
- PED 2014/68/UE by ICIM (0425)
- DCL021- Declaration of Conformity to 2012-19 - EU WEEE directive
- DCL004 - Conflict Minerals

We are very proud of our 100% made in Italy shut-off brass valves, actuation and OEM engineered product manufactured in our **ISO 9001:2015** certified Corporate Headquarters in Brescia, Italy.

We implemented this rigorous quality management and assurance system since 1992 monitored by Lloyd's Register, helping, helping us improve quality and reliability.

Besides Lloyd's and PED compliance, we offer a verified package of quality assurance based on testing services, state of art technology and approvals released by main laboratories and quality agencies from all over the world.

Lloyd's Register

Current issue date: 14 June 2021
Expiry date: 13 June 2024
Certificate identity number: 10360893
Original approval(s): ISO 9001 - 22 February 1995

Certificate of Approval

This is to certify that the Management System of:

BONOMI Industries Srl

Via Padana Superiore 29, Fraz. Ciliverghe, 25080 Mazzano Bs, Italy

has been approved by Lloyd's Register to the following standards:

ISO 9001:2015

Approval number(s): ISO 9001 – 0030053

This certificate is valid only in association with the certificate schedule bearing the same number on which the locations applicable this approval are listed.

The scope of this approval is applicable to:
Engineering, manufacturing and distribution of industrial low pressure shut-off and regulating brass valve in size 1/8" to 4", actuat related components and accessories in brass or aluminum and custom made products. Providing services in the following areas: administration, finance and control, human resources, marketing, quality system and information technology.

Daniel Oliva Marcilio de Souza
Area Operations Manager - South Europe
Issued by: Lloyd's Register Quality Assurance Italy Srl
for and on behalf of: Lloyd's Register Quality Assurance Limited

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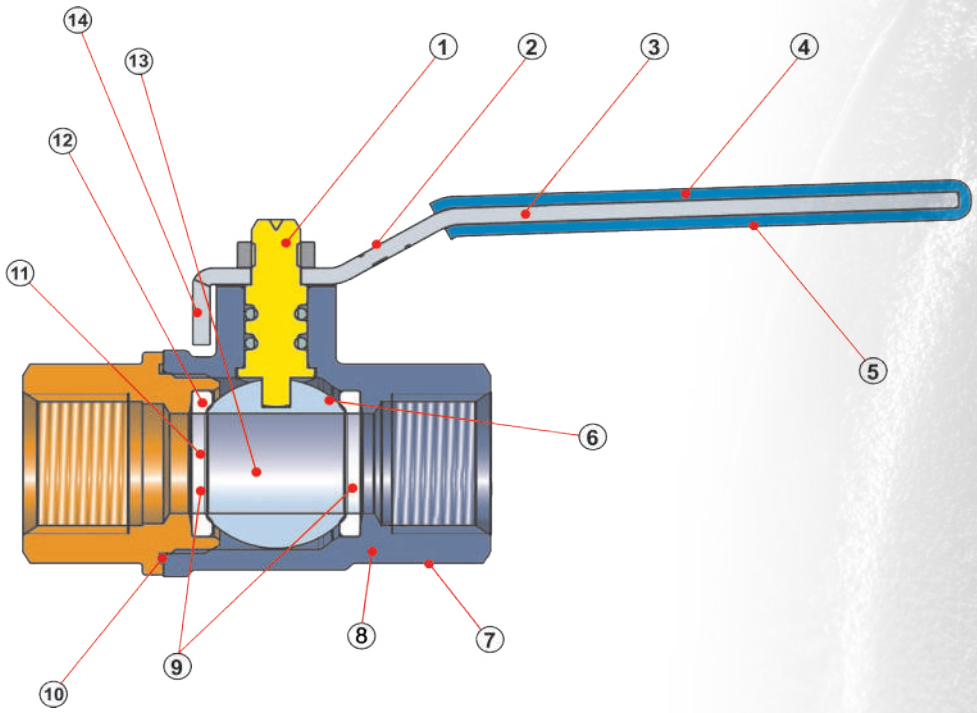
CERTIFIED ISO 9001

For more information, please visit our website at *https://www.rubvalves.com/approvals/* to learn which approvals apply to specific valves and specific configurations.

OUR VALVE FEATURES



1. Blowout-proof stem on all sizes
2. Geomet® protective handle plating
3. Handle can be disassembled while valve is under pressure
4. Indelible laser marking
5. Longer and more robust handle with thicker PVC dip coating
6. Greater contact between ball and seats to ensure tightness at low pressure and longer life.
7. Date code to allow batch traceability indicating year and month of manufacturing
8. Most products rated at 40 bar / 600 PSI CWP
9. 24 hour 100% dual seal test.*

   Valve in half open position is pressurized at 6 bar (87 psig), then closed, trapping compressed air in between ball seats and steam sealing. After adequate time, any leak is verified using extremely accurate electronic sensors and any defective valve is automatically rejected; all valves passing this initial seal test are filled with compressed air again and remain closed and under pressure for minimum 24 hours; after 24 hours, the valves go back again under the same accurate electronic pressure sensors and any leaking valve is automatically rejected.

   ** Certain products are not suitable for double seal test*

10. Patented metal-to-metal sealing at body/end-cap joint in addition to sealant
11. Ball seats with flexible lip design
12. Virgin self-lubricating PTFE seats for constant performance offering higher flexibility and greater sealing when system pressure varies through time or in the presence of temperature variations.
13. Full port on most configurations
14. Handle stops on body to avoid stress at stem

100% MADE IN ITALY

A BRAND OF BONOMI® INDUSTRIES

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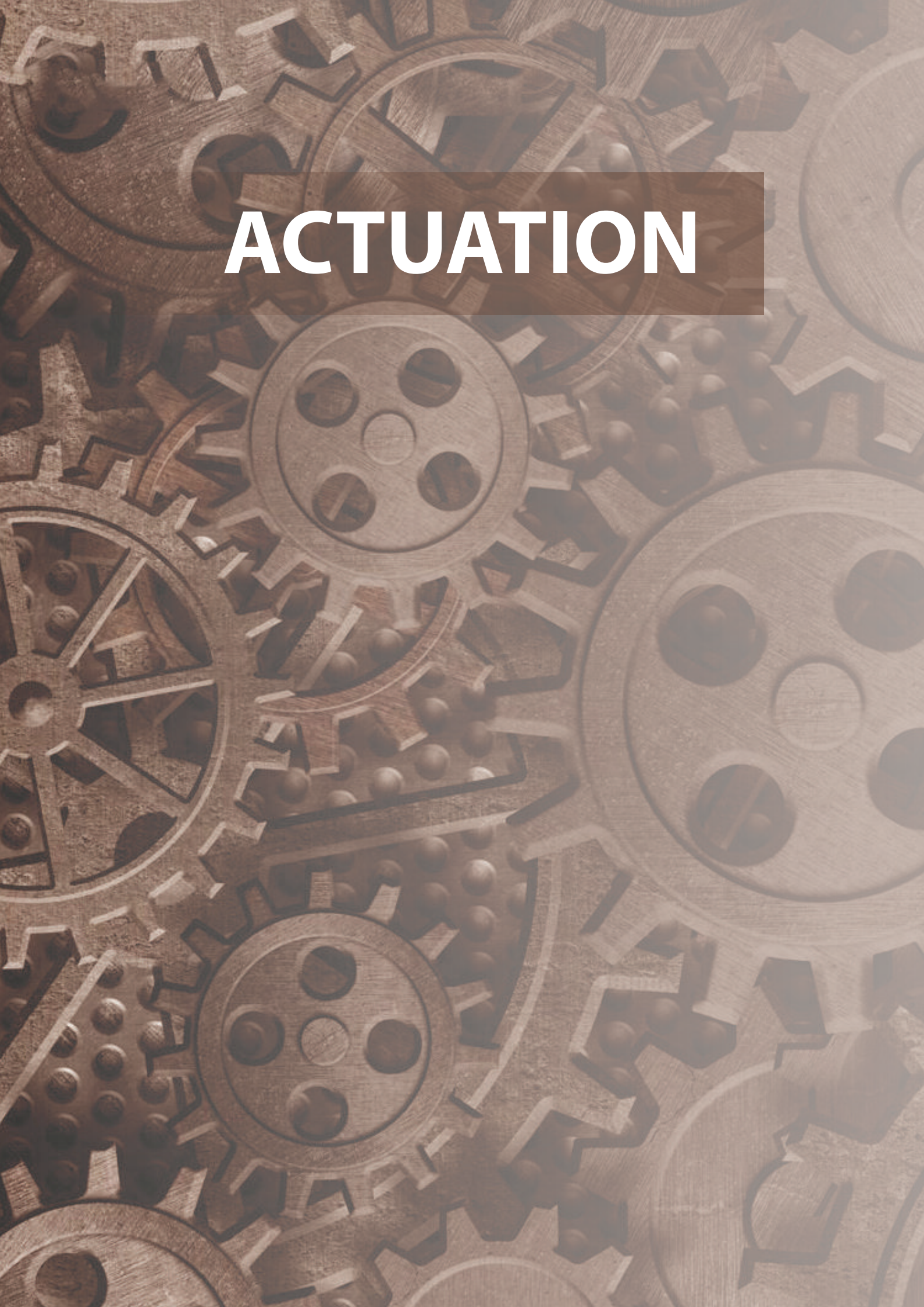


ACTUATION

PNEUMATIC ACTUATOR

pneumatic actuator for 1/2" - 4" quarter turn valve

Technical features

- ISO 5211 direct mount on valve
- NAMUR pads for direct mount of solenoid and limit switch
- Pilot ring for perfect alignment of shaft and stem
- Extruded aluminum body hard anodized cylinder bore rock hard and glass smooth
- Nickel plated steel shaft
- Stainless steel fasteners
- High tensile long life return springs
- Visual position indicator
- Indoor or outdoor installation
- Single massive travel stop on one end eliminates need of balancing stop on both ends (EA sizes 2~7)
- Fast field conversion between double acting and spring return, fail open or fail closed
- Minimum ambient temperature while actuator is at rest: -35°C (-31°F)

Service limits

Imperial system			Metric system		
	Min	Max		Min	Max
Pressure (PSI)	40	150	**Pressure (bar)**	3	10
Temperature (°F)	0	175	**Temperature (°C)**	-20	80

Accessories

- Limit switch box
- Solenoid valves
- Visual position indicator
- Link kit
- Springs

Limit switch box

Solenoid valve

Visual position indicator

Link kit

Springs

How to order

Springs to Close/Open

Blank = Spring to close
A = Spring to open

N° of Springs

Blank = Double acting actuators (size 1 not available with springs)
From S2 to S12 = Spring return for actuator sizes from 2 to 4
From S4 to S8 = Spring return for actuator sizes from 5 to 7*
***NOTE: for sizes from 5 to 7, springs in excess of 4 are internal springs (see example EA4-6S8).**

Actuators Sizes - Square:

1 = F03 - SQUARE 9
2 = F03/F05 - SQUARE 9
2A= F03/F05 - SQUARE 11 (only metric version)
2B = F04 - SQUARE 11 (only metric version)
3 = F05/F07 - SQUARE 14
4 = F05/F07 - SQUARE 14
5 = F05/F07 - SQUARE 17
6 = F07 - SQUARE 17
7 = F07/F10 - SQUARE 22

Type of Threads:

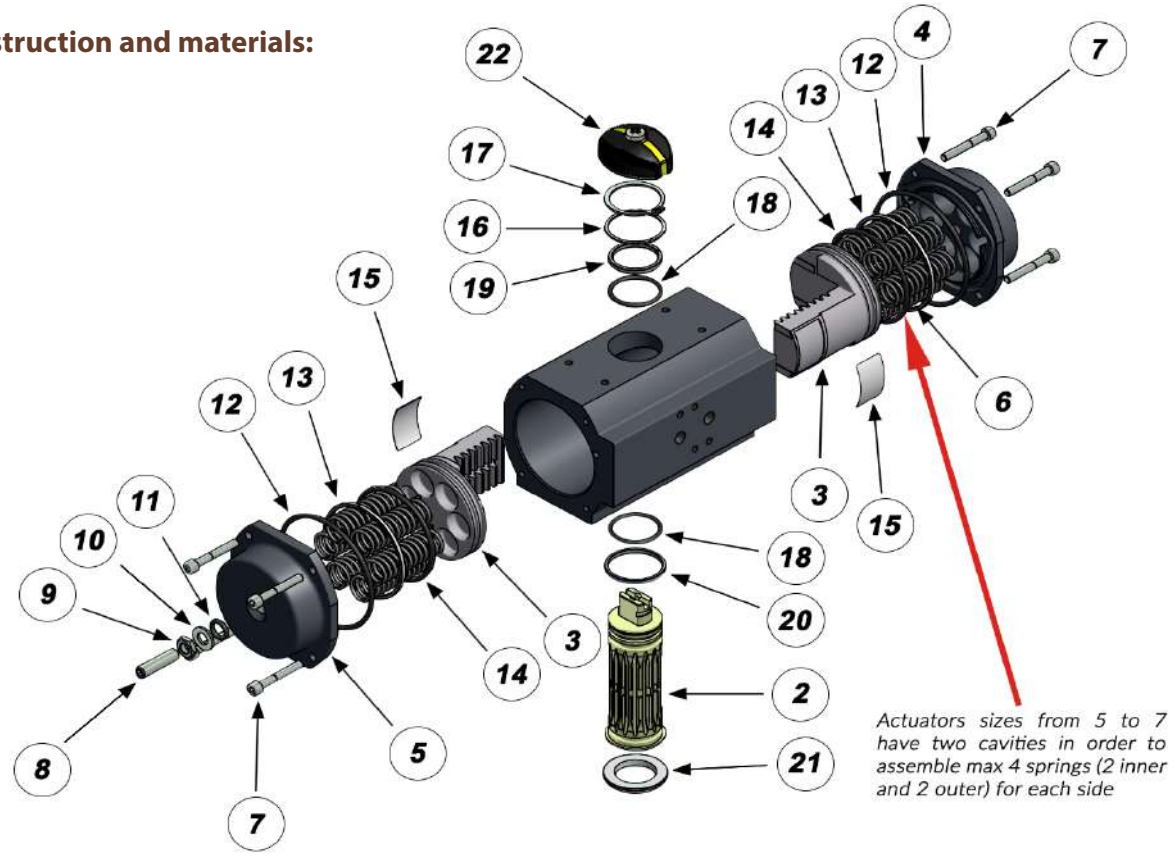
2 = Metric Threads
4 = Imperial Threads (except top of stem - K dimension - is M6)

Example

EA4-6S8 is an EA actuator with Imperial threads, size 6 with 8 springs to close (4 external springs and 4 internal springs)

EA2-4 is an EA actuator with metric threads, size 4, with no springs

Construction and materials:



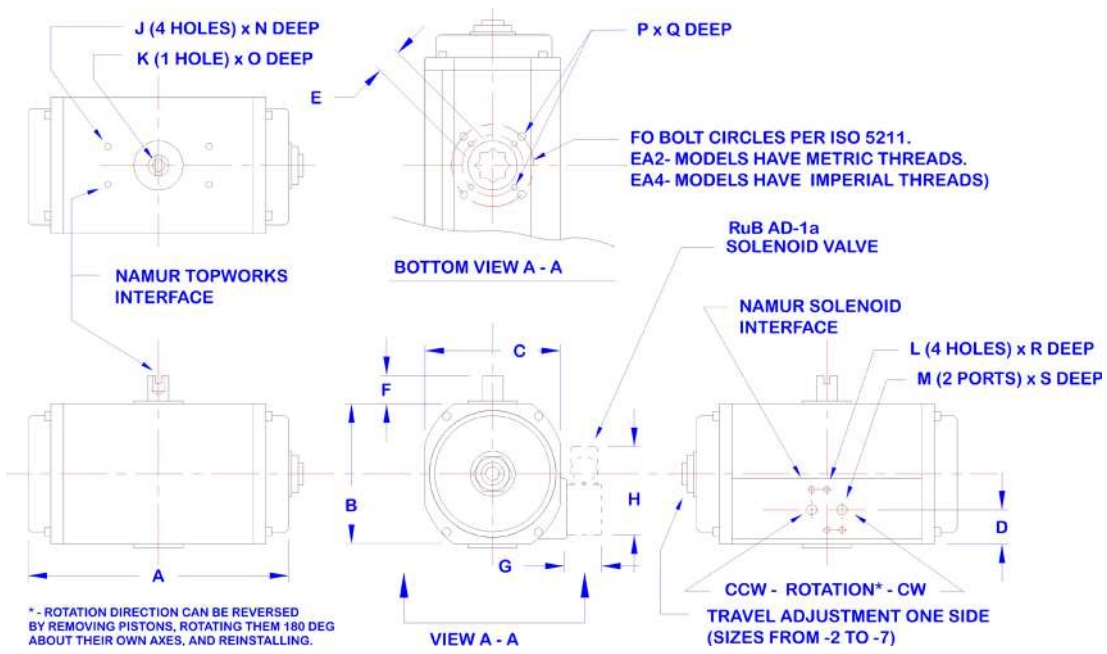
Bill of materials

EA-4 is shown. Smaller sizes have similar construction except EA-1 that has Nylon endcaps and pistons

Item	Description	Q.ty	Material
1	Body	1	Anod, aluminum
2	Shaft	1	Steel - zinc plated
3	Piston	2	Aluminum
4	End-cap	1	Anod, aluminum
5	End-cap (stop bolt)	1	Anod, aluminum
6	Spring	12 Max	Cr-Si steel
7	Cap bolt	8	St steel
8	Stop bolt	1	Hi tensile steel
9	Stop bolt nut	1	Hi tensile steel
10	Washer	1	Polyethylene
11	O-Ring (end stop)	1	NBR
12	O-Ring (end cover)	2	NBR
13	Piston ring	2	POM**
14	Piston ring	2	NBR
15	Wear pad	2	POM**
16	Shaft washer	1	Polyethylene
17	Snap ring	1	Steel
18	O-Ring (drive shaft)	2	NBR
19	Shaft bearing upper	1	POM**
20	Shaft bearing lower	1	POM**
21	Alignment ring	1	POM**
22	Indicator	1	Nylon

** Polyoxymethylene commonly "Delrin"

Dimensions:



Size	Metric system - mm																		
	F0	A	B	C	D	E	F	G	H	J	K	L	M	N	O	P	Q	R	S
1	F03	103	45	51	22,5	9	20	26	67	M5	M6	M5	G1/8	5	12	M5	8	8	7
2	F03/05	150	70	70	23	9	20	26	67	M5	M6	M5	G1/8	8	12	M5 / M6	8 / 10	8	10
2A	F03/05	150	70	70	23	11	20	26	67	M5	M6	M5	G1/8	8	12	M5 / M6	8 / 10	8	10
2B	F04	150	70	70	23	11	20	26	67	M5	M6	M5	G1/8	8	12	M5 / M6	8 / 10	8	10
3	F05/07	187	87	91	34,5	14	20	26	67	M5	M6	M5	G1/8	8	12	M6 / M8	10 / 13	8	10
4	F05/07	206	118	113	29,5	14	20	26	67	M5	M6	M5	G1/8	8	12	M6 / M8	10 / 13	8	10
5	F05/07	194	118,5	121	29,5	17	20	26	67	M5	M6	M5	G1/4	5	12	M6 / M8	10 / 10	8	12
6	F07/10	218	140,5	136,5	29,5	17	20	26	67	M5	M6	M5	G1/4	5	12	M8 / M10	10 / 16	8	12
7	F07/10	266	166,5	156	30	22	20	26	67	M5	M6	M5	G1/4	5	12	M8 / M10	13 / 16	8	12

Size	Imperial system - inch																		
	F0	A	B	C	D	E	F	G	H	J	K	L	M	N	O	P	Q	R	S
1	F03	4.06	1.77	2.01	0.89	0.35	0.79	1.02	2.64	10-32	M6	10-32	1/8 NPT	0.20	0.47	10-32	0.31	0.31	0.28
2	F03/05	5.91	2.76	2.76	0.91	0.35	0.79	1.02	2.64	10-32	M6	10-32	1/8 NPT	0.31	0.47	10-32 / 1/4"-20	0.31 / 0.39	0.31	0.39
3	F05/07	7.36	3.43	3.58	1.36	0.55	0.79	1.02	2.64	10-32	M6	10-32	1/8 NPT	0.31	0.47	1/4"-20 / 5/16"-18	0.39 / 0.51	0.31	0.39
4	F05/07	8.11	4.65	4.45	1.16	0.55	0.79	1.02	2.64	10-32	M6	10-32	1/8 NPT	0.31	0.47	1/4"-20 / 5/16"-18	0.39 / 0.51	0.31	0.39
5	F05/07	7.64	4.67	4.76	1.16	0.67	0.79	1.02	2.64	10-32	M6	10-32	1/4 NPT	0.20	0.47	1/4"-20 / 5/16"-18	0.47 / 0.47	0.31	0.50
6	F07/10	8.58	5.53	5.37	1.16	0.67	0.79	1.02	2.64	10-32	M6	10-32	1/4 NPT	0.20	0.47	5/16"-18 / 3/8"-16	0.51 / 0.63	0.31	0.50
7	F07/10	10.47	6.56	6.14	1.18	0.87	0.79	1.02	2.64	10-32	M6	10-32	1/4 NPT	0.20	0.47	5/16"-18 / 3/8"-16	0.51 / 0.63	0.31	0.50

Torque rating charts for EA2 actuators - METRIC system

Double acting - torque in N.m									
		Air pressure supply (bar)							
EA2-	Springs	3	4	5	6	7	8	9	10
1	0	4,4	5,8	7,3	8,7	10,2	11,6	13,1	14,5
2-2A	0	11,8	15,8	19,7	23,7	27,6	31,6	35,5	39,5
3	0	25,4	33,8	42,3	50,7	59,2	67,6	76,1	84,5
4	0	50,7	67,6	84,5	101,5	118,4	135,3	152,2	169,1
5	0	61,3	81,7	102,1	122,5	142,9	163,3	183,8	204,2
6	0	101,0	134,6	168,3	201,9	235,6	269,2	302,9	336,5
7	0	187,1	249,5	311,8	374,2	436,5	498,9	561,3	623,6

Spring return - torque in N.m																					
						air stroke - start								air stroke - end							
	Springs	Springs		spring stroke		Air pressure supply (bar)								Air pressure supply (bar)							
EA2-	total	outer	inner	start	end	3	4	5	6	7	8	9	10	3	4	5	6	7	8	9	10
	2			2,62	1,34	10,5	14,4	18,4	22,3	26,3	30,2	34,2	38,1	9,2	13,2	17,1	21,1	25,0	28,9	32,9	36,8
	3			3,93	2,01	9,8	13,8	17,7	21,7	25,6	29,6	33,5	37,4	7,9	11,9	15,8	19,7	23,7	27,6	31,6	35,5
	4			5,24	2,68	9,2	13,1	17,0	21,0	24,9	28,9	32,8	36,8	6,6	10,5	14,5	18,4	22,4	26,3	30,3	34,2
	5			6,55	3,35	8,5	12,4	16,4	20,3	24,3	28,2	32,2	36,1	5,3	9,2	13,2	17,1	21,1	25,0	29,0	32,9
	6			7,86	4,02	7,8	11,8	15,7	19,7	23,6	27,5	31,5	35,4	4,0	7,9	11,9	15,8	19,8	23,7	27,6	31,6
2-2A	7			9,17	4,69		11,1	15,0	19,0	22,9	26,9	30,8	34,8		6,6	10,6	14,5	18,4	22,4	26,3	30,3
	8			10,48	5,36		10,4	14,4	18,3	22,3	26,2	30,1	34,1		5,3	9,2	13,2	17,1	21,1	25,0	29,0
	9			11,79	6,03			13,7	17,6	21,6	25,5	29,5	33,4			7,9	11,9	15,8	19,8	23,7	27,7
	10			13,1	6,7			13,0	17,0	20,9	24,9	28,8	32,8			6,6	10,6	14,5	18,5	22,4	26,4
	11			14,41	7,37				16,3	20,2	24,2	28,1	32,1				9,3	13,2	17,2	21,1	25,0
	12			15,72	8,04				15,6	19,6	23,5	27,5	31,4				8,0	11,9	15,8	19,8	23,7
	2			5,44	3	22,4	30,8	39,3	47,7	56,2	64,6	73,1	81,5	19,9	28,4	36,8	45,3	53,7	62,2	70,7	79,1
	3			8,16	4,5	20,9	29,3	37,8	46,2	54,7	63,1	71,6	80,0	17,2	25,7	34,1	42,6	51,0	59,5	67,9	76,4
	4			10,88	6	19,4	27,8	36,3	44,7	53,2	61,6	70,1	78,5	14,5	22,9	31,4	39,8	48,3	56,8	65,2	73,7
	5			13,6	7,5	17,9	26,3	34,8	43,2	51,7	60,1	68,6	77,0	11,8	20,2	28,7	37,1	45,6	54,0	62,5	70,9
	6			16,32	9	16,4	24,8	33,3	41,7	50,2	58,6	67,1	75,5	9,0	17,5	26,0	34,4	42,9	51,3	59,8	68,2
3	7			19,04	10,5		23,3	31,8	40,2	48,7	57,1	65,6	74,0		14,8	23,2	31,7	40,1	48,6	57,1	65,5
	8			21,76	12		21,8	30,3	38,7	47,2	55,6	64,1	72,5		12,1	20,5	29,0	37,4	45,9	54,3	62,8
	9			24,48	13,5			28,8	37,2	45,7	54,1	62,6	71,0			17,8	26,2	34,7	43,2	51,6	60,1
	10			27,2	15			27,3	35,7	44,2	52,6	61,1	69,5			15,1	23,5	32,0	40,4	48,9	57,3
	11			29,92	16,5				34,2	42,7	51,1	59,6	68,0				20,8	29,3	37,7	46,2	54,6
	12			32,64	18				32,7	41,2	49,6	58,1	66,5				18,1	26,5	35,0	43,5	51,9
	2			10,24	6,68	44,0	61,0	77,9	94,8	111,7	128,6	145,5	162,4	40,5	57,4	74,3	91,2	108,1	125,0	141,9	158,9
	3			15,36	10,02	40,7	57,6	74,5	91,4	108,3	125,3	142,2	159,1	35,4	52,3	69,2	86,1	103,0	119,9	136,8	153,7
	4			20,48	13,36	37,4	54,3	71,2	88,1	105,0	121,9	138,8	155,7	30,2	47,2	64,1	81,0	97,9	114,8	131,7	148,6
	5			25,6	16,7	34,0	50,9	67,8	84,8	101,7	118,6	135,5	152,4	25,1	42,0	58,9	75,9	92,8	109,7	126,6	143,5
	6			30,72	20,04	30,7	47,6	64,5	81,4	98,3	115,2	132,1	149,1	20,0	36,9	53,8	70,7	87,6	104,6	121,5	138,4
4	7			35,84	23,38		44,3	61,2	78,1	95,0	111,9	128,8	145,7		31,8	48,7	65,6	82,5	99,4	116,3	133,3
	8			40,96	26,72		40,9	57,8	74,7	91,6	108,6	125,5	142,4		26,7	43,6	60,5	77,4	94,3	111,2	128,1
	9			46,08	30,06			54,5	71,4	88,3	105,2	122,1	139,0			38,5	55,4	72,3	89,2	106,1	123,0
	10			51,2	33,4			51,1	68,1	85,0	101,9	118,8	135,7			33,3	50,3	67,2	84,1	101,0	117,9
	11			56,32	36,74				64,7	81,6	98,5	115,4	132,4				45,1	62,0	79,0	95,9	112,8
	12			61,44	40,08				61,4	78,3	95,2	112,1	129,0				40,0	56,9	73,8	90,7	107,7
	4	4	0	52,4	28,8	32,5	52,9	73,3	93,7	114,1	134,5	155,0	175,4	8,9	29,3	49,7	70,1	90,5	110,9	131,4	151,8
	5	4	1	58,95	32,4		49,3	69,7	90,1	110,5	130,9	151,4	171,8		22,7	43,1	63,6	84,0	104,4	124,8	145,2
5	6	4	2	65,5	36		45,7	66,1	86,5	106,9	127,3	147,8	168,2		16,2	36,6	57,0	77,4	97,8	118,3	138,7
	7	4	3	72,05	39,6			62,5	82,9	103,3	123,7	144,2	164,6			30,0	50,5	70,9	91,3	111,7	132,1
	8	4	4	78,6	43,2			58,9	79,3	99,7	120,1	140,6	161,0			23,5	43,9	64,3	84,7	105,2	125,6
	4	4	0	86,8	47,7	53,3	86,9	120,6	154,2	187,9	221,5	255,2	288,8	14,2	47,8	81,5	115,1	148,8	182,4	216,1	249,7
	5	4	1	97,65	53,675		80,9	114,6	148,3	181,9	215,6	249,2	282,9		37,0	70,6	104,3	137,9	171,6	205,2	238,9
6	6	4	2	108,5	59,65		75,0	108,6	142,3	175,9	209,6	243,2	276,9		26,1	59,8	93,4	127,1	160,7	194,4	228,0
	7	4	3	119,35	65,625			102,6	136,3	170,0	203,6	237,3	270,9			48,9	82,6	116,2	149,9	183,5	217,2
	8	4	4	130,2	71,6			96,7	130,3	164,0	197,6	231,3	264,9			38,1	71,7	105,4	139,0	172,7	206,3
	4	4	0	160,8	88,4	98,7	161,1	223,4	285,8	348,1	410,5	472,9	535,2	26,3	88,7	151,0	213,4	275,7	338,1	400,5	462,8
	5	4	1	180,9	99,45		150,0	212,4	274,7	337,1	399,5	461,8	524,2		68,6	130,9	193,3	255,6	318,0	380,4	442,7
7	6	4	2	201	110,5		139,0	201,3	263,7	326,0	388,4	450,8	513,1		48,5	110,8	173,2	235,5	297,9	360,3	422,6
	7	4	3	221,1	121,55			190,3	252,6	315,0	377,4	439,7	502,1			90,7	153,1	215,4	277,8	340,2	402,5
	8	4	4	241,2	132,6			179,2	241,6	303,9	366,3	428,7	491,0			70,6	133,0	195,3	257,7	320,1	382,4

Torque rating charts for EA4 actuators - IMPERIAL system

Double acting - torque In-lb										
		Air pressure supply (PSI)								
EA4-	Springs	40	50	60	70	80	90	100	110	120
1	0	35	44	53	62	71	80	89	98	106
2	0	96	120	144	168	193	217	241	265	289
3	0	206	258	309	361	413	464	516	567	619
4	0	413	516	619	722	825	928	1032	1135	1238
5	0	498	623	747	872	996	1121	1246	1370	1495
6	0	821	1027	1232	1437	1642	1848	2053	2258	2464
7	0	1522	1902	2283	2663	3044	3424	3804	4185	4565

Spring return - torque in In-lb																						
						air stroke - start										air stroke - end						
	Springs	Springs		spring stroke		Air pressure supply (PSI)										Air pressure supply (PSI)						
EA4-	total	outer	inner	start	end	40	50	60	70	80	90	100	110	120	40	50	60	70	80	90	100	110	120
	2			23	12	84	108	133	157	181	205	229	253	277	73	97	121	145	169	193	218	242	266
	3			35	18	78	103	127	151	175	199	223	247	271	62	86	110	134	158	182	206	230	254
	4			46	24	73	97	121	145	169	193	217	241	265	50	74	98	122	146	170	194	218	242
	5			58	30	67	91	115	139	163	187	211	235	259	38	62	86	111	135	159	183	207	231
	6			70	36		85	109	133	157	181	205	229	253		51	75	99	123	147	171	195	219
2	7			81	41		79	103	127	151	175	199	223	247		39	63	87	111	135	160	184	208
	8			93	47			97	121	145	169	193	217	241			52	76	100	124	148	172	196
	9			104	53				115	139	163	187	211	235				64	88	112	136	160	185
	10			116	59				109	133	157	181	205	230				53	77	101	125	149	173
	11			127	65					127	151	175	200	224					65	89	113	137	161
	12			139	71						145	170	194	218						78	102	126	150
	2			48	27	180	231	283	334	386	438	489	541	592	158	210	261	313	364	416	468	519	571
	3			72	40	166	218	270	321	373	424	476	528	579	134	186	237	289	340	392	444	495	547
	4			96	53	153	205	256	308	360	411	463	514	566	110	162	213	265	316	368	419	471	523
	5			120	66	140	192	243	295	346	398	449	501	553	86	138	189	241	292	344	395	447	499
	6			144	80		178	230	281	333	385	436	488	539		113	165	217	268	320	371	423	475
3	7			168	93		165	217	268	320	371	423	474	526		89	141	193	244	296	347	399	450
	8			193	106			203	255	306	358	410	461	513			117	169	220	272	323	375	426
	9			217	119				242	293	345	396	448	499				144	196	248	299	351	402
	10			241	133				228	280	331	383	435	486				120	172	224	275	327	378
	11			265	146					267	318	370	421	473					148	199	251	303	354
	12			289	159						305	356	408	460						175	227	279	330
	2			91	59	354	457	560	663	766	869	972	1076	1179	322	425	528	631	735	838	941	1044	1147
	3			136	89	324	427	530	633	737	840	943	1046	1149	277	380	483	586	689	792	896	999	1102
	4			181	118	294	398	501	604	707	810	913	1016	1120	231	335	438	541	644	747	850	953	1057
	5			227	148	265	368	471	574	677	781	884	987	1090	186	289	392	496	599	702	805	908	1011
	6			272	177		338	442	545	648	751	854	957	1061		244	347	450	553	657	760	863	966
4	7			317	207		309	412	515	618	722	825	928	1031		199	302	405	508	611	714	818	921
	8			362	236			382	486	589	692	795	898	1001			257	360	463	566	669	772	875
	9			408	266				456	559	662	766	869	972				314	418	521	624	727	830
	10			453	296				427	530	633	736	839	942				269	372	475	579	682	785
	11			498	325					500	603	706	810	913					327	430	533	636	740
	12			544	355						574	677	780	883						385	488	591	694
	4	4	0	464	255		368	493	617	742	866	991	1115	1240		159	284	408	533	657	782	907	1031
	5	4	1	522	287			461	585	710	834	959	1083	1208			226	350	475	599	724	849	973
5	6	4	2	580	319			429	553	678	803	927	1052	1176			168	292	417	541	666	791	915
	7	4	3	637	350				522	646	771	895	1020	1144				234	359	484	608	733	857
	8	4	4	695	382					614	739	863	988	1112					301	426	550	675	799
	4	4	0	768	422		604	810	1015	1220	1426	1631	1836	2042		259	464	669	874	1080	1285	1490	1696
	5	4	1	864	475			757	962	1168	1373	1578	1783	1989			368	573	778	984	1189	1394	1600
6	6	4	2	960	528			704	909	1115	1320	1525	1731	1936			272	477	682	888	1093	1298	1504
	7	4	3	1056	581				856	1062	1267	1472	1678	1883				381	586	792	997	1202	1408
	8	4	4	1152	634				804	1009	1214	1420	1625	1830				285	490	696	901	1106	1312
	4	4	0	1423	782		1120	1500	1881	2261	2642	3022	3403	3783		479	860	1240	1621	2001	2382	2762	3143
	5	4	1	1601	880		1022	1403	1783	2164	2544	2924	3305	3685		302	682	1063	1443	1823	2204	2584	2965
7	6	4	2	1778	978			1305	1685	2066	2446	2827	3207	3588			504	885	1265	1646	2026	2406	2787
	7	4	3	1956	1075			1207	1588	1968	2349	2729	3109	3490			326	707	1087	1468	1848	2229	2609
	8	4	4	2134	1173				1490	1870	2251	2631	3012	3392				529	909	1290	1670	2051	2431

Quick pick chart for EA2 (Metric) pneumatic actuators assembled on s64, s76, s72 and s73 *RuB* ball valves

For service with pipeline ΔP lower than the maximum limits shown below, and for media having friction characteristics similar to clean water or moist/lubricated gases the following actuator selections can be used.
For higher pipeline pressures or more difficult media the selection must be made using the valve torque charts found on each valve data sheet, and the actuator torque rating chart found on the following page.
For assistance in actuator selection please contact ***RuB*** at the following email address: sales@rubvalves.com or your ***RuB*** distributor.

		Air pressure supply (bar)																					
VALVE		3	4	5	6	7	8	9	10	3	4	5	6	7	8	9	10	3	4	5	6	7	8	9	10
s64 LT	ΔP Media (bar)	Double Acting Actuators EA2-								Spring-to-Close Actuators EA2-								Spring-to-Open Actuators EA2-							
1"	6	1	1	1	1	1	1	1	1	2s2	2s2	2s2	2s2	2s2	2s2	2s2	2s2	2s2	2s2	2s2	2s2	2s2	2s2	2s2	2s2
1-1/4"	6	1	1	1	1	1	1	1	1	2s3	2s3	2s3	2s3	2s3	2s3	2s3	2s3	2s3	2s3	2s3	2s3	2s3	2s3	2s3	2s3
1-1/2"	6	2A	2A	2A	2A	2A	2A	2A	2A	2As6	2As6	2As6	2As6	2As6	2As6	2As6	2As6	2As6	2As6	2As6	2As6	2As6	2As6	2As6	2As6
2"	6	2A	2A	2A	2A	2A	2A	2A	2A	3s4	2As8	2As8	2As8	2As8	2As8	2As8	2As8	3s4	2As8	2As8	2As8	2As8	2As8	2As8	2As8
1"	16 Max	1	1	1	1	1	1	1	1	2s4	2s4	2s4	2s4	2s4	2s4	2s4	2s4	2s4	2s4	2s4	2s4	2s4	2s4	2s4	2s4
1-1/4"	16 Max	1	1	1	1	1	1	1	1	2s4	2s4	2s4	2s4	2s4	2s4	2s4	2s4	2s4	2s4	2s4	2s4	2s4	2s4	2s4	2s4
1-1/2"	16 Max	2A	2A	2A	2A	2A	2A	2A	2A	3s4	3s4	2As9	2As9	2As9	2As9	2As9	2As9	3s4	3s4	2As9	2As9	2As9	2As9	2As9	2As9
2"	16 Max	3	2A	2A	2A	2A	2A	2A	2A	3s6	3s6	3s6	2As12	2As12	2As12	2As12	2As12	3s6	3s6	3s6	2As12	2As12	2As12	2As12	2As12

		Air pressure supply (bar)																					
VALVE		3	4	5	6	7	8	9	10	3	4	5	6	7	8	9	10	3	4	5	6	7	8	9	10
s64	ΔP* Media (bar)	Double Acting Actuators EA2-								Spring-to-Close Actuators EA2-								Spring-to-Open Actuators EA2-							
1/2"	15	1	1	1	1	1	1	1	1	2s2	2s2	2s2	2s2	2s2	2s2	2s2	2s2	2s3	2s3	2s3	2s3	2s3	2s3	2s3	2s3
3/4"	15	1	1	1	1	1	1	1	1	2s3	2s3	2s3	2s3	2s3	2s3	2s3	2s3	2s4	2s4	2s4	2s4	2s4	2s4	2s4	2s4
1"	15	2	2	1	1	1	1	1	1	2s4	2s4	2s4	2s4	2s4	2s4	2s4	2s4	2s7	2s7	2s7	2s7	2s7	2s7	2s7	2s7
1-1/4"	15	2A	2A	2A	2A	2A	2A	2A	2A	3s6	3s6	3s6	2As12	2As12	2As12	2As12	2As12	3s5	3s5	3s5	2As11	2As11	2As11	2As11	2As11
1-1/2"	15	3	3	3	3	2A	2A	2A	2A	4s4	4s4	3s9	3s9	3s9	3s9	3s9	3s9	4s5	4s5	3s10	3s10	3s10	3s10	3s10	3s10
2"	15	4	3	3	3	3	3	3	3	4s5	4s5	4s5	3s11	3s11	3s11	3s11	3s11	4s6	4s6	4s6	3s12	3s12	3s12	3s12	3s12
2-1/2"	15	5	5	5	5	5	5	5	5	7s4	5s4	5s4	5s4	5s4	5s4	5s4	5s4	7s4	5s4	5s4	5s4	5s4	5s4	5s4	5s4
3"	15	7	6	5	5	5	5	5	5		7s4	7s4	6s7	6s7	6s7	6s7	6s7		7s4	7s4	6s7	6s7	6s7	6s7	6s7
4"	15	7	7	7	6	6	6	6	5				7s7	7s7	7s7	7s7	7s7				7s7	7s7	7s7	7s7	7s7

* Selections apply for valves used with ΔP up to 15 bar Max. For ΔP over 15 bar and up to 40 bar (30 bar for sizes over 2"), please consult **BONOMI** INDUSTRIES for sizing recommendations.

		Air pressure supply (bar)																					
VALVE		3	4	5	6	7	8	9	10	3	4	5	6	7	8	9	10	3	4	5	6	7	8	9	10
s72, s73	ΔP* Media (bar)	Double Acting Actuators EA2-								Spring-to-Close Actuators EA2-								Spring-to-Open Actuators EA2-							
1/2"	15	2	2	2	2	2	1	1	1	4s4	3s7	3s7	3s7	3s7	3s7	3s7	3s7	4s4	3s7	3s7	3s7	3s7	3s7	3s7	3s7
3/4"	15	3	2	2	2	2	2	1	1	4s4	4s4	3s9	3s9	3s9	3s9	3s9	3s9	4s4	4s4	3s9	3s9	3s9	3s9	3s9	3s9
1"	15	4	3	3	3	3	2	2	2			4s9	4s9	4s9	4s9	4s9	4s9			4s9	4s9	4s9	4s9	4s9	4s9

* Selections apply for valves used with ΔP up to 16 bar Max. For ΔP over 16 bar and up to 20 bar, please consult **BONOMI** INDUSTRIES for sizing recommendations.

		Air pressure supply (bar)																					
VALVE		3	4	5	6	7	8	9	10	3	4	5	6	7	8	9	10	3	4	5	6	7	8	9	10
s76	Δp Media (bar)	Double Acting Actuators EA2-								Spring-to-Close Actuators EA2-								Spring-to-Open Actuators EA2-							
1/2"	15	1	1	1	1	1	1	1	1	2s6	2s6	2s6	2s6	2s6	2s6	2s6	2s6	2s6	2s6	2s6	2s6	2s6	2s6	2s6	2s6
3/4"	15	1	1	1	1	1	1	1	1	2s6	2s6	2s6	2s6	2s6	2s6	2s6	2s6	2s6	2s6	2s6	2s6	2s6	2s6	2s6	2s6
1"	15	2	1	1	1	1	1	1	1		2s7	2s7	2s7	2s7	2s7	2s7	2s7		2s7	2s7	2s7	2s7	2s7	2s7	2s7

Red font = selection driven by valve stem size

Linkage kit selection table

s64 LT						
Valve size	Actuator size					
	EA2	-1	-2	-2A	-3	-4
1" ~ 1-1/4"	LK-	1	1	-	3	3
1-1/2" ~ 2"	LK-			4	6	6

s64									
Valve size	Actuator size								
	EA2	-1	-2	-2A	-3	-4	-5	-6	-7
1/2" ~ 1"	LK-	1	1	-	3	3	-	-	-
1-1/4" ~ 1-1/2"	LK-			4	6	6	13	7	-
2"	LK-				4	4	14	5	21
2-1/2" ~ 4"	LK-						15	15	22

s72, s73, s76						
Valve size	Actuator size					
	EA2	-1	-2	-2A	-3	-4
1/2" ~ 1"	LK-	1	1	-	3	3

Quick pick chart for EA4 (Imperial) pneumatic actuators assembled on s64,s76, s134, s72 and s73 *RuB* ball valves

For service with pipeline ΔP lower than the maximum limits shown below, and for media having friction characteristics similar to clean water or moist/lubricated gases the following actuator selections can be used.
For higher pipeline pressures or more difficult media the selection must be made using the valve torque charts found on each valve data sheet, and the actuator torque rating chart found on the following page.

		Air pressure supply (PSI)																								
VALVE		40	50	60	70	80	90	100	110	120	40	50	60	70	80	90	100	110	120	40	50	60	70	80	90	100	110	120
s64 LT	ΔP Media (PSI)	Double Acting Actuators EA4-									Spring-to-Close Actuators EA4-									Spring-to-Open Actuators EA4-								
1"	90	1	1	1	1	1	1	1	1	1	2s2	2s2	2s2	2s2	2s2	2s2	2s2	2s2	2s2	2s2	2s2	2s2	2s2	2s2	2s2	2s2	2s2	2s2
1-1/4"	90	1	1	1	1	1	1	1	1	1	2s3	2s3	2s3	2s3	2s3	2s3	2s3	2s3	2s3	2s3	2s3	2s3	2s3	2s3	2s3	2s3	2s3	2s3
1-1/2"	90	3	3	3	3	3	3	3	3	3	3s3	3s3	3s3	3s3	3s3	3s3	3s3	3s3	3s3	3s3	3s3	3s3	3s3	3s3	3s3	3s3	3s3	3s3
2"	90	3	3	3	3	3	3	3	3	3	3s4	3s4	3s4	3s4	3s4	3s4	3s4	3s4	3s4	3s4	3s4	3s4	3s4	3s4	3s4	3s4	3s4	3s4
1"	230 Max	1	1	1	1	1	1	1	1	1	2s4	2s4	2s4	2s4	2s4	2s4	2s4	2s4	2s4	2s4	2s4	2s4	2s4	2s4	2s4	2s4	2s4	2s4
1-1/4"	230 Max	1	1	1	1	1	1	1	1	1	2s4	2s4	2s4	2s4	2s4	2s4	2s4	2s4	2s4	2s4	2s4	2s4	2s4	2s4	2s4	2s4	2s4	2s4
1-1/2"	230 Max	3	3	3	3	3	3	3	3	3	3s4	3s4	3s4	3s4	3s4	3s4	3s4	3s4	3s4	3s4	3s4	3s4	3s4	3s4	3s4	3s4	3s4	3s4
2"	230 Max	3	3	3	3	3	3	3	3	3	4s3	3s6	3s6	3s6	3s6	3s6	3s6	3s6	3s6	4s3	3s6	3s6	3s6	3s6	3s6	3s6	3s6	3s6

		Air pressure supply (PSI)																								
VALVE		40	50	60	70	80	90	100	110	120	40	50	60	70	80	90	100	110	120	40	50	60	70	80	90	100	110	120
s64	ΔP* Media (PSI)	Double Acting Actuators EA4-									Spring-to-Close Actuators EA4-									Spring-to-Open Actuators EA4-								
1/2"	200	1	1	1	1	1	1	1	1	1	2s2	2s2	2s2	2s2	2s2	2s2	2s2	2s2	2s2	2s3	2s3	2s3	2s3	2s3	2s3	2s3	2s3	2s3
3/4"	200	2	1	1	1	1	1	1	1	1	2s3	2s3	2s3	2s3	2s3	2s3	2s3	2s3	2s3	2s4	2s4	2s4	2s4	2s4	2s4	2s4	2s4	2s4
1"	200	2	2	2	2	1	1	1	1	1	2s4	2s4	2s4	2s4	2s4	2s4	2s4	2s4	2s4	3s3	2s7	2s7	2s7	2s7	2s7	2s7	2s7	2s7
1-1/4"	200	3	3	3	3	3	3	3	3	3	4s3	3s6	3s6	3s6	3s6	3s6	3s6	3s6	3s6	3s5	3s5	3s5	3s5	3s5	3s5	3s5	3s5	3s5
1-1/2"	200	4	3	3	3	3	3	3	3	3	4s4	4s4	4s4	3s9	3s9	3s9	3s9	3s9	3s9	4s5	4s5	4s5	3s10	3s10	3s10	3s10	3s10	3s10
2"	200	4	4	3	3	3	3	3	3	3	4s5	4s5	4s5	4s5	4s5	3s11	3s11	3s11	3s11	4s6	4s6	4s6	4s6	4s6	3s12	3s12	3s12	3s12
2-1/2"	200	5	5	5	5	5	5	5	5	5		6s4	5s4	5s4	5s4	5s4	5s4	5s4	5s4		6s4	5s4	5s4	5s4	5s4	5s4	5s4	5s4
3"	200	7	6	6	6	5	5	5	5	5			7s4	7s4	6s7	6s7	6s7	6s7	6s7			7s4	7s4	6s7	6s7	6s7	6s7	6s7
4"	200		7	7	7	7	6	6	6	6					7s7	7s7	7s7	7s7	7s7					7s7	7s7	7s7	7s7	7s7

* Selections apply for valves used with ΔP up to 200 PSI Max. For ΔP over 200 PSI and up to 600 PSI (450 PSI for sizes over 2"), please consult **BONOMI** INDUSTRIES for sizing recommendations.
Note: s.74 available up to 1" size.

		Air pressure supply (PSI)																								
VALVE		40	50	60	70	80	90	100	110	120	40	50	60	70	80	90	100	110	120	40	50	60	70	80	90	100	110	120
s134	ΔP* Media (PSI)	Double Acting Actuators EA4-									Spring-to-Close Actuators EA4-									Spring-to-Open Actuators EA4-								
1/2"	200	2	2	1	1	1	1	1	1	1	2s4	2s4	2s4	2s4	2s4	2s4	2s4	2s4	2s4	2s5	2s5	2s5	2s5	2s5	2s5	2s5	2s5	2s5
3/4"	200	2	2	2	2	2	1	1	1	1	3s4	2s7	2s7	2s7	2s7	2s7	2s7	2s7	2s7	3s4	3s4	2s7	2s7	2s7	2s7	2s7	2s7	2s7
1"	200	3	3	3	3	3	3	3	3	3	3s4	3s4	3s4	3s4	3s4	3s4	3s4	3s4	3s4	3s6	3s6	3s6	3s6	3s6	3s6	3s6	3s6	3s6
1-1/4"	200	3	3	3	3	3	3	3	3	3	4s3	3s6	3s6	3s6	3s6	3s6	3s6	3s6	3s6	4s4	3s7	3s7	3s7	3s7	3s7	3s7	3s7	3s7
1-1/2"	200	4	3	3	3	3	3	3	3	3	4s4	4s4	4s4	3s8	3s8	3s8	3s8	3s8	3s8	4s6	4s6	4s6	4s6	3s11	3s11	3s11	3s11	3s11
2"	200	4	4	3	3	3	3	3	3	3		4s6	4s6	4s6	4s6	4s6	3s12	3s12	3s12		4s7	4s7	4s7	4s7	4s7	4s7	4s7	4s7

* Selections apply for valves used with ΔP up to 200 PSI Max. For ΔP over 200 PSI and up to 1000 PSI, please consult **BONOMI** INDUSTRIES for sizing recommendations.

		Air pressure supply (PSI)																								
VALVE		40	50	60	70	80	90	100	110	120	40	50	60	70	80	90	100	110	120	40	50	60	70	80	90	100	110	120
s72, s73	ΔP* Media (PSI)	Double Acting Actuators EA4-									Spring-to-Close Actuators EA4-									Spring-to-Open Actuators EA4-								
1/2"	230	2	2	2	2	2	2	2	1	1	4s4	3s7	3s7	3s7	3s7	3s7	3s7	3s7	3s7	4s4	3s7	3s7	3s7	3s7	3s7	3s7	3s7	3s7
3/4"	230	3	2	2	2	2	2	2	2	2	4s4	4s4	4s4	3s9	3s9	3s9	3s9	3s9	3s9	4s4	4s4	4s4	3s9	3s9	3s9	3s9	3s9	3s9
1"	230	4	4	3	3	3	3	3	2	2				4s9	4s9	4s9	4s9	4s9	4s9				4s9	4s9	4s9	4s9	4s9	4s9

* Selections apply for valves used with ΔP up to 230 PSI Max. For ΔP over 230 PSI and up to 300 PSI, please consult **BONOMI** INDUSTRIES for sizing recommendations.

		Air pressure supply (PSI)																								
VALVE		40	50	60	70	80	90	100	110	120	40	50	60	70	80	90	100	110	120	40	50	60	70	80	90	100	110	120
s76	Δp Media (PSI)	Double Acting Actuators EA4-									Spring-to-Close Actuators EA4-									Spring-to-Open Actuators EA4-								
1/2"	200	1	1	1	1	1	1	1	1	1		2s6	2s6	2s6	2s6	2s6	2s6	2s6	2s6		2s6	2s6	2s6	2s6	2s6	2s6	2s6	2s6
3/4"	200	2	1	1	1	1	1	1	1	1		2s6	2s6	2s6	2s6	2s6	2s6	2s6	2s6		2s6	2s6	2s6	2s6	2s6	2s6	2s6	2s6
1"	200	2	1	1	1	1	1	1	1	1		2s7	2s7	2s7	2s7	2s7	2s7	2s7	2s7		2s7	2s7	2s7	2s7	2s7	2s7	2s7	2s7

Red font = selection driven by valve stem size

Linkage kit selection table

s64 LT					
Valve size	Actuator size				
	EA4	-1	-2	-2A	-3
1" ~ 1-1/4"	LK-	8	8	9	9
1-1/2" ~ 2"	LK-			4	6

s64								
Valve size	Actuator size							
	EA4	-1	-2	-3	-4	-5	-6	-7
1/2" ~ 1"	LK-	8	8	9	9	-	-	-
1-1/4" ~ 1-1/2"	LK-			10	10	16	16	23
2-1/2" ~ 4"	LK-					18	18	24

s134								
Valve size	Actuator size							
	EA4	-1	-2	-3	-4	-5	-6	-7
1/2" ~ 3/4"	LK-	8	8	9	9	-	-	-
1" ~ 1-1/2"	LK-			11	11	19	20	-
2"	LK-			10	10	16	16	23

s72, s73, s76					
Valve size	Actuator size				
	EA4	-1	-2	-3	-4
1/2" ~ 1"	LK-	8	8	9	9

Valve options:

1

s.31

- Flow: mini
- 2-way
- Direct mount

2

s.64

- Full Flow
- 2-way
- ISO 5211 F03 flange

3

s.76 3-way

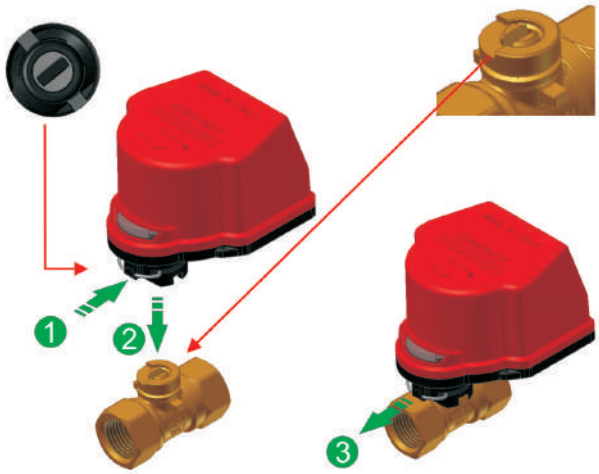
- Diverting Full Flow
- 3-way L-port
- ISO 5211 F03 flange

Mini up to 3/4”	Full port up to 1 ¼”	Diverting up to 1”

Assembly instructions:

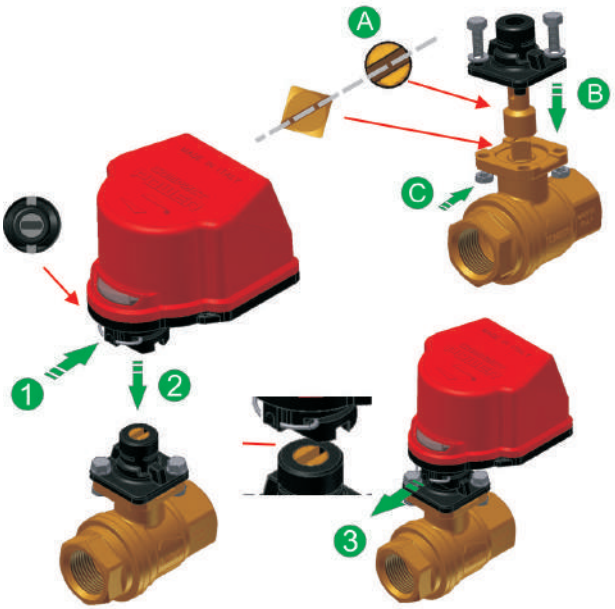
Quick direct assembly on *RuB* s.31 mini valve:

1. Push the spring clip in order to set the actuator in open position
2. Assemble the actuator on top of valve
3. Pull spring clip to lock actuator on valve



Assembly on *RuB* s.64 and s.76 valves:

1. Position the ball of the valve to match the position (open / closed) of the actuator
2. Mount stem adaptor (B) and F03 adaptor (A) on top of valve flange and fix it with two screws and nuts (C)
3. Push the spring clip in order to set the actuator in open position
4. Assemble the actuator on top of adaptor
5. Pull spring clip to lock actuator on valve



COMPACT POWER

Electric actuator

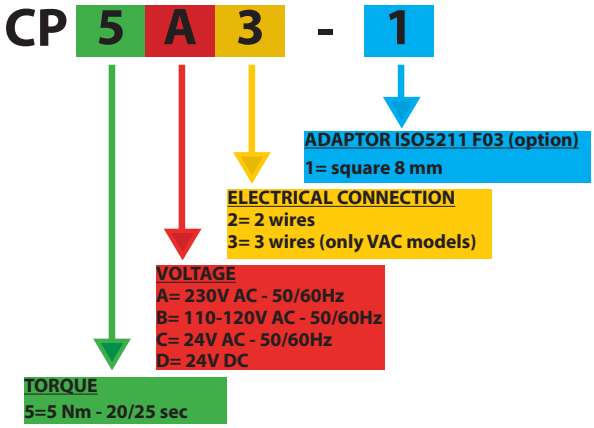
Technical features:

- Suitable for ***RuB*** actuatable valves up to 1 ¼" size (only for s.64 LT)
- Compact package to fit in restricted spaces
- Power supply variants:
  - 24V DC;
  - 24V AC 50-60Hz;
  - 110-120V AC 50/60Hz;
  - 230V AC 50/60Hz;
- Motor power consumption:
  - 4W for 24V DC, 6W for 230V AC, 8W for 24V AC and 110-120V AC
- Torque output up to 5 Nm (44 in-lb)
- Operation time:
  - 5 sec for 24V DC
  - 20 sec for 24V AC, 110-120V AC and 230V AC at 50 Hz (15 sec at 60 Hz)
- Working temperature -20°C (-4°F) +80°C (+180°F)
- Protection class IP65 comparable to NEMA 4X
- Micro-switches for open-close signals
- Micro-switches can pass up to 1A
- Reversing motor
- Direct mount on valve for perfect shaft alignment
- Positive orientation between ball valve and actuator
- Actuator easily removable for manual operating
- Visual position indicator
- Corrosion resistant plastic housing
- Actuator has successfully passed 100,000 cycle life tests
- Duty cycle 60%

Options:

- Adaptor F03 square 8 mm

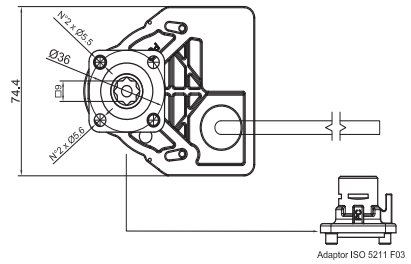
How to order:

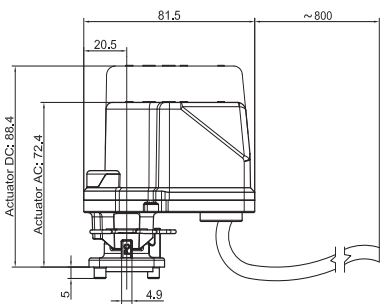


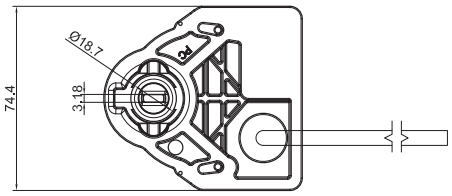
Example

- **CP5A3** is a CP actuator, 5 Nm 230V AC, 3-WIRES with connection screw driver male and adaptor ISO 5211 F03 square 9 mm
- **CP5A3-1** is a CP actuator, 5 Nm, 230V AC, 3-WIRES with connection screw driver male and adaptor ISO 5211 F03 square 8 mm

Dimension mm:







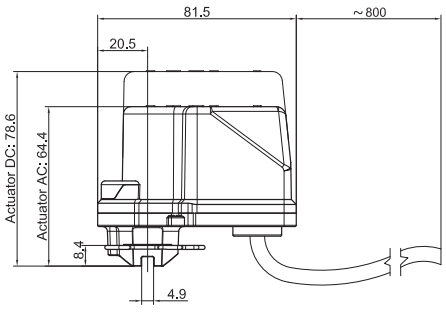
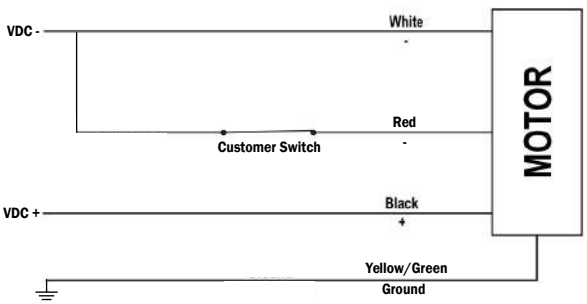


DIAGRAM FOR 2-WIRE CONTROL - VDC model

COMMAND



FEEDBACK

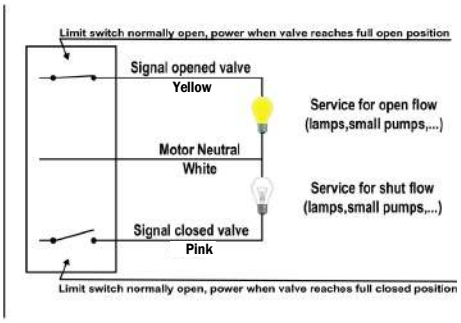
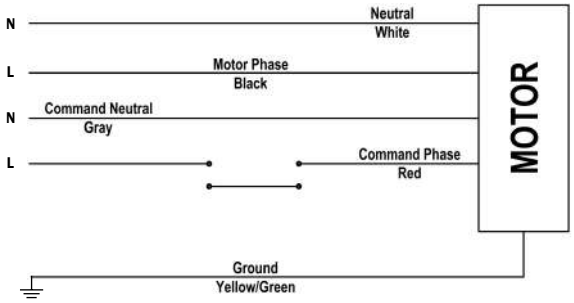


DIAGRAM FOR 2-WIRE CONTROL - VAC model

COMMAND



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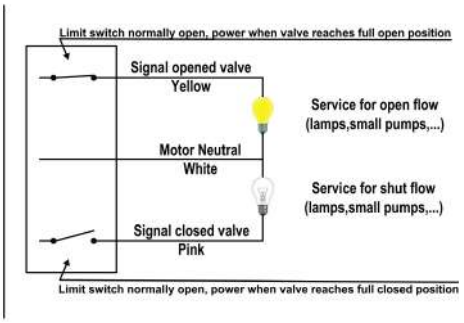
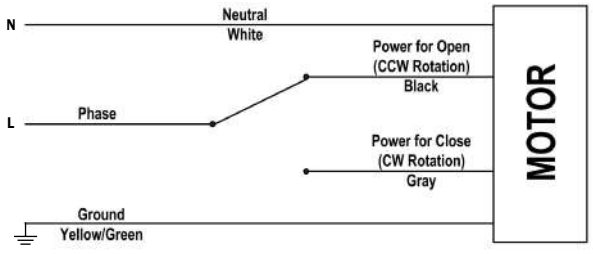


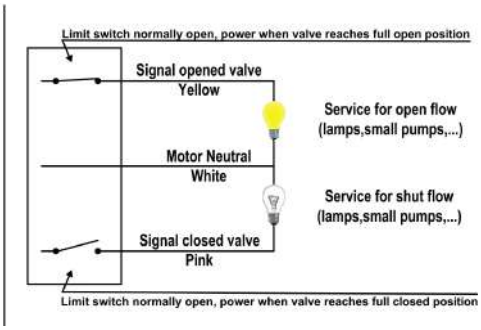
2 point command : the command is made by a simple switch or button (manually or automatically operated e.g. traditional thermostat).
Closing the control switch will cause the actuator to travel to the full CCW position. Opening the control switch will cause the actuator to travel to the full CW position. If the actuator is mounted on a ball valve, closing the control switch will open the ball valve, and vice versa.
Upon request, the command voltage may differ from the motor power voltage.

DIAGRAM FOR 3-WIRE CONTROL - VAC model

COMMAND



FEEDBACK



Note: if the limit switch signals are not to be used the yellow and pink wires must be capped to prevent accidental short circuits

3 point command: the command is made by a switch (manually or automatically operated e.g. 3 points thermostat), which diverts the voltage to the opening wire or to the closing wire reaching the actuator; the switch may be on open or on closed position; using a specific control, engine can stop in any intermediate position.

COMPACT POWER

+ s.31 mini valve

EN 10226-1

This newly engineered valve features all the good characteristics of the s.31 ***RuB*** mini valve, in particular:

Quality:

- 100% seal test guaranteed in according to EN12266-1 RATE A in either direction
- Compatible with most industrial fluids including those too viscous for pilot operated valves
- Dual sealing system allows valve to be operated in either direction making installation easier
- No metal-to-metal moving parts
- No maintenance ever required
- Silicone-free lubricant
- Chrome plated ball for longer life
- Can operate also in vacuum line

Body:

- Finest brass according to EN 12165 and EN 12164 specifications
- Strong one piece body construction

Stem:

- Blowout-proof brass stem
- Maintenance-free, double FPM O-rings at the stem for maximum safety

Sealing:

- Pure PTFE self-lubricating seats

Threads:

- EN 10226-1, ISO 228 parallel female by female threads

Working pressure and temperature:

- Shell rating: 40 bar non-shock cold working pressure
- Seat rating: Delta P max permissible 16 bar
- -20°C to +120°C (-4°F to +250°F)
- **WARNING**: freezing of the fluid in the installation may severely damage the valve

Options:

- ISO 7/1, BS 21 BSPT taper threads
- NPT taper ANSI B.1.20.1 threads

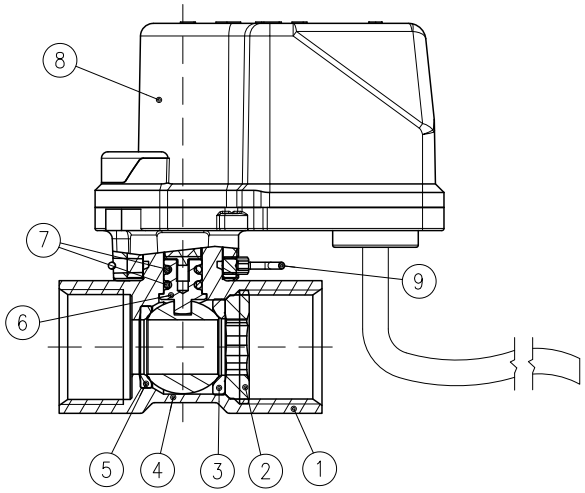
PED directive:

- The product meets the requirements of PED Directive 2014/68/UE and according to art.4 par.3, it does not require CE marking

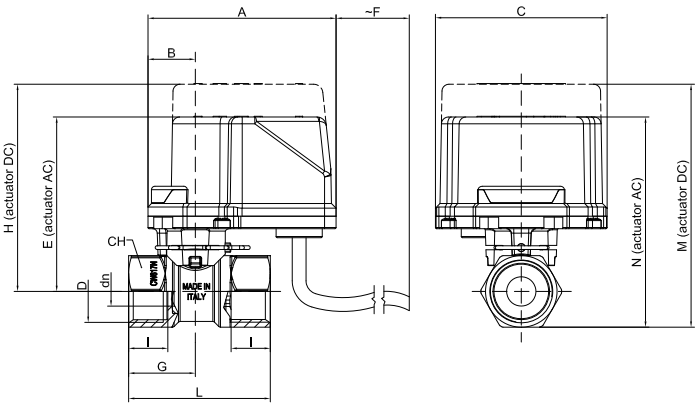
Approved by or in compliance with:

- RoHS Compliant (EU)
- EAC – Declaration of conformity (Russia, Kazakhstan, Belarus)

NOTE: approvals apply to specific configurations/sizes only.



	Part description	Qty	Material
1	Unplated body	1	CW617N
2	Unplated retainer nut	1	CW617N
3	Retainer seat	1	PTFE
4	Chrome plated ball	1	CW617N
5	Body seat	1	PTFE
6	Unplated stem O-Ring design	1	CW617N
7	O-Ring	2	FPM
8	Compact power electric actuator (VDC or VAC models)	1	-
9	Spring clip	1	1.4301 / AISI 304



D (valve size)	1/4"	3/8"	1/2"	3/4"
dn (mm)	8	10	10	12.7
I (mm)	12	12	15.5	17
G (mm)	24	23.8	25.5	29
L (mm)	45.5	45.5	54	61.5
E (mm)	72.5	72.5	72.5	75.5
H (mm)	88.5	88.5	88.5	91.5
B (mm)	20.5	20.5	20.5	20.5
A (mm)	81.5	81.5	81.5	81.5
C (mm)	74.5	74.5	74.5	74.5
N (mm)	85	85	85	91
M (mm)	99.5	99.5	100	105.5
CH (mm)	25	25	25	31
F (mm)	800	800	800	800
Kv (m^3/h)	5.8	9.5	9.5	25.4

Torque for actuator sizing N.m

Delta P -->	0 ÷16 bar
Valve size	*N.m*
1/4" ÷ 1/2"	1.8
3/4"	2.5

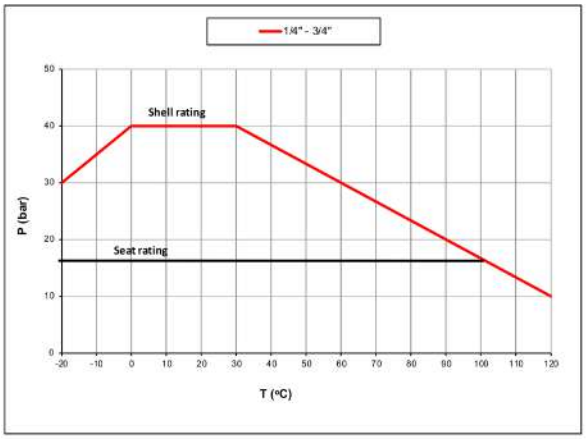
Torque correction factors

Valve torque can vary according to operating frequency, temperature and friction characteristics of the media.

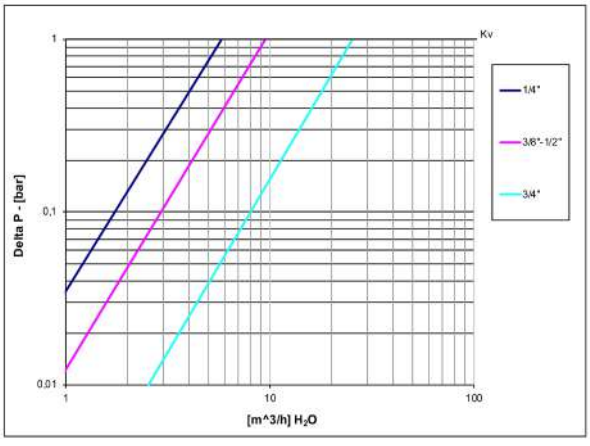
If media has more or less friction than water, multiply torque by the following factors:

Lubricating oils or liquids	0.8
Dry gases, natural gas	1.5
Slurries or liquids bearing abrasive particles	1.5÷2.5

Pressure-temperature chart



Pressure drop chart



COMPACT POWER

+ s.6400LT 2-way brass valve

EN 10226-1

This ***RuB*** ball valve is specifically designed for heavy duty actuation and offers upmost reliability and performance, in particular:

Quality:

- 100% seal test guaranteed in according to EN12266-1 RATE A
- Dual sealing system allows valve to be operated in either direction making installation easier
- No metal-to-metal moving parts
- No maintenance ever required
- Silicone-free lubricant on all seals
- Chrome plated brass ball for longer life

Body:

- Hot forged sand blasted, nickel plated brass body and cap sealed with Loctite® or equivalent thread sealant
- Finest brass according to EN 12165 and EN 12164 specifications
- Integrated ISO 5211 and DIN 3337 mounting flange for universal connection to actuator

Stem:

- Blowout-proof nickel plated brass stem
- Maintenance-free, double FPM O-rings at the stem for maximum safety

Sealing:

- Reinforced PTFE self-lubricating seats with flexible-lip and wear compensation design

Threads:

- EN 10226-1, ISO 228 parallel female by female threads

Flow:

- 100% full port for maximum flow

Working pressure and temperature:

- Shell rating: 40 bar non-shock cold working pressure
- Seat rating: Delta P max permissible 16 bar only for 1" and 1 ¼" sizes
- -20°C to +170°C
- **WARNING**: freezing of the fluid in the installation may severely damage the valve

Options:

- Special valve configurations available upon request
- s.64 configuration featuring NPT taper ANSI B.1.20.1 female by female threads, unplated body, reinforced seats, stainless steel ball and stem
- Rack and pinion pneumatic actuator (spring return or double acting)
- Compact Power electric actuator

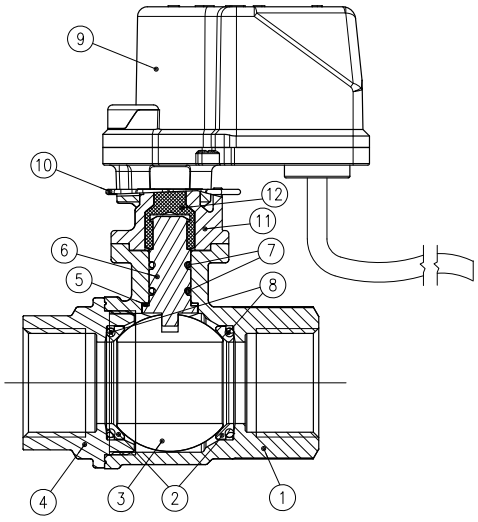
PED directive:

- According to 2014/68/UE module A: it cannot be used with dangerous gases in sizes larger than 25mm

Approved by or in compliance with:

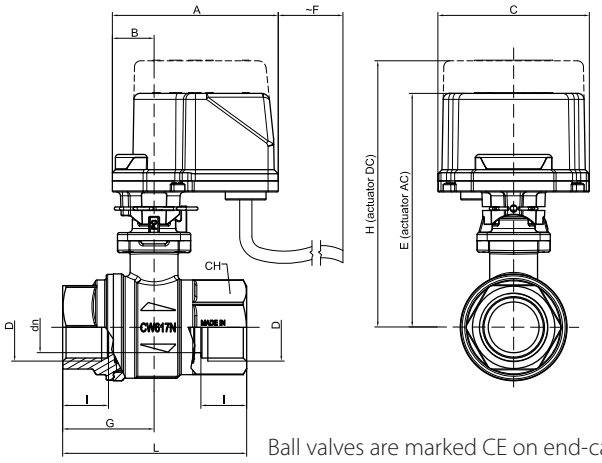
- Water Regulations Advisory Scheme (United Kingdom)
- RoHS Compliant (EU)
- EAC – Declaration of conformity (Russia, Kazakhstan, Belarus)
- GOST-R (Russia)

NOTE: approvals apply to specific configurations/sizes only.



	Part description	Qty	Material
1	Nickel plated body	1	CW617N
2	Ball seat	2	PTFE graphite* filled 15%
3	Chrome plated ball	1	CW617N
4	Nickel plated end-cap	1	CW617N
5	Washer	1	PTFE carbon filled 25%
6	Nickel plated stem O-Ring design	1	CW617N
7	O-Ring	2	FPM
8	O-Ring	2	FPM
9	Compact power electric actuator (VDC or VAC models)	1	-
10	Spring clip	1	1.4301 / AISI 304
11	Adaptor ISO 5211 F03	1	Polycarbonate
12	Transmission motion	1	CW617N

*For 1" and 1 ¼" sizes material seats is carbographite



D (valve size)	1/2"	3/4"	1"	1 ¼"
dn (mm)	15	20	25	32
I (mm)	15.5	18	22.5	25
G (mm)	43.5	43	45	58
L (mm)	75	80	90	110
E (mm)	103	111	115	122
H (mm)	119	127	131	138
B (mm)	20.5	20.5	20.5	20.5
A (mm)	81.5	81.5	81.5	81.5
C (mm)	74.5	74.5	74.5	74.5
CH (mm)	27	32	41	50
F (mm)	800	800	800	800
Kv (m^3/h)	28	60	100	155

Ball valves are marked CE on end-cap for 1 ¼" as follow: Œ XXCODEXX Cat I-A

Torque for actuator sizing N.m

ΔP -->	0 ÷15 bar		0 ÷6 bar		> 6 ÷16 bar	
Valve size	*to open*	*to close*	*to open*	*to close*	*to open*	*to close*
1/2"	2.8	1.7	-	-	-	-
3/4"	3.8	2.3	-	-	-	-
1"	-	-	2.2	2.2	3.5	3.5
1 ¼"	-	-	2.5	2.5	4	4

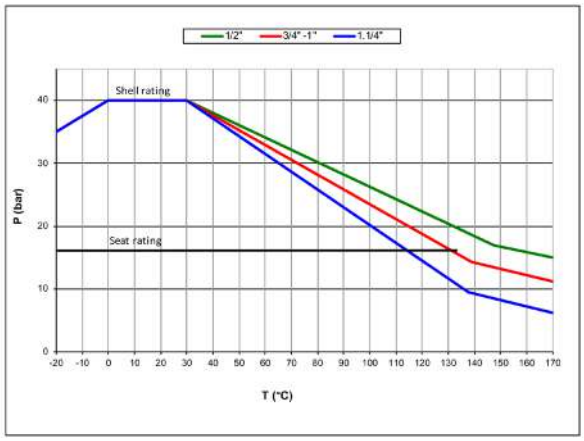
Torque correction factors

Valve torque can vary according to operating frequency, temperature and friction characteristics of the media.

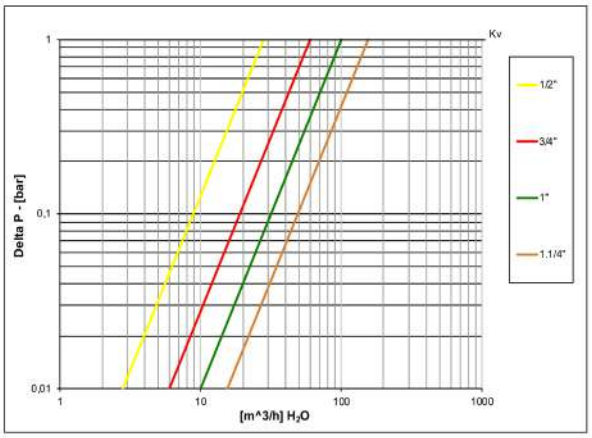
If media has more or less friction than water, multiply torque by the following factors:

Lubricating oils or liquids	0.8
Dry gases, natural gas	1.5
Slurries or liquids bearing abrasive particles	1.5÷2.5

Pressure-temperature chart



Pressure drop chart



COMPACT POWER

+ s.7600 3-way L-port diverting brass valve

EN 10226-1

RuB s.7600 range is the right choice for fluid diversion.
It is designed with robust maintenance-free components ensuring ease of operation and safety.

Quality:

- Electronic 100% seal test guaranteed
- No metal-to-metal moving parts
- No maintenance ever required
- Silicone-free lubricant on all seals
- Chrome plated brass ball for longer life

Body:

- Hot forged sand blasted, nickel plated brass body and cap sealed with Loctite® or equivalent thread sealant
- Integrated ISO 5211 and DIN 3337 mounting flange for universal connection to actuator
- Finest brass according to EN 12165 and EN 12164 specifications
- 3-way L-design for flow diversions

Stem:

- Blowout-proof nickel plated brass stem
- Maintenance-free, double FPM O-rings at the stem for maximum safety

Sealing:

- Reinforced PTFE self-lubricating seats with flexible-lip and wear compensation design

Threads:

- EN 10226-1, ISO 228 parallel female by female threads

Flow:

- 100% full port for maximum flow

Working pressure and temperature:

- 30 bar non-shock cold working pressure
- -20°C to +170°C
- **WARNING**: freezing of the fluid in the installation may severely damage the valve

Options:

- Rack and pinion pneumatic actuator (spring return or double acting)
- Compact Power electric actuator
- Lockable handle as accessory or already mounted (s.7600L)
- Various actuator linkage kit
- Special valve configurations available upon request
- NPT taper ANSI B.1.20.1 female threads
- ISO7/1, BS 21 BSPT taper threads

PED directive:

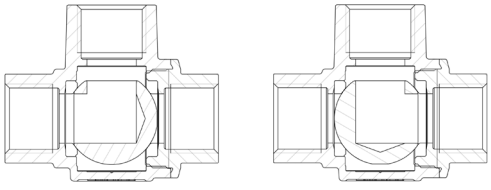
- The product meets the requirements of PED Directive 2014/68/UE and according to art.4 par.3, it does not require CE marking

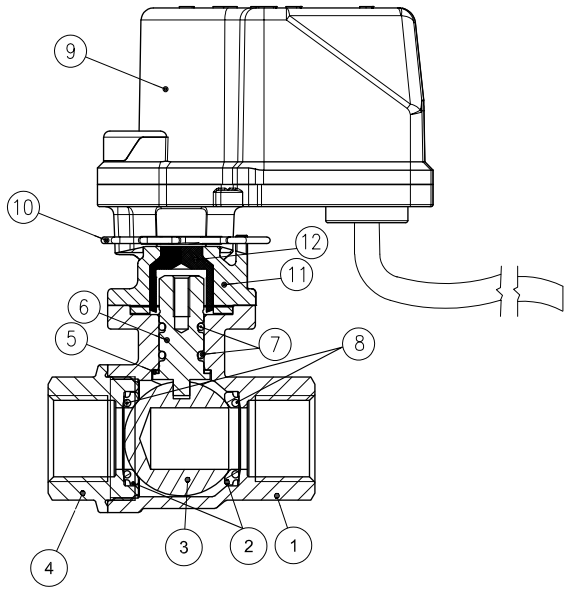
Approved by or in compliance with:

- RoHS Compliant (EU)
- EAC – Declaration of conformity (Russia, Kazakhstan, Belarus)

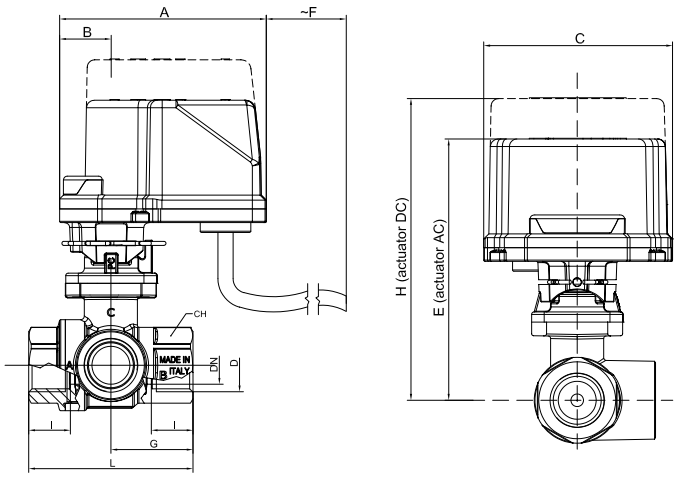
NOTE: approvals apply to specific configurations/sizes only.

S.76 3-way "L" port operating positions





	Part description	Qty	Material
1	Nickel plated body (external nickel plated, unplated inside)	1	CW617N
2	Seat	2	PTFE graphite filled 15%
3	Chrome plated ball	1	CW617N
4	Nickel plated end cap (external nickel plated, unplated inside)	1	CW617N
5	Washer	1	PTFE carbon filled 25%
6	Nickel plated stem O-Ring design	1	CW617N
7	O-Ring	2	FPM
8	O-Ring	2	FPM
9	Compact power electric actuator (VDC or VAC models)	1	-
10	Spring clip	1	1.4301 / AISI 304
11	Adaptor ISO 5211 F03	1	Polycarbonate
12	Transmission motion	1	CW617N



D (valve size)	1/2"	3/4"	1"
dn (mm)	15	20	25
I (mm)	16.5	19	22.5
G (mm)	32.5	39.5	46.5
L (mm)	65	79	92.5
E (mm)	103.5	112.0	115
H (mm)	119.5	128.0	131
B (mm)	20.5	20.5	20.5
A (mm)	81.5	81.5	81.5
C (mm)	74.5	74.5	74.5
CH (mm)	27	32	41
F	800	800	800

Torque for actuator sizing N.m

Delta P -->	0 ÷16 bar	
Valve size	*to open*	*to close*
1/2"	3.5	3.5
3/4"	4.0	4.0
1"	4.5	4.5

Torque correction factors

Valve torque can vary according to operating frequency, temperature and friction characteristics of the media.

If media has more or less friction than water, multiply torque by the following factors:

Lubricating oils or liquids	0.8
Dry gases, natural gas	1.5
Slurries or liquids bearing abrasive particles	1.5÷2.5

C-Tork

light weight electric actuator

The CT electric actuators are designed to drive ball and butterfly valves with ISO5211 mounting pad, providing a quarter turn motion.
In combination with ***RuB*** valves are used in wastewater treatment plants, power plants, refineries, mining processes, food factories and in the fluid automated control in HVAC.

The CT family provides the following output torques:

Model	Nominal Torque
CT1	8 Nm (70.8 lb-in)
CT2	11 Nm (97.3 lb-in)
CT3	22 Nm (194.7 lb-in)
CT4	40 Nm (354 lb-in)

Technical features & benefits:

- **Direct ISO 5211 mount on valves:**
  Requires no separate linkage because the CT Series Actuators are ready for direct attachment to ISO5211 mounting pad.
- **Compact package with perfect shaft alignment:**
  Smaller actuator footprint enables installation in confined spaces; direct mount on ball valves reduces the mounting space requirement.
- **Several voltage ratings available:**
  Available with the most common power supplies around the globe.
- **Fire retardant plastic with high IP ratings enclosure:**
  Provides a high degree of protection from dust, splashing water, rough handling and tough environments.
- **Auxiliary Switches:**
  Provides line voltage capable switch up to 1 A Resistive.
- **Special models available:**
  The CT family fits the customer needs extending the application coverage on request.

Key Codes:

CT	X	X	X	X	X	X		
							Option:	R = Anti-condensation Resistance
								FO = Failsafe Valve Open
								FC = Failsafe Valve Close
							Auxiliary Switches:	0 = No Micro
								1 = 1 Aux. Switch
								2 = 2 Aux. Switches
							Manual Override:	M = Manual Override
								N = No Manual
							Control Type:	A = 2 Wires
								B = 3 Wires
								C = 2 and 3 Wires
								D = Prop. 0 - 10 Vdc
								E = Prop. 2 - 10 Vdc
								F = Prop. 0 - 20 mA
								G = Prop. 4 - 20 mA
							Power Supply:	A = 230Vac 50/60 Hz *
								B = 110Vac 50/60 Hz *
								C = 24Vac 50/60 Hz *
								D = 24Vdc
								E = 12Vdc
								F = 24Vac/dc
								G = 48 - 240Vac
								H = 230Vac 60 Hz **
								I = 110Vac 60Hz **
								L = 24Vac 60Hz **
							Model:	CT1 = 8Nm (70.8 lb-in)
								CT2 = 11Nm (97.3 lb-in)
								CT3 = 22Nm (194.7 lb-in)
								CT4 = 40Nm (354 lb-in)

Note: * Not valid for CT4 (50 Hz only), ** Valid for CT4 only

CT1 - 8Nm (70.8 lb-in)

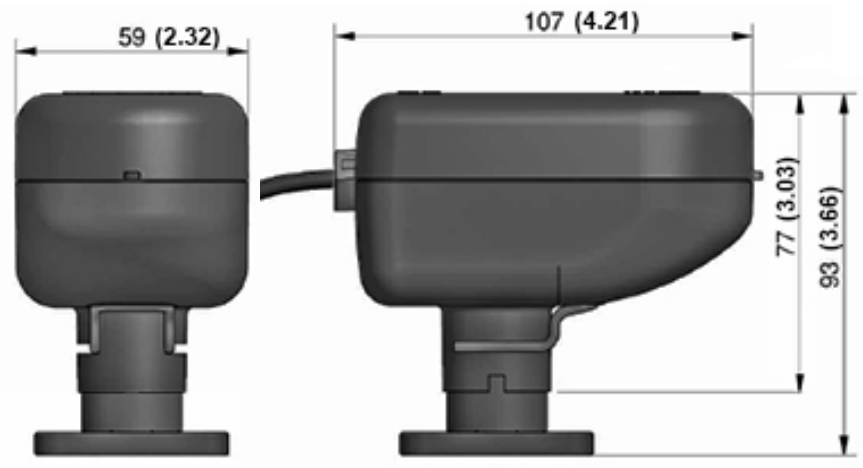
Ordering Codes

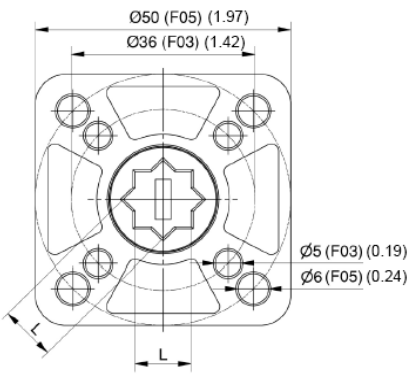
Code	Power supply	Control Type	Running time (0°-90°)	Feedback type
CT1AAN1	230 Vac 50/60 Hz	2 Wires	45 sec @ 50Hz 38 sec @ 60Hz	1 microswitch & 1 output phase
CT1BAN1	110 Vac 50/60 Hz	2 Wires	45 sec @ 50Hz 38 sec @ 60Hz	
CT1CAN1	24 Vac 50/60 Hz	2 Wires	45 sec @ 50Hz 38 sec @ 60Hz	
CT1ABN1	230 Vac 50/60 Hz	3 Wires	35 sec @ 50Hz 30 sec @ 60Hz	
CT1BBN1	110 Vac 50/60 Hz	3 Wires	35 sec @ 50Hz 30 sec @ 60Hz	
CT1CBN1	24 Vac 50/60 Hz	3 Wires	35 sec @ 50Hz 30 sec @ 60Hz	
CT1DCN0	24V DC	2/3 Wires	60 sec.	2 output phases
CT1FDN0	24V DC / AC ± 20% 50/60 Hz	Modulating 0-10Vdc	60 sec.	2 -10 Vdc

Optional models on request:

- 5Nm with 15 sec running time, Vac only
- Vdc 2/3 Wires 30 sec running time
- 12 Vdc power supply, 2/3 wires 60 secs running time
- Different Input signal on modulating: 0(2)-10 Vdc, 0(4)-20 mA
- Modbus Communication
- On/Off 3 positions (0°, 45° and 90°)

Dimensions mm (inches)

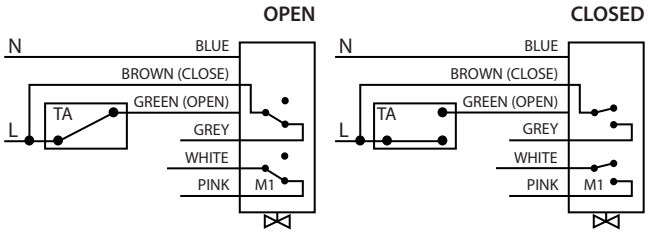




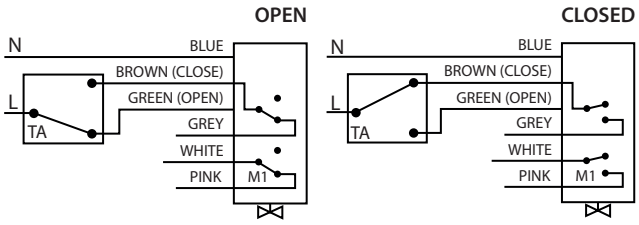
ISO 5211	L
F03	9 with adapter (0.35)
F05	11 (0.43)

Wiring diagrams

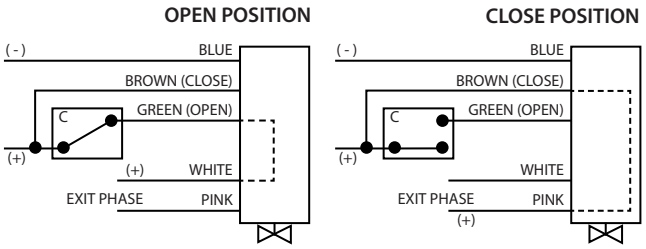
Vac models 2 wires control



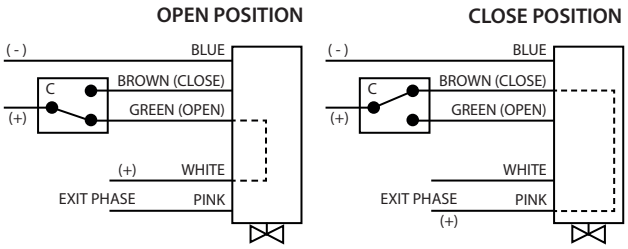
Vac models 3 wires control



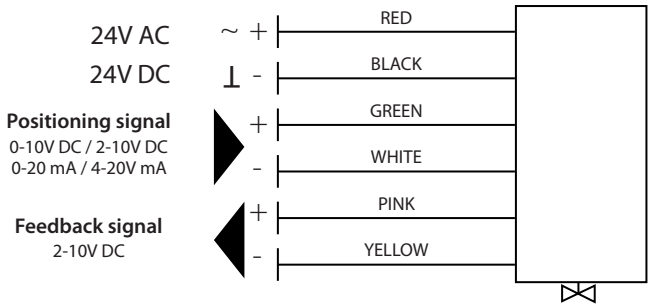
Vdc models 2 wires control



Vdc models 3 wires control



Proportional models



Technical specification

	2 wires Vac	3 wires Vac	2/3 wires Vdc	Modulating
Position indicator	Rotating arrow, indicating the position of the sphere			
Power supply	230 V - 50/60 Hz		24Vdc	24V DC / AC ± 20% 50/60 Hz
	24 V - 50/60 Hz		12Vdc	
	110 V - 50/60 Hz			
Power cable length	80 cm (31.5 inches) (other sizes on request)			
Operating time (90°) and related starting torque	45 sec @ 50Hz 38 sec @ 60Hz	35 sec @ 50Hz 30 sec @ 60Hz	60 sec	60 sec
Absorbed power	3.9 VA		2 VA	3.5 W
Electrical capacity of the additional microswitch	1 A resistive - 250V		Not available	
Maximum noise (1 meter away)	40 dB (A)			
Operating ambient temperature	+5 °C ÷ +50°C (41°F ÷ 122°F)			
Degree of protection	IP 54 (Equivalent to NEMA3)			
Insulation class	⧦ - double insulation ⧈			
Outer shell material	Polyamide PA 6 - 30% glass fibers			
Certification	CE			

CT2 - 11Nm (97.3 lb-in)

Ordering Codes

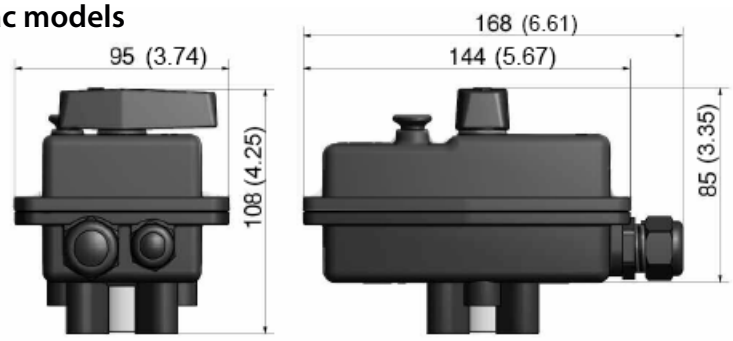
Code	Power supply	Control Type	Running time (0°-90°)	Feedback type
CT2ACM2	230 Vac - 50/60 Hz	2/3 wires	35 sec @ 50Hz 30 sec @ 60Hz	2 x Free auxiliary switches
CT2BCM2	110 Vac - 50/60 Hz	2/3 wires	35 sec @ 50Hz 30 sec @ 60Hz	
CT2CCM2	24 Vac - 50/60 Hz	2/3 wires	35 sec @ 50Hz 30 sec @ 60Hz	
CT2DCN2	24V DC	2/3 wires	12 sec.	

Optional models on request:

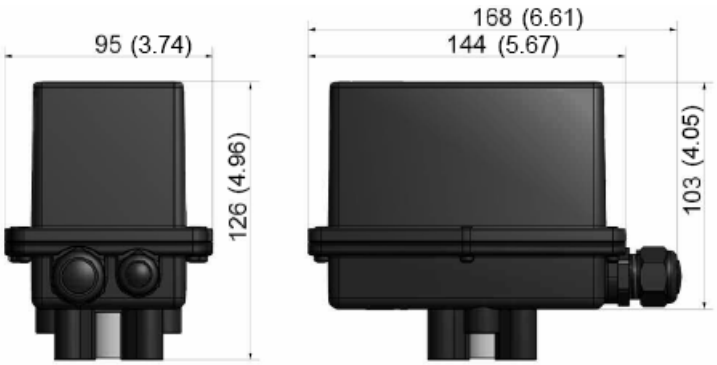
- 12 Vdc power supply
- Optional speed: - Vac only : 12 sec or 4 sec (5Nm)
  - Vdc only : 8 sec and 5 sec (11Nm); 3 sec (8Nm); 1 sec (5Nm)
- Proportional models: 0(2)-10 Vdc, 0(4)-20 mA, Modbus
- Electronic fail safe (see pag 42)

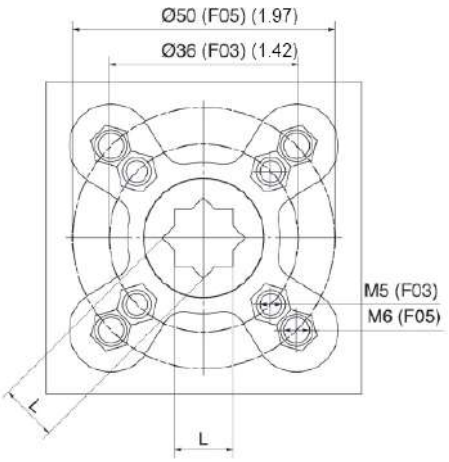
Dimensions mm (inches)

Vac models



Vdc models

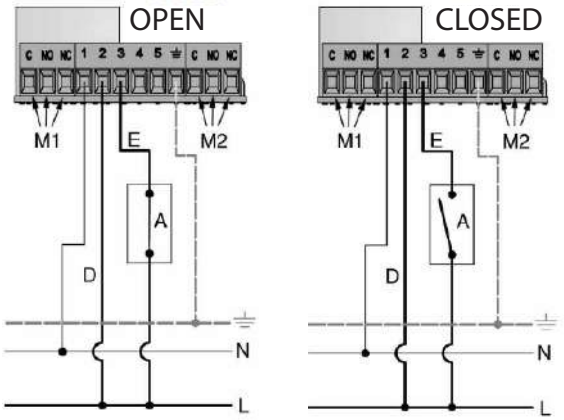




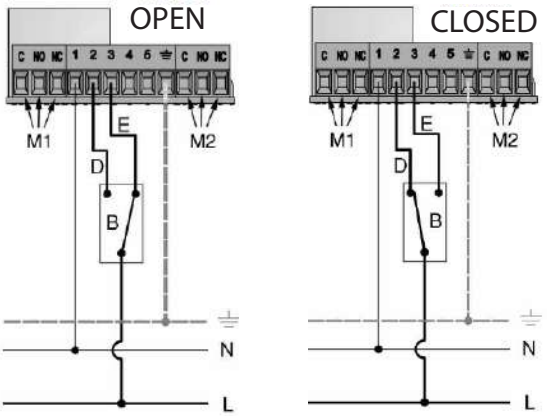
ISO 5211	L
F03	9 with adapter (0.35)
F05	11 (0.43)

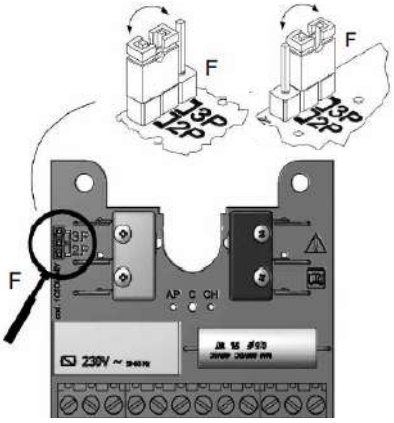
Wiring diagrams

2 wires control



3 wires control

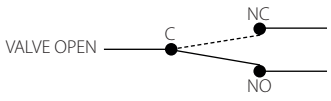




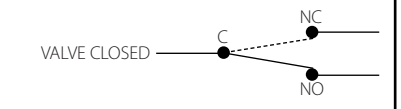
Vac models: Move the jumper to have the desired electrical connection.
Vdc models: No jumper change is needed

Auxiliary switches

M1 (additional opening microswitch)



M2 (additional closing microswitch)



Technical specification

	ALL IN ONE - 2/3 wires Vac	ALL IN ONE - 2/3 wires Vdc
Position indicator and manual override	Manual lever with arrow indicating the position of the sphere	Not available
Power supply	230 V - 50/60 Hz	24Vdc
	110 V - 50/60 Hz	
	24 V - 50/60 Hz	12Vdc
Electric connections	Via terminal board inside the actuator	
Operating time (90°)	35 sec @ 50Hz 30 sec @ 60Hz	12 sec
Absorbed power	6 VA (230 V)	0.3A (24Vdc)
	6 VA (110 V)	
	7.5 VA (24 V)	0.5A (12 Vdc)
Maximum current supported by the additional microswitches	1 A resistive	Not available
Maximum noise (1 meter away)	35 dB (A) standard version	47 dB (A) standard version
Operating ambient temperature	-10 °C ÷ +50°C (14°F ÷ 122°F)	
Degree of protection	IP 67 (Equivalent to NEMA6)	
Outer casing	Characterized by a ribbed shape made of glass-filled "polyarylamide" technopolymer, particularly robust and impermeable to humidity	
Certification	CE	

CT3 - 22Nm (194.7 lb-in)

Ordering Codes

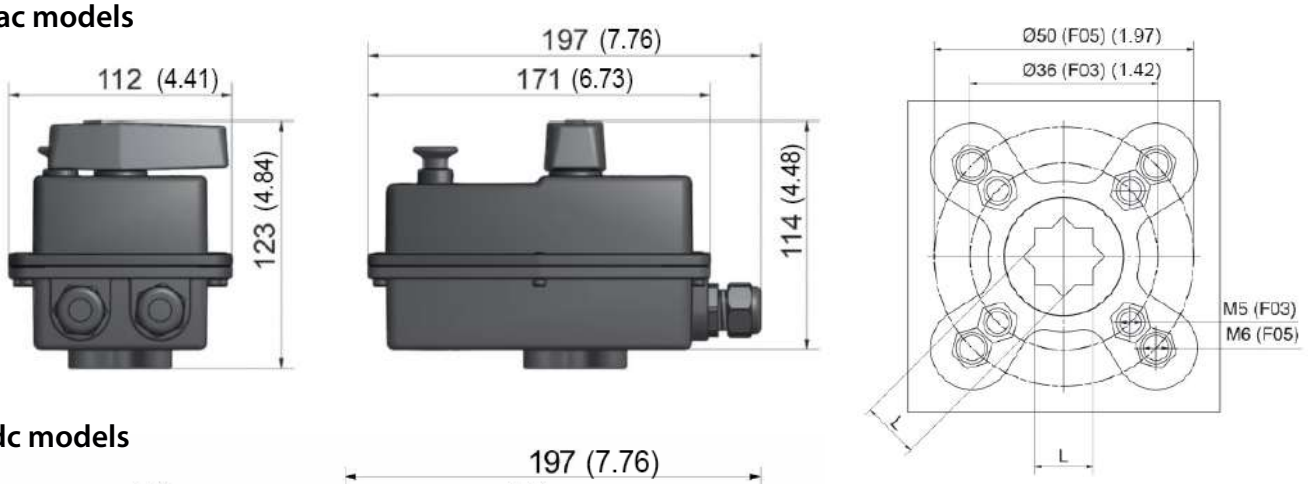
Code	Power supply	Control Type	Running time (0°-90°)	Feedback type
CT3ACM2	230 Vac - 50/60 Hz	2/3 Points	45 sec @ 50Hz 38 sec @ 60Hz	2 x Free auxiliary switches
CT3BCM2	110 Vac - 50/60 Hz	2/3 Points	45 sec @ 50Hz 38 sec @ 60Hz	
CT3CCM2	24 Vac - 50/60 Hz	2/3 Points	45 sec @ 50Hz 38 sec @ 60Hz	
CT3DCN2	24V DC	2/3 Points	30 sec.	

Optional models on request:

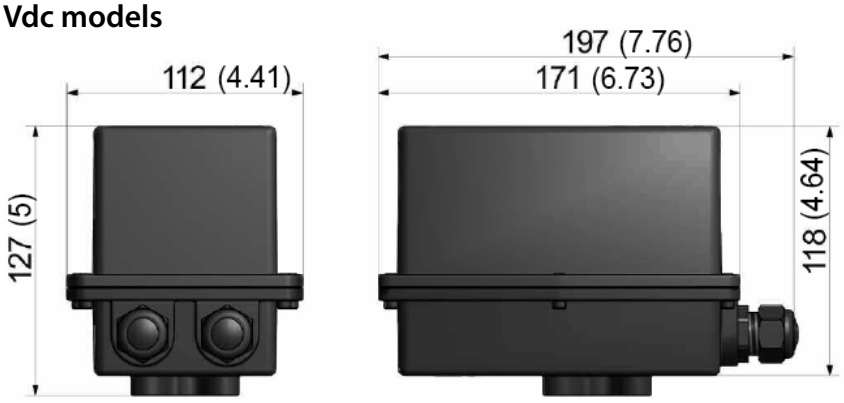
- 12 Vdc power supply
- Optional speed: - Vac only : 9 sec
  - Vdc only: 10 sec
- Proportional models: 0(2)-10 Vdc, 0(4)-20 mA, Modbus
- Electronic fail safe (see pag 42)

Dimensions mm (inches)

Vac models



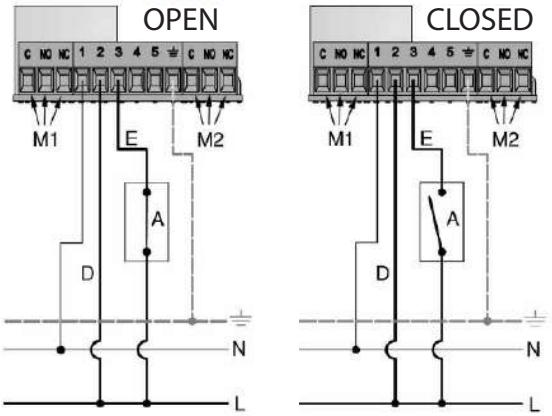
Vdc models



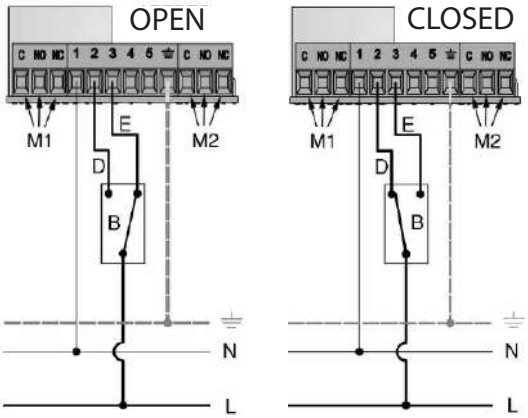
ISO 5211	L
F03	9 with adapter (0.35)
F05	11 (0.43)

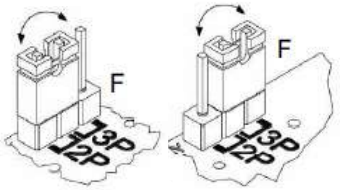
Wiring diagrams

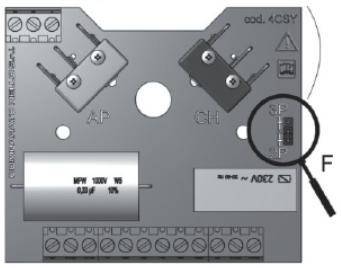
2 points control



3 points control



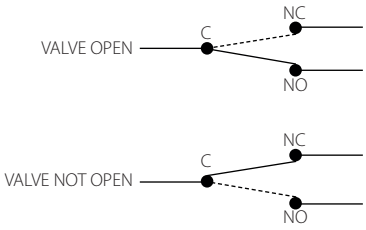




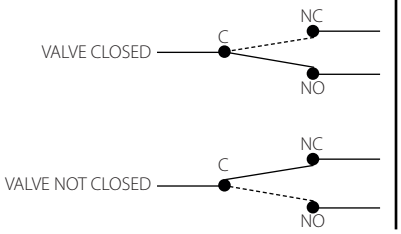
Vac models: Move the jumper to have the desired electrical connection.
Vdc models: No jumper change is needed

Auxiliary switches

M1 (additional opening microswitch)



M2 (additional closing microswitch)



Technical specification

	ALL IN ONE - 2/3 points Vac	ALL IN ONE - 2/3 points Vdc
Position indicator and manual override	Manual lever with arrow indicating the position of the sphere	Not available
Power supply	230 V - 50/60 Hz	24Vdc
	110 V - 50/60 Hz	
	24 V - 50/60 Hz	12Vdc
Electric connections	Via terminal board inside the actuator	
Operating time (90°)	45 sec	30 sec
Absorbed power	5 VA (230 V)	0.25 A (24Vdc)
	5 VA (110 V)	
	6 VA (24 V)	0.4 A (12 Vdc)
Maximum current supported by the additional microswitches	1 A resistive	
Maximum noise (1 meter away)	42 dB (A) standard version	52 dB (A) standard version
Operating ambient temperature	-10 °C ÷ +50°C (14°F ÷ 122°F)	
Degree of protection	IP 67 (Equivalent to NEMA6)	
Outer casing	Characterized by a ribbed shape made of glass-filled "polyarylamide" technopolymer, particularly robust and impermeable to humidity	
Certification	CE	

CT4 - 40Nm (354 lb-in)

Ordering Codes

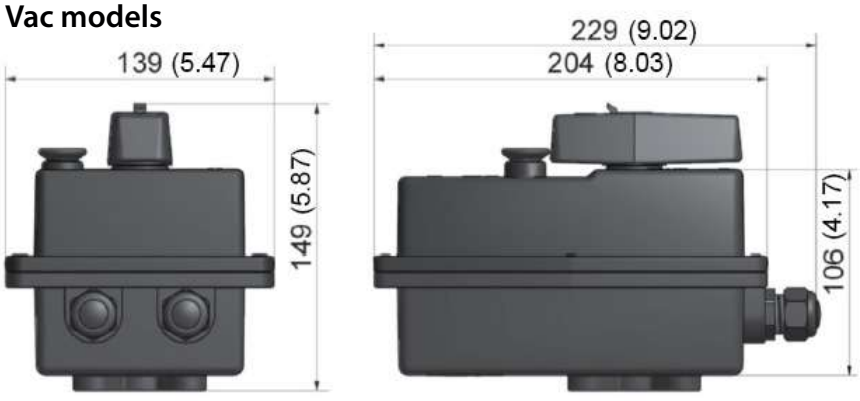
Code	Power supply	Control Type	Running time (0°-90°)	Feedback type
CT4ACM2	230 Vac 50 Hz	2/3 Points	55 sec.	2 x Free auxiliary switches
CT4BCM2	110 Vac 50 Hz	2/3 Points	55 sec.	
CT4CCM2	24 Vac 50 Hz	2/3 Points	55 sec.	
CT4HCM2	230 Vac 60Hz	2/3 Points	45 sec.	
CT4ICM2	110 Vac 60Hz	2/3 Points	45 sec.	
CT4LCM2	24 Vac 60Hz	2/3 Points	45 sec.	

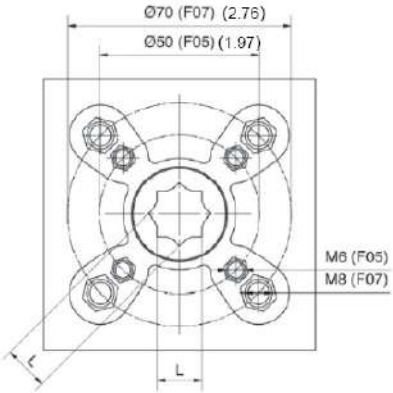
Optional models on request:

- 24Vdc and 12 Vdc power supply
- Optional speed: - Vac only : 14 sec and 32 sec
- Proportional models: 0(2)-10 Vdc, 0(4)-20 mA, Modbus
- Electronic fail safe (see pag 42)

Dimensions mm (inches)

Vac models

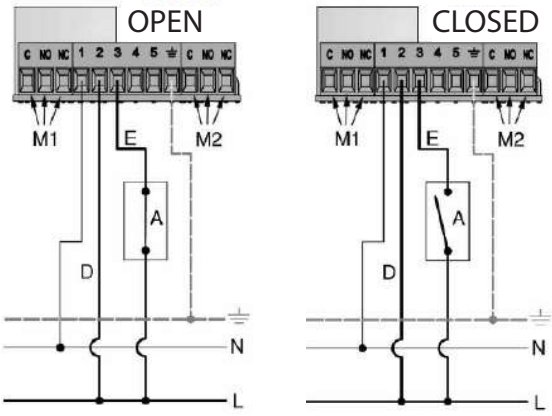




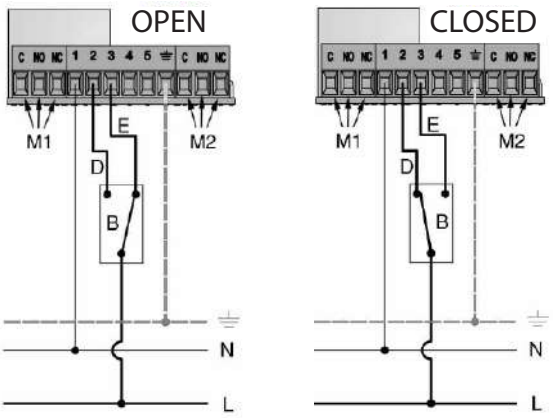
ISO 5211	L
F05	11 with adapter (0.43)
F07	14 (0.55)

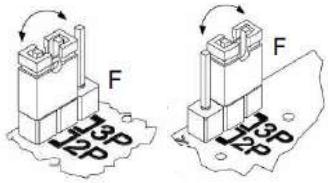
Wiring diagrams

2 points control



3 points control

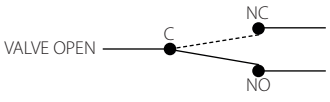


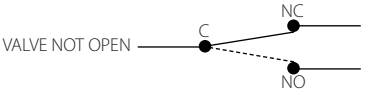


Vac models: Move the jumper to have the desired electrical connection.

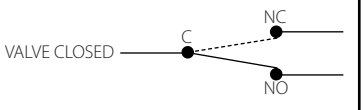
Auxiliary switches

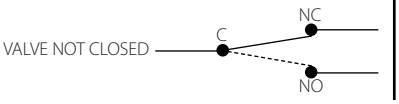
M1 (additional opening microswitch)





M2 (additional closing microswitch)





Technical specification

	ALL IN ONE - 2/3 points
Position indicator and manual override	Manual lever with arrow indicating the position of the sphere
Power supply	230 V - 50 Hz
	110 V - 50 Hz
	24 V - 50 Hz
Electric connections	Via terminal board inside the actuator
Operating time (90°)	55 sec @ 50Hz 45 sec @ 60 Hz
Maximum absorbed power (standard version 55sec)	13 VA (230 V)
	11 VA (110 V)
	12 VA (24 V)
Maximum current on the output phase at terminals 4 and 5	1 A resistive
Maximum current supported by the additional microswitches	1 A resistive
Maximum noise (1 meter away)	50 dB (A) standard version
Operating ambient temperature	-10 °C ÷ +50°C (14°F ÷ 122°F)
Degree of protection	IP 67 (Equivalent to NEMA6)
Outer casing	Characterized by a ribbed shape made of glass-filled "polyarylamide" technopolymer, particularly robust and impermeable to humidity
Certification	CE

Super capacitors electronic Fail Safe actuators

Using the SuperCaps technology the CT2, CT3 and CT4 actuators can store the necessary energy to drive open or close the valve in a safety position during an electrical power supply interruption. Fail safe open or close position in valves is crucial to prevent serious damages in critical applications such as coils freezing or steam exchangers overpressure. By default they are all provided with a 2-10 Vdc feedback, two auxiliary switches and 1m cable lenght.

Ordering Codes

Code	Torque (Nm)	Power supply
CT2FCM2Fx	11	24Vdc - 24V 50/60 Hz
CT2GCM2Fx	11	100...240V 50/60 Hz
CT3FCM2Fx	22	24Vdc - 24V 50/60 Hz
CT3GCM2Fx	22	100...240V 50/60 Hz
CT4FCM2Fx	40	24Vdc - 24V 50/60 Hz
CT4GCM2Fx	40	100...240V 50/60 Hz

Note: X=O for Fail safe valve open; C for Fail Safe valve close X

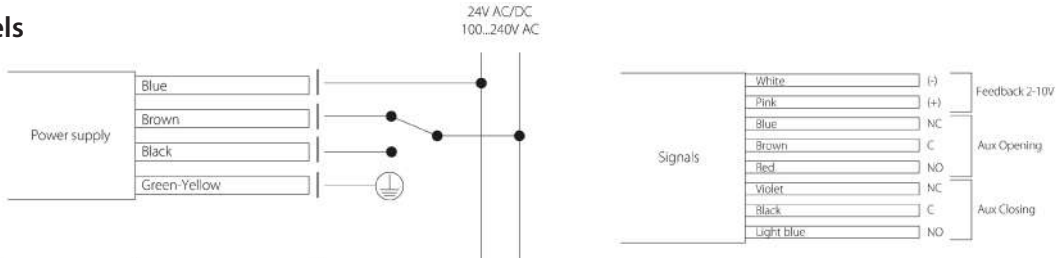
Technical specification - Fail safe Models

	CT2	CT3	CT4
Available power supply	24Vdc - 24V 50/60 Hz - 100...240V 50/60Hz		
Max. Running power consumption	10W	25W	25W
Power supply cable	1 m (40 in.) length AWG20		
Signal cable	1 m (40 in.) length AWG24		
Auxiliary switches rating	max 30V DC - 0.1 A	max 30V DC - 0.1 A	max 30V DC - 0.1 A
Nominal Torque	11 Nm	22 Nm	40 Nm
Available control type	On/off 3&2 points - proportional		
Valve position feedback	2 -10V DC		
Manual Override	Manual lever with arrow indicating the position of the sphere		
Running Speed (90°)	30s		
Fail safe speed(90°)	20 s	26 s	30 s
Max Noise	45 dB (A)	60 dB (A)	65 dB (A)
Degree of protection	IP67		
SuperCaps recharging time	15 min (90°)	15 min (90°)	50 min (90°)
Operating ambient temperature	-10°C ÷ 50°C (14°F ÷ 122°F)		
Certification	CE		

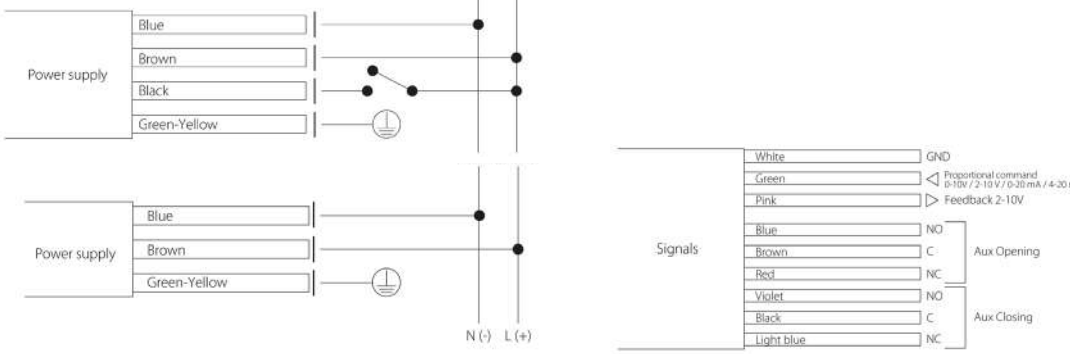
Wiring diagrams

On/Off models

3 point control



2 point control



Proportional models

Valves combination

s.64 Low Torque	code	size	ΔP	CT1 - 8Nm	CT2 - 11Nm	CT3 - 22Nm	CT4 - 40Nm
	S64FxxA	1"	0 ÷ 6 Bar (0 ÷ 87 PSI)	•	•		
	S64GxxA	1 ¼"		•	•		
	S64HxxA	1 ½"		•	•		
	S64IxxA	2"		•	•		
	code	**size**	**ΔP**	**CT1 - 8Nm**	**CT2 - 11Nm**	**CT3 - 22Nm**	**CT4 - 40Nm**
	S64FxxA	1"	6 ÷ 16 Bar (87 ÷ 232 PSI)	•	•		
	S64GxxA	1 ¼"		•	•		
	S64HxxA	1 ½"		•	•		
	S64IxxA	2"			•		

s.64	code	size	ΔP	CT1 - 8Nm	CT2 - 11Nm	CT3 - 22Nm	CT4 - 40Nm
	S64Dxx	1/2"	0 ÷ 15 Bar (0 ÷ 217PSI)	•	•		
	S64Exx	3/4"		•	•		
	S64Fxx	1"		•	•		
	S64Gxx	1 ¼"			•		
	S64Hxx	1 ½"					•
	S64Ixx	2"					•
	code	**size**	**ΔP**	**CT1 - 8Nm**	**CT2 - 11Nm**	**CT3 - 22Nm**	**CT4 - 40Nm**
	S64Dxx	1/2"	15 ÷ 40 Bar (217 ÷ 580 PSI)	•	•		
	S64Exx	3/4"		•	•		
	S64Fxx	1"		•	•		
	S64Gxx	1 ¼"				•	
	S64Hxx	1 ½"					•
	S64Ixx	2"					•

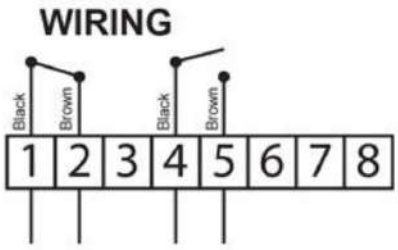
s.134	code	size	ΔP	CT1 - 8Nm	CT2 - 11Nm	CT3 - 22Nm	CT4 - 40Nm
	134Dxx	1/2"	0 ÷ 14 Bar (0 ÷ 203 PSI)	•	•		
	134Exx	3/4"		•	•		
	134Fxx	1"				•	
	134Gxx	1 ¼"				•	
	134Hxx	1 ½"					•
	134Ixx	2"					•

s.73 & s.76	code	size	ΔP	CT1 - 8Nm	CT2 - 11Nm	CT3 - 22Nm	CT4 - 40Nm
	S73Dxx	1/2"	0 ÷ 16 Bar (0 ÷ 232 PSI)		•		
	S73Exx	3/4"				•	
	S73Fxx	1"					•
	code	**size**	**ΔP**	**CT1 - 8Nm**	**CT2 - 11Nm**	**CT3 - 22Nm**	**CT4 - 40Nm**
	S76Dxx	1/2"	0 ÷ 16 Bar (0 ÷ 232 PSI)	•	•		
	S76Exx	3/4"		•	•		
	S76Dxx	1"		•	•		

Limit Switch box

Features and specifications:

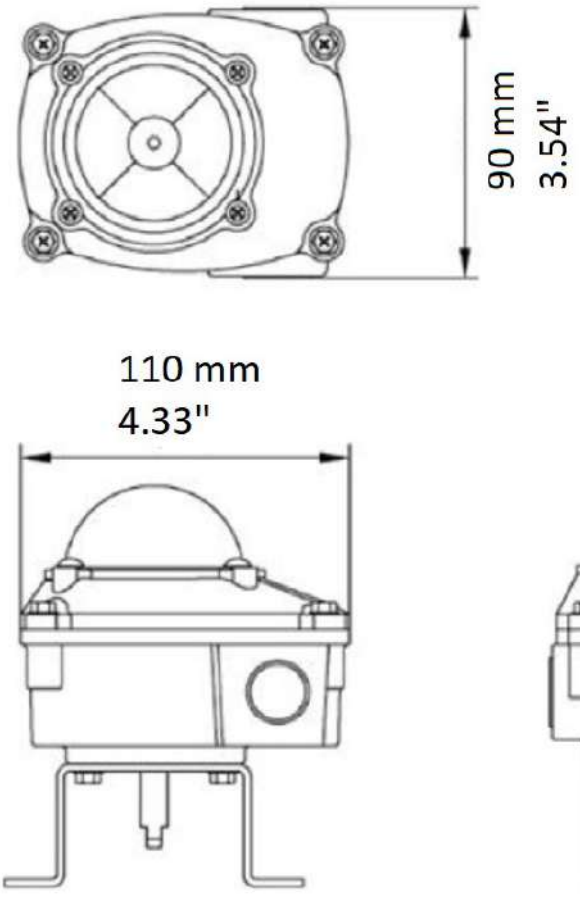
- Enclosure: waterproof IP67, O-ring sealed
- Material: aluminum, polyester coated
- Ambient temperature: -20°C ~ +80°C
- Switch cams: adjustable, preset for 90°
- Cable entries: 2xM20x1.5
- Terminal block: 8 pos of terminal strips (6 for switches, 2 for solenoid valve power)
- Position indicator: dome type 0°C ~ 90°C
- Mounting bracket: stainless steel acc. to VDI/VDE3845, NAMUR
- Mechanical switches: 2 pcs. max 250V AC 16A, 125 V DC 0.6A



1 - IND. COMMON
2 - IND. CLOSED VALVE
3 - FREE
4 - IND. COMMON
5 - IND. OPEN VALVE
6 - FREE
7 - FREE
8 - FREE

Dimensions :

Dimensions are in mm/inch



k.6405

1/2" - 2" EN 10226-1
ISO 5211
pure PTFE seats
DIN 16722 M3

More and more automation is required at all levels in our society and the k.64 ***RuB*** range is the answer to all needs for reliable actuated ball valve.

The line has successfully passed 100,000 cycle life tests and is available in a variety of standard and customized configurations some with special seat design to compensate for wear.

HIGH TEMPERATURE RESISTANCE
Now approved for **HTB** use (Hochtemperaturbeständigkeit)
Class B 0,1 (0,1 bar @650°C for at least 30 minutes).

Quality
- 24h 100% seal test guaranteed
- Dual sealing system allows valve to be operated in either direction making installation easier
- No metal-to-metal moving parts
- No maintenance ever required
- Silicone-free lubricant on all seals
- Chrome plated brass ball for longer life

Body
- Hot forged sand blasted, nickel plated brass body and cap sealed with Loctite® or equivalent thread sealant
- Integrated ISO 5211 and DIN 3337 mounting flange for universal connection to actuator
- Finest brass according to EN 12165 and EN 12164 specifications
- Valve length according to DIN 16722 M3

Stem
- Blowout-proof nickel plated brass stem
- Maintenance-free, double FPM O-rings at the stem for maximum safety

Sealing
- Pure PTFE self-lubricating seats with flexible-lip design

Threads
- EN 10226-1, ISO 228 parallel female by female threads

Flow
- 100% full port for maximum flow

Operating device
- Integrated sturdy ISO 5211 flange allows direct mounting of electric and pneumatic actuators, with no bracket or coupling required. See ***RuB*** line of electric and pneumatic actuators.

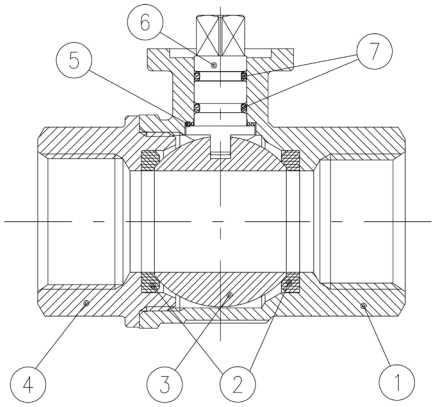
Working pressure & temperature
- 40 bar (600 PSI) non-shock cold working pressure
- For use with dangerous fluids pressure rating is 5 bar (72 PSI) / **HTB** Class B 0,1
- -40°C to +170°C (-40°F to +350°F)
- **WARNING**: freezing of the fluid in the installation may severely damage the valve
- For use with dangerous fluids temperature rating is -20°C to +60°C (-4°F to +140°F)

Options
- Special valve configurations available upon request
- s.64 configuration featuring NPT taper ANSI B.1.20.1 female by female threads, unplated body, reinforced seats and brass or stainless stem and ball
- Rack and pinion pneumatic actuator (spring return or double acting)
- Compact power electric actuator for some sizes
- Manual lockable handle

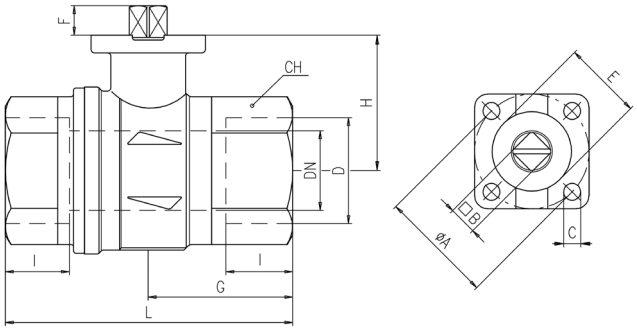
PED directive
- Assessment according to Pressure Equipment Directive 2014/68/UE module B+D by ICIM (0425)

Approved by or in compliance with
- DVGW (Germany) – MOP 5 B 0,1
- SVGW (Switzerland)
- GOST-R (Russia)
- RoHS Compliant (EU)
- EAC – Declaration of conformity (Russia, Kazakhstan, Belarus)

NOTE: approvals apply to specific configurations/sizes only. You can purchase the valve alone or with the ***RuB*** actuator already mounted.



	Part description	Q.ty	Material
1	Nickel plated body	1	CW617N
2	Ball seat	2	PTFE
3	Chrome plated ball	1	CW617N
4	Nickel plated end-cap	1	CW617N
5	Washer	1	PTFE carbon filled 25%
6	Nickel plated stem O-ring design	1	CW617N
7	O-Ring	2	FPM



Ball valves are marked CE on body from 1 ¼" to 2" as follow:
CE 0425 cat IIIB+D PS: 5 GAS TS1: -20°C TS2: +60°C

Compliant to CE 2014/68/UE product Equipment category III Module B+D

Code	S64D05	S64E05	S64F05	S64G05	S64H05	S64I05
D (inch)	1/2	3/4	1	1 1/4	1 1/2	2
DN(mm)	15	20	25	32	40	50
I (mm)	15.5	18	21	23	24.5	26.5
L (mm)	75 ±2	80 ±2	90 ±2	110 ±2	120 ±2	140 ±2
G (mm)	30.5	37	45.5	52	59	67.5
H (mm)	31	38.5	42.5	55.5	62	69
CH(mm)	27 +0 −0.84	32 +0 −1	41 +0 −1	50 +0 −1	55 +0 −1.2	70 +0 −1.9
ØA(mm)	36	36	36	50	50	50
□B(mm)	9	9	9	11	11	14
C (mm)	5.6	5.6	5.6	6.6	6.6	6.6
E(mm)	25	25	25	35	35	35
F(mm)	7.5	8.5	8.5	10	10	14.5
Flange connection DIN ISO 5211 DIN 3337	F03	F03	F03	F05	F05	F05
Kv (m3/h)	28	60	100	155	245	290

Torque for actuator sizing N.m

Delta P -->	0÷15 bar		40 bar	
Valve size	*to open*	*to close*	*to open*	*to close*
1/2"	3,2	2,4	3,2	2,4
3/4"	4,6	3,5	4,6	3,5
1"	11	8,2	11	8,2
1 ¼"	16	14,4	16	14,4
1 ½"	28,2	25,4	31	28
2"	38,9	35	49,5	44,5

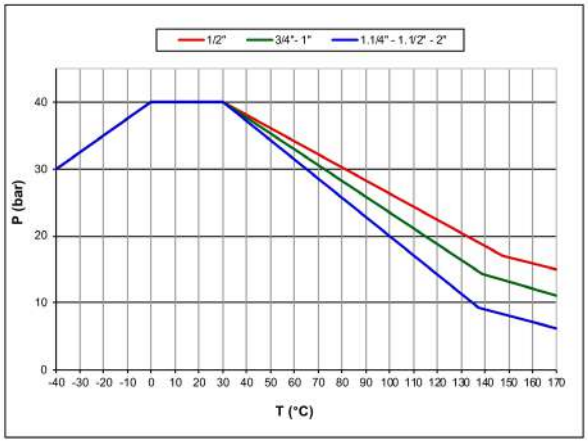
Torque correction factors

Valve torque can vary according to operating frequency, temperature and friction characteristics of the media.

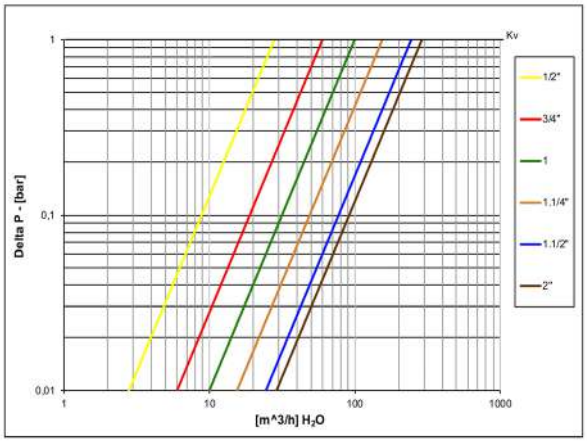
If media has more or less friction than water, multiply torque by the following factors:

Lubricating oils or liquids	0.8
Dry gases, natural gas	1.5
Slurries or liquids bearing abrasive particles	1.5÷2.5

Pressure-temperature chart



Pressure drop chart



XCEK6405 - 4323

s.6400

1/2" - 4"
EN 10226-1
ISO 5211

Quality
• 24h 100% seal test guaranteed
• Dual sealing system allows valve to be operated in either direction making installation easier
• No metal-to-metal moving parts
• No maintenance ever required
• Silicone-free lubricant on all seals
• Chrome plated brass ball for longer life

Body
• Hot forged sand blasted, nickel plated brass body and cap sealed with Loctite® or equivalent thread sealant
• Integrated ISO 5211 and DIN 3337 mounting flange for universal connection to actuator
• Finest brass according to EN 12165 and EN 12164 specifications

Stem
• Blowout-proof nickel plated brass stem
• Maintenance-free, double FPM O-rings at the stem for maximum safety

Sealing
• Reinforced PTFE self- lubricating seats with flexible-lip and wear compensation design

Threads
• EN 10226-1, ISO 228 parallel female by female threads

Flow
• 100% full port for maximum flow

Operating mechanism
• Integrated sturdy ISO 5211 flange allows direct mounting of electric and pneumatic actuators, with no bracket or coupling required. See ***RuB*** line of electric and pneumatic actuators.

Working pressure & temperature
• 40 bar (600 PSI) up to 2", 30 bar (450 PSI) over 2" non-shock cold working pressure
• For use with dangerous fluids pressure rating is 5 bar
• -20°C to +170°C (-4°F to +350°F)
• **WARNING:** freezing of the fluid in the installation may severely damage the valve
• For use with dangerous fluids temperature rating is -20°C +60°C

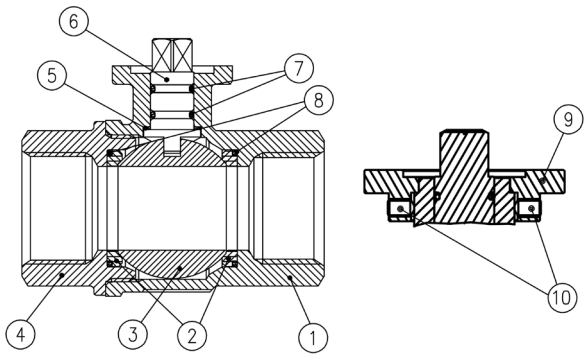
Options
• s.64 configuration featuring NPT taper ANSI B.1.20.1 female by female threads, unplated body, reinforced seats and brass or stainless stem and ball
• CW511L brass (lead-free and DZR) for drinking water applications with compression ends
• Configuration for use with slurries or liquid bearing abrasive particles
• Rack and pinion pneumatic actuator (spring return or double acting)
• Compact power electric actuator for some sizes
• Manual lockable handle

Upon request
• Custom design

PED directive
• Assessment according to Pressure Equipment Directive 2014/68/UE module B+D by ICIM (0425)

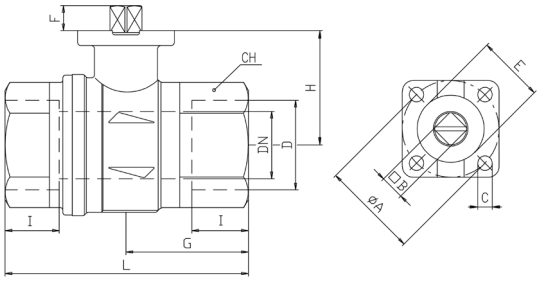
Approved by or in compliance with
• GOST-R (Russia)
• RoHS Compliant (EU)
• EAC – Declaration of conformity (Russia, Kazakhstan, Belarus)
• Water Regulations Advisory Scheme (United Kingdom)

NOTE: approvals apply to specific configurations/sizes only.



Valves configuration up to 2"

	Part description	Q.ty	Material
1	Nickel plated body	1	CW617N
2	Ball seat	2	PTFE graphite filled 15%
3	Chrome plated ball	1	CW617N
4	Nickel plated end-cap	1	CW617N
5	Washer	1	PTFE carbon filled 25%
6	Nickel plated stem O-ring design	1	CW617N
7	O-Ring	2	FPM
8	O-Ring	2	FPM
9	Black anodized flange (only from 2 ½" to 4")	1	Aluminum
10	Grub Screw (only from 2 ½" to 4")	2	CB4FF



Valve ball seats and stem configuration of valves over 2" is different.

Compliant to CE 2014/68/UE product Equipment category III Module B+D

Code	S64D00	S64E00	S64F00	S64G00	S64H00	S64I00	S84L00AM	S84M00AM	S84N00AM
D (inch)	1/2	3/4	1	1 1/4	1 1/2	2	2 1/2	3	4
DN(mm)	15	20	25	32	40	50	65	80	100
I (mm)	15.5	18	21	23	24.5	26.5	32	35	41.5
L (mm)	75	80	90	110	120	140	156	177	216
G (mm)	30.5	37	45.5	52	59	67.5	78	88.5	108
H (mm)	31	38.5	42.5	55.5	62	69	89	96	111
CH(mm)	27	32	41	50	55	70	85	99	125
ØA(mm)	36	36	36	50	50	50	70	70	70
□B(mm)	9	9	9	11	11	14	17	17	17
C (mm)	5.6	5.6	5.6	6.6	6.6	6.6	8.5	8.5	8.5
E(mm)	25	25	25	35	35	35	55	55	55
F(mm)	7.5	8.5	8.5	10	10	14.5	18	18	18
Flange connection DIN ISO 5211 DIN 3337	F03	F03	F03	F05	F05	F05	F07	F07	F07
Kv(m3/h)	28	60	100	155	245	290	516	770	1120

Ball valves are marked CE on end-cap from 1¼" to 4" as follow:
CE 0425 cat IIIB+D PS: 5 GAS TS1:-20°C TS2:+60°C

Torque for actuator sizing N.m

Delta P -->	0÷15 bar		40 bar (30 bar over 2")	
Valve size	*to open*	*to close*	*to open*	*to close*
1/2"	2,8	1,7	2,8	1,7
3/4"	3,8	2,3	3,8	2,3
1"	7,1	4,2	7,1	4,2
1 ¼"	11,7	12,6	13,6	12,6
1 ½"	24,9	20,3	30,9	20,3
2"	29,6	25,1	37	25,1
2 ½"	42	42	105	105
3"	102	102	120	120
4"	186	186	225	225

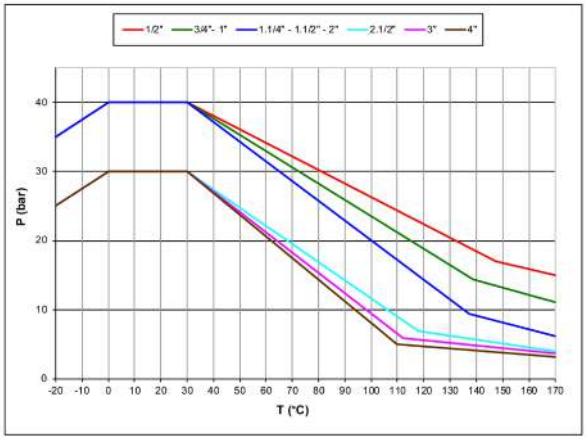
Torque correction factors

Valve torque can vary according to operating frequency, temperature and friction characteristics of the media.

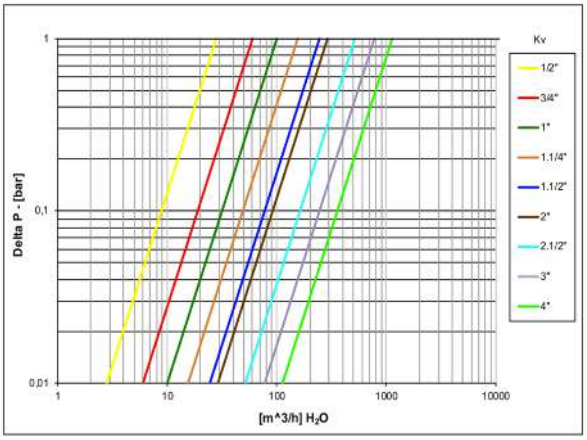
If media has more or less friction than water, multiply torque by the following factors:

Lubricating oils or liquids	0.8
Dry gases, natural gas	1.5
Slurries or liquids bearing abrasive particles	1.5÷2.5

Pressure-temperature chart



Pressure drop chart



s.6400LT

1" - 2"
EN 10226-1
ISO 5211
low torque

Quality
• Dual sealing system allows valve to be operated in either direction making installation easier
• No metal-to-metal moving parts
• No maintenance ever required
• Silicone-free lubricant on all seals
• Chrome plated brass ball for longer life
• 100% seal test guaranteed in according to EN 12266- 1 RATE A

Body
• Hot forged sand blasted, nickel plated brass body and cap sealed with Loctite® or equivalent thread sealant
• Integrated ISO 5211 and DIN 3337 mounting flange for universal connection to actuator
• Finest brass according to EN 12165 and EN 12164 specifications

Stem
• Blowout-proof nickel plated brass stem
• Maintenance-free, double FPM O-rings at the stem for maximum safety

Sealing
• Reinforced PTFE self-lubricating seats with flexible-lip and wear compensation design

Threads
• EN 10226-1, ISO 228 parallel female by female threads

Flow
• 100% full port for maximum flow

Operating mechanism
• Integrated sturdy ISO 5211 flange allows direct mounting of electric and pneumatic actuators, with no bracket or coupling required. See ***RuB*** line of electric and pneumatic actuators.

Working pressure & temperature
• Shell rating: 40 bar (600 PSI) non shock cold working pressure
• Seat rating: Delta P max permissible 16 bar (230 PSI)
• -20°C to +170°C (-4°F to +350°F)
• **WARNING:** freezing of the fluid in the installation may severely damage the valve

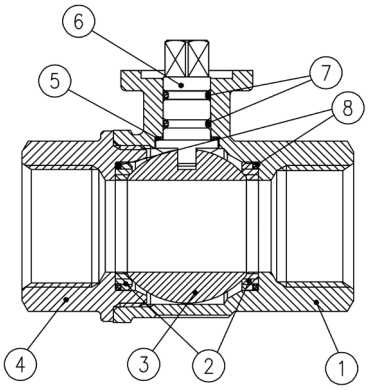
Options
• s.64 configuration featuring NPT taper ANSI B.1.20.1 female by female threads, unplated body, reinforced seats and brass or stainless stem
• Rack and pinion pneumatic actuator (spring return or double acting)
• Compact power electric actuator for some sizes

Upon request
• Custom design

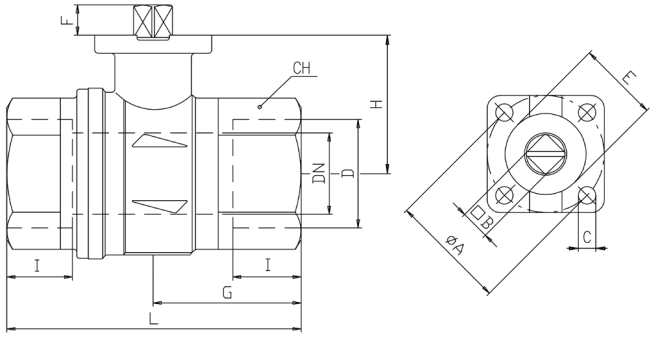
PED directive
• According to 2014/68/UE module A: it cannot be used with dangerous gases in sizes larger than 25mm

Approved by or in compliance with
• GOST-R (Russia)
• RoHS Compliant (EU)
• EAC – Declaration of conformity (Russia, Kazakhstan, Belarus)
• Water Regulations Advisory Scheme (United Kingdom)

NOTE: approvals apply to specific configurations/sizes only.



	Part description	Q.ty	Material
1	Nickel plated body	1	CW617N
2	Ball seat	2	PTFE carbo-graphite filled
3	Chrome plated ball	1	CW617N
4	Nickel plated end-cap	1	CW617N
5	Washer	1	PTFE carbon filled 25%
6	Nickel plated stem O-ring design	1	CW617N
7	O-Ring	2	FPM
8	O-Ring	2	FPM



Code	S64F00A	S64G00A	S64H00A	S64I00A
D (inch)	1	1 1/4	1 1/2	2
DN(mm)	25	32	40	50
I (mm)	21	23	24.5	26.5
L (mm)	90	110	120	140
G (mm)	45.5	52	59	67.5
H (mm)	42.5	49.5	62	69
CH(mm)	41	50	55	70
ØA(mm)	36	36	50	50
□B(mm)	9	9	11	11
C (mm)	5.6	5.6	6.6	6.6
E(mm)	25	25	35	35
F(mm)	8.5	8.5	10	10
Flange connection DIN ISO 5211 DIN 3337	F03	F03	F05	F05
Kv(m3/h)	100	155	245	290

Ball valves are marked CE on end-cap from 1 ¼" to 2" as follow: CE XXCODEXX Cat I-A

Torque for actuator sizing N.m

Delta P -->	0÷6 bar		>6÷16 bar	
Valve size	*to open*	*to close*	*to open*	*to close*
1"	2,2	2,2	3,5	3,5
1 ¼"	2,5	2,5	4	4
1 ½"	5,8	5,8	9,5	9,5
2"	7,9	7,9	13	13

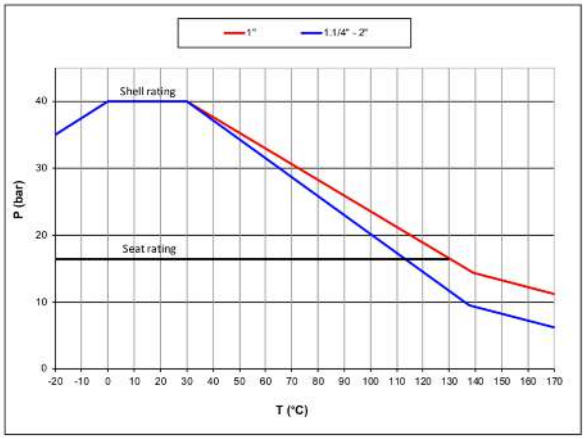
Torque correction factors

Valve torque can vary according to operating frequency, temperature and friction characteristics of the media.

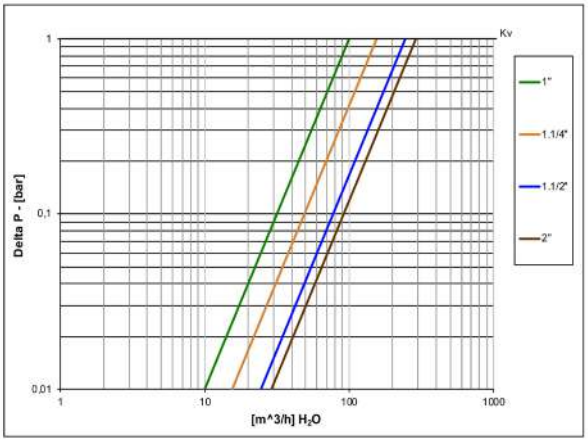
If media has more or less friction than water, multiply torque by the following factors:

Lubricating oils or liquids	0.8
Dry gases, natural gas	1.5
Slurries or liquids bearing abrasive particles	1.5÷2.5

Pressure-temperature chart



Pressure drop chart



s.7300

3-way 4 seats T-port

1/2" - 1"
EN 10226-1
ISO 5211

The s.7300 series has a ball seal at every port, and offers a wide variety of possible flow configurations. Positive shut-off can be achieved at any of the exiting ports.

By specifying the appropriate ball port configuration, the T-port design allows flow direction to be adjusted for virtually any situation and is ideal for mixing applications.

Our s.73 multi-port valves can reduce the number of valves required in piping systems and can significantly lower overall costs by replacing two or three conventional 2-way valves, eliminating excess fittings, saving space and simplifying automation.

Quality
- Electronic 100% seal test guaranteed
- No metal-to-metal moving parts
- No maintenance ever required
- Silicone-free lubricant on all seals
- Chrome plated brass ball for longer life
- Each valve is seal tested for maximum safety
- Performs well in any orientation
- Strong configuration

Body
- Hot forged sand blasted, external nickel plated brass body and cap sealed with Loctite® or equivalent thread sealant
- Integrated ISO 5211 and DIN 3337 mounting flange for universal connection to actuator
- Finest brass according to EN 12165 and EN 12164 specifications
- 3-way T- port design for flow mixing

Stem
- Blowout-proof nickel plated brass stem
- Maintenance-free, double FPM O-rings at the stem for maximum safety
- Stem slot shows ball position

Sealing
- Pure PTFE self-lubricating seats with flexible-lip design
- Four seats design for mixing of various fluids in the system

Threads
- EN 10226-1/ ISO 228 parallel female threads

Flow
- 100% full port for maximum flow

Handle
- Integrated sturdy ISO 5211 flange allows direct mounting of actuators. See ***RuB*** line of electric and pneumatic actuators.

Working pressure & temperature
- 20 bar (300 PSI) non-shock cold working pressure
- -20°C to +150°C (-4°F to +302°F)
- **WARNING:** freezing of the fluid in the installation may severely damage the valve

Options
- Rack and pinion pneumatic actuator (spring return or double acting)
- NPT taper ANSI B.1.20.1 female threads
- Lockable handle as accessory or already mounted (s.7341L)
- Various actuator linkage kit

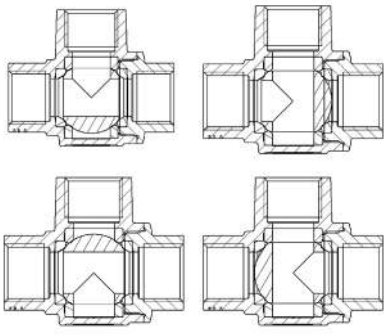
Upon request
- Custom design
- Stainless steel stem
- Configurations with 4 seats & L-port (s.7200) or 2 seats & L-port (s.7600)

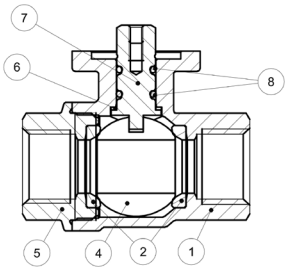
PED directive
- The product meets the requirements of PED Directive 2014/68/UE and according to art.4 par.3, it does not require CE marking.

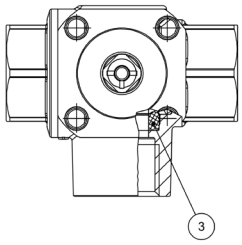
Approved by or in compliance with
- RoHS Compliant (EU)
- EAC – Declaration of conformity (Russia, Kazakhstan, Belarus)

NOTE: approvals apply to specific configurations/sizes only.

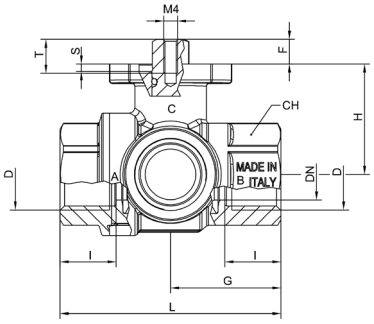
s73 3-way "T" port operating positions

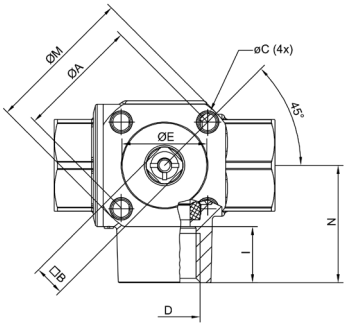






	Part description	Q.ty	Material
1	Nickel plated body (external nickel plated, unplated inside)	1	CW617N
2	Seat	2	PTFE
3	Seat	2	PTFE
4	Chrome plated ball	1	CW617N
5	Nickel plated end cap (external nickel plated, unplated inside)	1	CW617N
6	Washer	1	PTFE carbon filled 25%
7	Nickel plated stem O-ring design	1	CW617N
8	O-Ring	2	FPM





Code	S73D00	S73E00	S73F00
Size (inch)	1/2	3/4	1
DN(mm)	15	20	25
I (mm)	16.5	19	22.5
L (mm)	65	79	92.5
G (mm)	32.5	39.5	46.5
H (mm)	32.5	39.5	42.5
N (mm)	34.5	42	49.5
øA (mm)	36	36	36
øC (mm)	ø5.2 (M6)	ø5.2 (M6)	ø5.2 (M6)
øE (mm)	25	25	25
Square B (mm)	9	9	9
øM (mm)	43.4	43.4	43.4
S (mm)	2.2	2.2	2.2
T (mm)	10	10	10
F (mm)	7.3	8.3	8.3
CH (mm)	27	32	41
Flange connection ISO 5211 DIN3337	F03	F03	F03

Torque for actuator sizing N.m

Delta P -->	0÷16 bar	
Valve size	*to open*	*to close*
1/2"	10,5	10,5
3/4"	13	13
1"	29,5	29,5

With the configuration of T-port a stop pin can be fixed in any position of the 4 provided in the flange (1, 2, 3 or 4) and the lever can be rotated freely through 90°, the flow assumes the directions indicated in the diagram; in case of need the lever can be pulled upwards and you can reach any of the four possible positions. An alternative is to mount 2 pins in 2 near holes (e.g. 1 and 2). In this case, the valve does not assume a predetermined position but can be actuated just by pulling the lever towards the top.

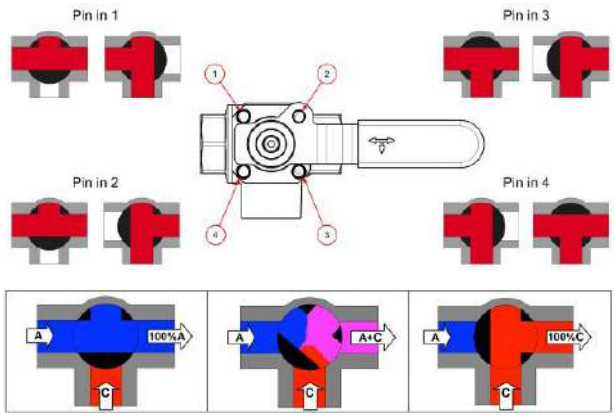
The valve allows also to block the lever thanks to the addition of a lock on the lever's protrusion (in the drawing you can see position 2). The mixing configuration is achieved by placing the pin in position 2. The flows to be mixed enter through A and C and exit through A+C.

Torque correction factors

Valve torque can vary according to operating frequency, temperature and friction characteristics of the media.

If media has more or less friction than water, multiply torque by the following factors:

Lubricating oils or liquids	0.8
Dry gases, natural gas	1.5
Slurries or liquids bearing abrasive particles	1.5÷2.5



s.7600

3-way 2 seats L-port (diverting)

1/2" - 1"
EN 10226-1
ISO 5211

The ***RuB*** s.7600 is the right choice for fluid diversion and is designed with robust maintenance-free components ensuring ease of operation and safety. With a simple 90° turn, you can divert flow from one downstream outlet to the other. It combines traditional manual operation with modern automation. It is also very easy to convert from its sturdy lever handle to ISO 5211 actuator flange assembly.

It features low operating torque and a special wear reducing self-compensating valve seat design that meets our 100,000 cycle life test requirement. The valve can be purchased separately, with handle or with a ***RuB*** actuator already mounted.

Quality
- Electronic 100% seal test guaranteed for maximum safety
- No metal-to-metal moving parts
- No maintenance ever required
- Silicone-free lubricant on all seals
- Chrome plated brass ball for longer life
- Each valve is seal tested for maximum safety
- Performs well in any orientation
- Strong configuration

Body
- Hot forged sand blasted, external nickel plated brass body and cap sealed with Loctite® or equivalent thread sealant
- Integrated ISO5211 / DIN3337 mounting flange for universal connection to actuator
- Finest brass according to EN 12165 and EN 12164 specifications
- 3-way L-port design for flow diversion

Stem
- Blowout-proof nickel plated brass stem
- Maintenance-free, double FPM O-rings at the stem for maximum safety
- Stem slot shows ball position

Sealing
- Reinforced PTFE self-lubricating seats with flexible-lip and wear compensation design

Threads
- EN 10226-1, ISO 228 parallel female by female threads

Flow
- 100% full port for maximum flow

Handle
- Integrated sturdy ISO 5211 flange allows direct mounting of actuators. See ***RuB*** line of electric and pneumatic actuators.

Working pressure & temperature
- 30 bar (450 PSI) non-shock cold working pressure
- -20°C to +170°C (-4°F to +350°F)
- **WARNING:** freezing of the fluid in the installation may severely damage the valve.

Options
- Rack and pinion pneumatic actuator (spring return or double acting)
- Compact Power electric actuator
- Female by female NPT threads
- ISO 7/1, BS 21 BSPT taper female threads
- Lockable handle as accessory or already mounted (s.7600L)
- Various actuator linkage kit

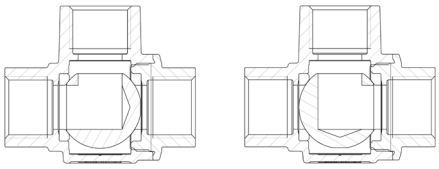
Upon request
- Custom design
- Stainless steel stem
- Configurations with 4 seats, L-port (s.7200) or T-port (s.7300)

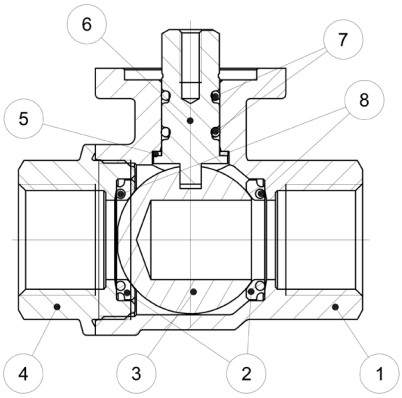
PED directive
- The product meets the requirements of PED Directive 2014/68/UE and according to art.4 par.3, it does not require CE marking.

Approved by or in compliance with
- RoHS Compliant (EU)
- EAC – Declaration of conformity (Russia, Kazakhstan, Belarus)

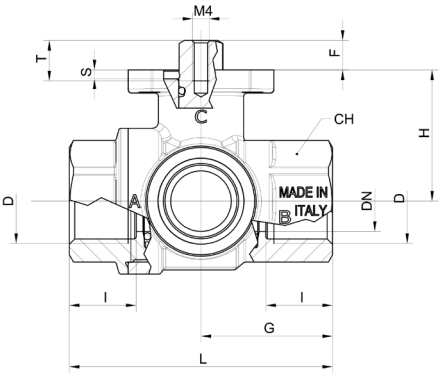
NOTE: approvals apply to specific configurations/sizes only.

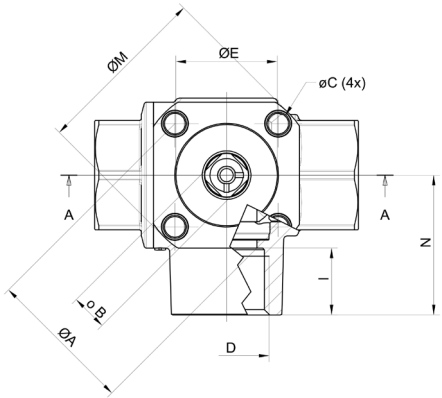
S.76 3-way "L" port operating positions





	Part description	Q.ty	Material
1	Nickel plated body (external nickel plated, unplated inside)	1	CW617N
2	Seat	2	PTFE graphite filled 15%
3	Chrome plated ball	1	CW617N
4	Nickel plated end cap (external nickel plated, unplated inside)	1	CW617N
5	Washer	1	PTFE carbon filled 25%
6	Nickel plated stem O-ring design	1	CW617N
7	O-Ring	2	FPM
8	O-Ring	2	FPM





Valve code	S76D00	S76E00	S76F00
Size (inch)	Rp 1/2	Rp 3/4	Rp 1"
DN(mm)	15	20	25
I (mm)	16.5	19	22.5
L (mm)	65	79	92.5
G (mm)	32.5	39.5	46.5
H (mm)	32.5	39.5	42.5
N (mm)	34.5	42	49.5
øA (mm)	36	36	36
øC (mm)	ø5.2 (M6)	ø5.2 (M6)	ø5.2 (M6)
øE (mm)	25	25	25
Square B (mm)	9	9	9
øM (mm)	43.4	43.4	43.4
S (mm)	2.2	2.2	2.2
T (mm)	10	10	10
F (mm)	7.3	8.3	8.3
CH (mm)	27	32	41
Flange connection ISO 5211 DIN3337	F03	F03	F03

Torque for actuator sizing N.m

Delta P -->	0÷16 bar	
Valve size	*to open*	*to close*
1/2"	3,5	3,5
3/4"	4,0	4,0
1"	4,5	4,5

Torque correction factors

Valve torque can vary according to operating frequency, temperature and friction characteristics of the media.

If media has more or less friction than water, multiply torque by the following factors:

Lubricating oils or liquids	0.8
Dry gases, natural gas	1.5
Slurries or liquids bearing abrasive particles	1.5÷2.5

s.6439 NPT

1/2" - 2"
SS trim
ISO 5211

More and more automation is required at all levels in our society and the s.64 ***RuB*** range is the answer to all needs for reliable actuated ball valve.

It features special seat design to automatically compensate for wear and it has successfully passed 100,000 cycle life tests.

You can purchase the valve alone or with ***RuB*** actuator already mounted.

Quality
- 24h 100% seal test guaranteed
- Dual sealing system allows valve to be operated in either direction making installation easier
- No metal-to-metal moving parts
- No maintenance ever required
- Silicone-free lubricant on all seals
- Stainless steel ball for longer life

Body
- Hot forged sand blasted, unplated brass body and cap sealed with Loctite® or equivalent thread sealant
- Integrated ISO 5211 and DIN 3337 mounting flange for universal connection to actuator
- Finest brass according to EN 12165 and EN 12164 specifications

Stem
- Maintenance-free, double FPM O-rings at the stem for maximum safety
- Blowout-proof stainless steel stem

Sealing
- Reinforced PTFE self- lubricating seats with flexible-lip and wear compensation design

Threads
- NPT taper ANSI B.1.20.1 female by female threads

Flow
- 100% full port for maximum flow

Handle
- Integrated sturdy ISO 5211 flange allows direct mounting of electric and pneumatic actuators, with no bracket or coupling required. See ***RuB*** line of electric and pneumatic actuators.

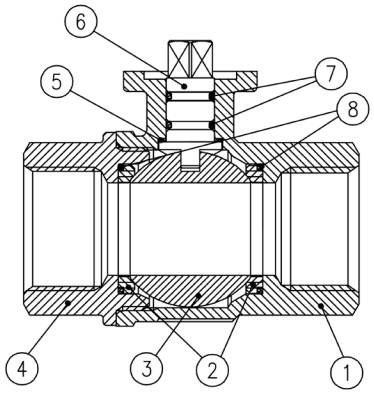
Working pressure & temperature
- 600 PSI non-shock cold working pressure
- -4°F to +350°F
- **WARNING:** freezing of the fluid in the installation may severely damage the valve

Options
- k.64 configuration featuring EN 10226-1, ISO 228 parallel female by female threads, plated body, valve length according to DIN 3357 specification, pure PTFE seats
- Rack and pinion pneumatic actuator (spring return or double acting)
- Compact power electric actuator for some sizes
- Manual lockable handle
- Brass trim (s.6441)

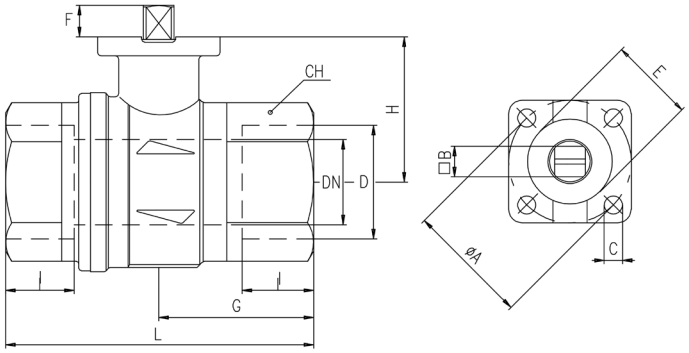
Upon request
- Custom design

Approved by or in compliance with
- Water Regulations Advisory Scheme (United Kingdom)
- GOST-R (Russia)
- RoHS Compliant (EU)

NOTE: approvals apply to specific configurations/sizes only.



	Part description	Q.ty	Material
1	Unplated body	1	CW617N
2	Ball seat	2	PTFE carbographite filled
3	Stainless steel ball	1	1.4401 / AISI 316
4	Unplated end-cap	1	CW617N
5	Washer	1	PTFE carbon filled 25%
6	Stainless steel stem O-ring design	1	1.4401 / AISI 316
7	O-Ring	2	FPM
8	O-Ring	2	FPM



Code	S64D39	S64E39	S64F39	S64G39	S64H39	S64I39
D (inch)	1/2	3/4	1	1 1/4	1 1/2	2
DN(inch)	0.590	0.787	0.984	1.259	1.575	1.968
I (inch)	0.610	0.708	0.826	0.905	0.964	1.043
L (inch)	2.598	2.933	3.562	4.094	4.606	5.314
G (inch)	1.201	1.456	1.791	2.047	2.322	2.657
H (inch)	1.220	1.515	1.673	2.185	2.441	2.716
CH(inch)	1.063	1.259	1.614	1.968	2.165	2.756
ØA(inch)	1.417	1.417	1.417	1.968	1.968	1.968
□B(inch)	0.354	0.354	0.354	0.551	0.551	0.551
C (inch)	0.220	0.220	0.220	0.259	0.259	0.259
E(inch)	0.984	0.984	0.984	1.378	1.378	1.378
F(inch)	0.295	0.334	0.334	0.570	0.570	0.570
Flange connection DIN ISO 5211 DIN 3337	F03	F03	F03	F05	F05	F05
Cv (GPM)	32.3	69.3	115.5	179.1	283.1	335.0

Torque for actuator sizing in-lb

Delta P -->	0÷200 PSI		600 PSI	
Valve size	*to open*	*to close*	*to open*	*to close*
1/2"	25	15	25	15
3/4"	33	20	33	20
1"	62	37	62	37
1 ¼"	104	111	121	111
1 ½"	220	180	273	180
2"	262	222	327	222

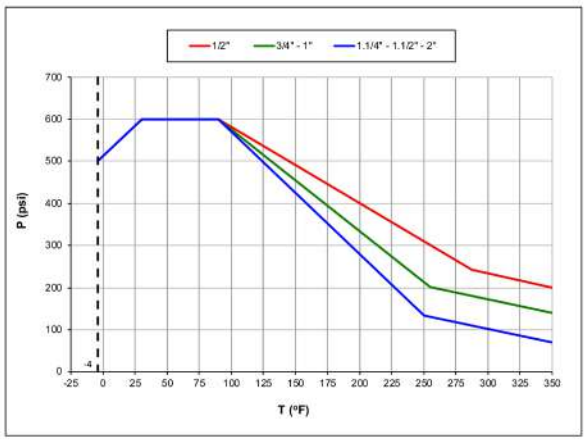
Torque correction factors

Valve torque can vary according to operating frequency, temperature and friction characteristics of the media.

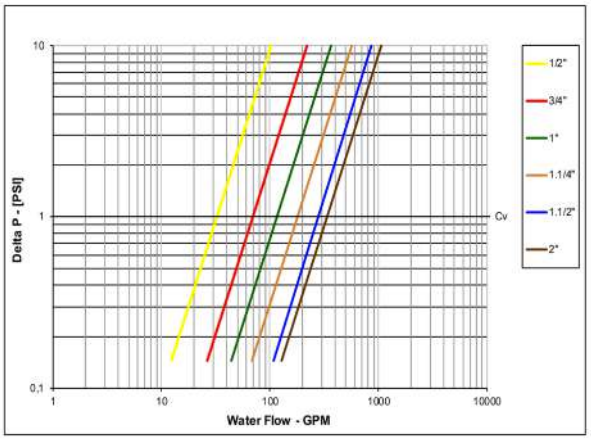
If media has more or less friction than water, multiply torque by the following factors:

Lubricating oils or liquids	0.8
Dry gases, natural gas	1.5
Slurries or liquids bearing abrasive particles	1.5÷2.5

Pressure-temperature chart



Pressure drop chart



s.6439LT NPT

1" - 2"
SS trim
ISO 5211
low torque

More and more automation is required at all levels in our society and the s.64 ***RuB*** range is the answer to all needs for reliable actuated ball valve.

It features special seat design to automatically compensate for wear and it has successfully passed 100,000 cycle life tests.

You can purchase the valve alone or with ***RuB*** actuator already mounted.

Quality
• Dual sealing system allows valve to be operated in either direction making installation easier
• No metal-to-metal moving parts
• No maintenance ever required
• Silicone-free lubricant on all seals
• Stainless steel ball for longer life
• 100% seal test guaranteed in according to EN 12266-1 RATE A

Body
• Hot forged sand blasted, unplated brass body and cap sealed with Loctite® or equivalent thread sealant
• Integrated ISO 5211 and DIN 3337 mounting flange for universal connection to actuator
• Finest brass according to EN 12165 and EN 12164 specifications

Stem
• Maintenance-free, double FPM O-rings at the stem for maximum safety
• Blowout-proof stainless steel stem

Sealing
• Reinforced PTFE self-lubricating seats with flexible-lip and wear compensation design

Threads
• NPT taper ANSI B.1.20.1 female by female threads

Flow
• 100% full port for maximum flow

Handle
• Integrated sturdy ISO 5211 flange allows direct mounting of electric and pneumatic actuators, with no bracket or coupling required. See ***RuB*** line of electric and pneumatic actuators.

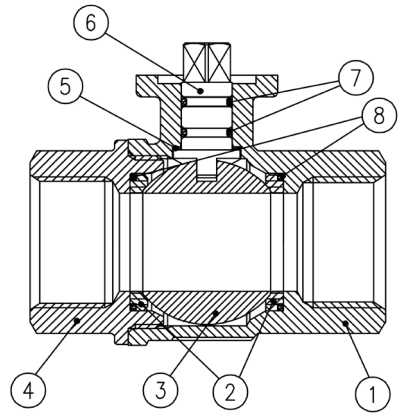
Working pressure & temperature
• Shell rating: 600 PSI
• Seat rating: Delta P max permissible 230 PSI non-shock cold working pressure
• -4°F to +350°F
• **WARNING:** freezing of the fluid in the installation may severely damage the valve

Options
• Brass trim
• k.64 configuration featuring EN 10226-1, ISO 228 parallel female by female threads, plated body, valve length according to DIN 3357 specification, pure PTFE seats
• Rack and pinion pneumatic actuator (spring return or double acting)
• Compact power electric actuator for some sizes

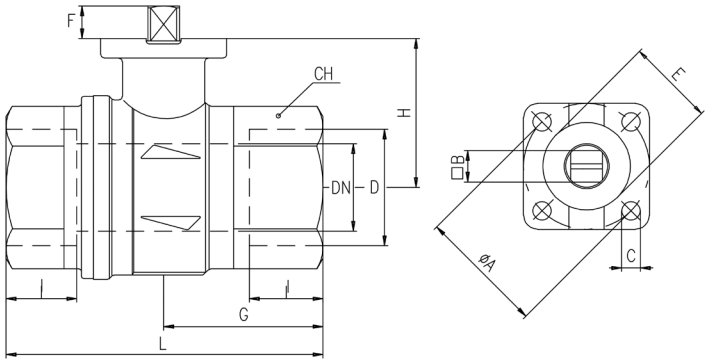
Upon request
• Custom design

Approved by or in compliance with
• GOST-R (Russia)
• RoHS Compliant (EU)

NOTE: approvals apply to specific configurations/sizes only.



	Part description	Q.ty	Material
1	Unplated body	1	CW617N
2	Ball seat	2	PTFE carbographite filled
3	Stainless steel ball	1	1.4401 / AISI 316
4	Unplated end-cap	1	CW617N
5	Washer	1	PTFE carbon filled 25%
6	Stainless steel stem O-ring design	1	1.4401 / AISI 316
7	O-Ring	2	FPM
8	O-Ring	2	FPM



Code	S64F39A	S64G39A	S64H39A	S64I39A
D (inch)	1	1 1/4	1 1/2	2
DN(inch)	0.984	1.259	1.575	1.968
I (inch)	0.826	0.905	0.964	1.043
L (inch)	3.562	4.094	4.606	5.314
G (inch)	1.791	2.047	2.322	2.657
H (inch)	1.673	1.949	2.441	2.716
CH(inch)	1.614	1.968	2.165	2.756
ØA(inch)	1.417	1.417	1.968	1.968
□B(inch)	0.354	0.354	0.551	0.551
C (inch)	0.220	0.220	0.259	0.259
E(inch)	0.984	0.984	1.378	1.378
F(inch)	0.334	0.334	0.570	0.570
Flange connection DIN ISO 5211 DIN 3337	F03	F03	F05	F05
Cv (GPM)	115.5	179.1	283.1	335.0

Torque for actuator sizing in-lb

Delta P -->	0÷90 PSI		>90÷230 PSI	
Valve size	*to open*	*to close*	*to open*	*to close*
1"	19	19	31	31
1 ¼"	22	22	35	35
1 ½"	51	51	84	84
2"	70	70	115	115

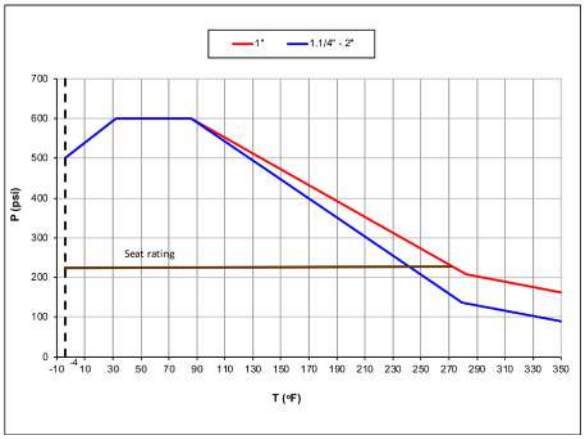
Torque correction factors

Valve torque can vary according to operating frequency, temperature and friction characteristics of the media.

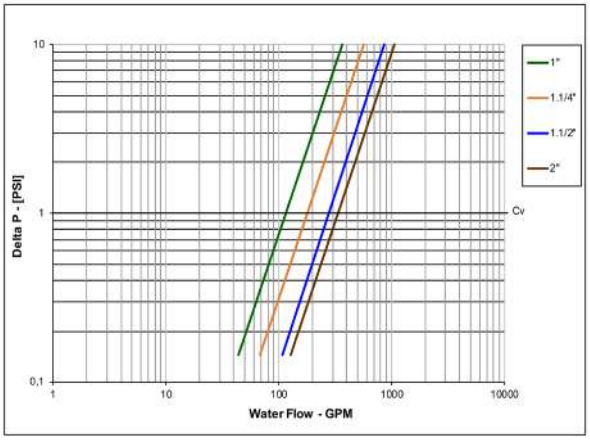
If media has more or less friction than water, multiply torque by the following factors:

Lubricating oils or liquids	0.8
Dry gases, natural gas	1.5
Slurries or liquids bearing abrasive particles	1.5÷2.5

Pressure-temperature chart



Pressure drop chart



s.6441 NPT

1/2" - 4"
brass trim
ISO 5211

More and more automation is required at all levels in our society and the s.64 ***RuB*** range is the answer to all needs for reliable actuated ball valve. It features special seat design to automatically compensate for wear and it has successfully passed 100,000 cycle* life tests.

You can purchase the valve alone or with the ***RuB*** actuator already mounted.

*All sizes up to 2" included

Quality
- 24h 100% seal test guaranteed
- Dual sealing system allows valve to be operated in either direction making installation easier
- No metal-to-metal moving parts
- No maintenance ever required
- Silicone-free lubricant on all seals
- Chrome plated brass ball for longer life

Body
- Hot forged sand blasted, unplated brass body and cap sealed with Loctite® or equivalent thread sealant
- Integrated ISO 5211 and DIN 3337 mounting flange for universal connection to actuator
- Finest brass according to EN 12165 and EN 12164 specifications

Stem
- Blowout-proof nickel plated brass stem
- Maintenance-free, double FPM O-rings at the stem for maximum safety

Sealing
- Reinforced PTFE self-lubricating seats with flexible-lip and wear compensation design

Threads
- NPT taper ANSI B.1.20.1 female by female threads

Flow
- 100% full port for maximum flow

Handle
- Integrated sturdy ISO 5211 flange allows direct mounting of electric and pneumatic actuators, with no bracket or coupling required. See ***RuB*** line of electric and pneumatic actuators.

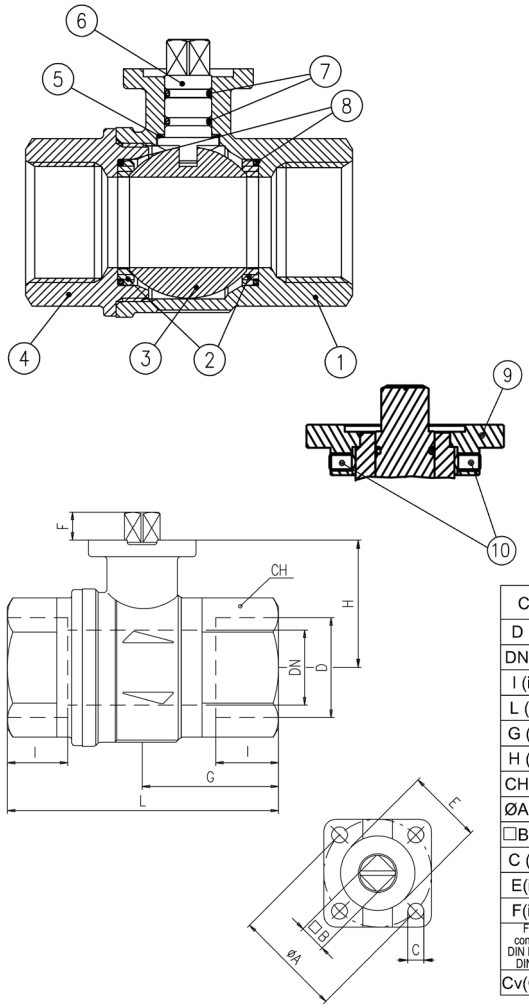
Working pressure & temperature
- 600 PSI up to 2", 450 PSI over 2" non-shock cold working pressure
- -4°F to +350°F
- **WARNING:** freezing of the fluid in the installation may severely damage the valve

Options
- S.64 configuration featuring EN 10226-1, ISO 228 parallel female by female threads, plated body and brass trim
- Stainless steel trim (s.6439)
- Configuration for use with slurries or liquid bearing abrasive particles
- Rack and pinion pneumatic actuator (spring return or double acting)
- Compact power electric actuator for some sizes
- Manual lockable handle

Upon request
- Custom design

Approved by or in compliance with
- Water Regulations Advisory Scheme (United Kingdom)
- GOST-R (Russia)
- RoHS Compliant (EU)

NOTE: approvals apply to specific configurations/sizes only.



	Part description	Q.ty	Material
1	Unplated body	1	CW617N
2	Ball seat	2	PTFE graphite filled 15%
3	Chrome plated ball	1	CW617N
4	Unplated end-cap	1	CW617N
5	Washer	1	PTFE carbon filled 25%
6	Nickel plated stem O-ring design	1	CW617N
7	O-Ring	2	FPM
8	O-Ring	2	FPM
9	Black anodized flange (only from 2 ½" to 4")	1	Aluminum
10	Grub screw (only from 2 ½" to 4")	2	CB4FF (EN10263-2)

Code	S64D41	S64E41	S64F41	S64G41	S64H41	S64I41	S95L41AM	S95M41AM	S95N41AM
D (inch)	1/2	3/4	1	1 1/4	1 1/2	2	2 1/2	3	4
DN(inch)	0.590	0.787	0.984	1.259	1.575	1.968	2.559	3.150	3.937
I (inch)	0.610	0.708	0.826	0.905	0.964	1.043	1.260	1.378	1.634
L (inch)	2.598	2.933	3.562	4.094	4.606	5.314	6.142	6.969	8.504
G (inch)	1.201	1.456	1.791	2.047	2.322	2.657	3.071	3.484	4.252
H (inch)	1.220	1.515	1.673	2.185	2.441	2.716	3.502	3.779	4.366
CH(inch)	1.063	1.259	1.614	1.968	2.165	2.756	3.346	3.898	4.921
ØA(inch)	1.417	1.417	1.417	1.968	1.968	1.968	2.756	2.756	2.756
□B(inch)	0.354	0.354	0.354	0.551	0.551	0.551	0.669	0.669	0.669
C (inch)	0.220	0.220	0.220	0.259	0.259	0.259	0.335	0.335	0.335
E(inch)	0.984	0.984	0.984	1.378	1.378	1.378	2.165	2.165	2.165
F(inch)	0.295	0.334	0.334	0.570	0.570	0.570	0.709	0.709	0.709
Flange connection DIN ISO 5211 DIN 3337	F03	F03	F03	F05	F05	F05	F07	F07	F07
Cv(GPM)	32.3	69.3	115.5	179.1	283.1	335.0	596.2	896.5	1305.5

Torque for actuator sizing in-lb

Delta P -->	0÷200 PSI		600 PSI (450 PSI over 2")	
Valve size	*to open*	*to close*	*to open*	*to close*
1/2"	25	15	25	15
3/4"	33	20	33	20
1"	62	37	62	37
1 ¼"	104	111	121	111
1 ½"	220	180	273	180
2"	262	222	327	222
2 ½"	372	372	929	929
3"	902	902	1062	1062
4"	1646	1646	1991	1991

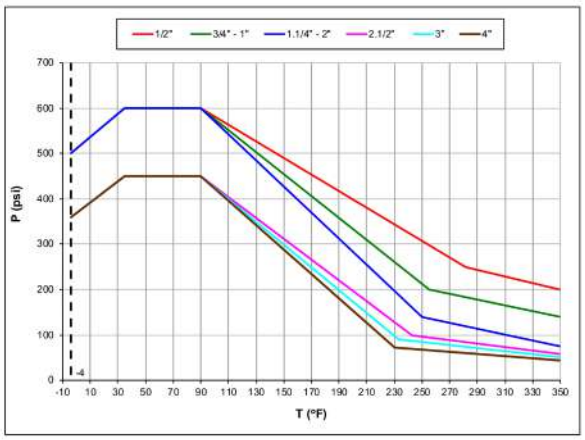
Torque correction factors

Valve torque can vary according to operating frequency, temperature and friction characteristics of the media.

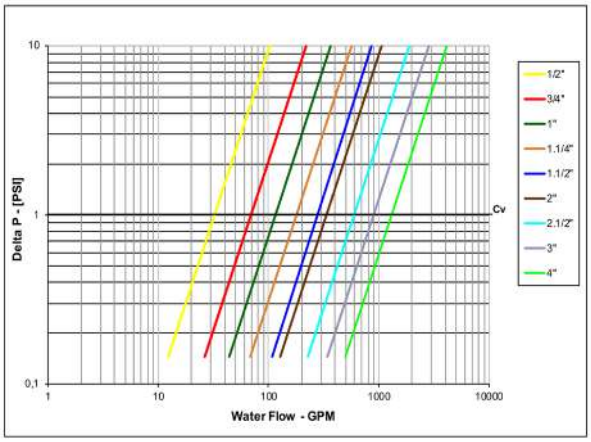
If media has more or less friction than water, multiply torque by the following factors:

Lubricating oils or liquids	0.8
Dry gases, natural gas	1.5
Slurries or liquids bearing abrasive particles	1.5÷2.5

Pressure-temperature chart



Pressure drop chart



XCES6441 - 4266

s.7341 NPT

3-way 4 seats T-port

1/2" - 1"
ISO 5211

The s.7341 series has a ball seal at every port, and offers a wide variety of possible flow configurations. Positive shut-off can be achieved at any of the exiting ports.

By specifying the appropriate ball port configuration, the T-port design allows flow direction to be adjusted for virtually any situation and is ideal for mixing applications.

Our s.73 multi-port valves can reduce the number of valves required in piping systems and can significantly lower overall costs by replacing two or three conventional 2-way valves, eliminating excess fittings, saving space and simplifying automation.

Quality
- Electronic 100% seal test guaranteed
- No metal-to-metal moving parts
- No maintenance ever required
- Silicone-free lubricant on all seals
- Chrome plated brass ball for longer life
- Each valve is seal tested for maximum safety
- Performs well in any orientation
- Strong configuration

Body
- Hot forged sand blasted, unplated brass body and cap sealed with Loctite® or equivalent thread sealant
- Integrated ISO 5211 and DIN 3337 mounting flange for universal connection to actuator
- Finest brass according to EN 12165 and EN 12164 specifications
- 3-way T- port design for flow mixing

Stem
- Blowout-proof nickel plated brass stem
- Maintenance- free, double FPM O-rings at the stem for maximum safety
- Stem slot shows ball position

Sealing
- Pure PTFE self-lubricating seats with flexible-lip design
- Four seats design for mixing of various fluids in the system

Threads
- NPT taper ANSI B.1.20.1 female threads

Flow
- 100% full port for maximum flow

Handle
- Integrated sturdy ISO 5211 flange allows direct mounting of actuators. See ***RuB*** line of electric and pneumatic actuators.

Working pressure & temperature
- 300 PSI non-shock cold working pressure
- -4°F to +302°F
- **WARNING:** freezing of the fluid in the installation may severely damage the valve

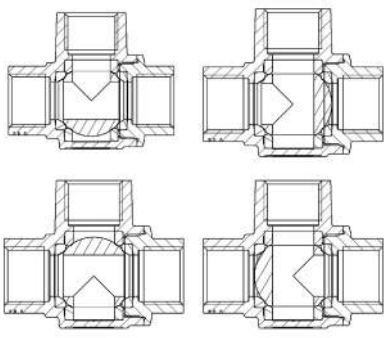
Options
- Rack and pinion pneumatic actuator (spring return or double acting)
- EN10226-1/ISO228 parallel female threads
- Lockable handle as accessory or already mouned (s.7341L)
- Various actuator linkage kit

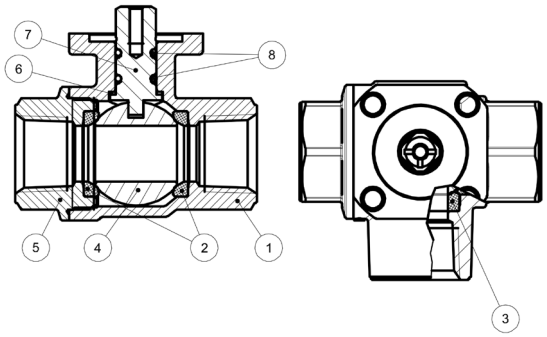
Upon request
- Custom design
- Stainless steel stem
- Configurations with 4 seats & L-port (s.7241) or 2 seats & L-port (s.7641)

Approved by or in compliance with
- RoHS Compliant (EU)

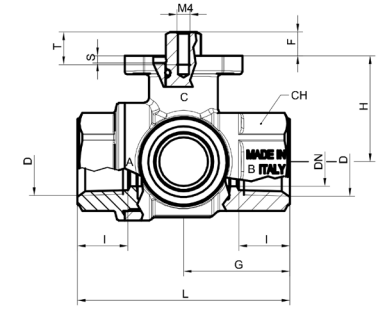
NOTE: approvals apply to specific configurations/sizes only.

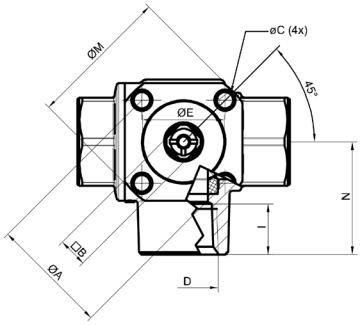
s73 3-way "T" port operating positions





	Part description	Q.ty	Material
1	Sand blasted unplated body	1	CW617N
2	Seat	2	PTFE
3	Seat	2	PTFE
4	Chrome plated ball	1	CW617N
5	Sand blasted unplated end-cap	1	CW617N
6	Washer	1	PTFE carbon filled 25%
7	Nickel plated stem O-ring design	1	CW617N
8	O-Ring	2	FPM





Code	S73D41	S73E41	S73F41
Size (inch)	1/2	3/4	1
DN (inch)	0.591	0.787	0.984
I (inch)	0.610	0.709	0.827
L (inch)	2.559	3.110	3.642
G (inch)	1.280	1.555	1.831
H (inch)	1.280	1.555	1.673
N (inch)	1.358	1.654	1.949
øA (inch)	1.417	1.417	1.417
øC (inch)	ø0.205 (M6)	ø0.205 (M6)	ø0.205 (M6)
øE (inch)	0.984	0.984	0.984
Square B (inch)	0.354	0.354	0.354
øM (inch)	1.709	1.709	1.709
S (inch)	0.087	0.087	0.087
T (inch)	0.394	0.394	0.394
F (inch)	0.287	0.327	0.327
CH (inch)	1.063	1.260	1.614
Flange connection DIN ISO 5211 DIN 3337	F03	F03	F03

Torque for actuator sizing in-lb

Delta P -->	0 ÷230 PSI	
Valve size	to open	to close
1/2"	93	93
3/4"	115	115
1"	261	261

Torque correction factors

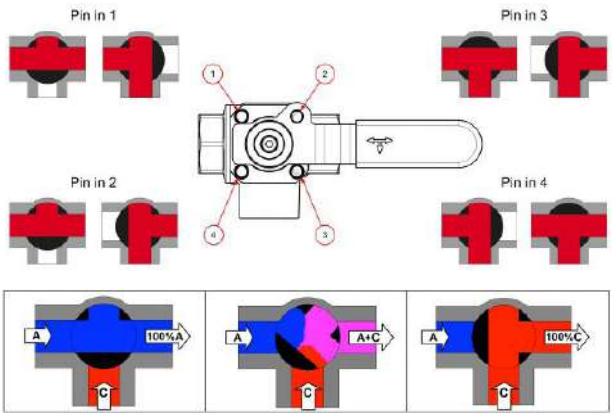
Valve torque can vary according to operating frequency, temperature and friction characteristics of the media.

If media has more or less friction than water, multiply torque by the following factors:

Lubricating oils or liquids	0.8
Dry gases, natural gas	1.5
Slurries or liquids bearing abrasive particles	1.5÷2.5

With the configuration of T-port a stop pin can be fixed in any position of the 4 provided in the flange (1, 2, 3 or 4) and the lever can be rotated freely through 90°, the flow assumes the directions indicated in the diagram; in case of need the lever can be pulled upwards and you can reach any of the four possible positions. An alternative is to mount 2 pins in 2 near holes (e.g. 1 and 2). In this case, the valve does not assume a predetermined position but can be actuated just by pulling the lever towards the top.

The valve allows also to block the lever thanks to the addition of a lock on the lever's protrusion (in the drawing you can see position 2). The mixing configuration is achieved by placing the pin in position 2. The flows to be mixed enter through A and C and exit through A+C.



s.7641 NPT

3-way 2 seats L-port (diverting)

1/2" - 1"
ISO 5211

The ***RuB*** s.7641 is the right choice for fluid diversion and is designed with robust maintenance-free components ensuring ease of operation and safety. With a simple 90° turn, you can divert flow from one downstream outlet to the other. It combines traditional manual operation with modern automation. It is also very easy to convert from its sturdy lever handle to ISO 5211 actuator flange assembly. It features low operating torque and a special wear reducing self-compensating valve seat design that meets our 100,000 cycle life test requirement. The valve can be purchased separately, with handle or with a ***RuB*** actuator already mounted.

Quality
- Electronic 100% seal test guaranteed
- No metal-to-metal moving parts
- No maintenance ever required
- Silicone-free lubricant on all seals
- Chrome plated brass ball for longer life
- Each valve is seal tested for maximum safety
- Performs well in any orientation
- Strong configuration

Body
- Hot forged sand blasted, unplated brass body and cap sealed with Loctite® or equivalent thread sealant
- Integrated ISO5211 / DIN3337 mounting flange for universal connection to actuator
- Finest brass according to EN 12165 and EN 12164 specifications
- 3-way L- port design for flow diversion

Stem
- Blowout-proof nickel plated brass stem
- Maintenance-free, double FPM O-rings at the stem for maximum safety
- Stem slot shows ball position

Sealing
- Reinforced PTFE self- lubricating seats with flexible-lip and wear compensation design

Threads
- NPT taper ANSI B.1.20.1 female threads

Flow
- 100% full port for maximum flow

Handle
- Integrated sturdy ISO 5211 flange allows direct mounting of actuators. See ***RuB*** line of electric and pneumatic actuators.

Working pressure & temperature
- 450 PSI non-shock cold working pressure
- -4°F to +302°F
- **WARNING:** freezing of the fluid in the installation may severely damage the valve

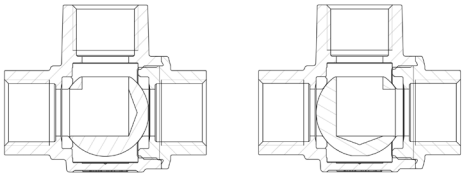
Options
- Rack and pinion pneumatic actuator (spring return or double acting)
- Compact Power electric actuator
- EN10226-1/ISO228 parallel female threads
- Lockable handle as accessory or already mounted (s.7600L)
- Various actuator linkage kit

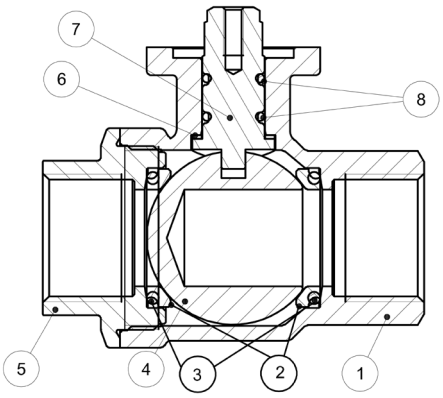
Upon request
- Custom design
- Stainless steel stem
- Configurations with 4 seats, L-port (s.7241) or T-port (s.7341)

Approved by or in compliance with
- RoHS Compliant (EU)

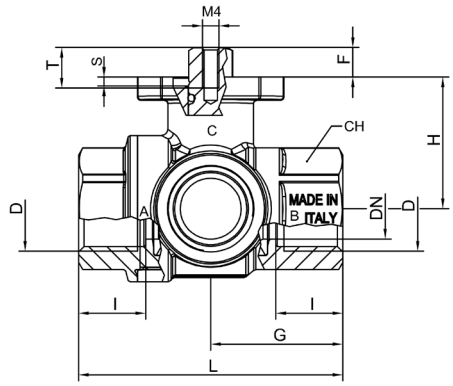
NOTE: approvals apply to specific configurations/sizes only.

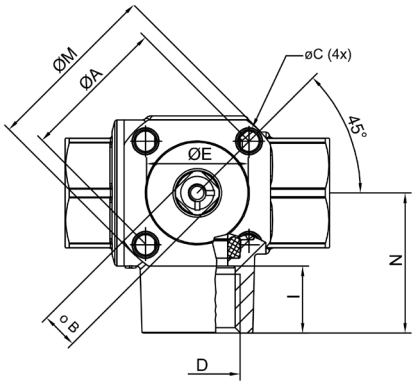
S.76 3-way "L" port operating positions





	Part description	Q.ty	Material
1	Sand blasted unplated body	1	CW617N
2	Seat	2	PTFE graphite filled 15%
3	O-Ring	2	FPM
4	Chrome plated ball	1	CW617N
5	Sand blasted unplated end-cap	1	CW617N
6	Washer	1	PTFE carbon filled 25%
7	Nickel plated stem O-ring design	1	CW617N
8	O-Ring	2	FPM





Code	S76D41	S76E41	S76F41
Size (inch)	1/2 NPT	3/4 NPT	1" NPT
DN(inch)	0.591	0.787	0.984
I (inch)	0.610	0.709	0.827
L (inch)	2.559	3.110	3.642
G (inch)	1.280	1.555	1.831
H (inch)	1.820	1.555	1.673
N (inch)	1.358	1.654	1.949
øA (inch)	1.417	1.417	1.417
øC (inch)	ø0.205 (M6)	ø0.205 (M6)	ø0.205 (M6)
øE (inch)	0.984	0.984	0.984
Square B (inch)	0.354	0.354	0.354
øM (inch)	1.709	1.709	1.709
S (inch)	0.087	0.087	0.087
T (inch)	0.394	0.394	0.394
F (inch)	0.287	0.327	0.327
CH (inch)	1.063	1.260	1.614
Flange connection ISO 5211 DIN3337	F03	F03	F03

Torque for actuator sizing in-lb

Delta P -->	0÷450 PSI	
Valve size	*to open*	*to close*
1/2″	31	31
3/4″	36	36
1″	40	40

Torque correction factors

Valve torque can vary according to operating frequency, temperature and friction characteristics of the media.

If media has more or less friction than water, multiply torque by the following factors:

Lubricating oils or liquids	0.8
Dry gases, natural gas	1.5
Slurries or liquids bearing abrasive particles	1.5÷2.5

s.134 NPT stainless steel

1/2" - 2"
ISO 5211

Quality

• Dual sealing system allows valve to be operated in either direction making installation easier

• Silicone-free lubricant on all seals

• NACE compliance MR-01-75

Body

• Designed and tested for ANSI B16.34

• CF8M stainless steel housing

Stem

• Blowout-proof stem

Sealing

• Reinforced PTFE seats

Threads

• NPT taper ANSI B.1.20.1 female by female threads

Flow

• 100% full port for maximum flow

Handle

• AISI 316 stainless trim

• Convertible for manual or actuated operation

• ISO 5211 actuator mounting pad allows direct mounting of ***RuB*** electric and pneumatic actuators, with no bracket or coupling required.

Working pressure & temperature

• 1000 PSI cold working pressure

• 150 PSI WSP steam rating

• 2×10^{-2} torr vacuum rating

• *150 psig non-shock working steam pressure.
Not suitable for throttling steam.

• +50°F to +450°F

• **WARNING:** freezing of the fluid in the installation may severely damage the valve

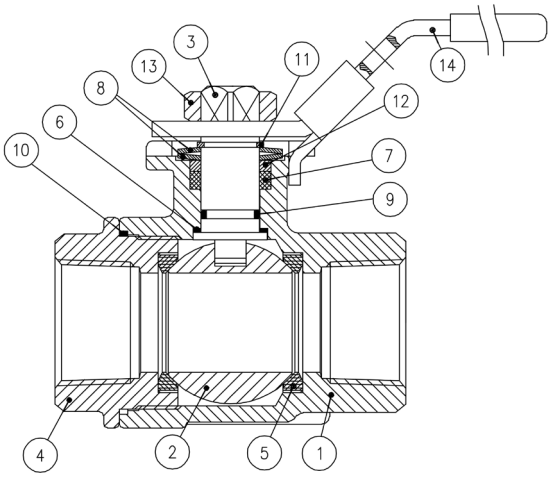
Options

• Stainless steel lockable handle

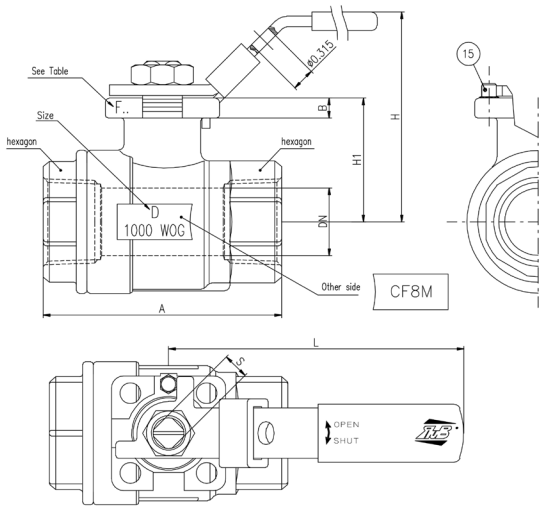
Approved by or in compliance with

• GOST-R (Russia)

NOTE: approvals apply to specific configurations/sizes only.



	Part description	Q.ty	Material
1	Body	1	A351-CF8M
2	Ball	1	A351-CF8M
3	Stem	1	1.4401/AISI 316
4	Cap	1	A351-CF8M
5	Seat	2	RTFE
6	Seat	1	RTFE
7	Packing		TFE
8	Bellville	2	SK5
9	O-Ring	1	FPM
10	Gasket	1	RTFE
11	Snapring	1	1.4301/AISI 304
12	Follower	1	1.4401/AISI316
13	Nut	1	1.4301/AISI 304
14	Lockable handle	1	A240 SS304
15	Stop pin	1	1.4301/AISI 304



Code	134D41	134E41	134F41	134G41	134H41	134I41
D (Size)	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"
DN (inch)	0.56	0.81	1	1.25	1.5	1.97
H1 (inch)	1.40	1.56	1.84	2	2.3	2.8
A (inch)	2.60	2.99	3.54	3.94	4.41	5
B (inch)	0.185	0.185	0.185	0.197	0.197	0.276
S (inch)	0.35	0.35	0.43	0.43	0.43	0.55
F.. (ISO 5211)	F03	F03	F04/F05	F04/F05	F04/F05	F07
Cv (GPM)	20.0	42.0	65.0	101.0	145.0	250.0

Code	134D41L*	134E41L*	134F41L*	134G41L*	134H41L*	134I41L*
L (inch)	4.40	4.40	5.87	5.87	5.87	7.5
H (inch)	2.50	2.66	3.14	3.3	3.6	4.5

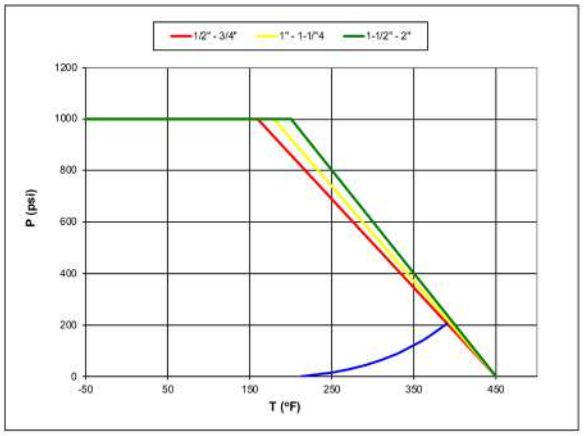
Torque for actuator sizing in-lb

Delta P →	*0÷200 PSI*	
Valve size	*To open*	*To close*
1/2"	*49*	*41*
3/4"	*78*	*59*
1"	*123*	*66*
1.1/4"	*156*	*109*
1.1/2"	*250*	*144*
2"	*317*	*211*

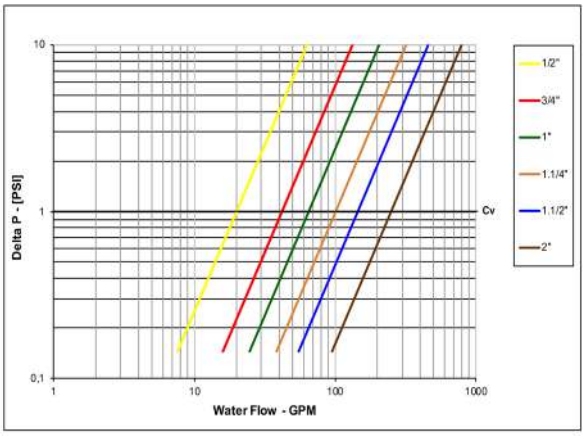
Water flow ratings

Size	1/2"	3/4"	1"	1.1/4"	1.1/2"	2"
CV	20	42	65	101	145	250

Pressure-temperature chart



Pressure drop chart



s.7350 BSPT

3-way 4 seats T-port

1/2" - 1"
ISO 5211

The s.7350 series has a ball seal at every port, and offers a wide variety of possible flow configurations. Positive shut-off can be achieved at any of the exiting ports.

By specifying the appropriate ball port configuration, the T-port design allows flow direction to be adjusted for virtually any situation and is ideal for mixing applications.

Our s.73 multi-port valves can reduce the number of valves required in piping systems and can significantly lower overall costs by replacing two or three conventional 2-way valves, eliminating excess fittings, saving space and simplifying automation.

Quality
- Electronic 100% seal test guaranteed
- No metal-to-metal moving parts
- No maintenance ever required
- Silicone-free lubricant on all seals
- Chrome plated brass ball for longer life
- Each valve is seal tested for maximum safety
- Performs well in any orientation
- Strong configuration

Body
- Hot forged sand blasted, external nickel plated brass body and cap sealed with Loctite® or equivalent thread sealant
- Integrated ISO 5211 and DIN 3337 mounting flange for universal connection to actuator
- Finest brass according to EN 12165 and EN 12164 specifications
- 3-way T- port design for flow mixing

Stem
- Blowout-proof nickel plated brass stem
- Maintenance- free, double FPM O-rings at the stem for maximum safety
- Stem slot shows ball position

Sealing
- Pure PTFE self-lubricating seats with flexible-lip design
- Four seats design for mixing of various fluids in the system

Threads
- ISO 7/1, BS 21 BSPT taper female threads

Flow
- 100% full port for maximum flow

Handle
- Integrated sturdy ISO 5211 flange allows direct mounting of actuators. See ***RuB*** line of electric and pneumatic actuators.

Working pressure & temperature
- 20 bar (300 PSI) non-shock cold working pressure
- -20°C to +150°C (-4°F to +302°F)
- **WARNING:** freezing of the fluid in the installation may severely damage the valve

Options
- Rack and pinion pneumatic actuator (spring return or double acting)
- EN10226-1/ISO228 parallel female threads
- NPT taper ANSI B.1.20.1 female threads
- Lockable handle as accessory
- Various actuator linkage kit

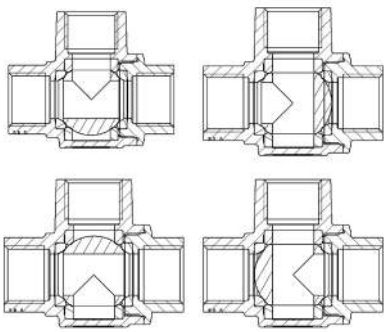
Upon request
- Custom design
- Stainless steel stem
- Configurations with 2 seats & L-port (s.7600)

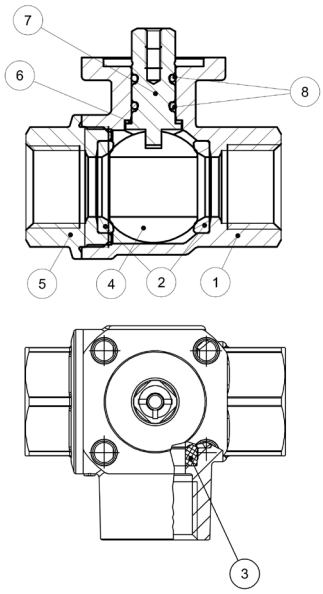
PED directive
- The product meets the requirements of PED Directive 2014/68/UE and according to art.4 par.3, it does not require CE marking.

Approved by or in compliance with
- RoHS Compliant (EU)

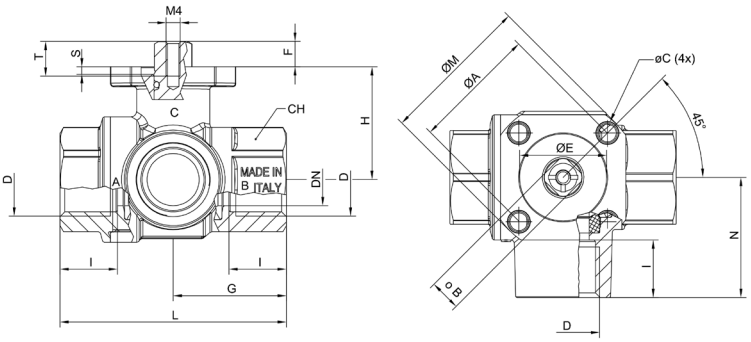
NOTE: approvals apply to specific configurations/sizes only.

s73 3-way "T" port operating positions





	Part description	Q.ty	Material
1	Nickel plated body (external nickel plated, unplated inside)	1	CW617N
2	Seat	2	PTFE
3	Seat	2	PTFE
4	Chrome plated ball	1	CW617N
5	Nickel plated end-cap (external nickel plated, unplated inside)	1	CW617N
6	Washer	1	PTFE carbon filled 25%
7	Nickel plated stem O-ring design	1	CW617N
8	O-Ring	2	FPM



Code	S73D50	S73E50	S73F50
Size (in.) BS21 ISO7/1	Rc 1/2	Rc 3/4	Rc 1"
DN(mm)	15	20	25
I (mm)	15.5	18	21
L (mm)	65	79	92.5
G (mm)	32.5	39.5	46.5
H (mm)	32.5	39.5	42.5
N (mm)	34.5	42	49.5
øA (mm)	36	36	36
øC (mm)	ø5.2 (M6)	ø5.2 (M6)	ø5.2 (M6)
øE (mm)	25	25	25
Square B (mm)	9	9	9
øM (mm)	43.4	43.4	43.4
S (mm)	2.2	2.2	2.2
T (mm)	10	10	10
F (mm)	7.3	8.3	8.3
CH (mm)	27	32	41
Flange connection ISO 5211 DIN3337	F03	F03	F03

Torque for actuator sizing N.m

Delta P -->	0 ÷16 bar	
Valve size	*to open*	*to close*
1/2"	10.5	10.5
3/4"	13	13
1"	29.5	29.5

Torque correction factors

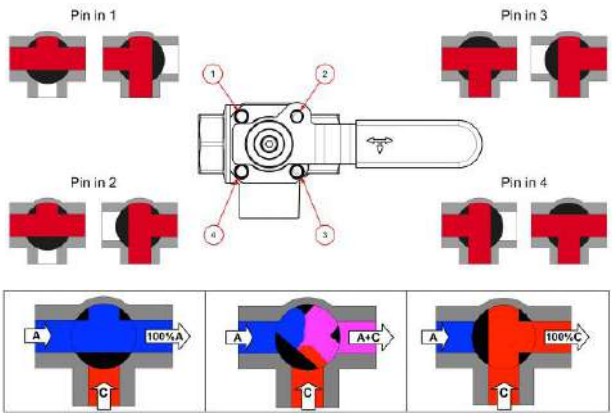
Valve torque can vary according to operating frequency, temperature and friction characteristics of the media.

If media has more or less friction than water, multiply torque by the following factors:

Lubricating oils or liquids	0.8
Dry gases, natural gas	1.5
Slurries or liquids bearing abrasive particles	1.5÷2.5

With the configuration of T-port a stop pin can be fixed in any position of the 4 provided in the flange (1, 2, 3 or 4) and the lever can be rotated freely through 90°, the flow assumes the directions indicated in the diagram; in case of need the lever can be pulled upwards and you can reach any of the four possible positions. An alternative is to mount 2 pins in 2 near holes (e.g. 1 and 2). In this case, the valve does not assume a predetermined position but can be actuated just by pulling the lever towards the top.

The valve allows also to block the lever thanks to the addition of a lock on the lever's protrusion (in the drawing you can see position 2). The mixing configuration is achieved by placing the pin in position 2. The flows to be mixed enter through A and C and exit through A+C.



s.7650 BSPT

3-way 2 seats L-port (diverting)

1/2" - 1"
ISO 5211

The ***RuB*** s.7650 is the right choice for fluid diversion and is designed with robust maintenance-free components ensuring ease of operation and safety.With a simple 90° turn, you can divert flow from one downstream outlet to the other. It combines traditional manual operation with modern automation. It is also very easy to convert from its sturdy lever handle to ISO 5211 actuator flange assembly. It features low operating torque and a special wear reducing self-compensating valve seat design that meets our 100,000 cycle life test requirement. The valve can be purchased separately, with handle or with a ***RuB*** actuator already mounted.

Quality
- Electronic 100% seal test guaranteed
- No metal-to-metal moving parts
- No maintenance ever required
- Silicone-free lubricant on all seals
- Chrome plated brass ball for longer life
- Each valve is seal tested for maximum safety
- Performs well in any orientation
- Strong configuration

Body
- Hot forged sand blasted, external nickel plated brass body and cap sealed with Loctite® or equivalent thread sealant
- Integrated ISO5211 / DIN3337 mounting flange for universal connection to actuator
- Finest brass according to EN 12165 and EN 12164 specifications
- 3-way L-port design for flow diversion

Stem
- Blowout-proof nickel plated brass stem
- Maintenance-free, double O-rings at the stem for maximum safety
- Stem slot shows ball position

Sealing
- Reinforced PTFE self-lubricating seats with flexible-lip and wear compensation design

Threads
- ISO 7/1, BS 21 BSPT taper female threads

Flow
- 100% full port for maximum flow

Handle
- Integrated sturdy ISO 5211 flange allows direct mounting of actuators. See ***RuB*** line of electric and pneumatic actuators.

Working pressure & temperature
- 30 bar (450 PSI) non-shock cold working pressure
- -20°C to +170°C (-4°F to +350°F)
- **WARNING:** freezing of the fluid in the installation may severely damage the valve

Options
- Rack and pinion pneumatic actuator (spring return or double acting)
- Compact Power electric actuator
- EN10226-1/ISO228 female threads
- Female by female NPT threads
- Lockable handle as accessory or already mounted (s.7650L)
- Various actuator linkage kit

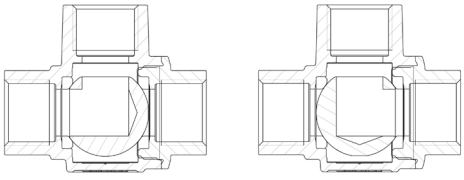
Upon request
- Custom design
- Stainless steel stem
- Configurations with 4 seats, L-port (s.7250) or T-port (s.7350)

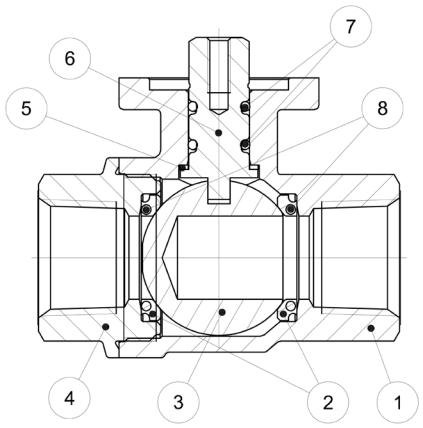
PED directive
- The product meets the requirements of PED Directive 2014/68/UE and according to art.4 par.3, it does not require CE marking.

Approved by or in compliance with
- RoHS Compliant (EU)

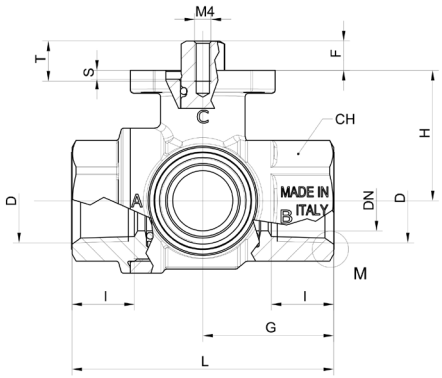
NOTE: approvals apply to specific configurations/sizes only.

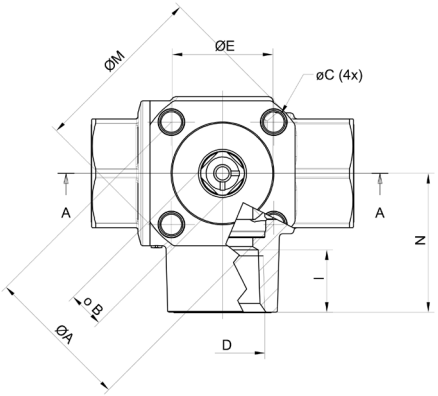
S.76 3-way "L" port operating positions





	Part description	Q.ty	Material
1	Nickel plated body (external nickel plated, unplated inside)	1	CW617N
2	Seat	2	PTFE graphite filled 15%
3	Chrome plated ball	1	CW617N
4	Nickel plated end-cap (external nickel plated, unplated inside)	1	CW617N
5	Washer	1	PTFE carbon filled 25%
6	Nickel plated stem O-ring design	1	CW617N
7	O-Ring	2	FPM
8	O-Ring	2	FPM





Valve code	S76D50	S76E50	S76F50
Size (inch)	Rc 1/2	Rc 3/4	Rc 1"
DN(mm)	15	20	25
I (mm)	15.5	18	21
L (mm)	65	79	92.5
G (mm)	32.5	39.5	46.5
H (mm)	32.5	39.5	42.5
N (mm)	34.5	42	49.5
øA (mm)	36	36	36
øC (mm)	ø5.2 (M6)	ø5.2 (M6)	ø5.2 (M6)
øE (mm)	25	25	25
Square B (mm)	9	9	9
øM (mm)	43.4	43.4	43.4
S (mm)	2.2	2.2	2.2
T (mm)	10	10	10
F (mm)	7.3	8.3	8.3
CH (mm)	27	32	41
Flange connection ISO 5211 DIN3337	F03	F03	F03

Torque for actuator sizing N.m

Delta P -->	0÷16 bar	
Valve size	*to open*	*to close*
1/2"	3,5	3,5
3/4"	4,0	4,0
1"	4,5	4,5

Torque correction factors

Valve torque can vary according to operating frequency, temperature and friction characteristics of the media.

If media has more or less friction than water, multiply torque by the following factors:

Lubricating oils or liquids	0.8
Dry gases, natural gas	1.5
Slurries or liquids bearing abrasive particles	1.5÷2.5

GAS

k.60

1/4" - 2"
EN 10226-1
heavy duty DIN 16722 M3

HIGH TEMPERATURE RESISTANCE
Now approved for **HTB** use (Hochtemperaturbeständigkeit)
Class B 0,1 (0,1 bar @650°C for at least 30 minutes).

Quality
• 24h 100% seal test guaranteed
• Dual sealing system allows valve to be operated in either direction making installation easier
• No metal-to-metal moving parts
• No maintenance ever required
• Handle clearly shows ball position
• Silicone-free lubricant on all seals
• Chrome plated brass ball for longer life
• Handle stops on body to avoid stresses at stem

Body
• Hot forged sand blasted, nickel plated brass body and cap sealed with Loctite® or equivalent thread sealant
• Valve length according to DIN 16722 M3 for sizes from 3/8" to 2" (DN10 to DN50). Size 1/4" (DN 8) complies to DIN 3202 M3.
• Finest brass according to EN 12165 and EN 12164 specifications

Stem
• Blowout-proof nickel plated brass stem
• Maintenance-free, double FPM O-rings at the stem for maximum safety

Sealing
• Pure PTFE self-lubricating seats with flexible-lip design

Threads
• EN 10226-1, ISO 228 parallel female by female threads

Flow
• 100% full port for maximum flow

Handle
• Geomet® carbon steel handle with thick PVC dip coating. Handle coating offers both thermal and electrical protection
• **WARNING:** do not exceed reasonable temperature and/or electrical load

Working pressure & temperature
• 65 bar (940 PSI) up to 1"; 40 bar (600 PSI) over 1" non-shock cold working pressure
• -40°C to +170°C (-40°F to +350°F)
• For use with dangerous fluids temperature rating is -20°C to +60°C (-4°F to +140°F) and pressure rating is 5 bar (72 PSI) / **HTB** Class B 0,1
• **WARNING**: freezing of the fluid in the installation may severely damage the valve

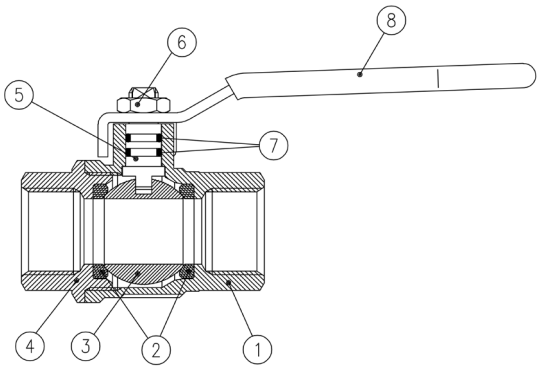
Options
• Stem extension
• T-handle
• Oval lockable handle
• Stainless steel handle (1.4016 / AISI 430)
• Patented locking device
• Stubby handle
• ***RuB*** memory stop designed to be installed with our stubby handle

Upon request
• Stainless steel ball (1.4401 / AISI 316)
• Glass filled PTFE seals
• Custom design

PED directive
• Assessment according to Pressure Equipment Directive 2014/68/UE module B+D by ICIM (0425)

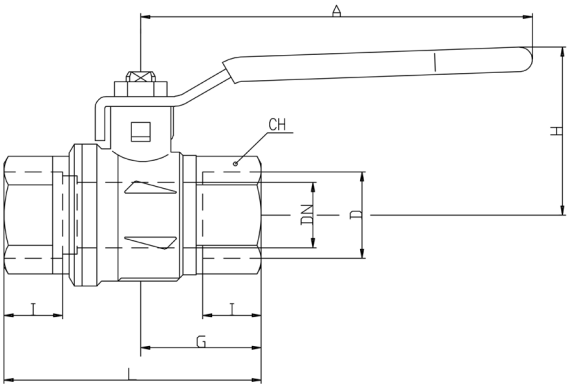
Approved by or in compliance with
• SVGW (Switzerland)
• GOST-R (Russia)
• RoHS Compliant (EU)
• DVGW (Germany) – MOP 5 B 0,1
• EAC – Declaration of conformity (Russia, Kazakhstan, Belarus)

NOTE: approvals apply to specific configurations/sizes only.



1 ¼"-2" hollow ball

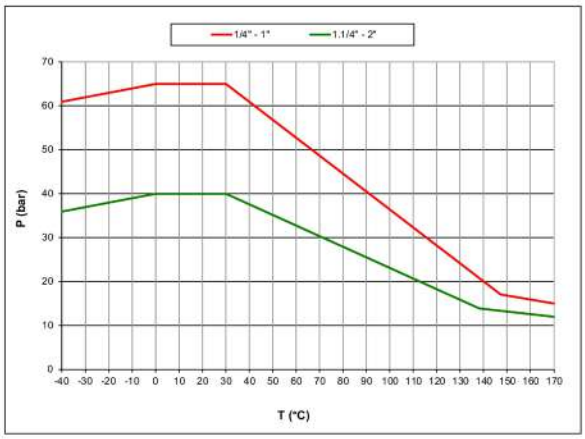
	Part description	Q.ty	Material
1	Nickel plated body	1	CW617N
2	Seat	2	PTFE
3	Chrome plated ball	1	CW617N
4	Nickel plated end-cap	1	CW617N
5	Nickel plated stem O-ring design	1	CW617N
6	Geomet® nut	1	CB4FF (EN10263-2)
7	O-Ring	2	FPM
8	Yellow PVC coated Geomet® steel handle	1	DD11 (EN10111)



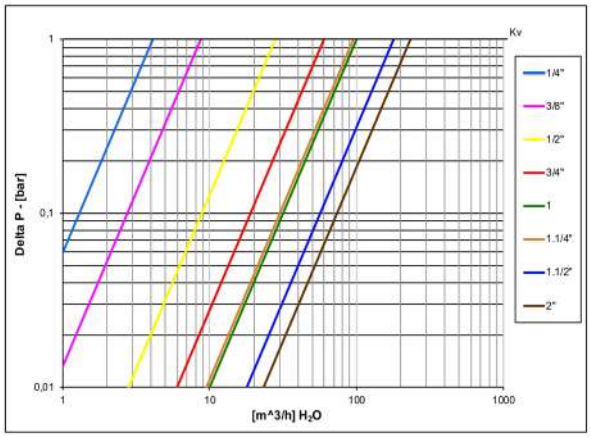
						Compliant to CE 2014/68/UE product Equipment category III Module B+D		
Code	S60B05	S60C05	S60D05	S60E05	S60F05	S60G05	S60H05	S60I05
D (inch)	1/4	3/8	1/2	3/4	1	1 1/4	1 1/2	2
DN (mm)	8	10	15	20	25	32	40	50
I (mm)	12.5	12.5	15.5	18	21	23	24.5	26.5
L (mm)	50	60	75	80	90	110	120	140
G (mm)	25.5	25.5	30.5	37	45.5	52	59	67.5
A (mm)	82	82	100	120	120	158	158	158
H (mm)	40	40	43	51.5	55.5	75	81	88.5
CH (mm)	22	22	27	32	41	50	55	70
PN (bar)	65	65	65	65	65	40	40	40
Kv (m3/h)	4.1	8.7	28	60	100	95	179	233

Ball valves are marked CE on handle from 1 ¼" to 2" as follow:
CE 0425 cat IIIB+D PS: 5 GAS TS1: -20°C TS2: +60°C

Pressure-temperature chart



Pressure drop chart



k.84

1/4" - 2"
EN 10226-1
DIN 16722 M3

HIGH TEMPERATURE RESISTANCE
Now approved for **HTB** use (Hochtemperaturbeständigkeit)
Class B 0,1 (0,1 bar @650°C for at least 30 minutes).

Quality
• 24h 100% seal test guaranteed
• Dual sealing system allows valve to be operated in either direction making installation easier
• No metal-to-metal moving parts
• No maintenance ever required
• Handle clearly shows ball position
• Silicone-free lubricant on all seals
• Handle stops on body to avoid stresses at stem
• Chrome plated brass ball for longer life with rinse hole

Body
• Valve length according to DIN 16722 M3 for sizes from 3/8" to 2" (DN10 to DN50). Size 1/4" (DN 8) complies to DIN 3202 M3.
• Finest brass according to EN 12165 and EN 12164 specifications
• Hot forged sand blasted external nickel plated brass body and cap sealed with Loctite® or equivalent threads sealant

Stem
• Blowout-proof nickel plated brass stem
• Maintenance-free, double FPM O-rings at the stem for maximum safety

Sealing
• Pure PTFE self-lubricating seats with flexible-lip design

Threads
• EN 10226-1, ISO 7/1, ISO 228 parallel female by female threads

PED Directive
• Assessment according to Pressure Equipment Directive 2014/68/UE module B+D by ICIM (0425)

Flow
• Full port to DIN 3357 for maximum flow

Handle
• Geomet® carbon steel handle with thick PVC dip coating. Handle coating offers both thermal and electrical protection
• **WARNING:** do not exceed reasonable temperature and/or electrical load
• Handle removable with valve in service

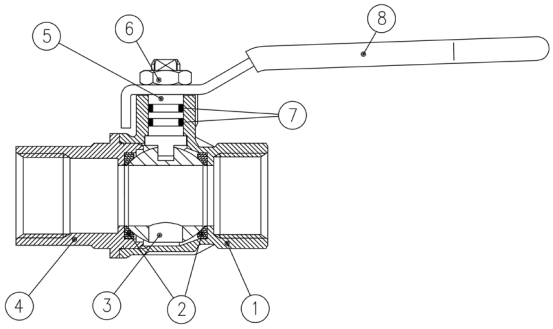
Working pressure & temperature
• 40 bar (600 PSI) non-shock cold working pressure
• -40°C to +170°C (-40°F to +350°F)
• For use with dangerous fluids temperature rating is -20°C to +60°C (-4°F to +140°F) and pressure rating is 5 bar (72 PSI) / **HTB** Class B 0,1
• **WARNING:** freezing of the fluid in the installation may severely damage the valve

Options
• Stem extension
• T-handle
• Oval lockable handle
• Stainless steel handle (1.4016 / AISI 430)
• Patented locking device
• Stubby handle
• ***RuB*** memory stop designed to be installed with our stubby handle

Upon request
• Stainless steel ball (1.4401 / AISI 316)
• Glass filled PTFE seals
• Custom design

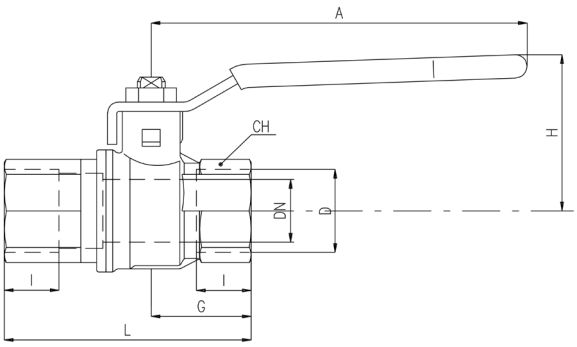
Approved by or in compliance with
• BSI Group (United Kingdom)
• SVGW (Switzerland)
• RoHS Compliant (EU)
• DIN-DVGW (Germany) – MOP 5 B 0,1
• GOST-R (Russia)
• EAC – Declaration of conformity (Russia, Kazakhstan, Belarus)

NOTE: approvals apply to specific configurations/sizes only.



1 ¼"-2" hollow ball

	Part description	Q.ty	Material
1	Nickel plated body (external treatment)	1	CW617N
2	Ball seat	2	PTFE
3	Chrome plated ball with rinse hole (read rinse hole on sizes from 3/4" up to 2")	1	CW617N
4	Nickel plated end-cap (external treatment)	1	CW617N
5	Nickel plated stem O-ring design	1	CW617N
6	Geomet® nut	1	CB4FF (EN10263-2)
7	O-Ring	2	FPM
8	Yellow PVC coated Geomet® steel handle	1	DD11 (EN10111)

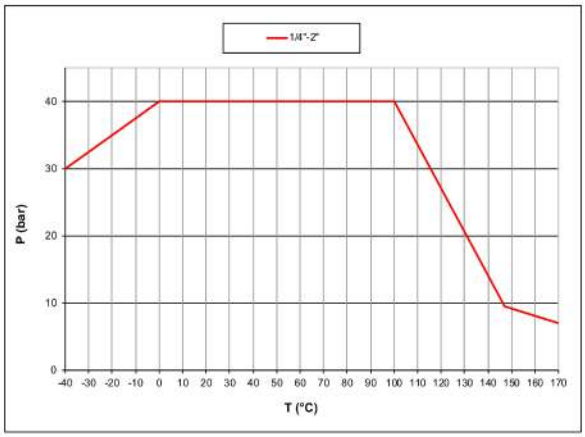


Compliant to CE 2014/68/UE product Equipment category III Module B+D

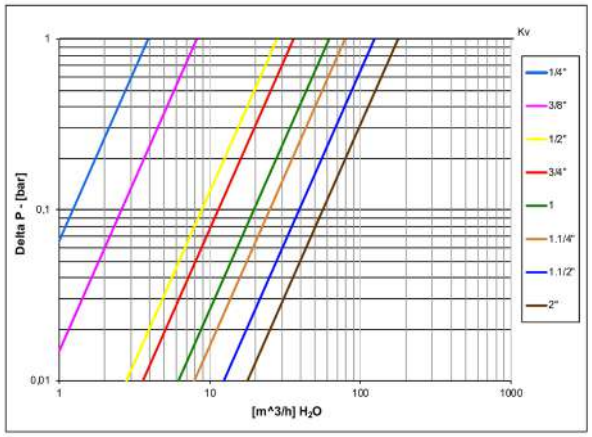
Code	S84B05	S84C05	S84D05	S84E05	S84F05	S84G05	S84H05	S84I05
D (inch)	1/4	3/8	1/2	3/4	1	1 1/4	1 1/2	2
DN (mm)	8	10	15	20	25	32	40	50
I (mm)	12	12	15.5	17	21	23	23	26.5
L (mm)	50	60	75	80	90	110	120	140
G (mm)	22.5	22.5	29.5	32	40.5	46.5	51	60.5
A (mm)	82	82	100	120	120	158	158	158
H (mm)	38	38	43	50	54	73	79	86
CH (mm)	20	20	25	31	40	49	54	68.5
Kv (m3/h)	3.9	8.2	28	36	62	79	124	178

DN shows the nominal flow diameter. Actual flow diameter complies with full port DIN 3357 part 4.
Ball valves are marked CE on handle from 1 ¼" to 2" as follow:
CE 0425 cat IIIB+D PS: 5 GAS TS1:-20°C TS2:+60°C

Pressure-temperature chart



Pressure drop chart



s.84 EN331

1/4" - 4"
EN 10226-1

HIGH TEMPERATURE RESISTANCE
Now approved for **HTB** use (Hochtemperaturbeständigkeit)
Class B 0,1 (0,1 bar @650°C for at least 30 minutes).

Quality
• 24h 100% seal test guaranteed
• Dual sealing system allows valve to be operated in either direction making installation easier
• No metal-to-metal moving parts
• No maintenance ever required
• Handle clearly shows ball position
• Silicone-free lubricant on all seals
• Handle stops on body to avoid stresses at stem
• Chrome plated brass ball for longer life with rinse hole

Body
• Hot forged sand blasted external nickel plated brass body and cap sealed with Loctite® or equivalent thread sealant
• Finest brass according to EN 12165 and EN 12164 specifications

Stem
• Blowout-proof nickel plated brass stem
• Maintenance-free, double FPM O-rings at the stem for maximum safety

Sealing
• Pure PTFE self-lubricating seats with flexible-lip design

Threads
• EN 10226-1, ISO 228 parallel female by female threads

Upon request
• Stainless steel ball (1.4401 / AISI 316)
• Glass filled PTFE seals
• Custom design

PED directive
• Assessment according to Pressure Equipment Directive 2014/68/UE module B+D by ICIM (0425)

Flow
• Full port to DIN 3357 for maximum flow

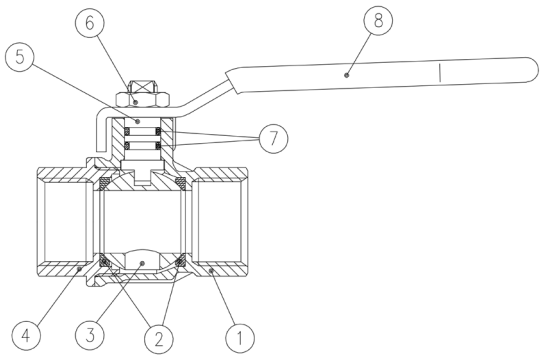
Handle
• Geomet® carbon steel handle with thick PVC dip coating. Handle coating offers both thermal and electrical protection
• **WARNING:** do not exceed reasonable temperature and/or electrical load
• Handle removable with valve in service

Working pressure & temperature
• 40 bar (600 PSI) up to 2", 30 bar (450 PSI) over 2" non-shock cold working pressure
• -40°C to +170°C (-40°F to +350°F)
• For use with dangerous fluids temperature rating is -20°C +60°C and pressure rating is 5 bar / **HTB** Class B 0,1
• AS4617 Limitation for GAS: 2100 Kpa up to 2" and 1500 Kpa from 2 ½" to 4" rated working pressure and 0°C / +60°C temperature
• **WARNING:** freezing of the fluid in the installation may severely damage the valve

Options up to 2" size
• Stem extension
• T-handle
• Stainless steel handle (1.4016 / AISI 430)
• Taper male by parallel female threads up to 4"
• Oval lockable handle up to 2", round over 2"
• Patented locking device for valves up to 4"
• Stubby handle
• ***RuB*** memory stop designed to be installed with our stubby handle

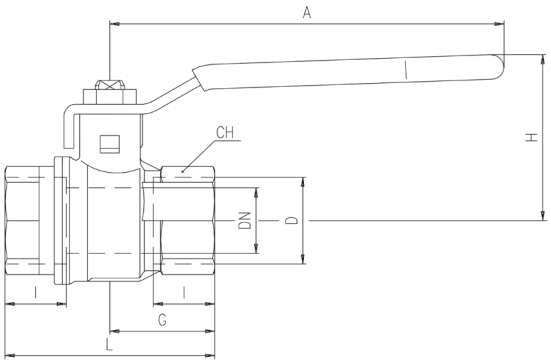
Approved by or in compliance with
• The Australian Gas Association (Australia)
• SVGW (Switzerland)
• Factory Mutual (United States)
• BSI Group (United Kingdom)
• RoHS Compliant (EU)
• GOST-R (Russia)
• DIN-DVGW (Germany) – MOP 5 B 0,1
• EAC – Declaration of conformity (Russia, Kazakhstan, Belarus)
• ARGB-KVBG (Belgium) – MOP 5 bar for outside building gas installation, MOP 100 mbar for inside the buildings

NOTE: approvals apply to specific configurations/sizes only.



1 ¼" - 2" hollow ball

	Part description	Q.ty	Material
1	Nickel plated body (external nickel plated, unplated inside up to 2")	1	CW617N
2	Seat	2	PTFE
3	Chrome plated ball with rinse hole (read rinse hole on sizes from 3/4" up to 2")	1	CW617N
4	Nickel plated end-cap (external nickel plated, unplated inside up to 2")	1	CW617N
5	Nickel plated stem O-ring design	1	CW617N
6	Geomet® nut	1	CB4FF (EN10263-2)
7	O-Ring	2	FPM
8	Yellow PVC coated Geomet® steel handle	1	DD11 (EN10111)

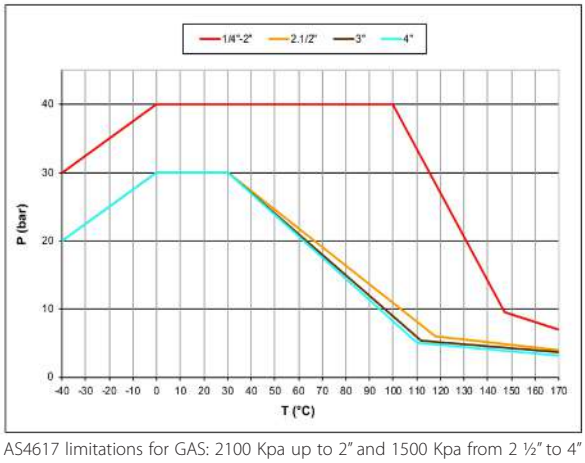


Compliant to CE 2014/68/UE product Equipment category III Module B+D

Code	S84B00	S84C00	S84D00	S84E00	S84F00	S84G00	S84H00	S84I00	S84L00	S84M00	S84N00
D (Inch)	1/4	3/8	1/2	3/4	1	1 1/4	1 1/2	2	2 1/2	3	4
DN (mm)	8	10	15	20	25	32	40	50	65	80	100
I (mm)	12	12	15.5	17	21	23	23	26.5	32	35	41.5
L (mm)	45	45	59	64	81	93	102	121	156	177	216
G (mm)	22.5	22.5	29.5	32	40.5	46.5	51	60.5	78	88.5	108
A (mm)	82	82	100	120	120	158	158	158	255	255	255
H (mm)	38	38	43	50	54	73	79	86	132	140	154
CH (mm)	20	20	25	31	40	49	54	68.5	85	99	125
Kv (m3/h)	3.9	8.2	28	36	62	79	124	178	516	776	1130

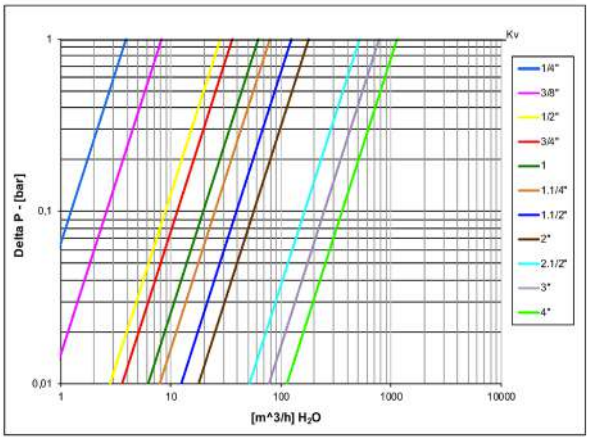
DN shows the nominal flow diameter. Actual flow diameter complies with full port DIN 3357 part 4. Stem configuration of valves over 2" is slightly different.
Ball valves are marked CE on handle from 1 ¼" to 2", on body over 2" as follow:
CE 0425 cat IIIB+D PS: 5 GAS TS1: -20°C TS2: +60°C

Pressure-temperature chart



AS4617 limitations for GAS: 2100 Kpa up to 2" and 1500 Kpa from 2 ½" to 4" rated working pressure and 0°C +60°C temperature

Pressure drop chart



s.128A

3/4" Y-strainer

Quality

• Suitable for gas, industrial, pneumatic and hydraulic installations

Body

• Hot forged sand blasted, nickel plated brass body

• Stainless steel (1.4301 / AISI 304) filter

• Degree of filtration: 50µm

Threads

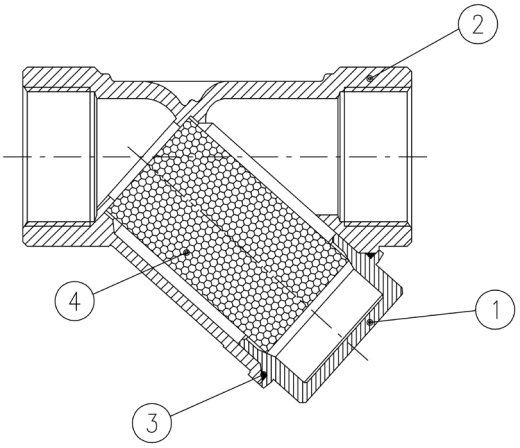
• ISO 228/1 female by female parallel threads and inspection plug

Working pressure & temperature

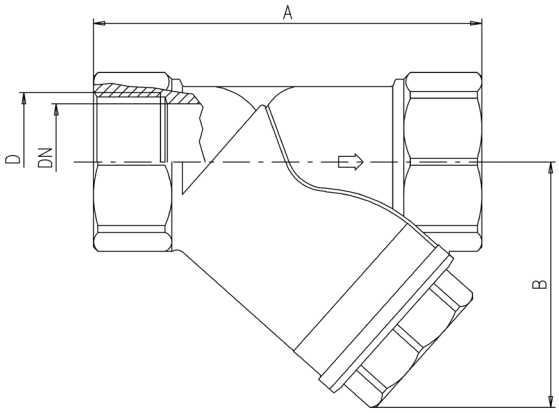
• 6 bar non-shock cold working pressure

• -40°C to +60°C (-40°F to +140°F)

• **WARNING:** freezing of the fluid in the installation may severely damage the valve



	Part description	Q.ty	Material
1	Nickel plated end-cap	1	CW617N
2	Nickel plated body	1	CW617N
3	O-ring	1	NBR
4	Stainless steel strainer 50µm	1	1.4301 / AISI 304



D (inch)	3/4
A (mm)	70
B (mm)	48
DN	20

s.92 NPT

1/4" - 4"
packing gland

Quality
- 24h 100% seal test guaranteed
- Dual sealing system allows valve to be operated in either direction making installation easier
- No metal-to-metal moving parts
- Handle clearly shows ball position
- Silicone-free lubricant on all seals
- Chrome plated brass ball for longer life
- Handle stops on body to avoid stresses at stem

Body
- Hot forged sand blasted, unplated brass body and cap sealed with Loctite® or equivalent thread sealant
- Finest brass according to EN 12165 and EN 12164 specifications

Stem
- Blowout-proof nickel plated brass stem
- Pure PTFE adjustable packing gland and reinforced washer for lower torque and easy maintenance
- Triple stem seals in sizes over 2"

Sealing
- Glass filled pure PTFE self-lubricating seats with flexible-lip design

Threads
- NPT taper ANSI B. 1.20.1 female by female threads

Flow
- Full port to DIN 3357 for maximum flow

Handle
- Geomet® carbon steel handle with thick PVC dip coating. Handle coating offers both thermal and electrical protection
- **WARNING:** do not exceed reasonable temperature and/or electrical load

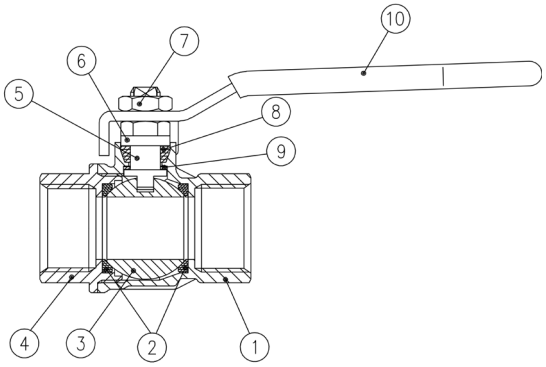
Working pressure & temperature
- 600 PSI (40 bar) up to 2", 450 PSI (30 bar) over 2", (150 WSP -10 bar all sizes) non-shock cold working pressure
- 250 PSI (17 bar) non-shock working pressure for LP-Gas
- *150 psig (10 bar) non-shock steam working pressure. Not suitable for throttling steam
- -40°F/+366°F (-40°C / +170°C)
- **WARNING:** freezing of the fluid in the installation may severely damage the valve

Options up to 2" size
- Stem extension
- Lead free for safe drinking water (0.25% or less Pb)
- T-handle
- Stainless steel handle (1.4016 / AISI 430)
- Oval lockable handle up to 2", round over 2"
- Patented locking device for valves up to 4"
- Male by female NPT threads up to 4"
- Stubby handle

Upon request
- Stainless steel ball and/or stem (1.4401 / AISI 316)
- Custom design
- Pure PTFE seals

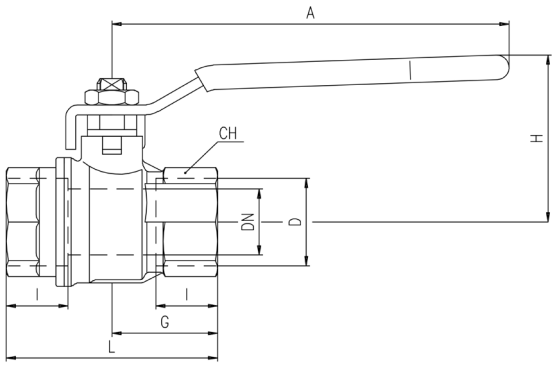
Approved by or in compliance with
- Canadian standards Association (United States, Canada)
- Factory Mutual (United States)
- RoHS Compliant (EU)
- GOST-R (Russia)
- Underwriters Laboratories (United States, Canada):
  - Guide YSDT: LP-Gas shut-off valve
  - Guide YRBX: Flammable liquid shut-off valve
  - Guide YRPV: Gas shut-off valve for use with natural and manufactured gases
  - Guide MHKZ: No. 6 oil at 250°F
- CRN-TSSA acc. to MSS SP110 (Canada)
- Kuwait Fire Service Directorate (Kuwait)
- Meeting WW-V-35C Federal U.S. Specification (United States)

NOTE: approvals apply to speficic configurations/sizes only.



1 ¼"-2" hollow ball

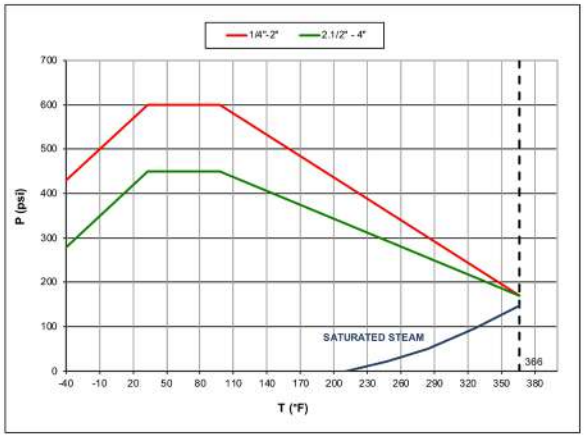
	Part description	Q.ty	Material
1	Unplated NPT body	1	CW617N
2	Seat	2	PTFE glass filled 5-15%
3	Chrome plated ball	1	CW617N
4	Unplated NPT end-cap	1	CW617N
5	Nickel plated stem packing gland design	1	CW617N
6	Nickel plated gland nut	1	CW617N
7	Geomet® nut	1	CB4FF (EN10263-2)
8	Packing gland seal	1	PTFE
9	Washer	1	PTFE carbon filled 25%
10	Yellow PVC coated Geomet® steel handle	1	DD11 (EN10111)



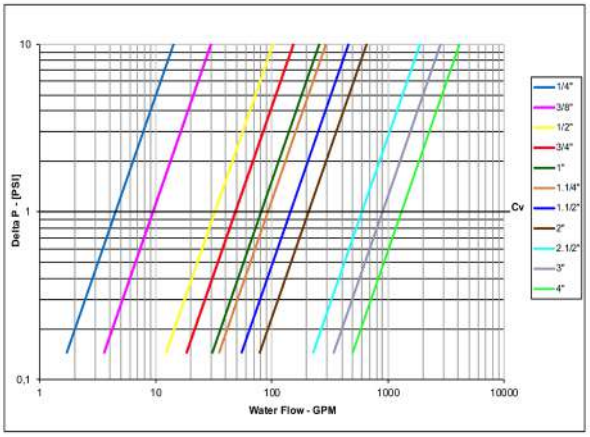
Code	S92B41	S92C41	S92D41	S92E41	S92F41	S92G41	S92H41	S92I41	S92L41	S92M41	S92N41
D (inch)	1/4	3/8	1/2	3/4	1	1 1/4	1 1/2	2	2 1/2	3	4
DN (inch)	0.314	0.393	0.590	0.787	0.984	1.259	1.574	1.968	2.559	3.149	3.937
I (inch)	0.472	0.472	0.610	0.669	0.826	0.905	0.905	1.043	1.260	1.377	1.633
L (inch)	1.771	1.771	2.322	2.519	3.188	3.661	4.015	4.763	6.141	6.968	8.504
G (inch)	0.885	0.885	1.161	1.259	1.594	1.830	2.007	2.381	3.070	3.484	4.252
A (inch)	3.228	3.228	3.937	4.724	4.724	6.220	6.220	6.220	10.039	10.039	10.039
H (inch)	1.563	1.563	1.695	1.988	2.153	2.988	3.236	3.500	5.196	5.511	6.062
CH (inch)	0.787	0.787	0.984	1.220	1.574	1.929	2.125	2.696	3.346	3.897	4.921
Cv (GPM)	4.5	9.5	32.3	48.5	80.9	92.4	144.4	206.8	596.2	896.5	1305.5

DN shows the nominal flow diameter. Actual flow diameter complies with full port DIN 3357 part 4. Stem configuration od valves over 2" is slightly different.

Pressure-temperature chart



Pressure drop chart



s.92 NPT M/F

1/2" - 2"
packing gland

Quality

- 24h 100% seal test guaranteed
- Dual sealing system allows valve to be operated in either direction making installation easier
- No metal-to-metal moving parts
- Handle clearly shows ball position
- Silicone-free lubricant on all seals
- Chrome plated brass ball for longer life
- Handle stops on body to avoid stress at stem

Body

- Hot forged sand blasted, unplated brass body and cap sealed with Loctite® or equivalent thread sealant
- Finest brass according to EN 12165 and EN 12164 specifications

Stem

- Blowout-proof nickel plated brass stem
- Pure PTFE adjustable packing gland and reinforced washer for lower torque and easy maintenance
- Triple stem seals in sizes over 2"

Sealing

- Glass filled pure PTFE self-lubricating seats with flexible-lip design

Threads

- NPT taper ANSI B.1.20.1 male by female threads

Flow

- Full port to DIN 3357 for maximum flow

Handle

- Geomet® carbon steel handle with thick PVC dip coating. Handle coating offers both thermal and electrical protection
- **WARNING:** do not exceed reasonable temperature and/or electrical load

Working pressure & temperature

- 600 PSI (40 bar) up to 2", 450 PSI (30 bar) over 2", (150 WSP -10 bar all sizes) non-shock cold working pressure
- 250 PSI (17 bar) non-shock working pressure for LP-Gas
- *150 psig (10 bar) non-shock steam working pressure. Not suitable for throttling steam
- -40°F/+366°F (-40°C / +170°C)
- **WARNING:** freezing of the fluid in the installation may severely damage the valve

Options up to 2" size

- Stem extension
- T-handle
- Stainless steel handle (1.4016 / AISI 430)
- Oval lockable handle up to 2", round over 2"
- Patented locking device for valves up to 4"
- Female by female NPT threads up to 4"
- Stubby handle

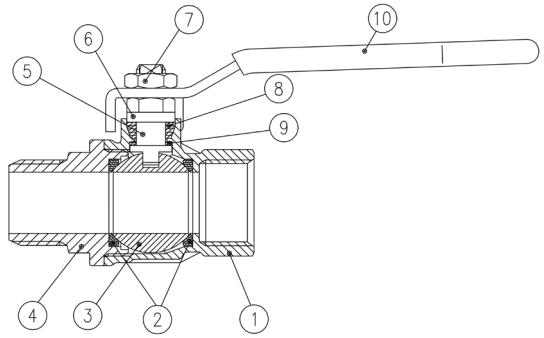
Upon request

- Stainless steel ball and/or stem (1.4401 / AISI 316)
- Custom design
- Pure PTFE seals

Approved by or in compliance with

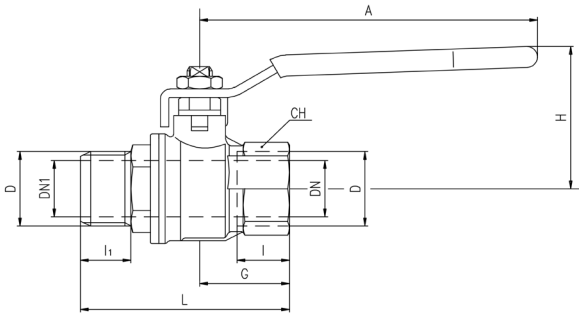
- Canadian standards Association (United States, Canada)
- Factory Mutual (United States)
- GOST-R (Russia)
- RoHS Compliant (EU)
- Meeting WW-V-35C Federal U.S. Specification (United States)
- Underwriters Laboratories (United States, Canada):
  - Guide YSDT: LP-Gas shut-off valve
  - Guide YRBX: Flammable liquid shut-off valve
  - Guide YRPV: Gas shut-off valve for use with natural and manufactured gases
  - Guide MHKZ: No. 6 oil at 250°F

NOTE: approvals apply to specific configurations/sizes only.



1 ¼"-2" hollow ball

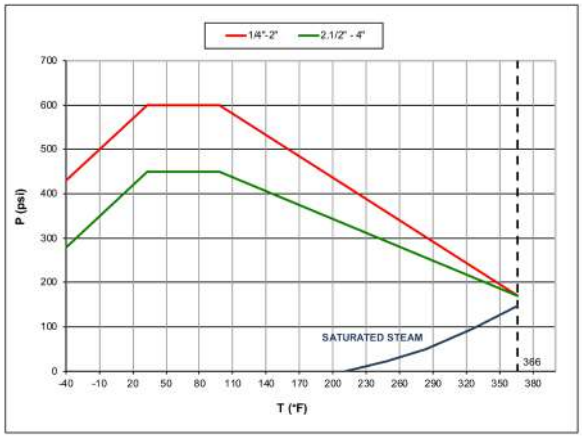
	Part description	Qty	Material
1	Unplated body	1	CW617N
2	Seat	2	PTFE glass filled 5-15%
3	Chrome plated ball	1	CW617N
4	Unplated NPT end-cap	1	CW617N
5	Nickel plated stem packing gland design	1	CW617N
6	Nickel plated gland nut	1	CW617N
7	Geomet® nut	1	CB4FF (EN10263-2)
8	Packing gland seal	1	PTFE
9	Washer	1	PTFE carbon filled 25%
10	Yellow PVC coated Geomet® steel handle	1	DD11 (EN10111)



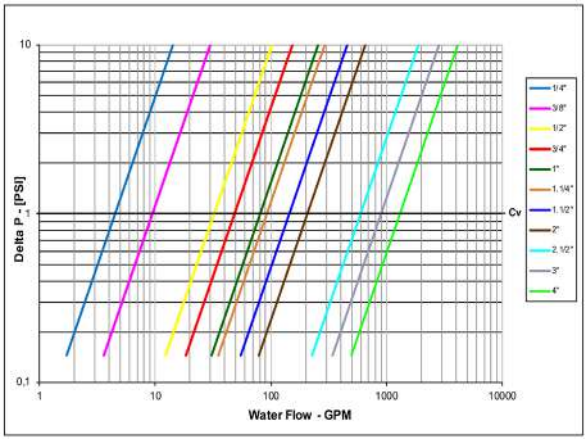
Code	S92B42	S92C42	S92D42	S92E42	S92F42	S92G42	S92H42	S92I42	S92L42	S92M42	S92N42
D (inch)	1/4	3/8	1/2	3/4	1	1 1/4	1 1/2	2	2 1/2	3	4
DN (inch)	0.314	0.393	0.590	0.787	0.984	1.259	1.574	1.968	2.559	3.149	3.937
DN1 (inch)	0.314	0.393	0.590	0.787	0.984	1.259	1.574	1.968	2.205	2.756	3.701
l (inch)	0.472	0.472	0.610	0.669	0.826	0.905	0.905	1.043	1.260	1.377	1.633
l 1 (inch)	0.531	0.531	0.650	0.709	0.866	0.945	0.845	1.083	1.457	1.555	1.732
L (inch)	2.224	2.224	2.756	2.992	3.642	4.173	4.449	5.236	7.106	8.051	9.370
G (inch)	0.885	0.885	1.161	1.259	1.594	1.830	2.007	2.381	3.070	3.484	4.252
A (inch)	3.228	3.228	3.937	4.724	4.724	6.220	6.220	6.220	10.039	10.039	10.039
H (inch)	1.563	1.563	1.695	1.988	2.153	2.988	3.236	3.500	5.196	5.511	6.062
CH (inch)	0.787	0.787	0.984	1.220	1.574	1.929	2.125	2.696	3.346	3.897	4.921
Cv (GPM)	4.5	9.5	32.3	48.5	80.9	92.4	144.4	206.8	596.2	896.5	1305.5

DN shows the nominal flow diameter. Actual flow diameter complies with full port DIN 3357 part4. Stem configuration of valves over 2" is slightly different.

Pressure-temperature chart



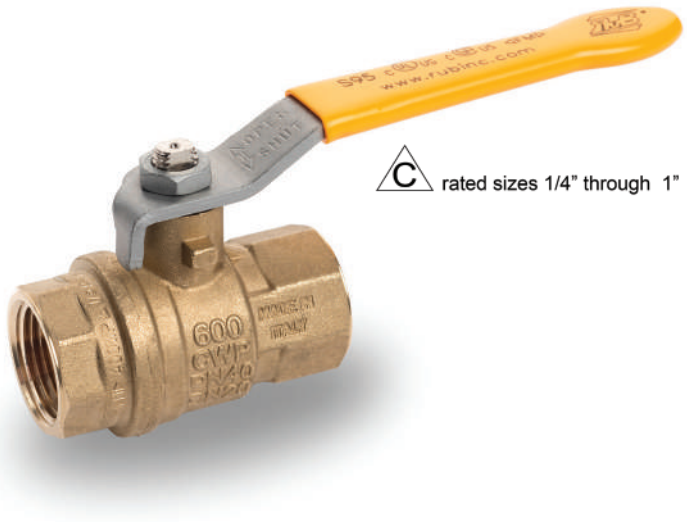
Pressure drop chart



XCES92M - 4314

s.95 NPT

1/4" - 4"



Quality
• 24h 100% seal test guaranteed
• Dual sealing system allows valve to be operated in either direction making installation easier
• No metal-to-metal moving parts
• No maintenance ever required
• Handle clearly shows ball position
• Silicone-free lubricant on all seals
• Chrome plated brass ball for longer life
• Handle stops on body to avoid stresses at stem

Body
• Hot forged sand blasted, unplated brass body and cap sealed with Loctite® or equivalent thread sealant
• Finest brass according to EN 12165 and EN 12164 specifications

Stem
• Blowout-proof nickel plated brass stem
• Maintenance-free, double FPM O-rings at the stem for maximum safety

Sealing
• Pure PTFE self-lubricating seats with flexible-lip design

Threads
• NPT taper ANSI B.1.20.1 female by female threads

Flow
• Full port to DIN 3357 for maximum flow

Handle
• Geomet® carbon steel handle with thick PVC dip coating. Handle coating offers both thermal and electrical protection
• **WARNING:** do not exceed reasonable temperature and/or electrical load
• Handle removable with valve in service

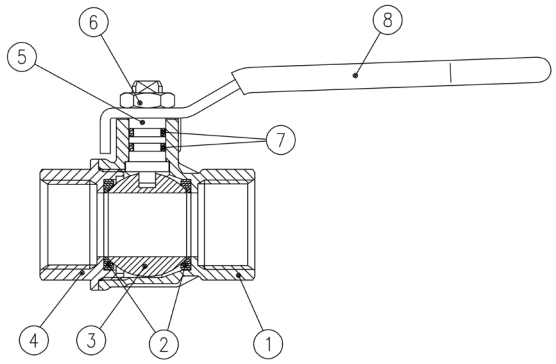
Working pressure & temperature
• 600 PSI (40 bar) up to 2", 450 PSI (30 bar) over 2" non-shock cold working pressure
• 250 PSI (17 bar) non-shock working pressure for LP-Gas
• -40°F/+350°F (-40°C / +170°C)
• **WARNING:** freezing of the fluid in the installation may severely damage the valve

Options up to 2" size
• Stem extension
• T-handle
• Stainless steel handle (1.4016 / AISI 430)
• Oval lockable handle up to 2", round over 2"
• Patented locking device for valves up to 4"
• Stubby handle
• ***RuB*** memory stop designed to be installed with our stubby handle

Upon request
• Stainless steel ball (1.4401 / AISI 316)
• Glass filled PTFE seals
• Custom design
• Special configuration for industrial oxygen application

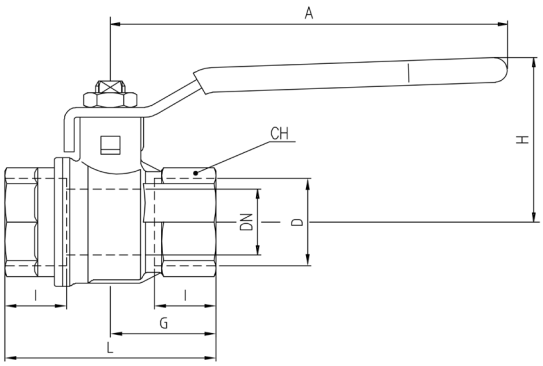
Approved by or in compliance with
• Canadian standards Association (United States, Canada)
• Factory Mutual (United States)
• RoHS Compliant (EU)
• GOST-R (Russia)
• Underwriters Laboratories (United States, Canada):
  - Guide YSDT: LP-Gas shut-off valve
  - Guide YRBX: Flammable liquid shut-off valve
  - Guide YRPV: Gas shut-off valve for use with natural and manufactured gases
  - Guide MHKZ: No. 6 oil at 250°F
• CRN-TSSA acc. to MSS SP110 (Canada)
• Meeting WW-V-35C Federal U.S. Specification (United States)

NOTE: approvals apply to specific configurations/sizes only.



	Part description	Q.ty	Material
1	Unplated NPT body	1	CW617N
2	Seat	2	PTFE
3	Chrome plated ball	1	CW617N
4	Unplated NPT end-cap	1	CW617N
5	Nickel plated stem O-ring design	1	CW617N
6	Geomet® nut	1	CB4FF (EN10263-2)
7	O-Ring	2	FPM
8	Yellow PVC coated Geomet® steel handle	1	DD11 (EN10111)

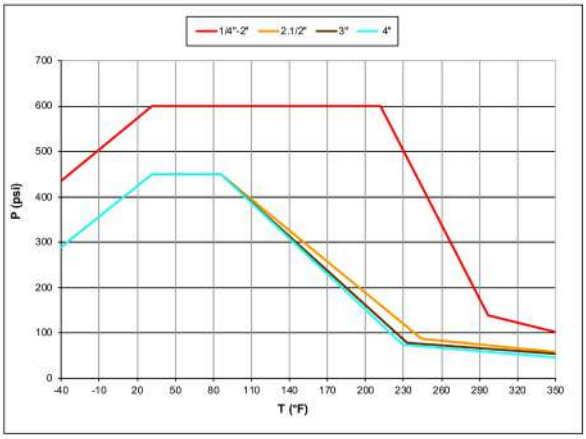
1 ¼"-2" hollow ball



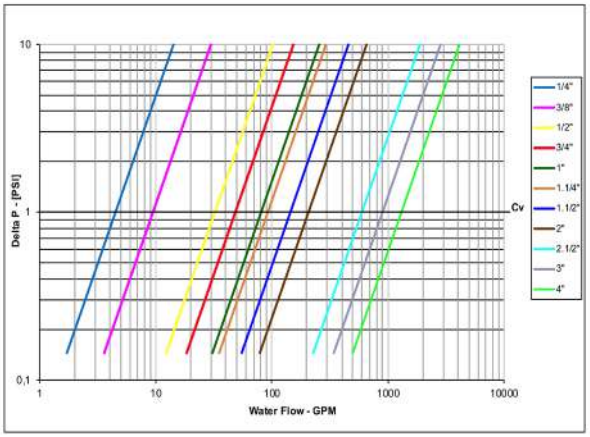
Code	S95B41	S95C41	S95D41	S95E41	S95F41	S95G41	S95H41	S95I41	S95L41	S95M41	S95N41
D (inch)	1/4	3/8	1/2	3/4	1	1 1/4	1 1/2	2	2 1/2	3	4
DN (inch)	0.314	0.393	0.590	0.787	0.984	1.259	1.574	1.968	2.559	3.149	3.937
I (inch)	0.472	0.472	0.610	0.669	0.826	0.905	0.905	1.043	1.260	1.377	1.633
L (inch)	1.771	1.771	2.322	2.519	3.188	3.661	4.015	4.763	6.141	6.968	8.504
G (inch)	0.885	0.885	1.161	1.259	1.594	1.830	2.007	2.381	3.070	3.484	4.252
A (inch)	3.228	3.228	3.937	4.724	4.724	6.220	6.220	6.220	10.039	10.039	10.039
H (inch)	1.563	1.563	1.695	1.988	2.153	2.988	3.236	3.500	5.196	5.511	6.062
CH (inch)	0.787	0.787	0.984	1.220	1.574	1.929	2.125	2.696	3.346	3.897	4.921
Cv (GPM)	4.5	9.5	32.3	48.5	80.9	92.4	144.4	206.8	596.2	896.5	1305.5

DN shows the nominal flow diameter. Actual flow diameter complies with full port DIN 3357 part 4. Stem configuration of valves over 2" is slightly different.

Pressure-temperature chart

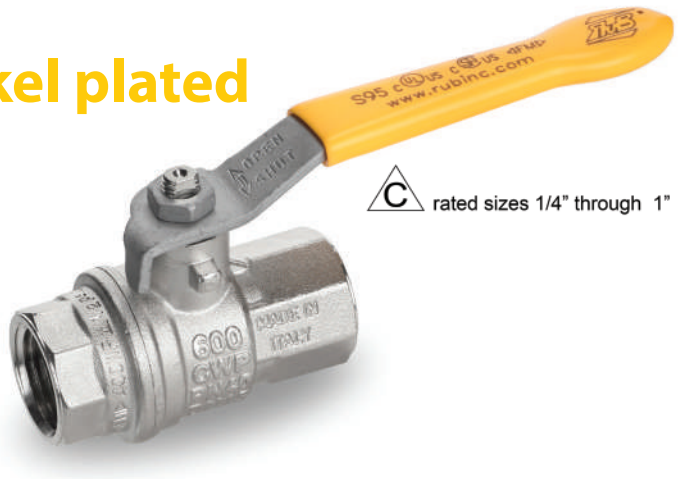


Pressure drop chart



s.95 NPT nickel plated

1/4" - 4"



Quality

- 24h 100% seal test guaranteed
- Dual sealing system allows valve to be operated in either direction making installation easier
- No metal-to-metal moving parts
- No maintenance ever required
- Handle clearly shows ball position
- Silicone-free lubricant on all seals
- Chrome plated brass ball for longer life
- Handle stops on body to avoid stress at stem

Body

- Hot forged sand blasted, nickel plated brass body and cap sealed with Loctite® or equivalent thread sealant
- Finest brass according to EN 12165 and EN 12164 specifications

Stem

- Blowout-proof nickel plated brass stem
- Maintenance-free, double FPM O-rings at the stem for maximum safety

Sealing

- Pure PTFE self-lubricating seats with flexible-lip design

Threads

- NPT taper ANSI B.1.20.1 female by female threads

Flow

- Full port to DIN 3357 for maximum flow

Handle

- Geomet® carbon steel handle with thick PVC dip coating. Handle coating offers both thermal and electrical protection
- Handle removable with valve in service
- **WARNING:** do not exceed reasonable temperature and/or electrical load

Working pressure & temperature

- 600 PSI (40 bar) up to 2", 450 PSI (30 bar) over 2" non-shock cold working pressure
- 250 PSI (17 bar) non-shock working pressure for LP-Gas
- -40°F/+350°F (-40°C / +170°C)
- **WARNING:** freezing of the fluid in the installation may severely damage the valve

Options up to 2" size

- Stem extension
- T-handle
- Stainless steel handle (1.4016 / AISI 430)
- Oval lockable handle up to 2", round over 2"
- Patented locking device for valves up to 4"
- Stubby handle
- ***RuB*** memory stop designed to be installed with our stubby handle

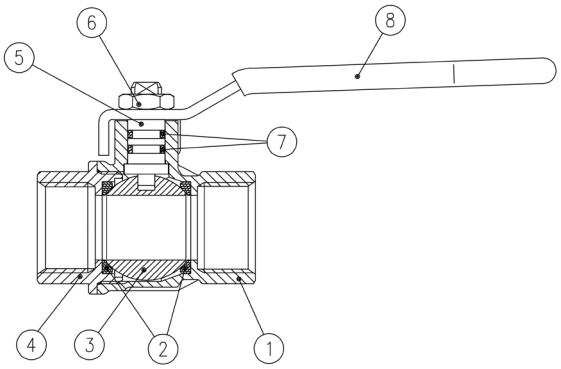
Upon request

- Stainless steel ball (1.4401 / AISI 316)
- Glass filled PTFE seals
- Custom design
- Special configuration for industrial oxygen application

Approved by or in compliance with

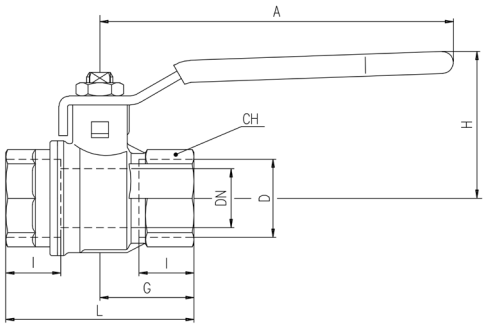
- Canadian standards Association (United States, Canada)
- Factory Mutual (United States)
- RoHS Compliant (EU)
- GOST-R (Russia)
- Underwriters Laboratories (United States, Canada):
  - Guide YSDT: LP-Gas shut-off valve
  - Guide YRBX: Flammable liquid shut-off valve
  - Guide YRPV: Gas shut-off valve for use with natural and manufactured gases
  - Guide MHKZ: No. 6 oil at 250°F

NOTE: approvals apply to specific configurations/sizes only.



	Part description	Qty	Material
1	Nickel plated NPT body	1	CW617N
2	Seat	2	PTFE
3	Chrome plated ball	1	CW617N
4	Nickel plated NPT end-cap	1	CW617N
5	Nickel plated stem O-ring design	1	CW617N
6	Geomet® nut	1	CB4FF (EN10263-2)
7	O-Ring	2	FPM
8	Yellow PVC coated Geomet® steel handle	1	DD11 (EN10111)

1 ¼"-2" hollow ball

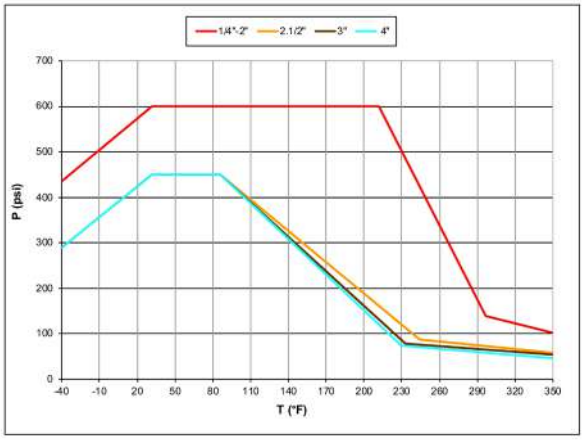


Code	S95B41N	S95C41N	S95D41N	S95E41N	S95F41N	S95G41N	S95H41N	S95I41N	S95L41N	S95M41N	S95N41N
D (inch)	1/4	3/8	1/2	3/4	1	1 1/4	1 1/2	2	2 1/2	3	4
DN (inch)	0.315	0.394	0.590	0.787	0.984	1.260	1.575	1.968	2.559	3.150	3.937
I (inch)	0.472	0.472	0.610	0.669	0.826	0.905	0.905	1.043	1.260	1.377	1.633
L (inch)	1.771	1.771	2.322	2.519	3.188	3.661	4.015	4.763	6.141	6.968	8.504
G (inch)	0.885	0.885	1.161	1.259	1.594	1.830	2.007	2.381	3.070	3.484	4.252
A (inch)	3.228	3.228	3.937	4.724	4.724	6.220	6.220	6.220	10.039	10.039	10.039
H (inch)	1.496	1.496	1.693	1.968	2.126	2.874	3.110	3.386	5.197	5.512	6.063
CH (inch)	0.787	0.787	0.984	1.220	1.574	1.929	2.125	2.696	3.346	3.897	4.921
Cv (GPM)	4.5	9.5	32.3	48.5	80.9	92.4	144.4	206.8	596.2	896.5	1305.5

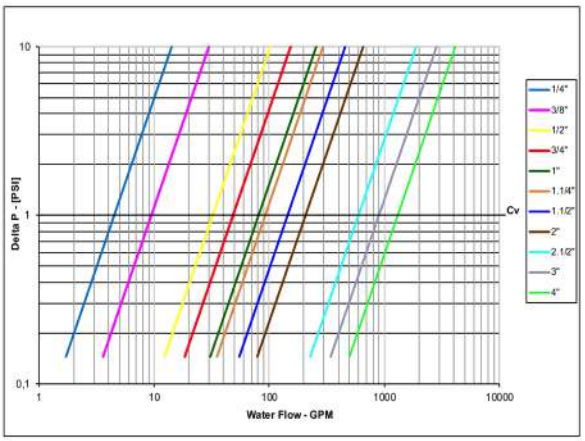
DN shows the nominal flow diameter.

Actual flow diameter complies with full port DIN 3357 part 4. Stem configuration of valves over 2" is slightly different.

Pressure-temperature chart



Pressure drop chart



s.80 NPT

3/4" - 2"
gas cock with tamper proof lockwing

Quality

- 24h 100% seal test guaranteed
- Dual sealing system allows valve to be operated in either direction making installation easier
- No metal-to-metal moving parts
- No maintenance ever required
- Cover clearly shows ball position
- Silicone-free lubricant on all seals
- Handle stops on body to avoid stresses at stem
- Chrome plated brass ball for longer life

Body

- Hot forged sand blasted, unplated brass body and cap sealed with Loctite® or equivalent thread sealant
- Special design to combine newest technologies in valve and traditional gascock requirements
- Finest brass according to EN 12165 and EN 12164 specifications

Stem

- Blowout-proof unplated brass stem
- Maintenance-free, double FPM O-rings at the stem for maximum safety

Sealing

- Pure PTFE self-lubricating seats with flexible-lip design

Threads

- NPT taper ANSI B.1.20.1 female by female threads

Flow

- Full port to DIN 3357 for maximum flow

Handle

- Hot forged brass tamper proof lockwing

Working pressure & temperature

- 600 PSI (40 bar) non-shock cold working pressure
- 250 PSI (17 bar) non-shock working pressure for LP-Gas
- -40°F/ +350°F (-40°C / +170°C)
- **WARNING:** freezing of the fluid in the installation may severely damage the valve

Options

- Male by female NPT threads

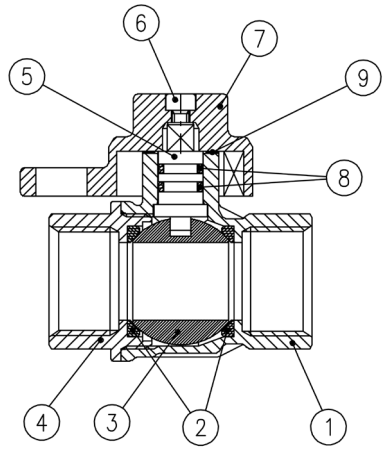
Upon request

- Painted gray

Approved by or in compliance with

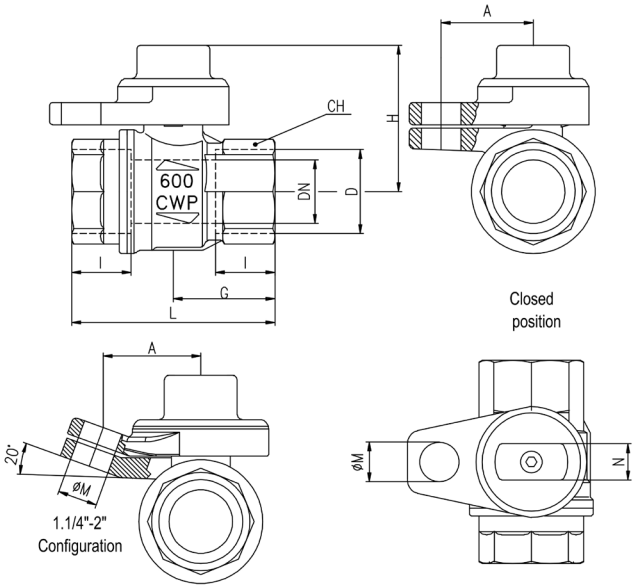
- Underwriters Laboratories (United States, Canada)
  - Guide YSDT: LP-Gas shut-off valve
  - Guide YRBX: Flammable liquid shut-off valve
  - Guide YRPV: Gas shut-off valve for use with natural and manufactured gases
  - Guide MHKZ: No. 6 oil at 250°F
- GOST-R (Russia)
- Canadian standards Association (United States, Canada)
- RoHS Compliant (EU)
- Kuwait Fire Service Directorate (Kuwait)

NOTE: approvals apply to specific configurations/sizes only.



1 ¼"-2" hollow ball

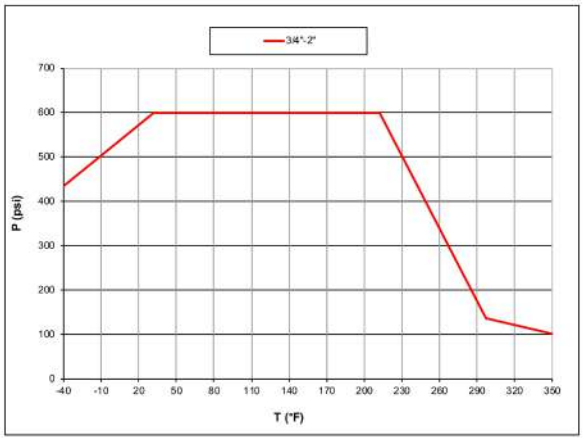
	Part description	Q.ty	Material
1	Unplated NPT body	1	CW617N
2	Seat	2	PTFE
3	Chrome plated ball	1	CW617N
4	Unplated NPT end-cap	1	CW617N
5	Unplated stem O-ring design	1	CW617N
6	Stainless steel screw	1	1.4301 / AISI304
7	Unplated lockwing	1	CW617N
8	O-Ring	2	FPM
9	Washer (from 3/4" to 2")	1	PTFE glass filled 25%



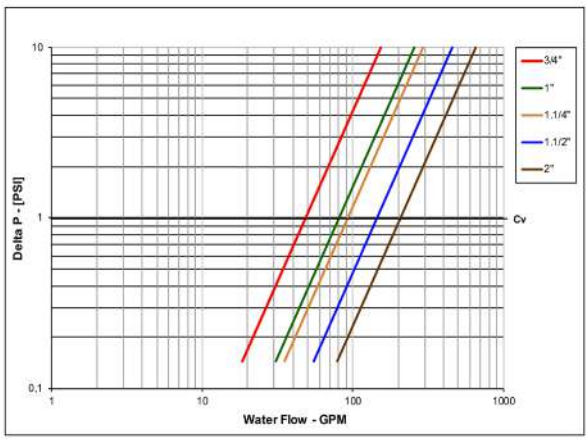
Code	S80E41	S80F41	S80G41	S80H41	S80I41
D (inch)	3/4	1	1 1/4	1 1/2	2
DN (inch)	0.787	0.984	1.259	1.574	1.968
I (inch)	0.669	0.826	0.905	0.905	1.043
L (inch)	2.519	3.188	3.661	4.015	4.763
G (inch)	1.259	1.594	1.830	2.007	2.381
A (inch)	1.142	1.142	1.208	1.208	1.208
H (inch)	1.801	1.958	2.519	2.756	3.031
M (inch)	0.492	0.492	0.472	0.472	0.472
N (inch)	0.449	0.449	0.563	0.563	0.563
CH (inch)	1.220	1.574	1.929	2.125	2.696
Cv (GPM)	48.5	80.9	92.4	144.4	206.8

DN shows the nominal flow diameter. Actual flow diameter complies with full port DIN 3357 part 4.

Pressure-temperature chart

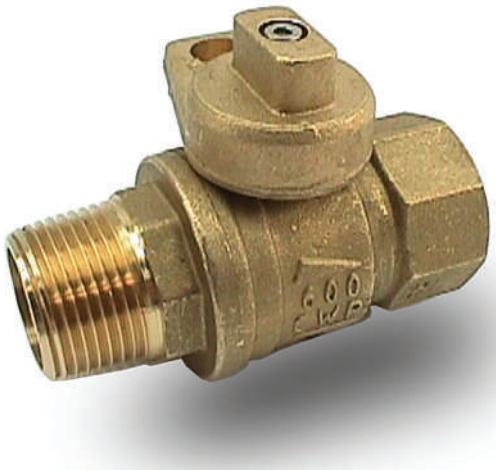


Pressure drop chart



s.8042 NPT

3/4" - 2" MIP x FIP
with tamper proof lockwing



Quality

- 24h 100% seal test guaranteed
- Dual sealing system allows valve to be operated in either direction making installation easier
- No metal-to-metal moving parts
- No maintenance ever required
- Cover clearly shows ball position
- Silicone-free lubricant on all seals
- Chrome plated brass ball for longer life
- Handle stops on body to avoid stress at stem

Body

- Hot forged sand blasted, unplated brass body and cap sealed with Loctite® or equivalent thread sealant
- Special design to combine newest technologies in valve and traditional gascock requirements
- Finest brass according to EN 12165 and EN 12164 specifications

Stem

- Blowout-proof nickel unplated brass stem
- Maintenance-free, double FPM O-rings at the stem for maximum safety

Sealing

- Pure PTFE self-lubricating seats with flexible-lip design

Threads

- NPT taper ANSI B.1.20.1 male by female threads

Flow

- Full port to DIN 3357 for maximum flow

Handle

- Hot forged brass tamper proof lockwing

Working pressure & temperature

- 600 PSI (40 bar) non-shock cold working pressure
- 250 PSI (17 bar) non-shock working pressure for LP-Gas
- -40°F to +350°F (-40°C / +170°C)
- **WARNING:** freezing of the fluid in the installation may severely damage the valve

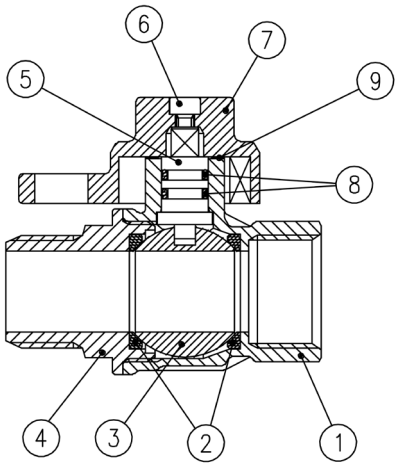
Options

- Female by female NPT threads

Approved by or in compliance with

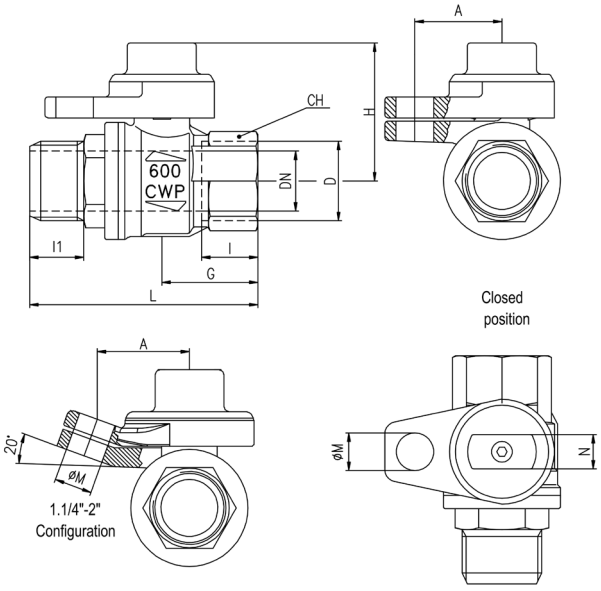
- Canadian standards Association (United States, Canada)
- GOST-R (Russia)
- RoHS Compliant (EU)
- Underwriters Laboratories (United States, Canada):
  - Guide YSDT: LP-Gas shut-off valve
  - Guide YRBX: Flammable liquid shut-off valve
  - Guide YRPV: Gas shut-off valve for use with natural and manufactured gases
  - Guide MHKZ: No. 6 oil at 250°F

NOTE: approvals apply to specific configurations/sizes only.



1 ¼"-2" hollow ball

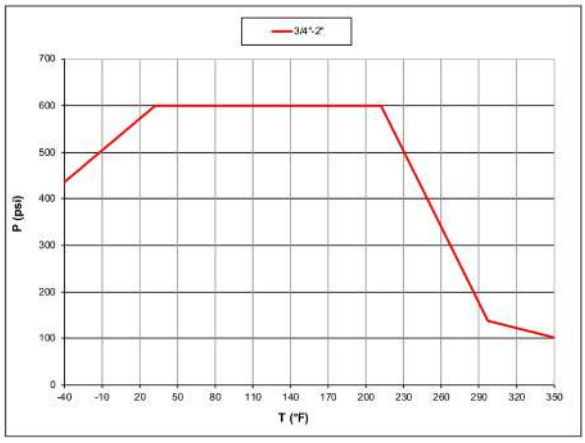
	Part description	Qty	Material
1	Unplated NPT body	1	CW617N
2	Seat	2	PTFE
3	Chrome plated ball	1	CW617N
4	Unplated NPT male end-cap	1	CW617N
5	Unplated stem O-ring design	1	CW617N
6	Stainless steel screw	1	1.4301 / AISI 304
7	Unplated lockwing	1	CW617N
8	O-Ring	2	FPM
9	Washer (from 3/4" to 2")	1	PTFE glass filled 25%



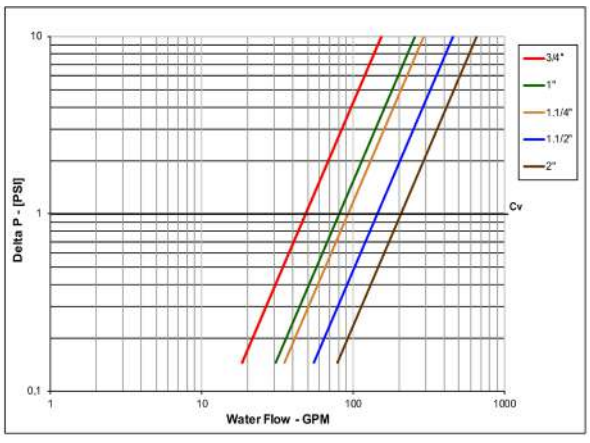
Code	S80E42	S80F42	S80G42	S80H42	S80I42
D (inch)	3/4	1	1 1/4	1 1/2	2
DN (inch)	0.787	0.984	1.259	1.574	1.968
I (inch)	0.669	0.826	0.905	0.905	1.043
I1 (inch)	0.709	0.866	0.945	0.945	1.083
L (inch)	2.992	3.642	4.173	4.449	5.236
G (inch)	1.259	1.594	1.830	2.007	2.381
A (inch)	1.142	1.142	1.208	1.208	1.208
H (inch)	1.801	1.958	2.519	2.756	3.031
M (inch)	0.492	0.492	0.472	0.472	0.472
N (inch)	0.449	0.449	0.563	0.563	0.563
CH (inch)	1.220	1.574	1.929	2.125	2.696
Cv (GPM)	48.5	80.9	92.4	144.4	206.8

DN shows the nominal flow diameter. Actual flow diameter complies with full port DIN 3357 part 4.

Pressure-temperature chart

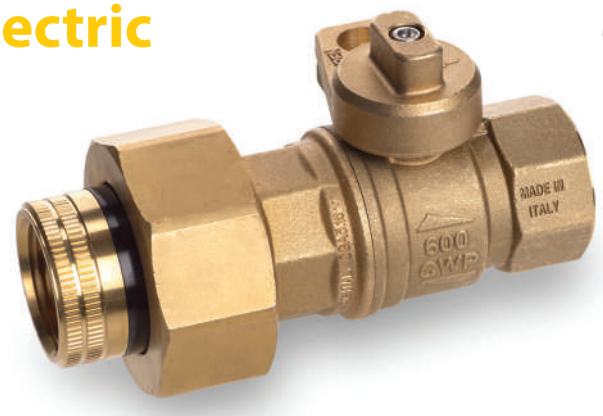


Pressure drop chart



s.8043 NPT dielectric

3/4" - 1 ¼"
with tamper proof lockwing



Quality

- 24h 100% seal test guaranteed
- No metal-to-metal moving parts
- No maintenance ever required
- Cover clearly shows ball position
- Silicone-free lubricant on all seals
- Chrome plated brass ball for longer life
- Handle stops on body to avoid stresses at stem

Body

- Hot forged sand blasted, unplated brass body and cap sealed with Loctite® or equivalent thread sealant
- Special design to combine newest technologies in valve and traditional gascock requirements
- Finest brass according to EN 12165 and EN 12164 specifications

Stem

- Blowout-proof unplated brass stem
- Maintenance-free, double FPM O-rings at the stem for maximum safety

Sealing

- Pure PTFE self-lubricating seats with flexible-lip design

Threads

- NPT taper ANSI B.1.20.1 female by dielectric union female threads

Flow

- Full port to DIN 3357 for maximum flow

Handle

- Hot forged brass tamper proof lockwing

Working pressure & temperature

- 600 PSI (40 bar) non-shock cold working pressure
- 250 PSI (17 bar) non-shock working pressure for LP-Gas
- -40°F to +350°F (-40°C / +170°C)
- **WARNING:** freezing of the fluid in the installation may severely damage the valve

Options

- Painted gray
- Dielectric union end long or short pattern

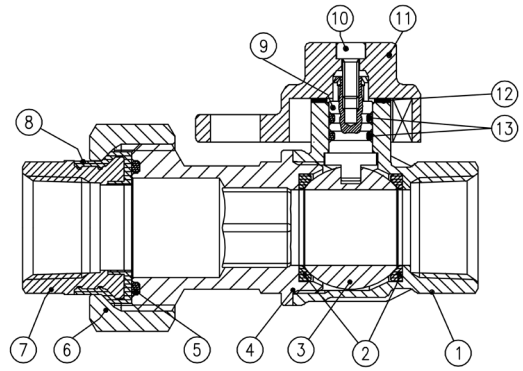
Upon request

See s.80

Approved by or in compliance with

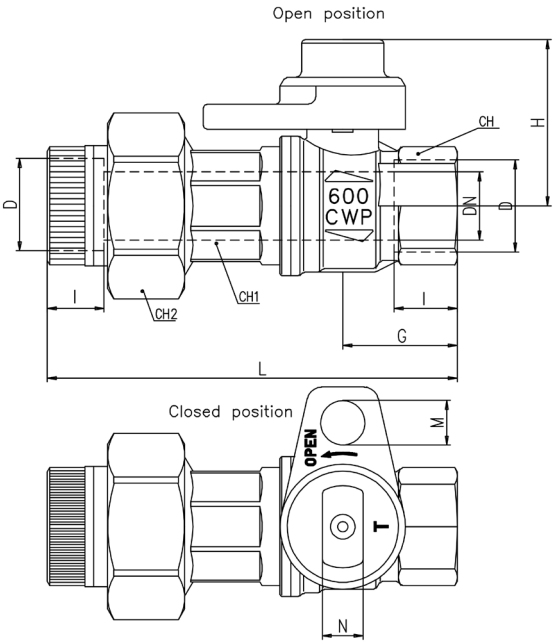
- Underwriters Laboratories (United States, Canada):
  - Guide YSDT: LP-Gas shut-off valve
  - Guide YRBX: Flammable liquid shut-off valve
  - Guide YRPV: Gas shut-off valve for use with natural and manufactured gases
- Canadian standards Association (United States, Cananda)
- GOST-R (Russia)
- RoHS Compliant (EU)
- Canadian standards Association (United States, Cananda)

NOTE: approvals apply to specific configurations/sizes only.



1 ¼" hollow ball

	Part description	Q.ty	Material
1	Unplated body	1	CW617N
2	Seat	2	PTFE
3	Chrome plated ball	1	CW617N
4	Unplated spacer	1	CW617N
5	Tail piece O-Ring	1	FPM
6	Unplated nut	1	CW617N
7	Dielectric tail piece	1	CW617N
8	Insulation	1	Polyamide
9	Unplated stem O-ring design	1	CW617N
10	Stainless steel screw	1	1.4301 / AISI 304
11	Unplated lockwing	1	CW617N
12	Washer	1	PTFE glass filed 25%
13	Stem O-ring	2	FPM



Code	S80E43	S80F43	S80G43
D (inch)	3/4	1	1.1/4
DN (inch)	0.748	0.945	1.181
I (inch)	0.669	0.826	0.905
L (inch)	4.507	5.157	5.236
G (inch)	1.260	1.594	1.831
A (inch)	1.141	1.141	1.209
H (inch)	1.831	1.988	2.559
M (inch)	0.492	0.492	0.472
N (inch)	0.449	0.449	0.563
CH (inch)	1.220	1.575	1.929
CH1 (inch)	1.220	1.575	1.929
CH2 (inch)	2.047	2.401	2.441
Cv (GPM)	48.5	80.9	92.4

DN shows the nominal flow diameter.
Actual flow diameter complies with full port DIN 3357 part 4.

Pressure-temperature chart

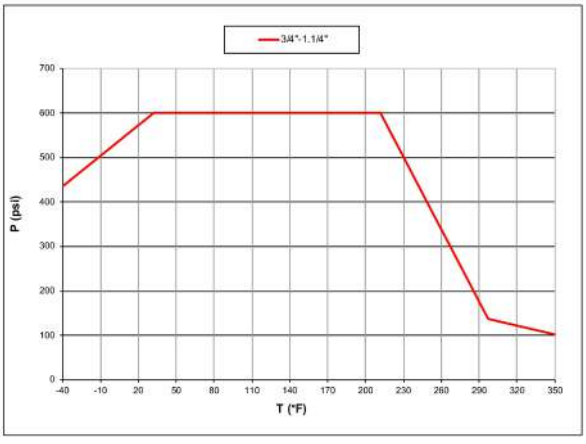
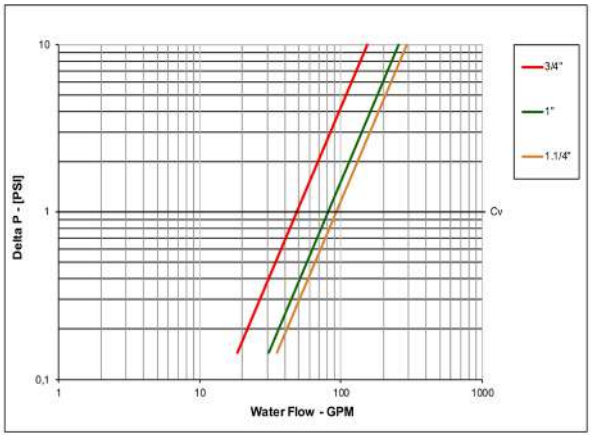


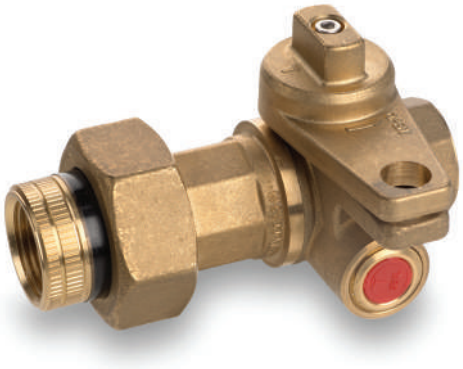
Chart applies to valve

Pressure drop chart



s.80 NPT surepass

3/4" - 1"
175 PSI
bypassing gas meter valve



One quick turn switches valve from normal metered flow to bypass mode for rapid on-line servicing of meter or regulator.

Quality

- No metal-to-metal moving parts
- No maintenance or lubrication ever required
- Every valve production tested twice for internal or external leakage
- Meets all applicable parts to DoT 192
- Customer service never interrupted
- Chrome plated brass ball
- Gas theft discouraged by plastic security plug in bypass port and port inacessible when barrel lock in use

Body

- Rust-proof forged brass body, ball, stem and lockwing

Stem

- Maintenance-free, double FPM O-rings at the stem for maximum safety, eliminate gas emissions

Sealing

- Pure PTFE seats with flexible-lip design

Threads

- NPT taper ANSI B1.20.1 female by dielectric union female threads

Flow

- Full port to DIN 3357 for maximum flow
- Full 100 SCFH gas flow during bypassing

Handle

- Tamper proof lockwing
- Single lever operation for positive switch from metering to bypassing

Working pressure & temperature

- 175 PSI non-shock cold working pressure
- -40°F/ +350°F
- **WARNING:** freezing of the fluid in the installation may severely damage the valve

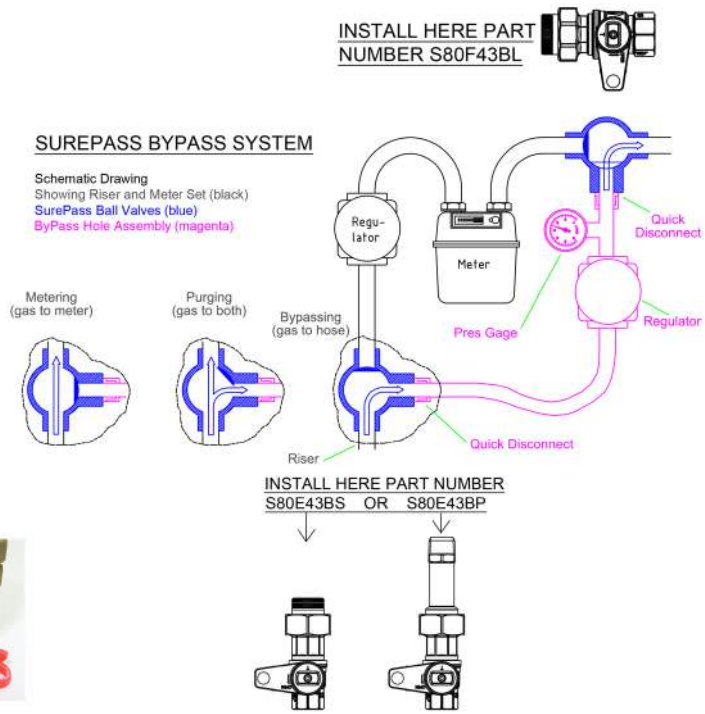
Options

- Painted gray
- By-pass hose assembly
- Dielectric union end long or short pattern

Approved by or in compliance with

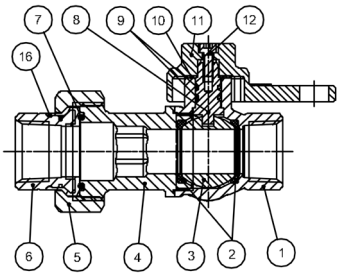
- Canadian standards Association (United States, Canada)
- GOST-R (Russia)
- RoHS Compliant (EU)

NOTE: approvals apply to specific configurations/sizes only.

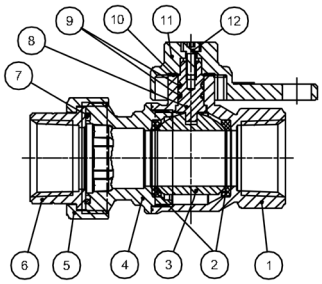


Tamper proof seal

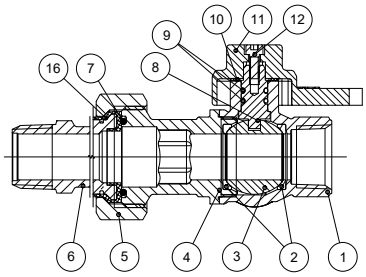
S80E43BS



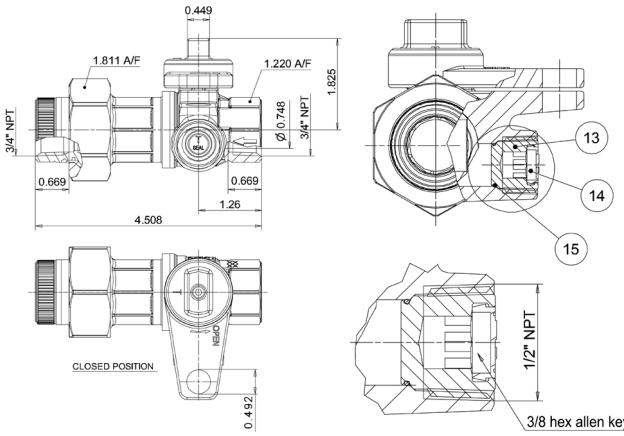
S80F43BL

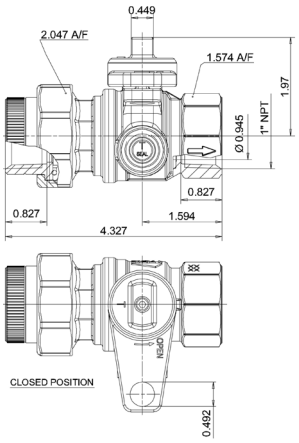


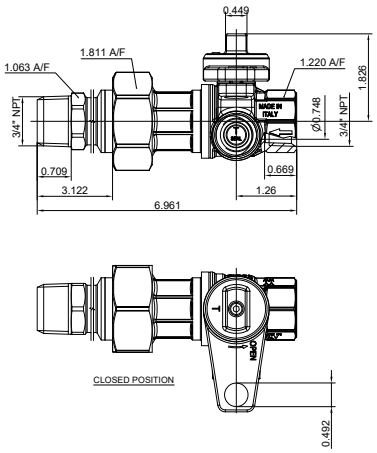
S80E43BP



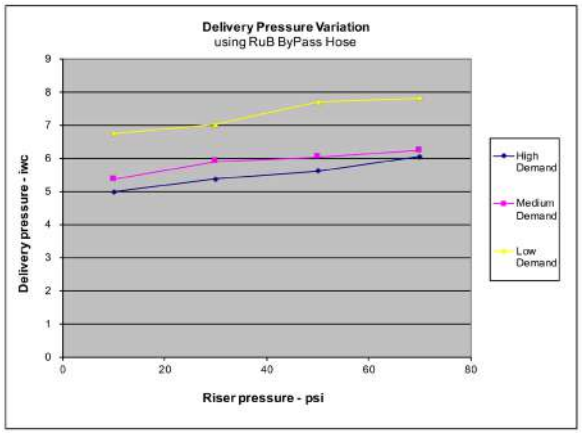
	Part description	Qty	Material
1	Sand blasted body	1	CW617N
2	Seat	2	PTFE glass filled 5-15%
3	Chrome plated ball	1	CW617N
4	Sand blasted end-cap	1	CW617N
5	Nut	1	CW617N
6	NPT female tail piece	1	CW617N
7	O-Ring	1	FPM
8	Stem O-Ring design	1	CW617N
9	O-Ring	2	FPM
10	Washer	1	PTFE glass filled 25%
11	Sand blasted lockwing	1	CW617N
12	Stainless steel screw	1	1.4301 / AISI304
13	Plug	1	CW617N
14	Security plug	1	Polystyrene
15	O-Ring	1	FPM
16	Insulation (for 3/4")	1	Polyamide

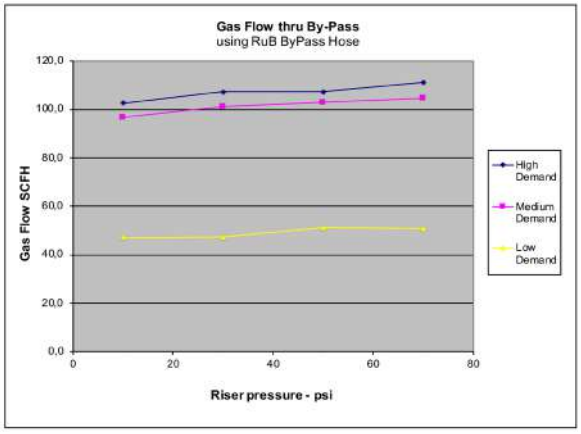






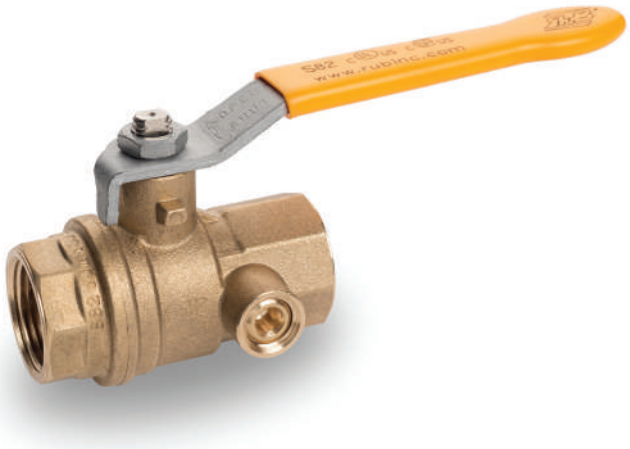
DN shows the nominal flow diameter. Actual flow diameter complies with full port DIN 3357 part 4.





s.82 NPT

1/2" - 2"
side drain



Quality

- 24h 100% seal test guaranteed
- Dual sealing system allows valve to be operated in either direction making installation easier
- No metal-to-metal moving parts
- No maintenance ever required
- Handle clearly shows ball position
- Silicone-free lubricant on all seals
- Handle stops on body to avoid stress at stem
- Chrome plated brass ball for longer life

Body

- Hot forged sand blasted, unplated brass body and cap sealed with Loctite® or equivalent thread sealant
- Side drain allows easy and safe downstream line venting
- Finest brass according to EN 12165 and EN 12164 specifications

Stem

- Blowout-proof nickel plated brass stem
- Maintenance-free, double FPM O-rings at the stem for maximum safety

Sealing

- Pure PTFE self-lubricating seats with flexible-lip design

Threads

- NPT taper ANSI B.1.20.1 female by female threads
- 1/4" NPT side tap

Flow

- Full port to DIN 3357 for maximum flow

Handle

- Geomet® carbon steel handle with thick PVC dip coating. Handle coating offers both thermal and electrical protection
- Handle removable with valve in service
- **WARNING:** do not exceed reasonable temperature and/or electrical load

Working pressure & temperature

- 600 PSI (40 bar) non-shock cold working pressure
- 250 PSI (17 bar) non-shock working pressure for LP-Gas
- -40°F/+350°F (-40°C / +170°C)
- **WARNING:** freezing of the fluid in the installation may severely damage the valve

Options

- Stem extension
- T-handle
- Oval lockable handle
- Stainless steel handle (1.4016 / AISI 430)
- Patented locking device
- Stubby handle
- ***RuB*** memory stop designed to be installed with our stubby handle

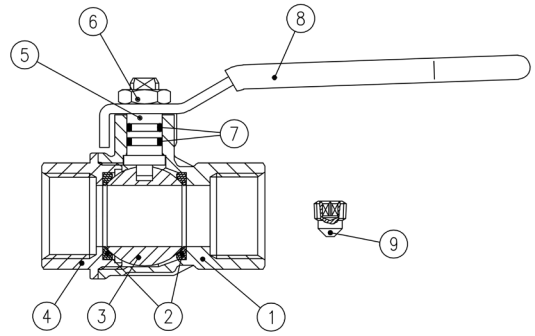
Upon request

- Stainless steel ball and/or stem (1.4401 / AISI 316)
- Glass filled PTFE seals
- Custom design
- Dual side drain port

Approved by or in compliance with

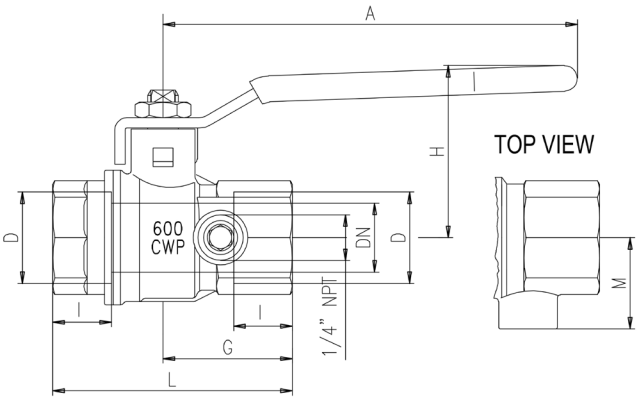
- Canadian standards Association (United States, Canada)
- GOST-R (Russia)
- RoHS Compliant (EU)
- Underwriters Laboratories (United States, Canada):
  - Guide YSDT: LP-Gas shut-off valve
  - Guide YRBX: Flammable liquid shut-off valve
  - Guide YRPV: Gas shut-off valve for use with natural and manufactured gases
  - Guide MHKZ: No. 6 oil at 250°F

NOTE: approvals apply to specific configurations/sizes only.



1 ¼"-2" hollow ball

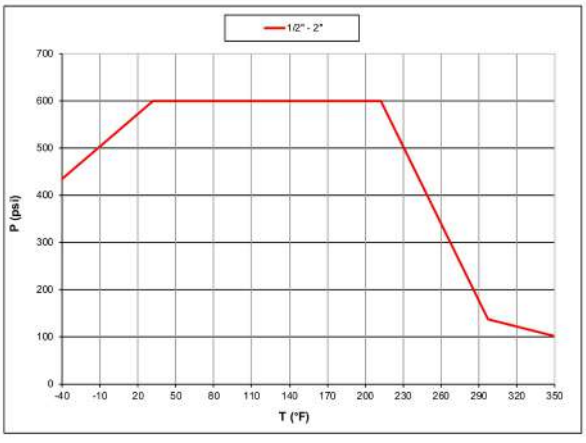
	Part description	Qty	Material
1	Unplated body	1	CW617N
2	Seat	2	PTFE
3	Chrome plated ball	1	CW617N
4	Unplated NPT end-cap	1	CW617N
5	Nickel plated stem O-ring design	1	CW617N
6	Geomet® nut	1	CB4FF (EN10263-2)
7	O-Ring	2	FPM
8	Yellow PVC coated Geomet® steel handle	1	DD11 (EN10111)
9	Unplated plug	1	CW617N



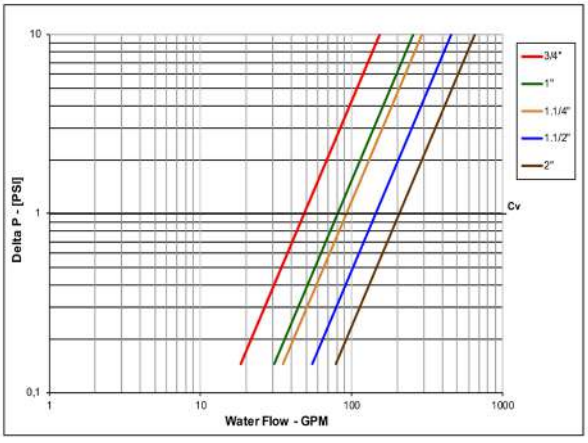
DN shows the nominal flow diameter. Actual flow diameter complies with full port DIN 3357 part 4.

Code	S82D41	S82E41	S82F41	S82G41	S82H41	S82I41
D (inch)	1/2	3/4	1	1 1/4	1 1/2	2
DN (inch)	0.590	0.787	0.984	1.259	1.574	1.968
I (inch)	0.610	0.669	0.826	0.905	0.905	1.043
L (inch)	2.559	2.736	3.405	3.878	4.232	4.960
G (inch)	1.397	1.476	1.811	2.047	2.224	2.578
A (inch)	3.937	4.724	4.724	6.220	6.220	6.220
H (inch)	1.679	1.956	2.114	2.858	3.094	3.370
M (inch)	0.964	1.063	1.200	1.338	1.516	1.752
CH (inch)	0.984	1.220	1.574	1.929	2.125	2.696
Cv (GPM)	32.3	48.5	80.9	92.4	144.4	206.8

Pressure-temperature chart



Pressure drop chart



s.195 NPT & flare

3/8" - 1"
standard port gas cock

Quality
- 24h 100% seal test guaranteed
- Dual sealing system allows valve to be operated in either direction making installation easier
- No metal-to-metal moving parts
- No maintenance ever required
- Handle clearly shows ball position
- Silicone-free lubricant on all seals
- Handle stops on body to avoid stresses at stem
- Chrome plated brass ball for longer life

Body
- Hot forged sand blasted, unplated brass body and cap sealed with Loctite® or equivalent thread sealant
- Finest brass according to EN 12165 and EN 12164 specifications

Stem
- Blowout-proof nickel plated brass stem
- Maintenance-free, double FPM O-rings at the stem for maximum safety

Sealing
- Pure PTFE self-lubricating seats with flexible-lip design

Threads
- NPT taper ANSI B.1.20.1 female by female threads

Flow
- Standard port for compact design

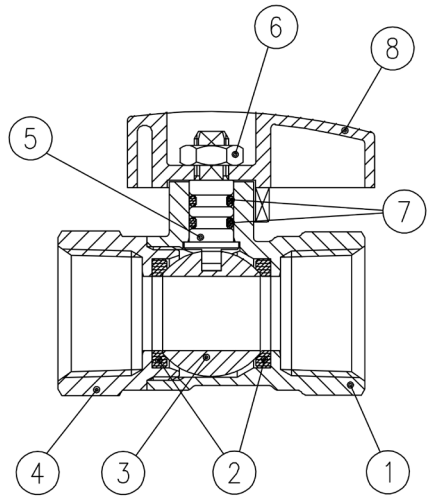
Handle
- Aluminum wedge handle enameled red
- **WARNING:** do not exceed reasonable temperature and/or electrical load
- Handle removable with valve in service

Working pressure & temperature
- 450 PSI (30 bar) non-shock cold working pressure
- 250 PSI (17 bar) non-shock working pressure for LP-Gas
- -40°F to +350°F (-40°C / +170°C)
- **WARNING:** freezing of the fluid in the installation may severely damage the valve

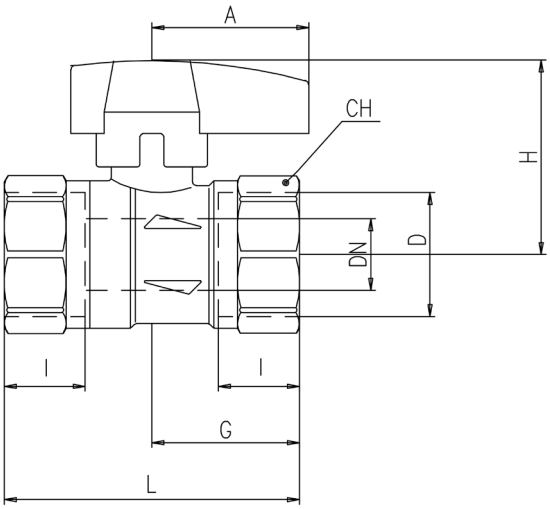
Options
- Stem extension
- T-handle
- Stainless steel handle (1.4016 / AISI 430)
- 3/8" through 1" NPT female by NPT female (suffix 41)
- 3/8", 1/2" and 5/8" flare by flare (suffix 30)
- 1/2" NPT female by 1/2" flare (suffix 31)
- 1/2" NPT male by 1/2" flare (suffix 34)
- 1/2" NPT male by 3/8" flare (suffix 34)
- 1/2" NPT female by 3/8" flare (suffix 33)
- 1/2" flare by 3/8" flare (suffix 32)
- 1/8" NPT side tap for some versions/ sizes

Approved by or in compliance with
- Underwriters Laboratories (United States, Canada):
  - Guide YSDT: LP-Gas shut-off valve
  - Guide YRBX: Flammable liquid shut-off valve
  - Guide YRPV: Gas shut-off valve for use with natural and manufactured gases
  - Guide MHKZ: No. 6 oil at 250°F
- GOST-R (Russia)
- Canadian standards Association (United States, Canada)
- RoHS Complaint (Russia)
- Meeting WW-V-35C Federal U.S. Specification (United States)

NOTE: approvals apply to specific configurations/sizes only..



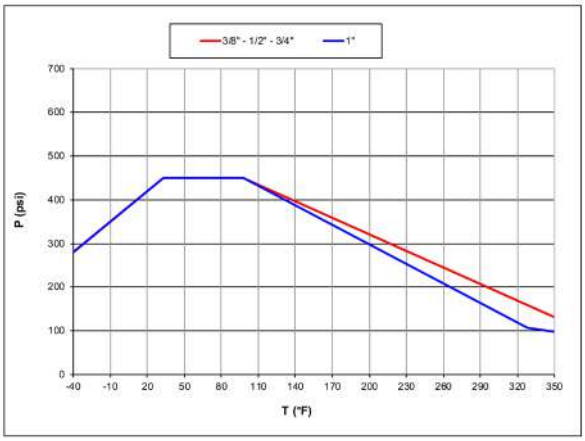
	Part description	Q.ty	Material
1	Sand blasted unplated body	1	CW617N
2	Seat	2	PTFE
3	Chrome plated ball	1	CW617N
4	Sand blasted unplated end-cap	1	CW617N
5	Nickel plated stem O-ring design	1	CW617N
6	Geomet® nut	1	CB4FF (EN10263-2)
7	O-Ring	2	FPM
8	Red T-handle	1	EN AC- 46100



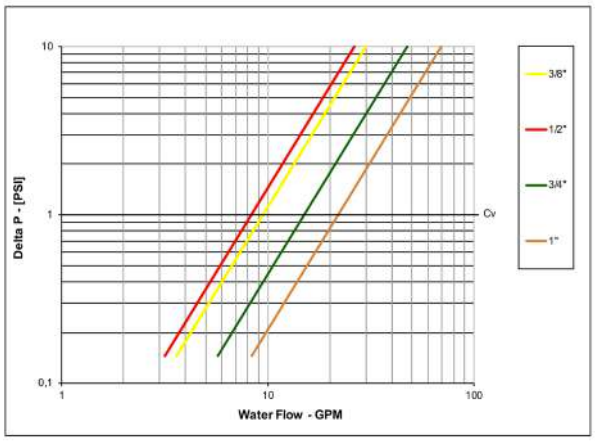
DN shows the nominal flow diameter.

Code	195C41	195D41	195E41	195F41
D (inch)	3/8	1/2	3/4	1
DN (inch)	0.393	0.453	0.590	0.787
I (inch)	0.472	0.610	0.669	0.827
L (inch)	1.772	2.126	2.441	2.835
G (inch)	0.886	1.043	1.220	1.417
A (inch)	1.299	1.299	1.299	1.299
H (inch)	1.437	1.535	1.614	1.752
CH (inch)	0.787	0.984	1.220	1.496
Cv (GPM)	9.5	8.3	15.0	22.0

Pressure-temperature chart



Pressure drop chart



s.195

flare 37°
by solder end 1/2" – 3/4"
standard port

Quality

- 24h 100% seal test guaranteed
- Dual sealing system allows valve to be operated in either direction making installation easier
- No metal-to-metal moving parts
- Handle clearly shows ball position
- Silicone-free lubricant on all seals
- Handle stops on body to avoid stresses at stem
- Chrome plated brass ball for longer life

Body

- Hot forged sand blasted, unplated brass body and cap sealed with Loctite® or equivalent thread sealant
- Finest brass according to EN 12165 and EN 12164 specifications

Stem

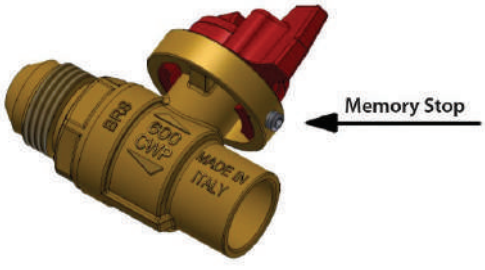
- Blowout-proof nickel plated brass stem
- Pure PTFE adjustable packing gland and reinforced washer for lower torque and easy maintenance

Sealing

- Pure PTFE self-lubricating seats with flexible-lip design

Threads

- 1/2" flare 37° by 1/2" solder end
- 3/4" flare 37° by 3/4" solder end



Flow

- Standard port for compact design

Handle

- Aluminum T-handle enameled red
- **WARNING:** do not exceed reasonable temperature and/or electrical load

Working pressure & temperature

- 600 PSI (for solder joints rating see table 1) non-shock cold working pressure
- -4°F to +350°F (for solder joints rating see table 1)
- **WARNING:** freezing of the fluid in the installation may severely damage the valve

Options

- Stainless steel handle (1.4016 / AISI 430)
- Geomet® carbon steel handle with thick PVC dip coating. Handle coating offers both thermal and electrical protection
- Stubby handle

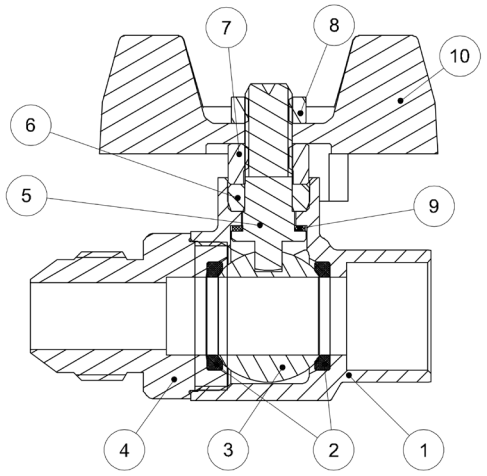
Upon request

- Memory stop

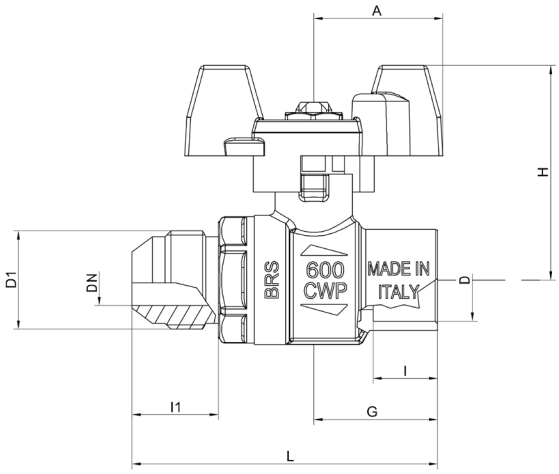
Approved by or in compliance with

- GOST-R (Russia)
- Canadian standards Association (United States, Canada)
- RoHS Compliant (EU)

NOTE: approvals apply to specific configurations/sizes only.



	Part description	Q.ty	Material
1	Sand blasted unplated body	1	CW617N
2	Seat	2	PTFE
3	Chrome plated ball	1	CW617N
4	Sand blasted unplated end-cap	1	CW617N
5	Nickel plated stem packing gland design	1	CW617N
6	Packing gland seal	1	PTFE
7	Nickel plated gland nut	1	CW617N
8	Geomet® nut	1	CB4FF (EN10263-2)
9	Washer	1	PTFE carbon filled 25%
10	Red T-handle	1	EN AC- 46100



DN shows the nominal flow diameter.

Code	195D40	195E40
D (inch)	0.63	0.877
D1 (inch)	3/4-16 UNF 2A	1.1/16-12 UN 2A
DN(inch)	0.39	0.61
I (inch)	0.49	0.748
I1 (inch)	0.66	0.862
L (inch)	2.33	3.031
G (inch)	0.94	1.319
A (inch)	0.98	0.98
H (inch)	1.63	1.705
Cv (GPM)	5.8	14.5

TABLE 1 PRESSURE - TEMPERATURE RATINGS

Joning material	Melting range degrees		Working temperature degrees		Maximum working gauge pressure					
					Size 1/8" - 1"		Size 1 ¼" - 2"		Size 2 ½" - 4"	
	°F	°C	°F	°C	PSI	kPa	PSI	kPa	PSI	kPa
50-50 tin-lead solder* ASTM B32 alloy grade 50 A	361/421	185/215	0/+100	-18/+38	200	1400	176	1200	150	1050
			0/+150	-18/+66	150	1050	125	850	100	700
			0/+200	-18/+93	100	700	90	600	75	500
			0/+250	-18/+121	85	600	75	500	50	350
95-5 tin-antimony solder ASTM B32 alloy grade 95TA	450/464	230/240	0/+100	-18/+38	500**	3500**	400**	2800**	300**	2100**
			0/+150	-18/+66	400**	2800**	350**	2400**	275**	2000**
			0/+200	-18/+93	300**	2100**	250**	1700**	200	1400
			0/+250	-18/+121	200	1400	175	1200	150	1050

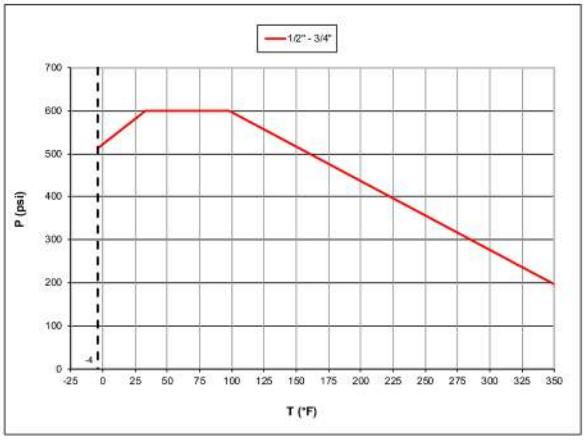
Note:

Above stated limits are not imposed by the valve, but by the strength of the soldering joint according to ASME B16.22.

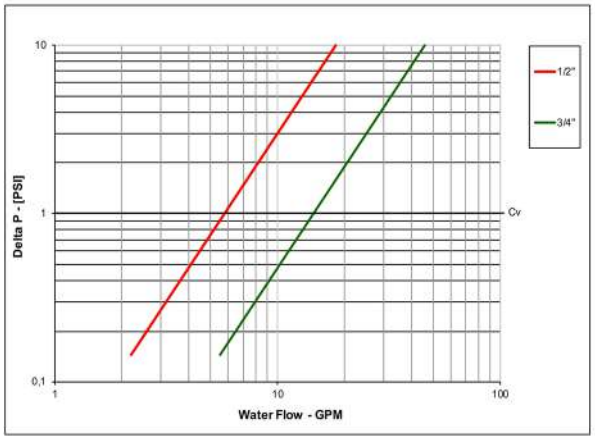
* This alloy contains more than 0,2% lead and, according to certain specifications, cannot be used for potable water or other foods.

** Soldered copper tube joints have been tested at 230 PSI (1600 kPa) in accordance with ISO 2016

Pressure-temperature chart



Pressure drop chart



s.84 BSPT

1/4" - 4"

Quality
• 24h 100% seal test guaranteed
• Dual sealing system allows valve to be operated in either direction making installation easier
• No metal-to-metal moving parts
• No maintenance ever required
• Handle clearly shows ball position
• Silicone-free lubricant on all seals
• Chrome plated brass ball for longer life
• Handle stops on body to avoid stresses at stem

Body
• Hot forged sand blasted, external nickel plated brass body and cap sealed with Loctite® or equivalent thread sealant
• Finest brass according to EN 12165 and EN 12164 specifications

Stem
• Blowout-proof nickel plated brass stem
• Maintenance-free, double FPM O-rings at the stem for maximum safety

Sealing
• Pure PTFE self-lubricating seats with flexible-lip design

Threads
• EN10226-2, ISO 7/1, BS 21 BSPT taper female by female threads

Flow
• Full port to DIN 3357 for maximum flow

Handle
• Geomet® carbon steel handle with thick PVC dip coating. Handle coating offers both thermal and electrical protection
• **WARNING:** do not exceed reasonable temperature and/or electrical load

Working pressure & temperature
• 40 bar (600 PSI) up to 2", 30 bar (450 PSI) over 2" non-shock cold working pressure
• -40°C to +170°C (-40°F to +350°F)
• For use with dangerous fluids temperature rating is -20°C +60°C and pressure rating is 5 bar
• AS4617 Limitation for GAS: 2100 Kpa up to 2" and 1500 Kpa from 2 ½" to 4" rated working pressure and 0°C / +60°C temperature
• **WARNING:** freezing of the fluid in the installation may severely damage the valve

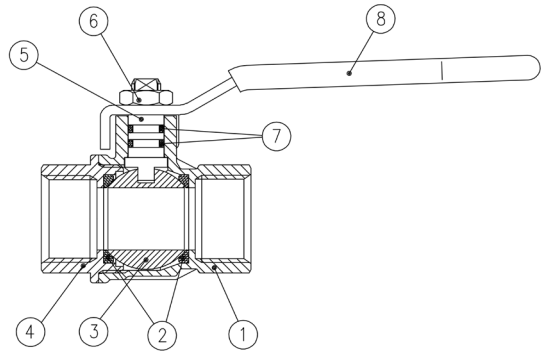
Options up to 2" size
• Stem extension
• T-handle
• Oval lockable handle up to 2", round over 2"
• Stainless steel handle (1.4016 / AISI 430)
• Patented locking device for valves up to 4"
• Male by female threads
• Stubby handle
• ***RuB*** memory stop designed to be installed with our stubby handle

Upon request
• Stainless steel ball (1.4401 / AISI 316)
• Glass filled PTFE seals
• Custom design

PED Directive
• Assessment according to Pressure Equipment Directive 2014/68/UE module B+D by ICIM (0425)

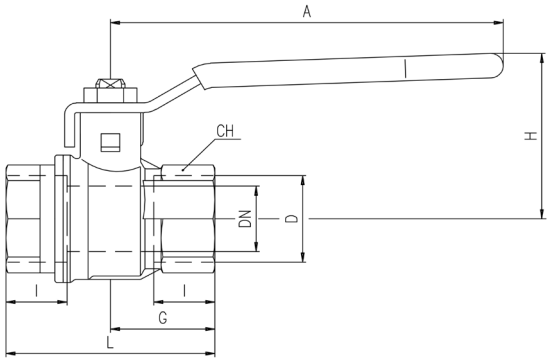
Approved by or in compliance with
• The Australian Gas Association (Australia)
• Factory Mutual (United States)
• BSI Group (United Kingdom)
• RoHS Compliant (EU)

NOTE: approvals apply to specific configurations/sizes only.



1 ¼"-2" hollow ball

	Part description	Q.ty	Material
1	Nickel plated body (external nickel plated, unplated inside up to 2")	1	CW617N
2	Seat	2	PTFE
3	Chrome plated ball	1	CW617N
4	Nickel plated end-cap (external nickel plated, unplated inside up to 2")	1	CW617N
5	Nickel plated stem O-ring design	1	CW617N
6	Geomet® nut	1	CB4FF (EN10263-2)
7	O-Ring	2	FPM
8	Yellow PVC coated Geomet® steel handle	1	DD11 (EN10111)

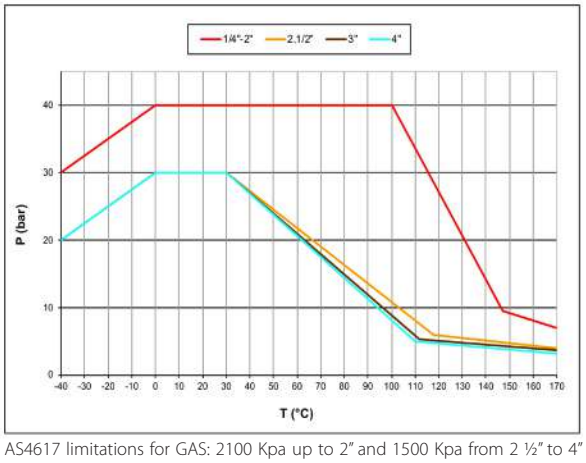


Compliant to CE 2014/68/UE product
Equipment category III Module B+D

Code	S84B50	S84C50	S84D50	S84E50	S84F50	S84G50	S84H50	S84I50	S84L50	S84M50	S84N50
D (inch)	1/4	3/8	1/2	3/4	1	1 1/4	1 1/2	2	2 1/2	3	4
DN (mm)	8	10	15	20	25	32	40	50	65	80	100
I (mm)	12	12	15.5	17	21	23	23	26.5	32	35	41.5
L (mm)	45	45	59	64	81	93	102	121	156	177	216
G (mm)	22.5	22.5	29.5	32	40.5	46.5	51	60.5	78	88.5	108
A (mm)	82	82	100	120	120	158	158	158	255	255	255
H (mm)	38	38	43	50	54	73	79	86	132	140	154
CH (mm)	20	20	25	31	40	49	54	68.5	85	99	125
Kv (m3/h)	3.9	8.2	28	42	70	80	125	179	516	776	1130

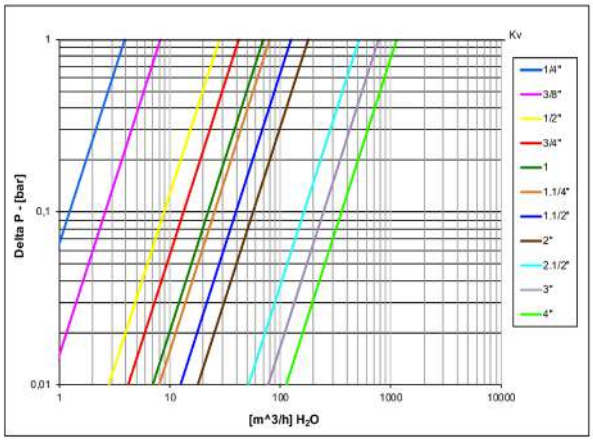
DN shows the nominal flow diameter. Actual flow diameter complies with full port DIN 3357 part 4. Stem configuration of valves over 2" is slightly different.
Ball valves are marked CE on handle from 1 ¼" to 2", on body over 2" as follow:
CE 0425 cat IIIB+D PS: 5 GAS TS1:-20°C TS2: +60°C

Pressure-temperature chart



AS4617 limitations for GAS: 2100 Kpa up to 2" and 1500 Kpa from 2 ½" to 4" rated working pressure and 0°C +60°C temperature

Pressure drop chart



XCES84 - 4564

INDUSTRY

s.33

1/4" - 2"
EN 10226-1
heavy duty packing gland

Quality
- 24h 100% seal test guaranteed
- Dual sealing system allows valve to be operated in either direction making installation easier
- No metal-to-metal moving parts
- No maintenance ever required
- Handle clearly shows ball position
- Silicone-free lubricant on all seals
- Chrome plated brass ball for longer life
- Handle stops on body to avoid stresses at stem

Body
- Hot forged sand blasted, nickel plated brass body and cap sealed with Loctite® or equivalent threads sealant
- Finest brass according to EN 12165 and EN 12164 specifications

Stem
- Blowout-proof nickel plated brass stem
- Pure PTFE adjustable packing gland and reinforced washer for lower torque and easy maintenance

Sealing
- Pure PTFE self-lubricating seats with flexible-lip design

Threads
- EN 10226-1, ISO 228 parallel female by female threads

Flow
- 100 % full port for maximum flow

Handle
- Geomet® carbon steel handle with thick PVC dip coating. Handle coating offers both thermal and electrical protection
- **WARNING:** do not exceed reasonable temperature and/or electrical load

Working pressure & temperature
- 65 bar (940 PSI) up to 1", 40 bar (600 PSI) over 1" non- shock cold working pressure
- -40°C to +170°C (-40°F to +350°F)
- **WARNING:** freezing of the fluid in the installation may severely damage the valve

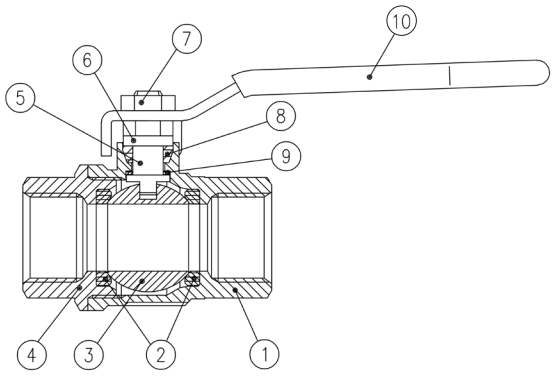
Options
- T-handle
- Oval lockable handle
- Stainless steel handle (1.4016 / AISI 430)
- Patented locking device
- Male by female threads

Upon request
- Stainless steel ball and/or stem (1.4401 / AISI 316)
- Glass filled PTFE seals
- Custom design

PED directive
- According to 2014/68/UE module A: it cannot be used with dangerous gases in sizes larger than 25mm

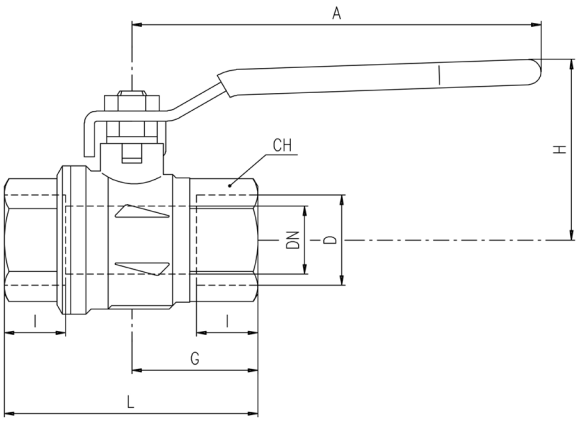
Approved by or in compliance with
- GOST-R (Russia)
- RoHS Compliant (EU)
- EAC – Declaration of conformity (Russia, Kazakhstan, Belarus)

NOTE: approvals apply to specific configurations/sizes only.



1 ¼"-2" hollow ball

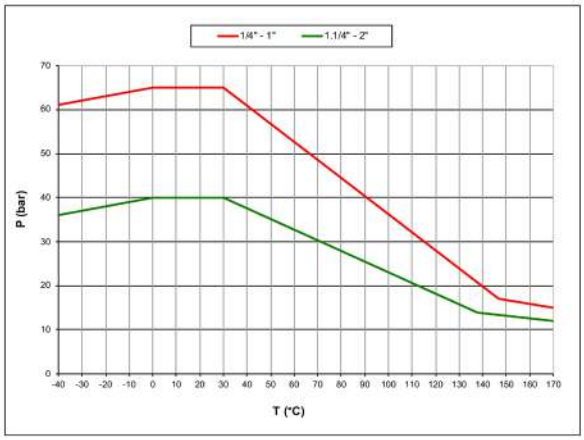
	Part description	Q.ty	Material
1	Nickel plated body	1	CW617N
2	Seat	2	PTFE
3	Chrome plated ball	1	CW617N
4	Nickel plated end-cap	1	CW617N
5	Nickel plated stem packing gland design	1	CW617N
6	Nickel plated gland nut	1	CW617N
7	Geomet® nut	1	CB4FF (EN10263-2)
8	Packing gland seal	1	PTFE
9	Washer	1	PTFE carbon filled 25%
10	Black PVC coated Geomet® steel handle	1	DD11 (EN10111)



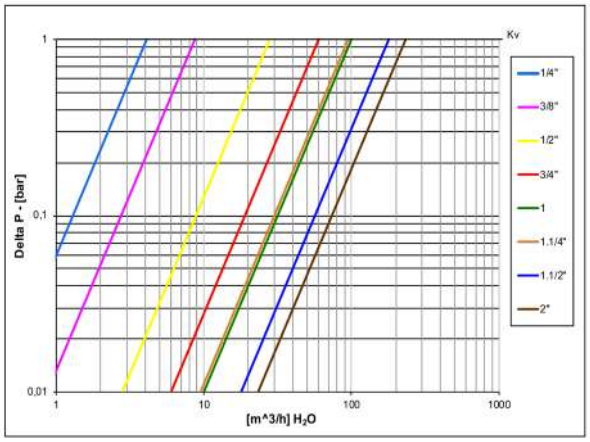
Code	S33B00	S33C00	S33D00	S33E00	S33F00	S33G00	S33H00	S33I00
D (inch)	1/4	3/8	1/2	3/4	1	1 1/4	1 1/2	2
DN (mm)	8	10	15	20	25	32	40	50
I (mm)	12.5	12.5	15.5	18	21	23	24.5	26.5
L (mm)	51	51	61	74.5	90.5	104	117	135
G (mm)	25.5	25.5	30.5	37	45.5	52	59	67.5
A (mm)	82	82	100	120	120	158	158	158
H (mm)	39.5	39.5	43	52.5	57	78	85	92
CH (mm)	22	22	27	32	41	50	55	70
PN (Bar)	65	65	65	65	65	40	40	40
Kv (m3/h)	4.1	8.7	28	60	100	95	179	233

Ball valves are marked CE on handle from 1 ¼" to 2" as follow:
CE XXCODEXX Cat I-A

Pressure-temperature chart



Pressure drop chart



s.85

1/4" - 2"
EN 10226-1
packing gland

Quality
- 24h 100% seal test guaranteed
- Dual sealing system allows valve to be operated in either direction making installation easier
- No metal-to-metal moving parts
- Handle clearly shows ball position
- Silicone-free lubricant on all seals
- Chrome plated brass ball for longer life
- Handle stops on body to avoid stress at stem

Body
- Hot forged sand blasted, external nickel plated brass body and cap sealed with Loctite® or equivalent thread sealant
- Finest brass according to EN 12165 and EN 12164 specifications

Stem
- Blowout-proof nickel plated brass stem
- Pure PTFE adjustable packing gland and reinforced washer for lower torque and easy maintenance

Sealing
- Pure PTFE self-lubricating seats with flexible-lip design

Threads
- EN 10226-1, ISO 228 parallel female by female threads

Flow
- Full port to DIN 3357 for maximum flow

Handle
- Geomet® carbon steel handle with thick PVC dip coating. Handle coating offers both thermal and electrical protection
- **WARNING:** do not exceed reasonable temperature and/or electrical load

Working pressure & temperature
- 40 bar (600 PSI) non-shock cold working pressure
- -40°C to +170°C (-40°F to +350°F)
- **WARNING:** freezing of the fluid in the installation may severely damage the valve

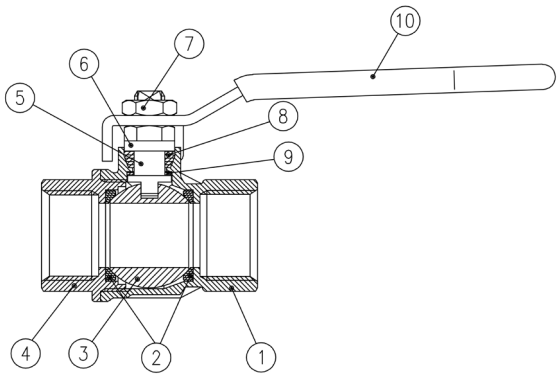
Options
- Stem extension
- T-handle
- Oval lockable handle
- Stainless steel handle (1.4016 / AISI 430)
- Patented locking device
- Stubby handle

Upon request
- Stainless steel ball and/or stem (1.4401 / AISI 316)
- Glass filled PTFE seals
- Custom design

PED directive
- According to 2014/68/UE module A: it cannot be used with dangerous gases in sizes larger than 25mm

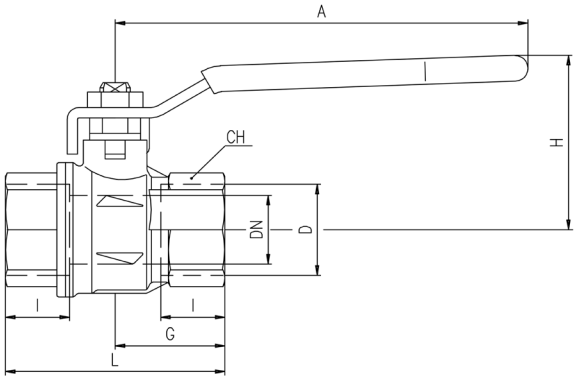
Approved by or in compliance with
- GOST-R (Russia)
- RoHS Compliant (EU)
- EAC – Declaration of conformity (Russia, Kazakhstan, Belarus)

NOTE: approvals apply to specific configurations/sizes only.



1 ¼"-2" hollow ball

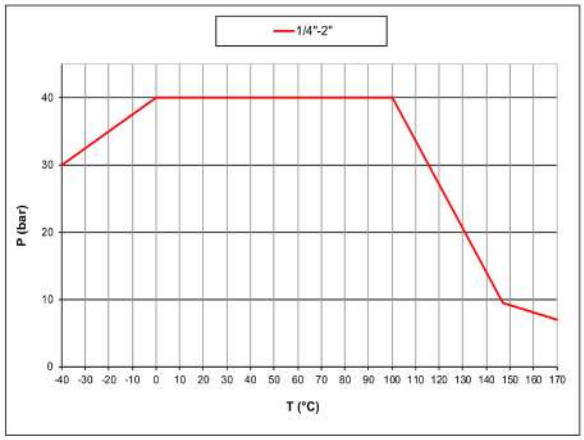
	Part description	Q.ty	Material
1	Nickel plated body (external treatment)	1	CW617N
2	Seat	2	PTFE
3	Chrome plated ball	1	CW617N
4	Nickel plated end-cap (external treatment)	1	CW617N
5	Nickel plated stem packing gland design	1	CW617N
6	Nickel plated gland nut	1	CW617N
7	Geomet® nut	1	CB4FF (EN10263-2)
8	Packing gland seal	1	PTFE
9	Washer	1	PTFE carbon filled 25%
10	Black PVC coated Geomet® steel handle	1	DD11 (EN10111)



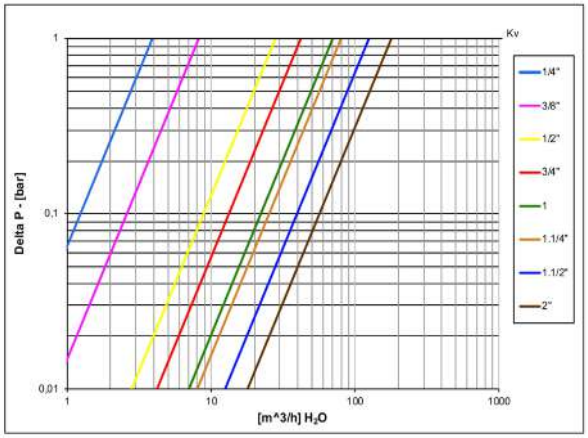
Code	S85B01	S85C01	S85D01	S85E01	S85F01	S85G01	S85H01	S85I01
D (inch)	1/4	3/8	1/2	3/4	1	1 1/4	1 1/2	2
DN(mm)	8	10	15	20	25	32	40	50
I (mm)	12	12	15.5	17	21	23	23	26.5
L (mm)	45	45	59	64	81	93	102	121
G (mm)	22.5	22.5	29.5	32	40.5	46.5	51	60.5
A (mm)	82	82	100	120	120	158	158	158
H (mm)	39.5	39.5	43	50.5	54.5	76	82	89
CH(mm)	20	20	25	31	40	49	54	68.5
Kv(m3/h)	3.9	8.2	28	42	70	80	125	179

Ball valves are marked CE on handle from 1 ¼" to 2" as follow:
CE XXCODEXX Cat I-A

Pressure-temperature chart



Pressure drop chart



k.60 spring return

1/4" - 2"
heavy duty - DIN 16722 M3
EN 10226-1

Access to fluid systems in public places could potentially convert into costs and safety problems. In order to avoid unattended valves being left open with negative economic or environmental consequences, ***RuB*** developed the automatic self-closing valve.
The valve can be opened normally by rotating the handle 90° and when the user releases the handle, the valve shuts off automatically.
Best solution for service stations, trucks, public areas, gardens.
The same feature is useful in industrial applications, where a valve must not be left open unattended.

HIGH TEMPERATURE RESISTANCE
Now approved for **HTB** use (Hochtemperaturbeständigkeit)
Class B 0,1 (0,1 bar @650°C for at least 30 minutes).

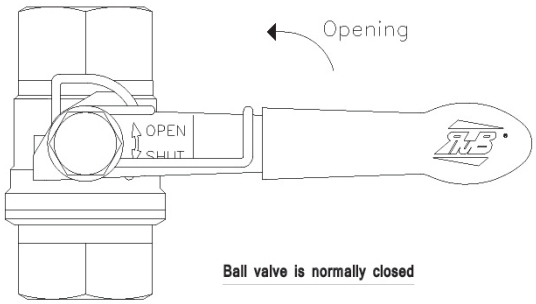
Quality
- 24h 100% seal test guaranteed
- Dual sealing system allows valve to be operated in either direction making installation easier
- No metal-to-metal moving parts
- No maintenance ever required
- Handle clearly shows ball position
- Silicone-free lubricant on all seals
- Handle stops on body to avoid stresses at stem
- Chrome plated brass ball for longer life

Body
- Hot forged sand blasted, nickel plated brass body and cap sealed with Loctite® or equivalent thread sealant
- Valve length according to DIN 16722 M3 for sizes from 3/8" to 2" (DN10 to DN50). Size 1/4" (DN 8) complies to DIN 3202 M3.
- Finest brass according to EN 12165 and EN 12164 specifications

Stem
- Blowout-proof nickel plated brass stem
- Maintenance-free, double FPM O-rings at the stem for maximum safety

Sealing
- Pure PTFE self-lubricating seats with flexible-lip design

Threads
- EN 10226-1, ISO 228 parallel female by female threads



Ball valve is normally closed

Flow
- 100% full port for maximum flow

Handle
- Robust spring ensures auto shutt-off with max pressure in valve
- Geomet® carbon steel handle with thick PVC dip coating. Handle coating offers both thermal and electrical protection
- **WARNING:** do not exceed reasonable temperature and/or electrical load

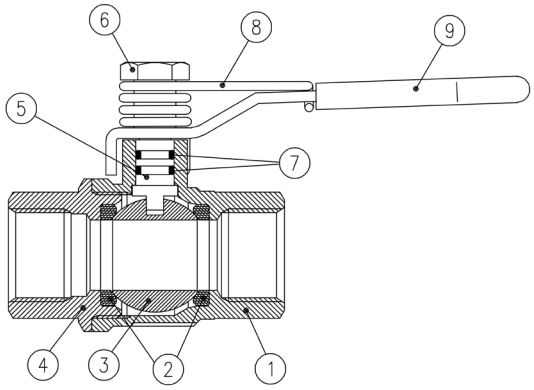
Working pressure & temperature
- 65 bar (940 PSI) up to 1", 40 bar (600 PSI) over 1" non-shock cold working pressure
- -20°C to +170°C (-4°F to +350°F)
- For use with dangerous fluids temperature rating is -20°C to +60°C (-4°F to +140°F)and pressure rating is 5 bar (72 PSI) / **HTB** Class B 0,1
- **WARNING:** freezing of the fluid in the installation may severely damage the valve

Upon request
- Stainless steel ball (1.4401 / AISI 316)
- Custom design
- Stainless steel handle (1.4016 / AISI 430)

PED directive
- Assessment according to Pressure Equipment Directive 2014/68/UE module B+D by ICIM (0425)

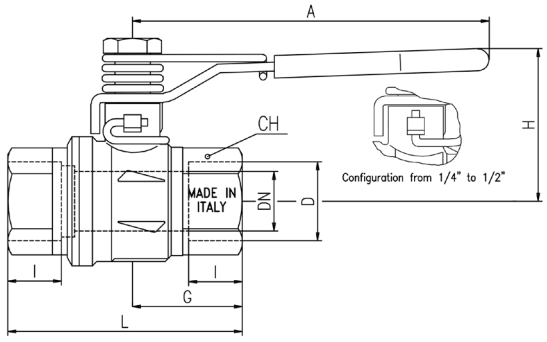
Approved by or in compliance with
- DVGW (Germany) – MOP 5 B 0,1
- GOST-R (Russia)
- RoHS Compliant (EU)
- EAC – Declaration of conformity (Russia, Kazakhstan, Belarus)

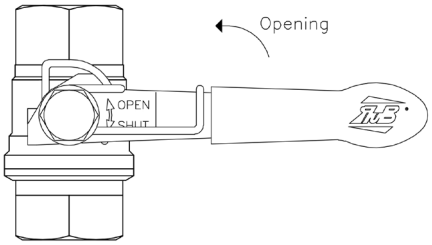
NOTE: approvals apply to specific configurations/sizes only.



1 ¼"-2" hollow ball

	Part description	Q.ty	Material
1	Nickel plated body	1	CW617N
2	Seat	2	PTFE
3	Chrome plated ball	1	CW617N
4	Nickel plated end-cap	1	CW617N
5	Nickel plated stem O-ring design	1	CW617N
6	Unplated spring nut	1	CW617N
7	O-Ring	2	FPM
8	Spring return	1	1.4310 (AISI 302)
9	Yellow PVC coated Geomet® steel handle	1	DD11 (EN10111)

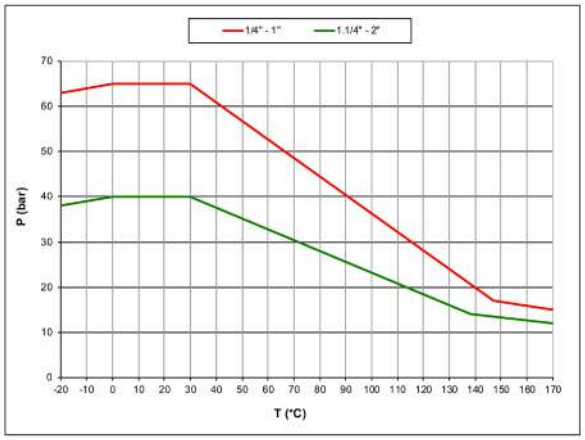




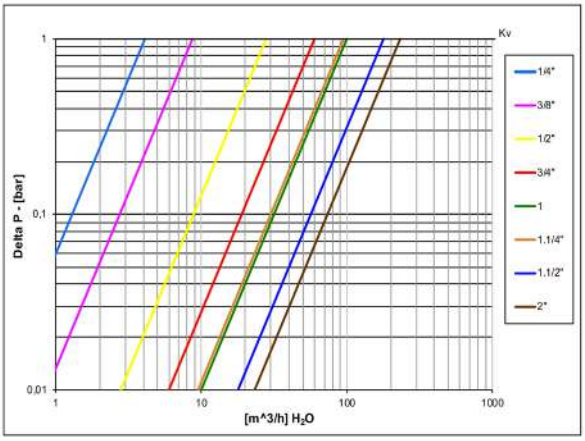
	Compliant to CE 2014/68/UE product Equipment category III Module B+D							
Code	S60B05M	S60C05M	S60D05M	S60E05M	S60F05M	S60G05M	S60H05M	S60I05M
D (inch)	1/4	3/8	1/2	3/4	1	1 1/4	1 1/2	2
DN (mm)	8	10	15	20	25	32	40	50
I (mm)	12.5	12.5	15.5	18	21	23	24.5	26.5
L (mm)	50	60	75	80	90	110	120	140
G (mm)	25.5	25.5	30.5	37	45.5	52	59	67.5
A (mm)	100	100	100	120	120	158	158	158
H (mm)	40	40	43	51	55	75	81	88
CH (mm)	22	22	27	32	41	50	55	70
PN (bar)	65	65	65	65	65	40	40	40
Kv (m3/h)	4.1	8.7	28	60	100	95	179	233

Ball valves are marked CE on handle from 1 ¼" to 2" as follow:
CE 0425 Cat IIIB+D PS: 5 GAS TS1: -20°C TS2: +60°C

Pressure-temperature chart



Pressure drop chart



s.84 EN331 spring return

1/4" - 2"
EN 10226-1

Access to fluid systems in public places could potentially convert into costs and safety problems. In order to avoid unattended valves being left open with negative economic or environmental consequences, ***RuB*** developed the automatic self-closing valve.

The valve can be opened normally by rotating the handle 90° and when the user releases the handle, the valve shuts off automatically. Best solution for service stations, trucks, public areas, gardens. The same features are also useful in industrial applications, where a valve must not be left open unattended.

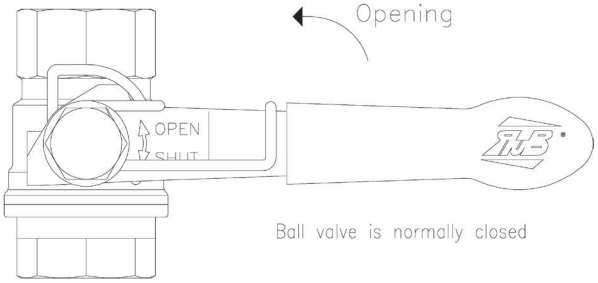
Quality
- 24h 100% seal test guaranteed
- Dual sealing system allows valve to be operated in either direction making installation easier
- No metal-to-metal moving parts
- No maintenance ever required
- Handle clearly shows ball position
- Silicone-free lubricant on all seals
- Travel stops on body to avoid stresses at stem
- Chrome plated brass ball for longer life with rinse hole

Body
- Hot forged sand blasted, external nickel plated brass body and cap sealed with Loctite® or equivalent thread sealant
- Finest brass according to EN 12165 and EN 12164 specifications

Stem
- Blowout-proof nickel plated brass stem
- Maintenance-free, double FPM O-rings at the stem for maximum safety

Sealing
- Pure PTFE self-lubricating seats with flexible-lip design

Threads
- EN 10226-1, ISO 228 parallel female by female threads



Flow
- Full port to DIN 3357 for maximum flow

Handle
- Robust spring ensures auto shutt-off with max pressure in valve
- Geomet® carbon steel handle with thick PVC dip coating. Handle coating offers both thermal and electrical protection

Working pressure & temperature
- 40 bar (600 PSI) non-shock cold working pressure
- -40°C to +170°C (-40°F to +350°F)
- **WARNING:** freezing of the fluid in the installation may severely damage the valve

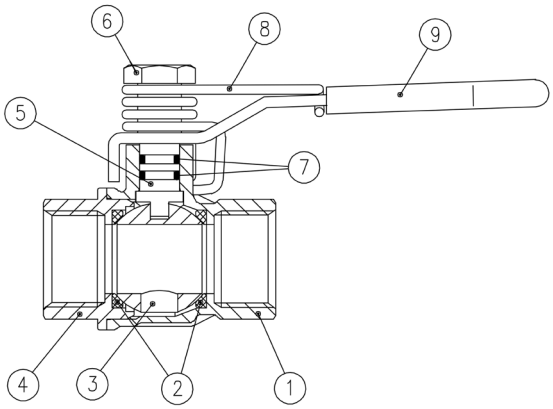
Options
- Stainless steel handle (1.4016 / AISI 430)
- Taper male by parallel female threads

Upon request
- Stainless steel ball (1.4401 / AISI 316)
- Custom Design

PED Directive
- According to 2014/68/UE module A: it cannot be used with dangerous gases in sizes larger than 25 mm.

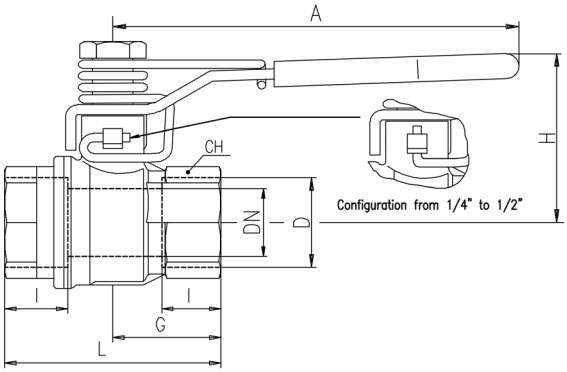
Approved by or in compliance with
- GOST-R (Russia)
- RoHS Compliant (EU)
- EAC – Declaration of conformity (Russia, Kazakhstan, Belarus)

NOTE: approvals apply to specific configurations/sizes only.



1 ¼" - 2" hollow ball

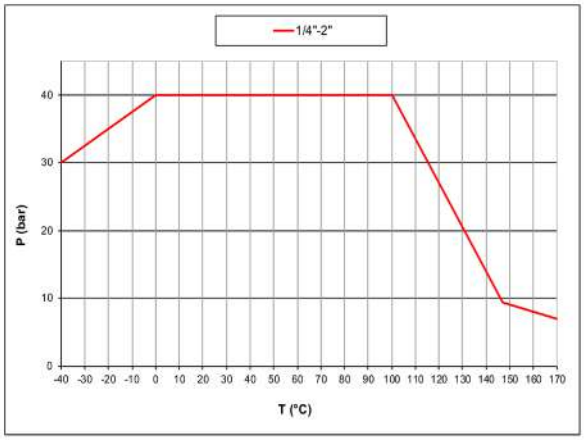
	Part description	Q.ty	Material
1	Nickel plated body (external treatment)	1	CW617N
2	Seat	2	PTFE
3	Chrome plated ball with rinse hole (read rinse hole on sizes from 3/4" up to 2")	1	CW617N
4	Nickel plated end-cap (external treatment)	1	CW617N
5	Nickel plated stem O-ring design	1	CW617N
6	Unplated spring nut	1	CW617N
7	O-Ring	2	FPM
8	Spring return	1	1.4310 (AISI 302)
9	Yellow PVC coated Geomet® steel handle	1	DD11 (EN10111)



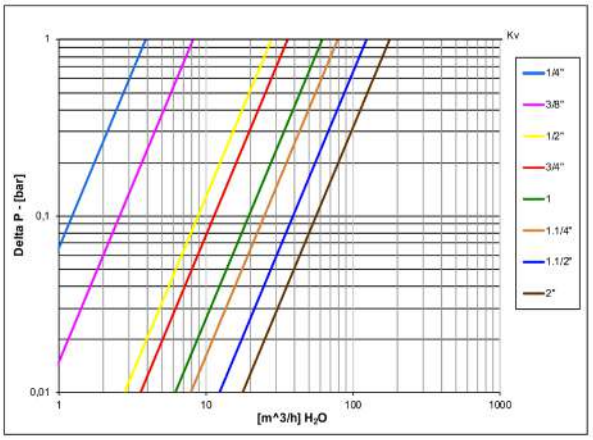
Code	S84B00M	S84C00M	S84D00M	S84E00M	S84F00M	S84G00M	S84H00M	S84I00M
D (Inch)	1/4	3/8	1/2	3/4	1	1 1/4	1 1/2	2
DN (mm)	8	10	15	20	25	32	40	50
I (mm)	12	12	15.5	17	21	23	23	26.5
L (mm)	45	45	59	64	81	93	102	121
G (mm)	22.5	22.5	29.5	32	40.5	46.5	51	60.5
A (mm)	100	100	100	120	120	158	158	158
H (mm)	38	38	43	50	54	73	79	86
CH (mm)	20	20	25	31	40	49	54	68.5
Kv (m3/h)	3.9	8.2	28	36	62	79	124	178

DN shows the nominal flow diameter. Actual flow diameter complies with full port DIN 3357 part 4.
Ball valves are marked CE on handle from 1 ¼" to 2" as follow: CE XXCODEXX Cat I-A

Pressure-temperature chart



Pressure drop chart



s.7300L

3-way, lever, 4 seats, T-port

1/2" - 1"
EN 10226-1

The s.7300L series has a ball seal at every port, and offers a wide variety of possible flow configurations. Positive shut-off can be achieved at any of the exiting ports.

By specifying the appropriate ball port configuration, the T-port design allows flow direction to be adjusted for virtually any situation and is ideal for mixing applications.

Our s.73 multi-port valves can reduce the number of valves required in piping systems and can significantly lower overall costs by replacing two or three conventional 2-way valves, eliminating excess fittings, saving space and simplifying automation.

Quality
- Electronic 100% seal test guaranteed
- No metal-to-metal moving parts
- No maintenance ever required
- Silicone-free lubricant on all seals
- Chrome plated brass ball for longer life
- Each valve is seal tested for maximum safety
- Performs well in any orientation
- Strong configuration

Body
- Hot forged sand blasted, external nickel plated brass body and cap sealed with Loctite® or equivalent thread sealant
- Integrated ISO 5211 /DIN 3337 mounting flange for universal connection to actuator
- Finest brass according to EN 12165 and EN 12164 specifications
- 3-way T-port design for flow mixing

Stem
- Blowout-proof nickel plated brass stem
- Maintenance-free, double FPM O-rings at the stem for maximum safety

Sealing
- Pure PTFE self-lubricating seats with flexible-lip design
- Four seats design for mixing of various fluids in the system

Threads
- EN 10226-1, ISO 228 parallel female threads

Flow
- 100% full port for maximum flow

Handle
- Geomet® carbon steel handle with thick PVC dip coating. Handle coating offers both thermal and electrical protection
- Handle removable with valve in service
- **WARNING:** do not exceed reasonable temperature and/or electrical load

Working pressure & temperature
- 20 bar (300 PSI) non-shock cold working pressure
- -20°C to +150°C (-4°F to +302°F)
- **WARNING:** freezing of the fluid in the installation may severely damage the valve

Options
- Rack and pinion pneumatic actuator (spring return or double acting)
- NPT threads ANSI B.1.20.1 female threads
- S.7300 without handle actuator ready
- Various actuator linkage kit

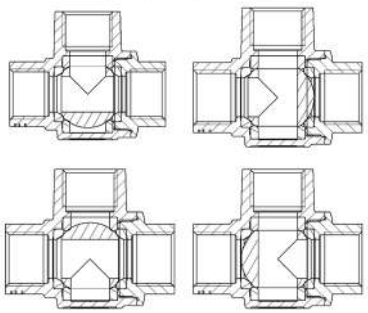
Upon request
- Custom design
- Stainless steel stem
- Configurations with 4 seats & L-port (s.7200L) or 2 seats & L-port (s.7600L)

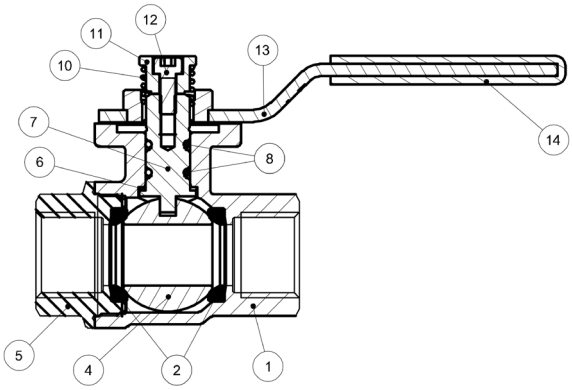
PED directive
- The product meets the requirements of PED Directive 2014/68/UE and according to art.4 par.3, it does not require CE marking

Approved by or in compliance with
- RoHS Compliant (EU)
- EAC – Declaration of conformity (Russia, Kazakhstan, Belarus)

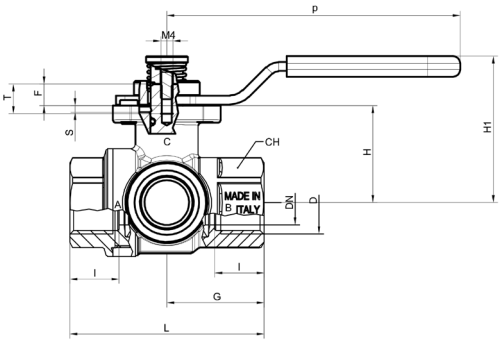
NOTE: approvals apply to specific configurations/sizes only.

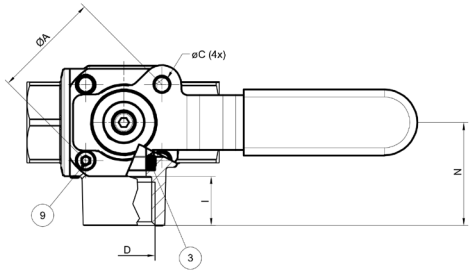
s73 3-way "T" port operating positions





	Part description	Q.ty	Material
1	Nickel plated body (external nickel plated, unplated inside)	1	CW617N
2	Seat	2	PTFE
3	Seat	2	PTFE
4	Chrome plated ball	1	CW617N
5	Nickel plated end cap (external nickel plated, unplated inside)	1	CW617N
6	Washer	1	PTFE carbon filled 25%
7	Nickel plated stem O-ring design	1	CW617N
8	O-Ring	2	FPM
9	Screw handle stop	1	CW617N
10	Spring	1	1.4310 / AISI 302
11	Unplated spring bushing	1	CW617N
12	Stainless steel screw	1	1.4301 / AISI 304
13	Geomet® plated steel handle	1	DD11 (EN10111)
14	Black dipped coating	1	PVC





Code	S73D00L	S73E00L	S73F00L
D (inch)	1/2	3/4	1
DN(mm)	15	20	25
I (mm)	16.5	19	22.5
L (mm)	65	79	92.5
G (mm)	32.5	39.5	46.5
H (mm)	32.5	39.5	42.5
N (mm)	34.5	42	49.5
øA (mm)	36	36	36
øC (mm)	ø5.2 (M6)	ø5.2 (M6)	ø5.2 (M6)
p (mm)	100	100	100
H1 (mm)	49	56	59
S (mm)	2.2	2.2	2.2
T (mm)	10	10	10
F (mm)	7.3	8.3	8.3
CH (mm)	27	32	41
Flange connection ISO 5211 DIN3337	F03	F03	F03

Torque for actuator sizing N.m

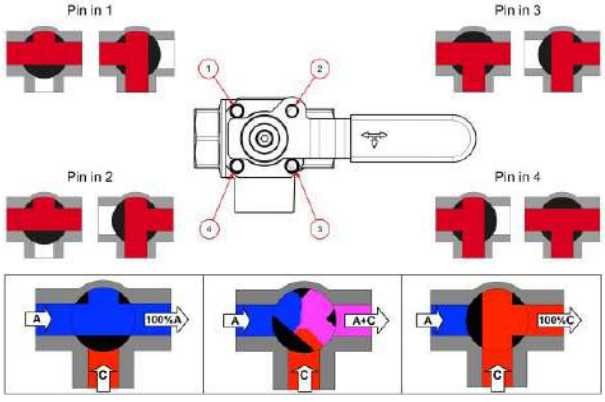
Delta P -->	0÷16 bar	
Valve size	*to open*	*to close*
1/2"	10,5	10,5
3/4"	13	13
1"	29,5	29,5

With the configuration of T-port a stop pin can be fixed in any position of the 4 provided in the flange (1, 2, 3 or 4) and the lever can be rotated freely through 90°, the flow assumes the directions indicated in the diagram; in case of need the lever can be pulled upwards and you can reach any of the four possible positions.
An alternative is to mount 2 pins in 2 near holes (e.g. 1 and 2). In this case, the valve does not assume a predetermined position but can be actuated just by pulling the lever towards the top.
The valve allows also to block the lever thanks to the addition of a lock on the lever's protrusion (in the drawing you can see position 2).
The mixing configuration is achieved by placing the pin in position 2.
The flows to be mixed enter through A and C and exit through A+C.

Torque correction factors

Valve torque can vary according to operating frequency, temperature and friction characteristics of the media.
If media has more or less friction than water, multiply torque by the following factors:

Lubricating oils or liquids	0.8
Dry gases, natural gas	1.5
Slurries or liquids bearing abrasive particles	1.5÷2.5



s.7600L

3-way, lever, 2 seats, L-port (diverting)

1/2" - 1"
EN 10226-1

The ***RuB*** s.7600L is the right choice for fluid diversion and is designed with robust maintenance-free components ensuring ease of operation and safety. With a simple 90° turn, you can divert flow from one downstream outlet to the other. It combines traditional manual operation with modern automation. It is also very easy to convert from its sturdy lever handle to ISO 5211 actuator flange assembly. It features low operating torque and a special wear reducing self-compensating valve seat design that meets our 100,000 cycle life test requirement. The valve can be purchased separately, with handle or with a ***RuB*** actuator already mounted.

Quality
- Electronic 100% seal test guaranteed for maximum safety
- No metal-to-metal moving parts
- No maintenance ever required
- Silicone-free lubricant on all seals
- Chrome plated brass ball for longer life
- Each valve is seal tested for maximum safety
- Performs well in any orientation
- Strong configuration

Body
- Hot forged sand blasted, external nickel plated brass body and cap sealed with Loctite® or equivalent thread sealant
- Integrated ISO5211 / DIN3337 mounting flange for universal connection to actuator
- Finest brass according to EN 12165 and EN 12164 specifications
- 3-way L-port design for flow diversion

Stem
- Blowout-proof nickel plated brass stem
- Maintenance-free, double O-rings at the stem for maximum safety

Sealing
- Reinforced PTFE self-lubricating seats with flexible-lip and wear compensation design

Threads
- EN 10226-1, ISO 228 parallel female by female threads

Flow
- 100% full port for maximum flow

Handle
- Geomet® carbon steel handle with thick PVC dip coating. Handle coating offers both thermal and electrical protection
- Handle removable with valve in service
- **WARNING:** do not exceed reasonable temperature and/or electrical load

Working pressure & temperature
- 30 bar (450PSI) non-shock cold working pressure
- -20°C to +170°C (-4°F to +350°F)
- **WARNING:** freezing of the fluid in the installation may severely damage the valve

Options
- Rack and pinion pneumatic actuator (spring return or double acting)
- Compact Power electric actuator
- Female by female NPT threads
- ISO 7/1, BS 21 BSPT taper female threads
- S.7600 without handle, actuator ready
- Various actuator linkage kit

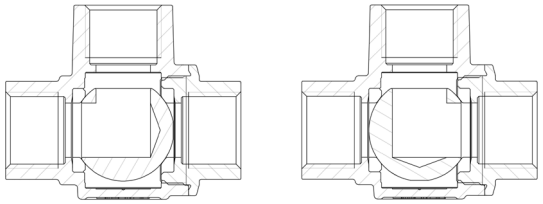
Upon request
- Custom design
- Stainless steel stem (1.4401/ AISI 316)
- Configurations with 4 seats, L-port (s.7200L) or T-port (s.7300L)

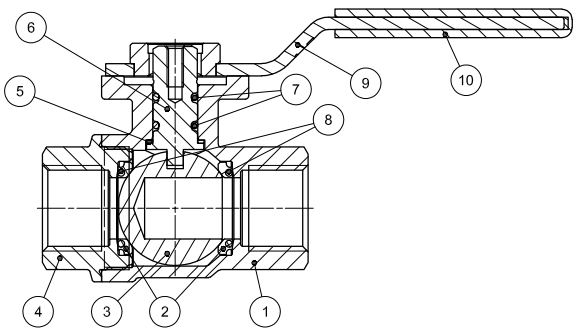
PED directive
- The product meets the requirements of PED Directive 2014/68/UE and according to art.4 par.3, it does not require CE marking.

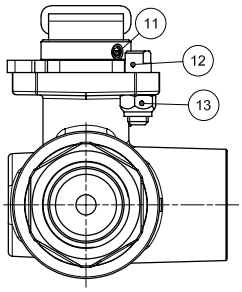
Approved by or in compliance with
- RoHS Compliant (EU)
- EAC – Declaration of conformity (Russia – Kazakhstan – Belarus)

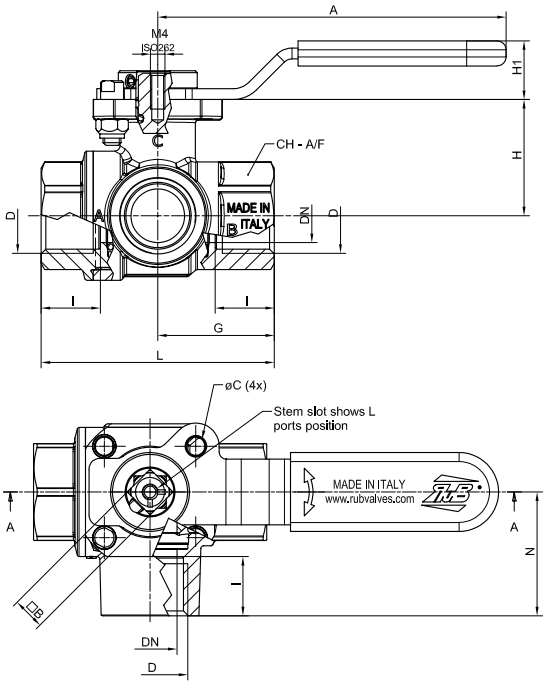
NOTE: approvals apply to specific configurations/sizes only.

S.76 3-way "L" port operating positions









	Part description	Q.ty	Material
1	Nickel plated body (External nickel plated, unplated inside)	1	CW617N
2	Seat	2	PTFE graphite filled 15%
3	Chrome plated ball	1	CW617N
4	Sand blasted nickel plated end cap (External nickel plated, unplated inside)	1	CW617N
5	Washer	1	PTFE carbon filled 25%
6	Nickel plated stem O-ring design	1	CW617N
7	O-Ring	2	FPM
8	O-Ring	2	FPM
9	Geomet® plated steel handle	1	DD11 (EN10111)
10	Black dipped coating	1	PVC
11	Stainless steel screw	1	1.4301 / AISI304
12	Unplated stop	1	CW617N
13	Zinc plated steel nut	1	Class 8 (UNI7474)

Table 2			
Valve code	S76D00L	S76E00L	S76F00L
Size (inch) EN 10226	Rp 1/2"	Rp 3/4"	Rp 1"
DN(mm)	15	20	25
I (mm)	16.5	19	22.5
L (mm)	65	79	92.5
G (mm)	32.5	39.5	46.5
H (mm)	32.5	39.5	42.5
H1 (mm)	16.5	16.5	16.5
N (mm)	34.5	42	49.5
øC (mm)	ø5.2 (M6)	ø5.2 (M6)	ø5.2 (M6)
Square B (mm)	9	9	9
CH - A/F (mm)	27	32	41
Flange connection DIN ISO 5211 DIN 3337	F03	F03	F03

Torque for actuator sizing N.m

Delta P -->	0÷16 bar	
Valve size	*to open*	*to close*
1/2″	3,5	3,5
3/4″	4,0	4,0
1″	4,5	4,5

Torque correction factors

Valve torque can vary according to operating frequency, temperature and friction characteristics of the media.

If media has more or less friction than water, multiply torque by the following factors:

Lubricating oils or liquids	0.8
Dry gases, natural gas	1.5
Slurries or liquids bearing abrasive particles	1.5÷2.5

s.135
stainless steel

2" - 3" - 4"
ANSI B16.5 flange
ISO 5211

Quality

- Anti-static device
- Locking device
- Long cycle life
- Test standard: API 598
- API 607 4th edition fire safe approval
- Vacuum service to 29" Hg

Body

- ISO 5211 actuator mounting pad
- Body: ASTM A351 Gr. CF8M

Stem

- Blow-out proof stem design
- Adjustable stem packing

Sealing

- ME-PTFE seal kits:

-replaces PTFE, RPTFE and FPA

-low deformation under load

-low permeation

Connections

- ANSI B16.5, B16.10 and B16.34 full compliance

Handle

- Handle in ASTM A536 Gr. 65-45-12
- **WARNING:** do not exceed reasonable temperature and/or electrical load

Working pressure & temperature

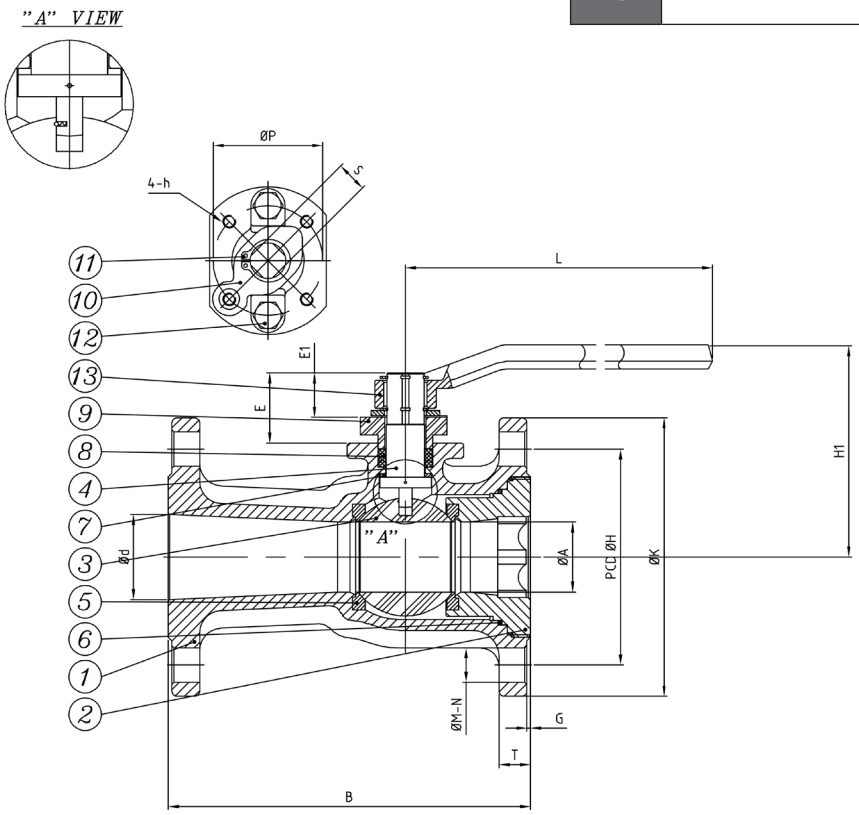
- General use: 52 bar (see chart on reverse)
- 19 bar for ASME 150 CF8M (see chart on reverse)
- Steam rating: 10 bar
- -45,5°C to +246°C
- **WARNING:** freezing of the fluid in the installation may severely damage the valve

Approved by or in compliance with

- GOST-R (Russia)

NOTE: approvals apply to specific configurations/sizes only.

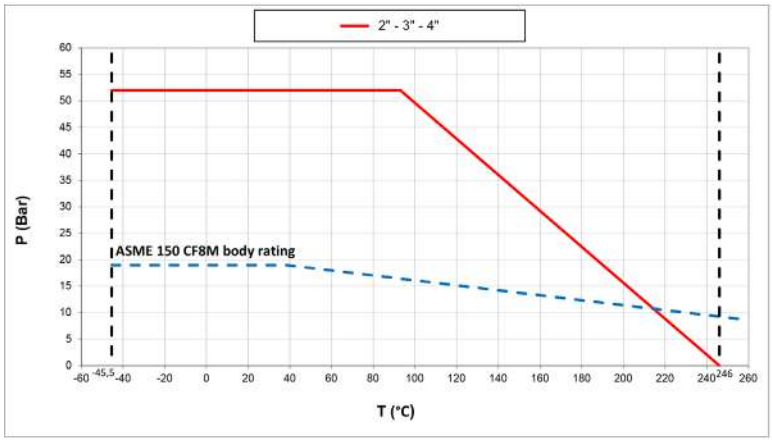
	Part description	Q.ty	Material
1	Body	1	ASTM A351-CF8M
2	Cap	1	ASTM A351-CF8M
3	Ball	1	ASTM A351-CF8M
4	Stem	1	ASTM A276 Gr. 316
5	Seat	2	ME-PTFE*
6	Gasket	1	ME-PTFE*
7	Thrust washer	1	ME-PTFE*
8	Packing	1	ME-PTFE*
9	Gland	1	ASTM A351-CF8
10	Stopper	1	SS304
11	Snap ring	2	SS304
12	Gland bolt	2	ASTM A193 Gr. B8
13	Handle	1	ASTM A536 Gr. 65-45-12



Code	135IF0	135MF0	135NF0
Size (inch)	2"	3"	4"
A (mm)	38.1	65	80
B (mm)	177.8	203.2	228.6
E (mm)	41.9	55.9	55.9
E1 (mm)	25.9	36.6	36.6
d (mm)	50	80	100.1
G (mm)	1.5	1.5	1.5
H (mm)	120.7	152.4	190.5
K (mm)	152.4	190.5	228.6
T (mm)	15.7	19.1	23.8
M (mm)	19.1	19.1	19
N	4	4	8
P (mm)	70.1	102.1	102.1
S (mm)	17	22.1	22.1
L (mm)	231.9	326.9	326.9
H1 (mm)	126	151.9	160
h	M8*P1.25	M10*P1.5	M10*P1.5

SIZE	2"	3"	4"
Kv Factor	146	370	486

Pressure-temperature chart



*ME-PTFE is moleculary enhanced PTFE

s.136
stainless steel

6" - 8"
ANSI B16.5 flange
ISO 5211

Quality

- Anti-static device
- Locking device
- Long cycle life
- Test standard: API 598
- API 607 4th edition fire safe approval
- Vacuum service to 29" Hg

Body

- ISO 5211 actuator mounting pad
- Body: ASTM A351 Gr. CF8M

Stem

- Blow-out proof stem design
- Adjustable stem packing

Connections

- ANSI B16.5, B16.10 and B16.34 full compliance

Handle

- Handle in ASTM A536 Gr. 65-45-12 / SS304
- **WARNING:** do not exceed reasonable temperature and/or electrical load

Working pressure & temperature

- General use: 50 bar / 750 PSI (see chart on reverse)
- 19 bar / 275 PSI for ASME 150 CF8M (see chart on reverse)
- Steam rating: 10 bar / 150 PSI WSP
- -45,5°C to +246°C (-50°F to +475°F)
- **WARNING:** freezing of the fluid in the installation may severely damage the valve

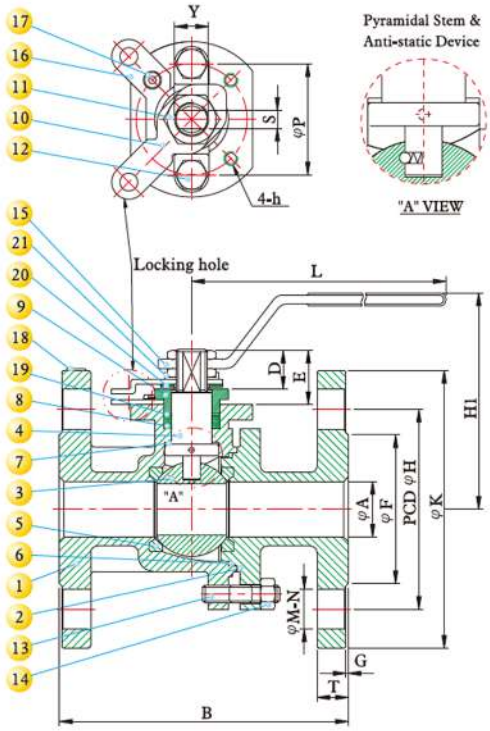
Sealing

- ME-PTFE seal kits:

-replaces PTFE, RPTFE and FPA

-low deformation under load

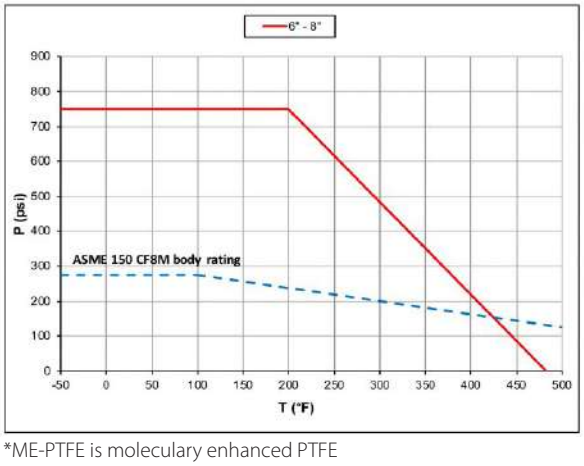
-low permeation



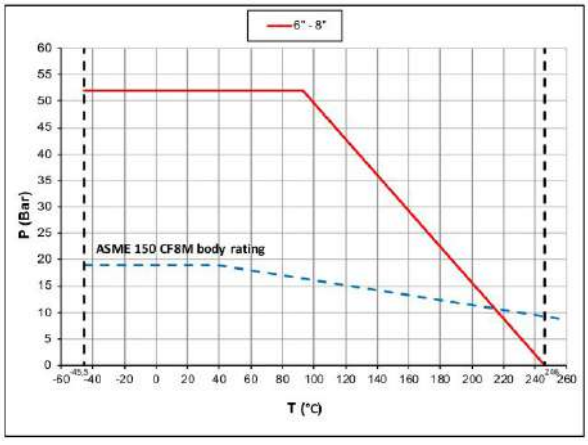
	Part description	Q.ty	Material
1	Body	1	ASTM A351-CF8M
2	Cap	1	ASTM A351-CF8M
3	Ball	1	ASTM A351-CF8M
4	Stem	1	ASTM A276 Gr. 316
5	Seat	2	ME-PTFE*
6	Gasket	1	GRAFOIL
7	Thrust washer	1	ME-PTFE*
8	Packing	1	GRAFOIL
9	Gland	1	ASTM A351- Gr.CF8
10	Stopper	1	SS304
11	Handle nut	2	SS304
12	Gland bolt	2	ASTM A193 Gr. B8
13	Stud bolt - Q.ty 4-10		ASTM A193 Gr. B8
14	Set nut - Q.ty 4-10		ASTM A194 Gr. 8
15	Handle	1	SS304
16	Locking plate	1	SS304
17	Set bolt	2	SS304
18	Name plate	1	SS304
19	Ring	1	SS304
20	Bearing	1	NYLON
21	Lock washer	1	SS304

Code	136PF0	136QF0	Code	136PF0	136QF0
Size (inch)	6"	8"	Size (inch)	6"	8"
A (mm)	150	200	A (inch)	5.91	7.87
B (mm)	393.7	457.2	B (inch)	15.50	18.00
E (mm)	67.3	72.7	E (inch)	2.65	2.86
F (mm)	215.9	269.7	F (inch)	8.50	10.62
D (mm)	37.7	47.8	D (inch)	1.48	1.88
G (mm)	1.6	1.6	G (inch)	0.06	0.06
H (mm)	241.3	298.4	H (inch)	9.50	11.75
K (mm)	279.4	342.9	K (inch)	11.00	13.50
T (mm)	25.4	27	T (inch)	1.00	1.06
M (mm)	22.3	22.3	M (inch)	0.88	0.88
N	8	8	N	8	8
P (mm)	125	140	P (inch)	4.92	5.51
S (mm)	20	33	S (inch)	0.79	1.30
L (mm)	1032	1080	L (inch)	40.63	45.52
H1 (mm)	263.5	305	H1 (inch)	10.37	12.00
h	M12x1.75	M16x2.0	h	M12x1.75	M16x2.0
Kv (m^3/h)	1158	2134	CV (GPM)	5100	9400

Pressure - temperature chart (°F)



Pressure - temperature chart (°C)



*ME-PTFE is moleculary enhanced PTFE

s.100

3-way 4 seats T-port

1/4" - 2"
ISO 228

Quality

• Chrome plated brass ball for longer life

• UNI 8858 cycle and torque tests performed

Body

• Hot forged sand blasted nickel plated brass body and caps

• 3- way T design allows complete range of flow handling applications

• Copper alloy brass according to EN 12165 and EN 12164 specifications

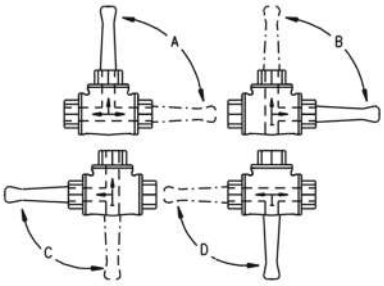
Stem

• Maintenance-free, double NBR O-rings at the stem for maximum safety

Sealing

• Four seats design limits mixture among various fluids in the system

• PTFE seats



s.100 3-way T port

Threads

• ISO 228 female threads

Flow

• Extra port for lowest pressure drop

Working pressure & temperature

• See non- shock cold working pressure on chart

• -10°C to + 120°C (+15°F to +250°F)

• **WARNING:** freezing of the fluid in the installation may severely damage the valve

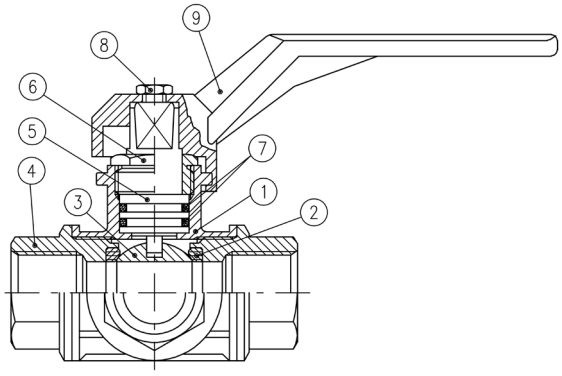
PED directive

• The product described in this document meets the requirements of PED Directive 2014/68/UE and according to art.4 par.3, it does not require CE marking; it cannot be used with dangerous gases in sizes larger than 25mm; it cannot be used with non-dangerous gases in size larger than 32 mm

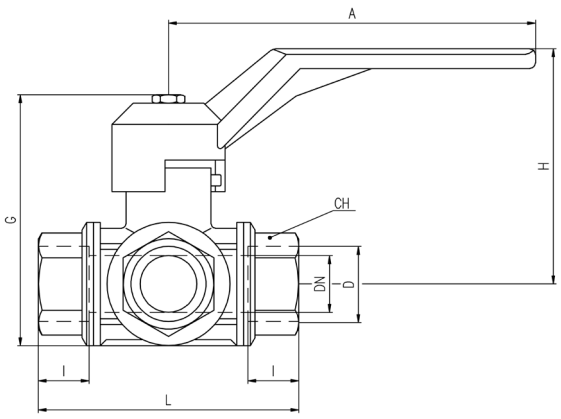
Approved by or in compliance with

• GOST-R (Russia)

NOTE: approvals apply to specific configurations/ sizes only.

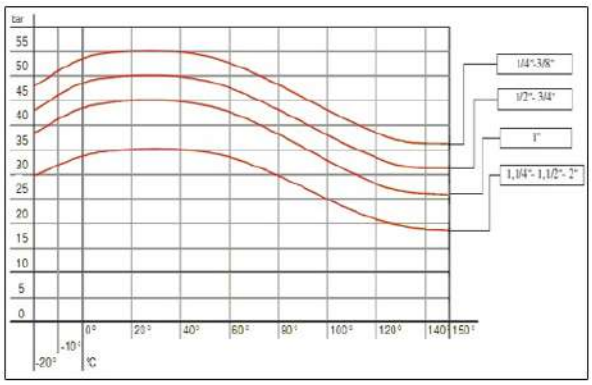


	Part description	Q.ty	Material
1	Nickel plated body	1	CW617N
2	Seat	4	PTFE
3	Chrome plated ball	1	CW617N
4	Nickel plated end-cap	3	CW617N
5	Nickel plated stem O-ring design	1	CW614N
6	Nickel plated nut	1	CW614N
7	O-Ring	2	NBR
8	Screw	1	Steel
9	Red handle	1	Aluminum

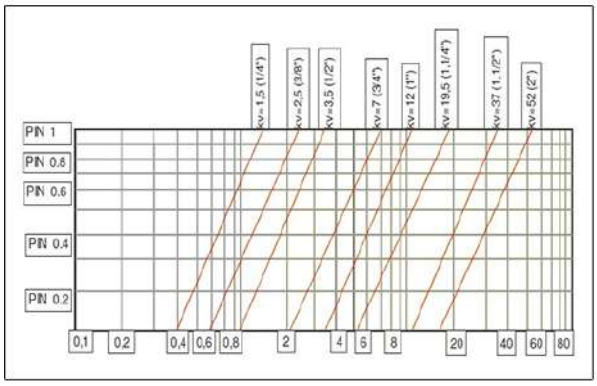


Code	100B00	100C00	100D00	100E00	100F00	100G00	100H00	100I00
D (inch)	1/4	3/8	1/2	3/4	1	1 1/4	1 1/2	2
DN (mm)	10	12	14	18	23	29	36	45
I (mm)	19	19	19	23	25	27	31	36
L (mm)	77	77	77	92	104	118	138	162
G (mm)	75	75	75	91	105	115	128	165
A (mm)	125	125	125	145	170	170	170	260
H (mm)	65	65	65	83	96	102	109	139
CH (mm)	22	22	27	34	41	50	57	70
Kv (m3/h)	1.5	2.5	3.5	7.0	12	19.5	37	52

Pressure-temperature chart



Pressure drop chart



s.101

3-way 4 seats L-port

1/4" - 2"
ISO 228

Quality

• Chrome plated brass ball for longer life

• UNI 8858 cycle and torque tests performed

Body

• Hot forged sand blasted nickel plated brass body and caps

• 3- way L design allows complete range of flow handling applications

• Copper alloy brass according to EN 12165 and EN 12164 specifications

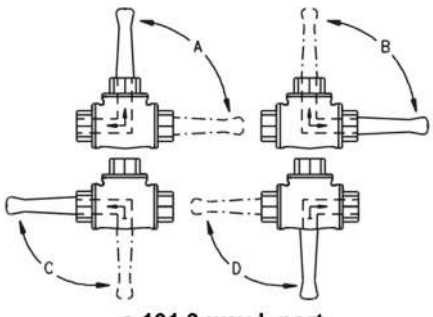
Stem

• Maintenance-free, double NBR O-rings at the stem for maximum safety

Sealing

• Four seats design limits mixture among various fluids in the system

• PTFE seats



s.101 3-way L port

Threads

• ISO 228 female threads

Flow

• Extra port for lowest pressure drop

Working pressure & temperature

• See non- shock cold working pressure on chart

• -10°C to + 120°C (+15°F to +250°F)

• **WARNING:** freezing of the fluid in the installation may severely damage the valve

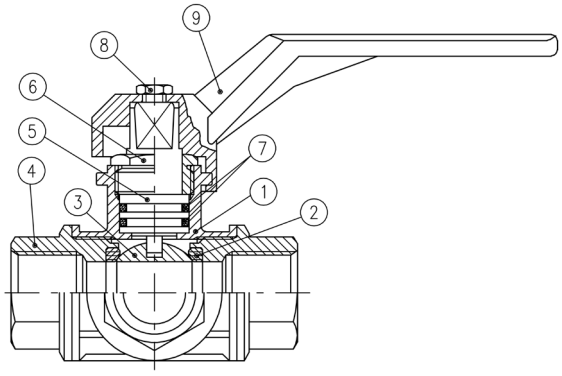
PED directive

• The product described in this document meets the requirements of PED Directive 2014/68/UE and according to art.4 par.3, it does not require CE marking; it cannot be used with dangerous gases in sizes larger than 25mm; it cannot be used with non-dangerous gases in size larger than 32 mm

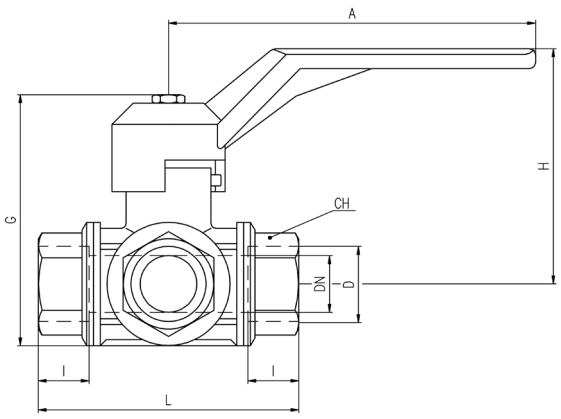
Approved by or in compliance with

• GOST-R (Russia)

NOTE: approvals apply to specific configurations/ sizes only.

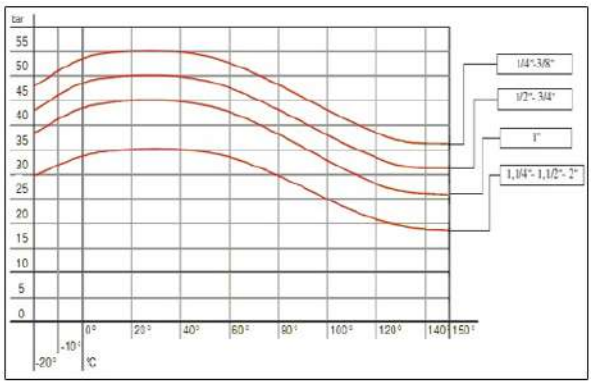


	Part description	Q.ty	Material
1	Nickel plated body	1	CW617N
2	Seat	4	PTFE
3	Chrome plated ball	1	CW617N
4	Nickel plated end-cap	3	CW617N
5	Nickel plated stem O-ring design	1	CW614N
6	Nickel plated nut	1	CW614N
7	O-Ring	2	NBR
8	Screw	1	Steel
9	Red handle	1	Aluminum

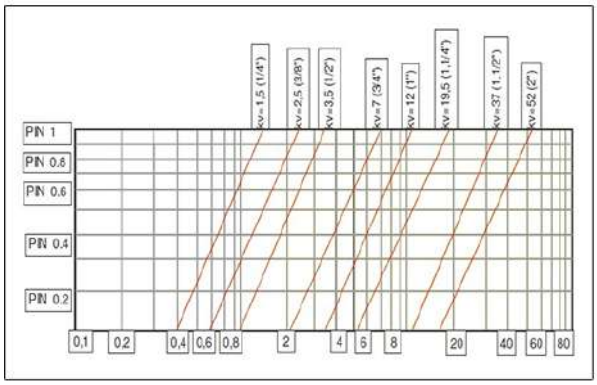


Code	101B00	101C00	101D00	101E00	101F00	101G00	101H00	101I00
D (inch)	1/4	3/8	1/2	3/4	1	1 1/4	1 1/2	2
DN (mm)	10	12	14	18	23	29	36	45
I (mm)	19	19	19	23	25	27	31	36
L (mm)	77	77	77	92	104	118	138	162
G (mm)	75	75	75	91	105	115	128	165
A (mm)	125	125	125	145	170	170	170	260
H (mm)	65	65	65	83	96	102	109	139
CH (mm)	22	22	27	34	41	50	57	70
Kv (m3/h)	1.5	2.5	3.5	7.0	12	19.5	37	52

Pressure-temperature chart



Pressure drop chart

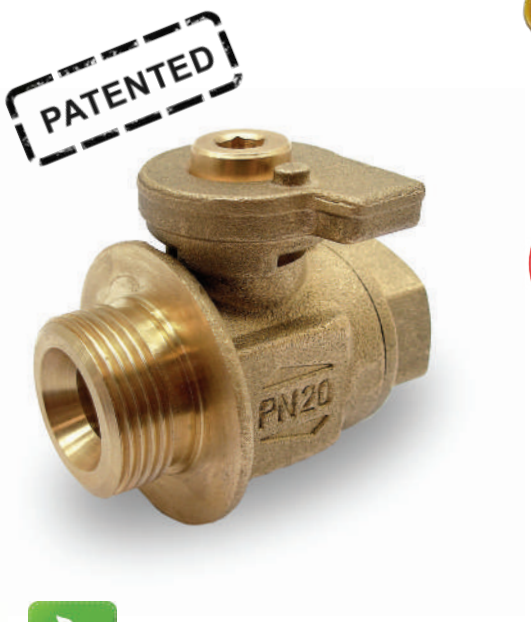


s.17

motor-oil drain ball valve

Specifically responding to a need in the automotive application, s.17 is fittedb under the oil sum to ease drainage operations, and furthermore granting a most reliable tightness thanks to its special automatic locking device, even under severe conditions of vibration stress.

Frozen drain plug and stripped threads are eliminated, no more contact with hot oil, no messy hands or cloths and reduced oil changing time.



LIFE WARRANTY

AVAILABLE ON DEMAND

RoHS compliant

Quality
- 24h 100% seal test guaranteed
- No metal-to-metal moving parts
- No maintenance ever required
- Handle clearly shows ball position
- Silicone-free lubricant on all seals
- Dual sealing system to prevent leakage
- Handle stops on body to avoid stresses at stem

Body
- Hot forged sand blasted, unplated brass body and cap sealed with Loctite® or equivalent thread sealant
- Compact design and solid structure
- Fines brass according to EN 12165 and EN 12164 to prevent corrosion

Stem
- Blowout-proof unplated brass stem
- Maintenance-free, double FPM O-ring at the stem for maximum safety

Sealing
- Glass filled pure PTFE self-lubricating seats with flexible-lip design

Threads
- M24x1.5 – 3/8" threads

Handle
- Tamper proof and sealed to prevent dirt or dust from entering the rotation mechanism
- 90° opening rotation
- Automatic lock in closed position, to prevent accidental opening and thus warrant utmost safety

Working pressure & temperature
- 20 bar (300 PSI) non-shock cold working pressure
- -20°C to +130°C (-4°F to +266°F)
- **WARNING:** freezing of the fluid in the installation may severely damage the valve

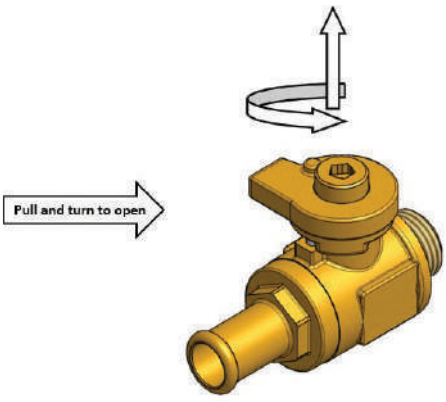
Options
- M16x1.5 threads – hose connection
- M12x1.5 threads – hose connection
- M24x1.5 – 1/4" threads

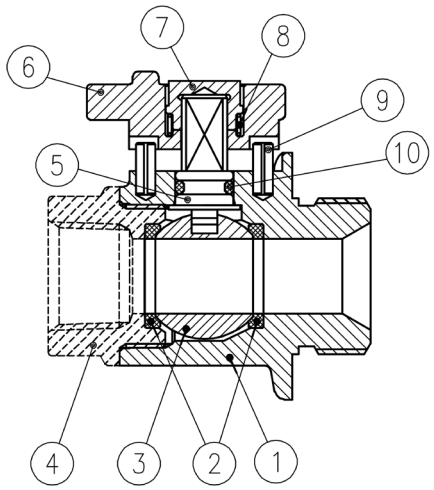
Upon request
- Stainless steel ball (1.4401 / AISI 316)
- Custom design

PED directive
- The product meets the requirements of PED Directive 2014/68/UE and according to art.4 par.3, it does not require CE marking

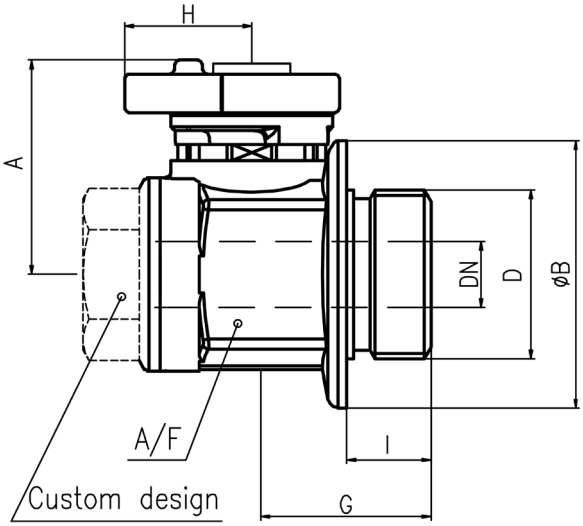
Approved by or in compliance with
- GOST-R (Russia)
- RoHS Compliant (EU)

NOTE: approvals apply to specific configurations/sizes only.



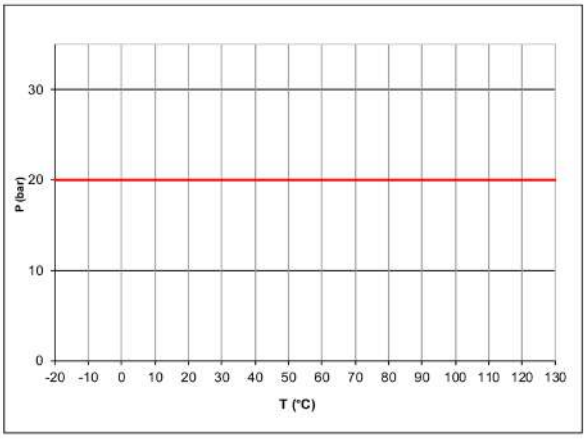


	Part description	Q.ty	Material
1	Unplated sand blasted body	1	CW617N
2	Seat	2	PTFE glass filled 5-15%
3	Chrome plated ball	1	CW617N
4	Unplated end-cap - hose connection - custom	1	CW617N
5	Unplated stem O-ring design	1	CW617N
6	Unplated sand blasted handle	1	CW617N
7	Unplated handle cap	1	CW617N
8	Spring	1	X10CrNi 18-8
9	Spring pin Ø 3x8 ISO 8752	2	X10CrNi 18-8
10	O-Ring	1	FPM

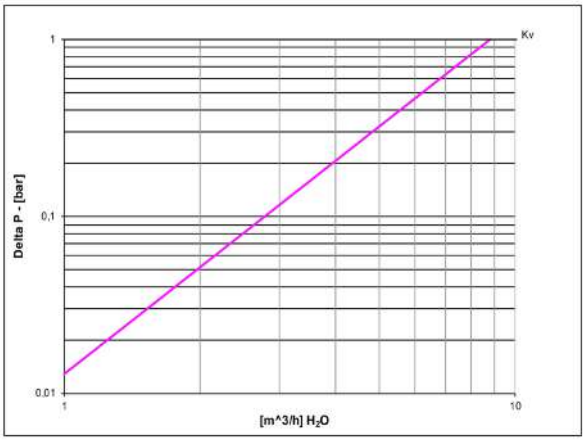


D (mm)	M12x1.5	M16x1.5	M24x1.5
DN (mm)	6	10	11.5
I (mm)	10	10	12
øB (mm)	27	27	38
G (mm)	24.5	24.5	25.5
A (mm)	31.5	31.5	31.5
H (mm)	18	18	18
A/F (mm)	25	25	27
Kv (m3/h)	8.8		

Pressure-temperature chart



Pressure drop chart



XCES17 - 4266

s.172

motor-oil compact drain ball valve

AVAILABLE ON DEMAND

Specifically responding to a need in the automotive application, s.17 is fitted under the oil sum to ease drainage operations, and furthermore granting a most reliable tightness thanks to its special automatic locking device, even under severe conditions of vibration stress.

Frozen drain plug and stripped threads are eliminated, no more contact with hot oil, no messy hands or cloths and reduced oil changing time.

PATENT PENDING

Quality

- 24h 100% seal test guaranteed
- No metal-to-metal moving parts
- No maintenance ever required
- Silicone-free lubricant on all seals
- Screwdriver slot, the slot orientation shows the ball position

Body

- Hot forged sand blasted, unplated brass body and cap sealed with metacrylate sealant
- Compact design and solid structure
- Finest brass according to EN 12165 and EN 12164 to prevent corrosion

Stem

- Blowout-proof AISI 316 stainless steel stem
- Maintenance-free, double FPM O-ring at the stem for maximum safety

Sealing

- Pure PTFE self-lubricating seats

Threads

- M22X1.5 thread with seat for O-ring seal

Handle

- 90° open / close

Working pressure & temperature

- 20 bar (300 PSI) non-shock cold working pressure
- -20°C to +130°C (-4°F to +266°F)
- **WARNING:** freezing of the fluid in the installation may severely damage the valve

Options

- Elbow version with hose connection
- Allen stem

Upon request

- AISI 316 stainless steel ball
- Custom design
- Aluminum body

PED directive

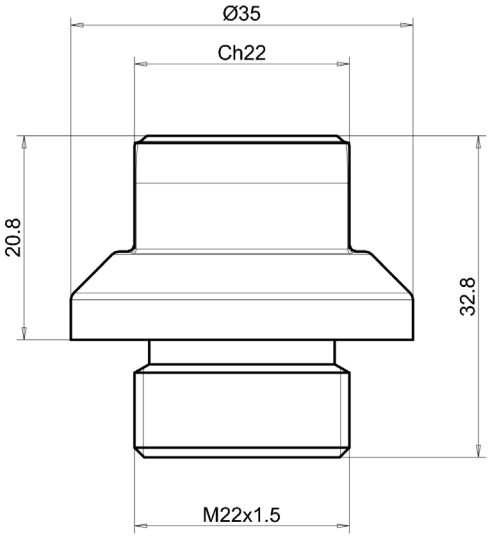
- The product meets the requirements of PED Directive 2014/68/UE and according to art.4 par.3, it does not require CE marking

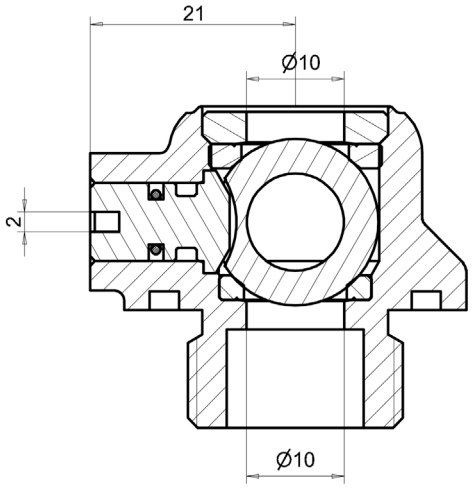
Approved by or in compliance with

- GOST-R (Russia)
- RoHS Compliant (EU)

NOTE: approvals apply to specific configurations/sizes only.

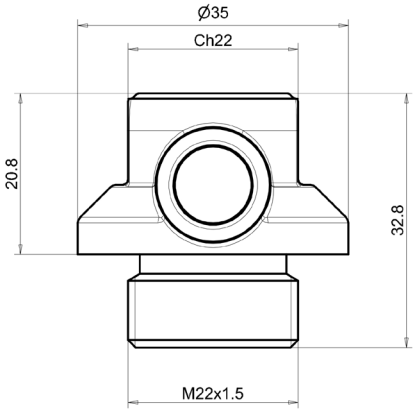
STRAIGHT CONFIGURATION

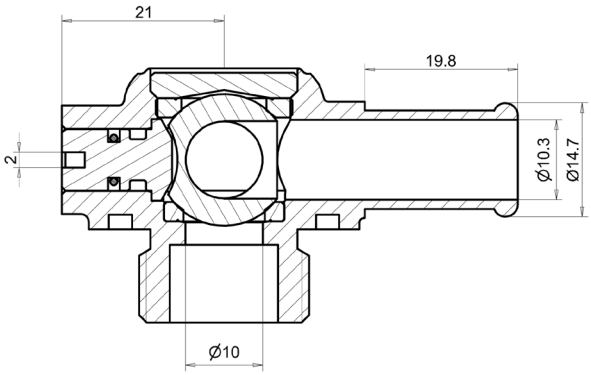




EXAMPLES OF VALVE DIMENSIONS AND CONFIGURATIONS

ELBOW CONFIGURATION





s.92 barrel drain

3/4" – 1"

The s.92 ***RuB*** brass ball valve is specifically designed to offer easy and effective drainage of storage tanks and can be installed at the bottom of your barrel or tank and operated with a simple 90° turn to allow full flow accessibility to quickly drain your water, oil, gasoline or other fluids.

Its 45° threaded elbow allows for additional pipe connection to conveniently install the drain valve in the best location and in addition the valve features a patented ***RuB*** tamper-proof locking handle to ensure there is no unauthorized access to the tank.

The s.92 can easily be installed on small tanks, utility tanks, overhead farm tanks, and drums as a gravity flow shut-off valve. Another good idea from ***RuB***!

Quality

- 24h 100% seal test guaranteed
- Dual sealing system allows valve to be operated in either direction making installation easier
- No metal-to-metal moving parts
- Handle clearly shows ball position
- Silicone-free lubricant on all seals
- Chrome plated brass ball for longer life
- Handle stops on body to avoid stress at stem

Body

- Hot forged sand blasted, unplated brass body and cap sealed with Loctite® or equivalent thread sealant
- Finest brass according to EN 12165 and EN 12164 specications

Stem

- Blowout-proof nickel plated brass stem
- Pure PTFE adjustable packing gland and reinforced washer for lower torque and easy maintenance

Sealing

- Glass filled pure PTFE self-lubricating seats with flexible-lip design

Threads

- NPT taper ANSI B.1.20.1 male by female threads

Flow

- Full port to DIN 3357 for maximum flow

Handle

- Geomet® carbon steel lockable handle patent n. 7074-B/90 with thick PVC dip coating.

Handle coating oers both thermal and electrical protection

- Handle removable with valve in service

Working pressure & temperature

- 600 PSI (40 bar), (150 WSP / -10 bar all sizes) non-shock cold working pressure
- *150 psig (10 bar) non-shock steam working pressure. Not suitable for throttling steam
- -40°F to +366°F (-40°C to + 170 °C)
- **WARNING:** freezing of the fluid in the installation may severely damage the valve

Options

- T-handle
- Oval lockable handle
- Stainless steel handle (1.4016 / AISI 430)
- Stubby handle
- Non-locking Geomet® carbon steel lever handle

Upon request

- Stainless steel ball and/or stem (1.4401 / AISI 316)
- Custom design
- Pure PTFE seals
- EN 10226-1, ISO 228 parallel female by female threads
- ISO 7/1, BS 21 BSPT taper female by female threads

PED Directive

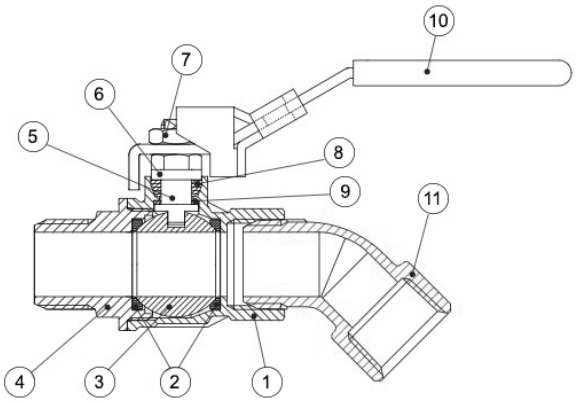
- The product meets the requirements of

PED Directive 2014/68/UE and according to art.4 par.3, it does not require CE marking

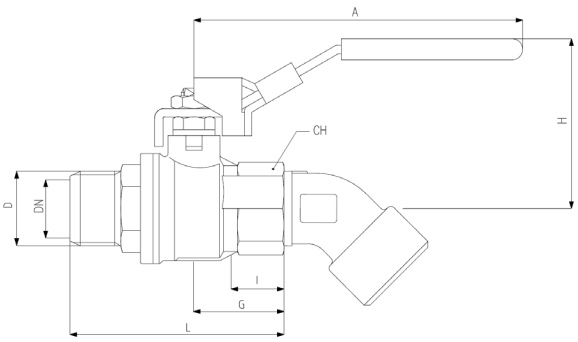
Approved by or in compliance with

- RoHS Compliant (EU)

NOTE: approvals apply to specific configurations/sizes only.



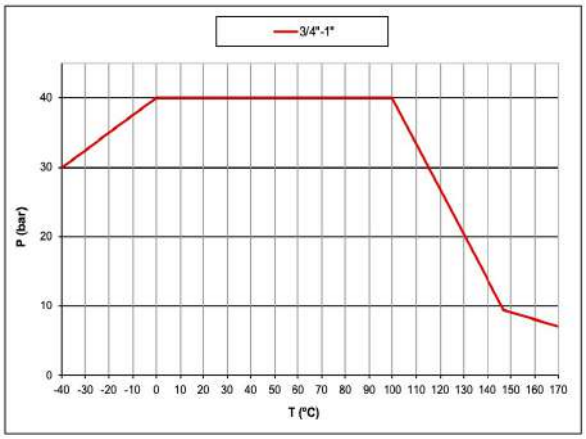
	Part description	Q.ty	Material
1	Unplated NPT body	1	CW617N
2	Seat	2	PTFE glass filled 5-15%
3	Chrome plated ball	1	CW617N
4	Unplated NPT end-cap	1	CW617N
5	Nickel plated stem packing gland design	1	CW617N
6	Nickel plated gland nut	1	CW617N
7	Geomet® nut	1	CB4FF (EN10263-2)
8	Packing gland seal	1	PTFE
9	Washer	1	PTFE carbon filled 25%
10	Light blue PVC coated Geomet® steel lockable handle	1	DD11 (EN10111)
11	Elbow	1	CW617N



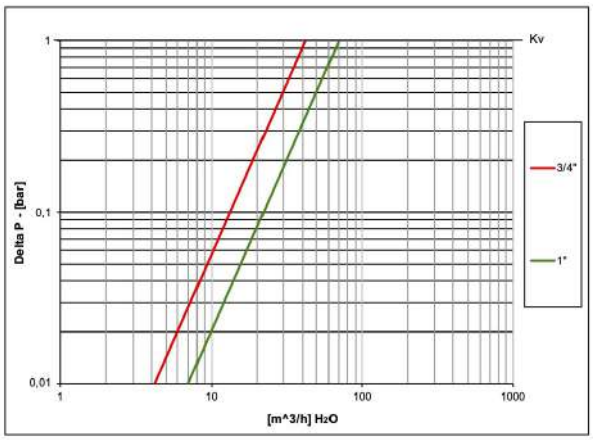
CODE	S92ES2MO	S92FS2MO
D (inch)	3/4"	1"
DN (mm)	20	25
I (mm)	17	21
L (mm)	76,5	92,4
G (mm)	32	40,5
A (mm)	117	117
H (mm)	60	64
CH (mm)	31	40
Kv (m3/h)	42	70

DN shows the nominal flow diameter. Actual flow diameter complies with full port DIN 3357 part 4.

Pressure-temperature chart



Pressure drop chart



XCES92S2

SNI7352

1/4" NPT needle valve

The new ***RuB*** needle valve proves the state of the art of RuB innovation capabilities.

This inexpensive valve is designed to ease flow regulation in all applications where drops are counted like gold!

The flow chart on reverse compares the ***RuB*** linear curve performance with competition and it is obvious how by counting the number of turns, the operator can easily adjust flow.

All details of the ***RuB*** needle valve have been optimized to provide utmost performance, reliability and no maintenance.

Another "install and forget" ***RuB*** product.

Quality

- Innovative design
- No maintenance ever required
- Performance guaranteed
- Tamper proof

Body

- Hot forged brass body
- One piece body construction

Stem

- FPM stem seal design
- Handle stop on stem prevents stem blow-out

Threads

- Fip x Fip NPT threads

Flow

- Easy flow regulation

Working pressure & temperature

- 2000 PSI non-shock cold working pressure
- -40°F to +350°F
- WARNING: freezing of the fluid in the installation may severely damage the valve

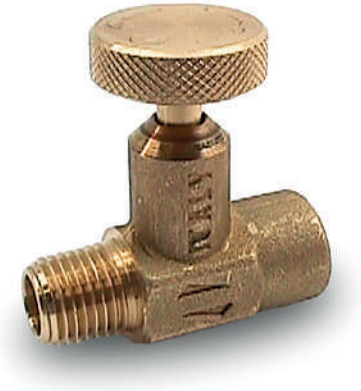
Options

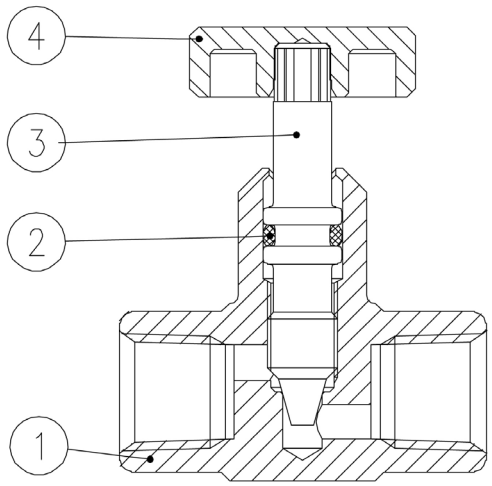
- Mip x Fip NPT threads

Upon request

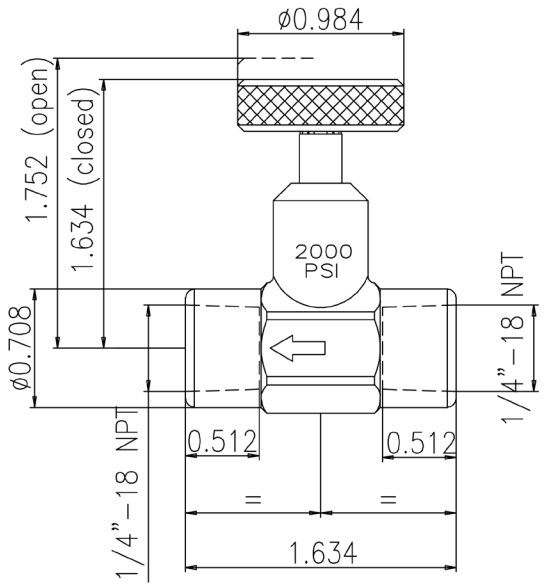
- 1/8" NPT threads

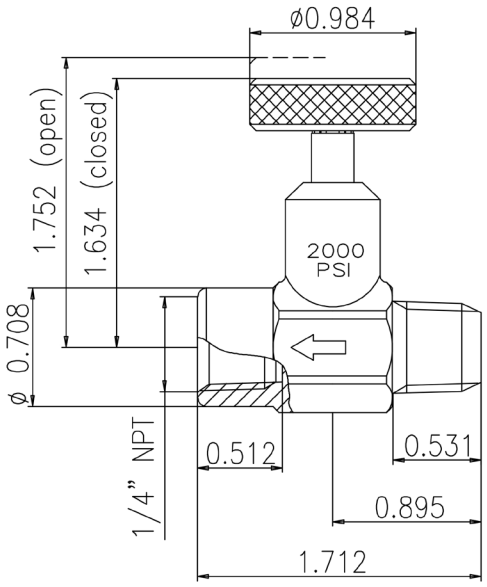
Applications include shut off and throttling for pressure gauges and instruments.



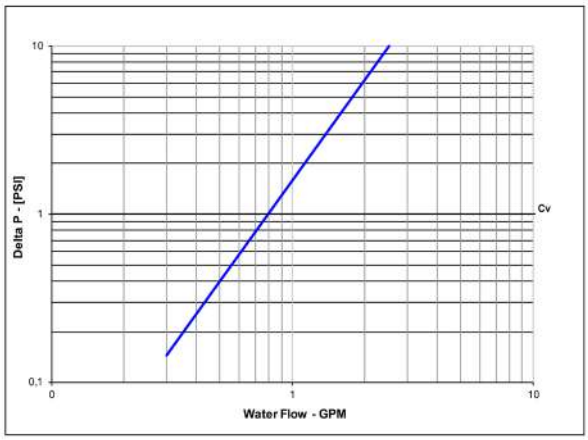


	Part description	Q.ty	Material
1	Unplated valve body	1	CW617N
2	O-Ring	1	FPM
3	Retainer	1	CW617N
4	Handwheel	1	CW617N



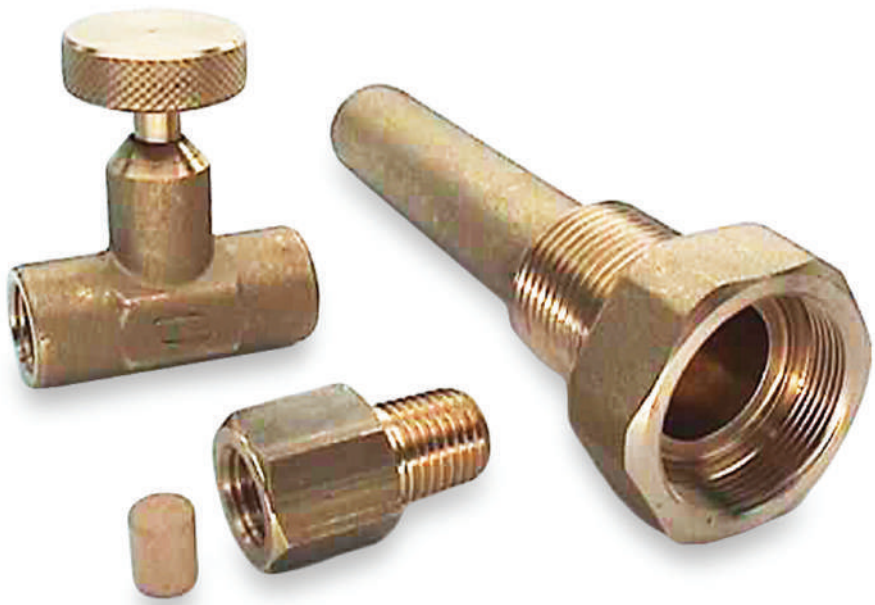


Pressure drop chart

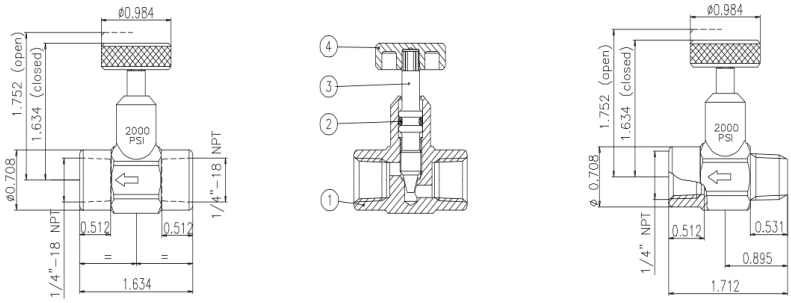


AVAILABLE ON DEMAND

Instrumentation package



- 1/4" needle valve (2000 PSI), #SNI7352
- 1 ¼" thermometer well (1000 PSI), #PNI34F2
- 1/4" snubber (1000 PSI), #SNI8722

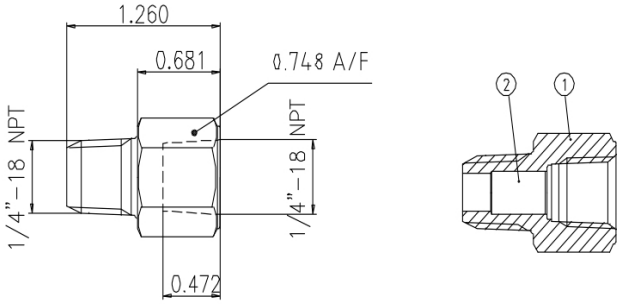


Needle Valve Part description		Q.ty	Material
1	Unplated valve body	1	CW617N
2	O-Ring	1	FPM
3	Retainer	1	CW617N
4	Handwheel	1	CW617N

Needle valve:

- 2000 PSI (CWP)
- One piece body construction
- Forged brass body
- Fip x Fip NPT threads
- Temp range -40°F to +350°F
- FPM stem seal design

Applications include shut off and throttling for pressure gauges and instruments



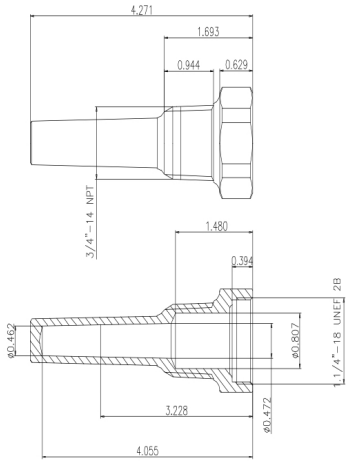
Snubber Part description		Q.ty	Material
1	Unplated body	1	CW617N
2	Bronze core	1	Bronze

Snubber:

- 1000 PSI (CWP)
- Forged brass with bronze core
- Temp range -40°F to +350°F

Installed on gauges and instruments where pressure pulsations are present.

The snubber is used to damp the pulsations, giving more stable readings and reducing instrument wear.



Well Part description		Q.ty	Material
1	Unplated body	1	CW617N

Thermometer well:

- 1000 PSI (CWP)
- Forged brass construction
- Meets Fed. Spec GG-T-321
- Meets SAMA RC-17-10

Installed on gauges and instruments where pressure pulsations are present. The snubber is used to damp the pulsations, giving more stable readings and reducing instrument wear.

s.92S NPT solid ball

1/4" - 4"

Quality
• 24h 100% seal test guaranteed
• Dual sealing system allows valve to be operated in either direction making installation easier
• No metal-to-metal moving parts
• Handle clearly shows ball position
• Silicone-free lubricant on all seals
• Chrome plated brass solid ball for longer life
• Handle stops on body to avoid stress at stem

Body
• Hot forged sand blasted, unplated brass body and cap sealed with Loctite® or equivalent thread sealant
• Finest brass according to EN 12165 and EN 12164 specifications

Stem
• Blowout-proof nickel plated brass stem
• Pure PTFE adjustable packing gland and reinforced washer for lower torque and easy maintenance
• Triple stem seals in sizes over 2"

Sealing
• Glass filled pure PTFE self-lubricating seats with flexible-lip design

Threads
• NPT taper ANSI B. 1.20.1 female by female threads

Flow
• Full port to DIN 3357 for maximum flow
• Solid ball for optimum CV

Handle
• Geomet® carbon steel handle with thick PVC dip coating. Handle coating offers both thermal and electrical protection
• **WARNING:** do not exceed reasonable temperature and/or electrical load

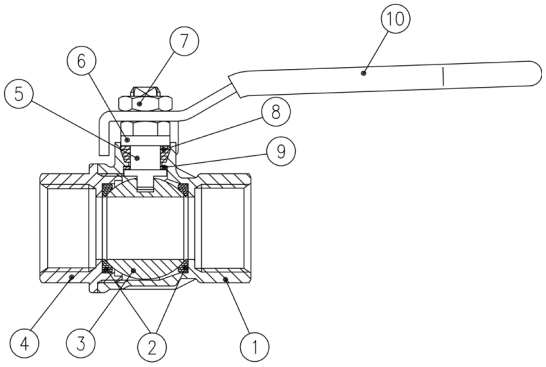
Working pressure & temperature
• 600 PSI (40 bar) up to 2", 450 PSI (30 bar) over 2", (150 WSP / -10 bar all sizes) non-shock cold working pressure
• 250 PSI (17 bar) non-shock working pressure for LP-Gas
• *150 psig (10 bar) non-shock steam working pressure. Not suitable for throttling steam
• -40°F to+366°F (-40°C to +170°C)
• **WARNING:** freezing of the fluid in the installation may severely damage the valve

Options up to 2" size
• Stem extension
• T-handle
• Stainless steel handle (1.4016 / AISI 430)
• Oval lockable handle up to 2", round over 2"
• Patented locking device for valves up to 4"
• Male by female NPT threads up to 4"
• Stubby handle

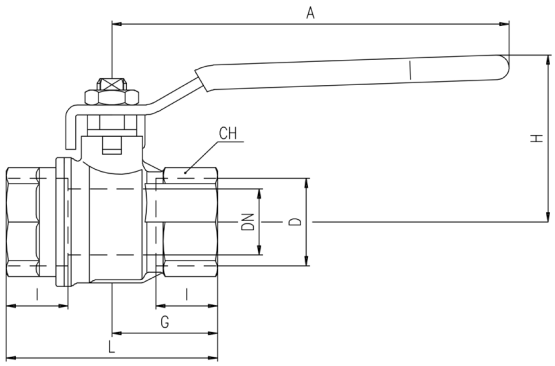
Upon request
• Stainless steel ball and/or stem (1.4401 / AISI 316)
• Custom design
• Pure PTFE seals

Approved by or in compliance with
• Canadian standards Association (United States, Canada)
• Factory Mutual (United States)
• RoHS Compliant (EU)
• GOST-R (Russia)
• Underwriters Laboratories (United States, Canada):
  - Guide YSDT: LP-Gas shut-off valve
  - Guide YRBX: Flammable liquid shut-off valve
  - Guide YRPV: Gas shut-off valve for use with natural and manufactured gases
  - Guide MHKZ: No. 6 oil at 250°F
• CRN-TSSA acc. to MSS SP110 (Canada)
• Kuwait Fire Service Directorate (Kuwait)
• Meeting WW-V-35C Federal U.S. Specification (United States)

NOTE: approvals apply to specific configurations/sizes only.



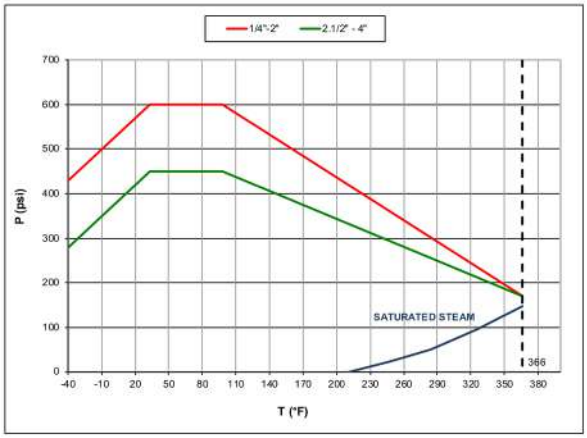
	Part description	Q.ty	Material
1	Unplated NPT body	1	CW617N
2	Seat	2	PTFE glass filled 5-15%
3	Chrome plated solid ball	1	CW617N
4	Unplated NPT end-cap	1	CW617N
5	Nickel plated stem packing gland design	1	CW617N
6	Nickel plated gland nut	1	CW617N
7	Geomet® nut	1	CB4FF (EN10263-2)
8	Packing gland seal	1	PTFE
9	Washer	1	PTFE carbon filled 25%
10	Yellow PVC coated Geomet® steel handle	1	DD11 (EN10111)



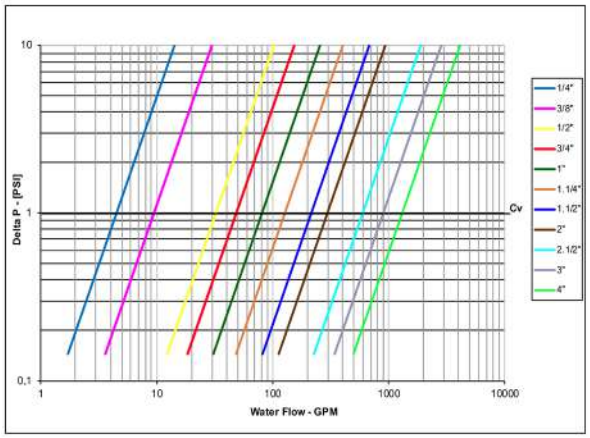
Code	S92B41	S92C41	S92D41	S92E41	S92F41	S92GP41	S92GH41	S92GI41	S92L41	S92M41	S92N41
D (inch)	1/4	3/8	1/2	3/4	1	1 1/4	1 1/2	2	2 1/2	3	4
DN (inch)	0.314	0.393	0.590	0.787	0.984	1.259	1.574	1.968	2.559	3.149	3.937
I (inch)	0.472	0.472	0.610	0.669	0.826	0.905	0.905	1.043	1.260	1.377	1.633
L (inch)	1.771	1.771	2.322	2.519	3.188	3.661	4.015	4.763	6.141	6.968	8.504
G (inch)	0.885	0.885	1.161	1.259	1.594	1.830	2.007	2.381	3.070	3.484	4.252
A (inch)	3.228	3.228	3.937	4.724	4.724	6.220	6.220	6.220	10.039	10.039	10.039
H (inch)	1.563	1.563	1.695	1.988	2.153	2.988	3.236	3.500	5.196	5.511	6.062
CH (inch)	0.787	0.787	0.984	1.220	1.574	1.929	2.125	2.696	3.346	3.897	4.921
Cv (GPM)	4.5	9.5	32.3	48.5	80.9	127.1	214.9	295.8	596.2	896.5	1305.5

DN shows the nominal flow diameter. Actual flow diameter complies with full port DIN 3357 part 4. Stem configuration of valves over 2" is slightly different.

Pressure-temperature chart



Pressure drop chart



s.95 NPT spring return

1/4" - 2"

Access to fluid systems in public places could potentially convert into costs and safety problems.
In order to avoid unattended valves being left open with negative economic of environmental consequences, ***RuB*** developed the automatic self-closing valve.
The valve can be opened normally by rotating the handle 90° and when the user releases the handle, the valve shuts off automatically.
Best solution for service stations, trucks, public areas, gardens. The same feature is useful in industrial applications, where a valve must not be left open unattended.

Quality

- 24h 100% seal test guaranteed
- Dual sealing system allows valve to be operated in either direction making installation easier
- No metal-to-metal moving parts
- No maintenance ever required
- Handle clearly shows ball position
- Silicone-free lubricant on all seals
- Handle stops on body to avoid stresses at stem
- Chrome plated brass ball for longer life

Body

- Hot forged sand blasted, unplated brass body and cap sealed with Loctite® or equivalent thread sealant
- Finest brass according to EN 12165 and EN 12164 specifications

Stem

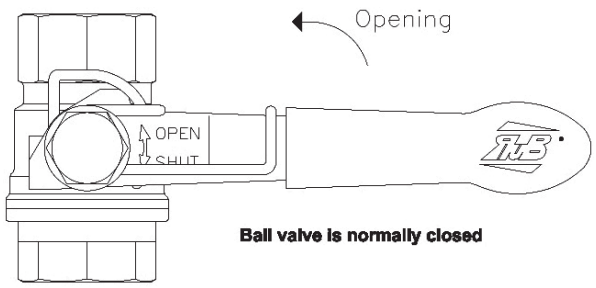
- Blowout-proof nickel plated brass stem
- Maintenance-free, double FPM O-rings at the stem for maximum safety

Sealing

- Pure PTFE self-lubricating seats with flexible-lip design

Threads

- NPT taper ANSI B.1.20.1 female by female threads



Ball valve is normally closed

Flow

- Full port to DIN 3357 for maximum flow

Handle

- Robust spring ensures auto shutt-off with max pressure in valve
- Geomet® carbon steel handle with thick PVC dip coating. Handle coating offers both thermal and electrical protection
- **WARNING:** do not exceed reasonable temperature and/or electrical load

Working pressure & temperature

- 600 PSI (40 bar) non-shock cold working pressure
- 250 PSI (17 bar) non-shock working pressure for LP-Gas
- -40°F/ +350°F (-40°C / +170°C)
- **WARNING:** freezing of the fluid in the installation may severely damage the valve

Options

- Stainless steel handle (1.4016 / AISI 430)

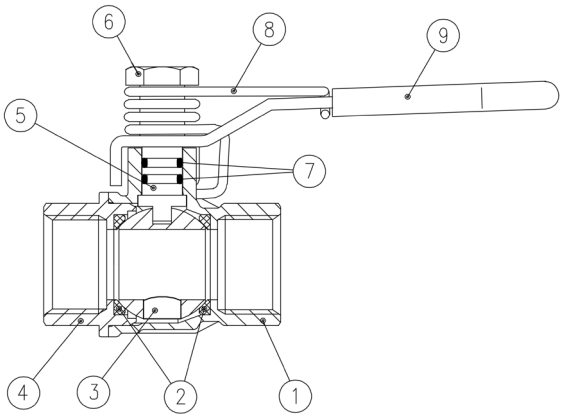
Upon request

- Stainless steel ball (1.4401 / AISI 316)
- Custom design

Approved by or in compliance with

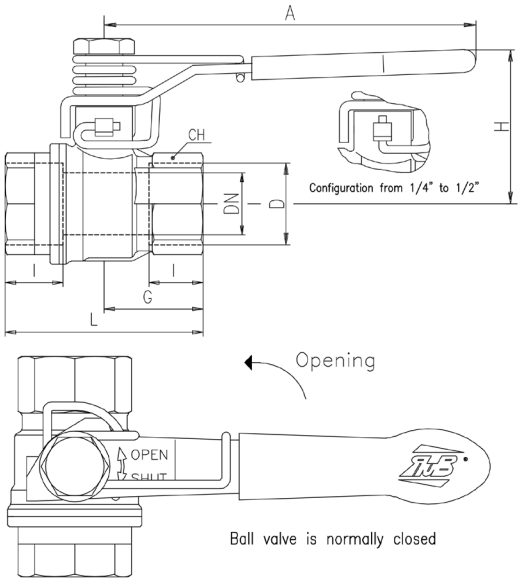
- GOST-R (Russia)
- Underwriters Laboratories (United States, Canada):
  - Guide YSDT: LP-Gas shut-off valve
  - Guide YRBX: Flammable liquid shut-off valve
  - Guide YRPV: Gas shut-off valve for use with natural and manufactured gases
  - Guide MHKZ: No. 6 oil at 250°F
- Canadian stadards Association (United States, Canada)
- Factory Mutual (United States)
- RoHS Compliant (EU)
- Meeting WW-V-35C Federal U.S. Specification (United States)

NOTE: approvals apply to specific configurations/sizes only.



	Part description	Q.ty	Material
1	Unplated NPT body	1	CW617N
2	Seat	2	PTFE
3	Chrome plated ball	1	CW617N
4	Unplated NPT end-cap	1	CW617N
5	Nickel plated stem O-ring design	1	CW617N
6	Unplated spring nut	1	CW617N
7	O-Ring	2	FPM
8	Spring return	1	1.4310 (AISI 302)
9	Yellow PVC coated Geomet® steel handle	1	DD11 (EN10111)

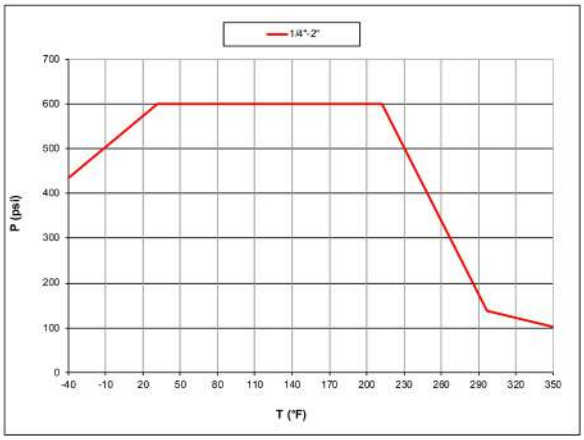
1 ¼"- 2" hollow ball



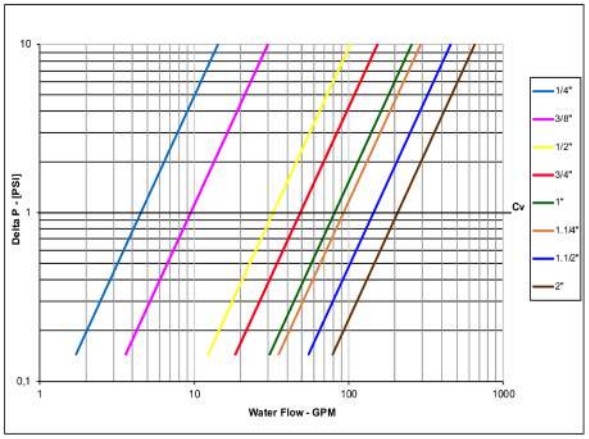
Code	S95B41MR	S95C41MR	S95D41MR	S95E41MR	S95F41MR	S95G41MR	S95H41MR	S95I41MR
D (Inch)	1/4	3/8	1/2	3/4	1	1 1/4	1 1/2	2
DN (inch)	0.314	0.393	0.590	0.787	0.984	1.259	1.574	1.968
I (inch)	0.472	0.472	0.610	0.669	0.826	0.905	0.905	1.043
L (inch)	1.771	1.771	2.322	2.519	3.188	3.661	4.015	4.763
G (inch)	0.885	0.885	1.161	1.259	1.594	1.830	2.007	2.381
A (inch)	3.937	3.937	3.937	4.724	4.724	6.220	6.220	6.220
H (inch)	1.504	1.504	1.679	1.956	2.114	2.858	3.094	3.370
CH (inch)	0.787	0.787	0.984	1.220	1.574	1.929	2.125	2.696
Cv (GPM)	4.5	9.5	32.3	48.5	80.9	92.4	144.4	206.8

DN shows the nominal flow diameter. Actual flow diameter complies with full port DIN 3357 part 4.

Pressure-temperature chart



Pressure drop chart



s.7341L NPT

3-way, lever, 4 seats, T-port

1/2" - 1"

The s.7341L series has a ball seal at every port, and offers a wide variety of possible flow configurations. Positive shut-off can be achieved at any of the exiting ports.

By specifying the appropriate ball port configuration, the T-port design allows flow direction to be adjusted for virtually any situation and is ideal for mixing applications.

Our s.73 multi-port valves can reduce the number of valves required in piping systems and can significantly lower overall costs by replacing two or three conventional 2-way valves, eliminating excess fittings, saving space and simplifying automation.

Quality

- Electronic 100% seal test guaranteed
- No metal-to-metal moving parts
- No maintenance ever required
- Silicone-free lubricant on all seals
- Chrome plated brass ball for longer life
- Each valve is seal tested for maximum safety
- Performs well in any orientation
- Strong configuration

Body

- Hot forged sand blasted, unplated brass body and cap sealed with Loctite® or equivalent thread sealant
- Integrated ISO 5211 and DIN 3337 mounting flange for universal connection to actuator
- Finest brass according to EN 12165 and EN 12164 specifications
- 3-way T-port design for flow mixing

Stem

- Blowout-proof nickel plated brass stem
- Maintenance-free, double FPM O-rings at the stem for maximum safety

Sealing

- Pure PTFE self-lubricating seats with flexible-lip design
- Four seats design for mixing of various fluids in the system

Threads

- NPT taper ANSI B.1.20.1 female threads

Flow

- 100% full port for maximum flow

Handle

- Geomet® carbon steel handle with thick PVC dip coating. Handle coating offers both thermal and electrical protection
- Handle removable with valve in service
- **WARNING:** do not exceed reasonable temperature and/or electrical load

Working pressure & temperature

- 300 PSI non-shock cold working pressure
- -4°F to +302°F
- **WARNING:** freezing of the fluid in the installation may severely damage the valve

Options

- Rack and pinion pneumatic actuator (spring return or double acting)
- EN10226-1/ISO228 parallel female threads
- s.7341 without handle actuator ready
- Various actuator linkage kit

Upon request

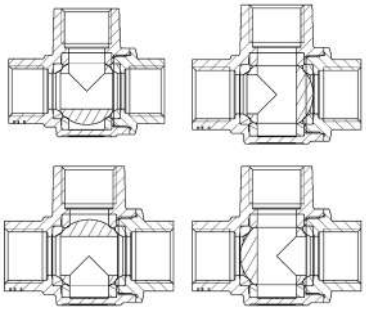
- Custom design
- Stainless steel stem
- Configurations with 4 seats & L-port (s.7241L) or 2 seats & L-port (s.7641L)

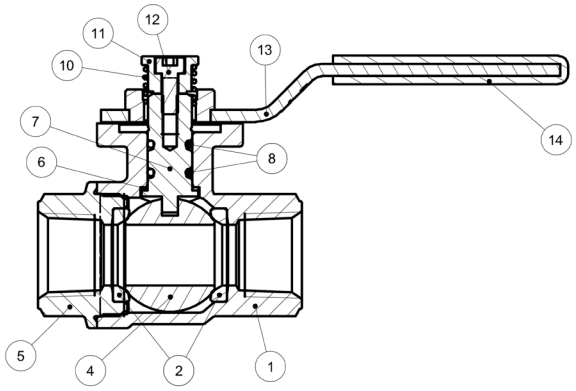
Approved by or in compliance with

- RoHS Compliant (EU)

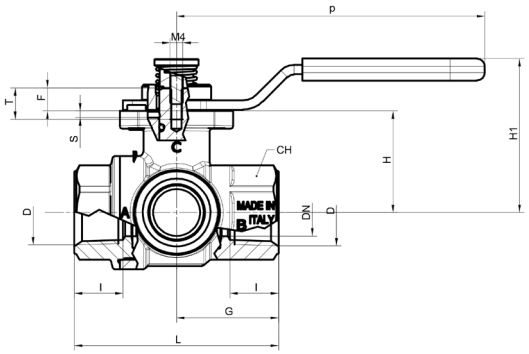
NOTE: approvals apply to specific configurations/sizes only.

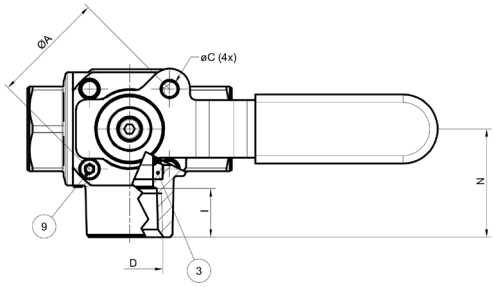
s73 3-way "T" port operating positions





	Part description	Q.ty	Material
1	Sand blasted unplated body	1	CW617N
2	Seat	2	PTFE
3	Seat	2	PTFE
4	Chrome plated ball	1	CW617N
5	Sand blasted unplated end-cap	1	CW617N
6	Washer	1	PTFE carbon filled 25%
7	Nickel plated stem O-ring design	1	CW617N
8	O-Ring	2	FPM
9	Screw handle stop	1	CW617N
10	Spring	1	1.4310 / AISI 302
11	Unplated spring bushing	1	CW617N
12	Stainless steel screw	1	1.4301 / AISI 304
13	Geomet® plated steel handle	1	DD11 (EN10111)
14	Black dipped coating	1	PVC





Code	S73D41L	S73E41L	S73F41L
D (inch)	1/2 NPT	3/4 NPT	1" NPT
DN(inch)	0.591	0.787	0.984
I (inch)	0.610	0.709	0.827
L (inch)	2.559	3.110	3.642
G (inch)	1.280	1.555	1.831
H (inch)	1.820	1.555	1.673
N (inch)	1.358	1.654	1.949
øA (inch)	1.417	1.417	1.417
øC (inch)	ø0.205 (M6)	ø0.205 (M6)	ø0.205 (M6)
S (inch)	0.087	0.087	0.087
p (inch)	3.937	3.937	3.937
H1 (inch)	1.929	2.210	2.328
T (inch)	0.394	0.394	0.394
F (inch)	0.287	0.327	0.327
CH (inch)	1.063	1.260	1.614
Flange connection DIN ISO 5211 DIN 3337	F03	F03	F03

Torque for actuator sizing in-lb

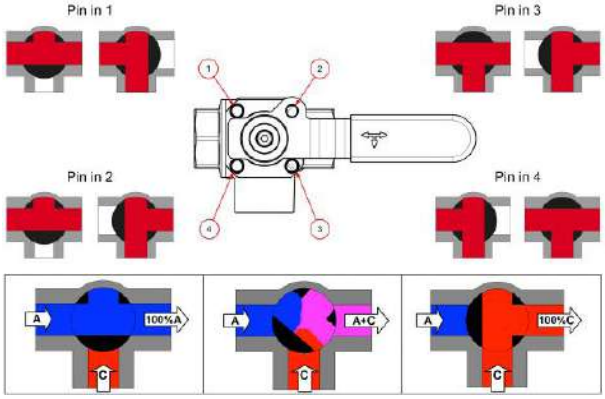
Delta P -->	0 ÷ 230 PSI	
Valve size	*to open*	*to close*
1/2"	93	93
3/4"	115	115
1"	261	261

With the configuration of T-port a stop pin can be fixed in any position of the 4 provided in the flange (1, 2, 3 or 4) and the lever can be rotated freely through 90°, the flow assumes the directions indicated in the diagram; in case of need the lever can be pulled upwards and you can reach any of the four possible positions.
An alternative is to mount 2 pins in 2 near holes (e.g. 1 and 2). In this case, the valve does not assume a predetermined position but can be actuated just by pulling the lever towards the top. The valve allows also to block the lever thanks to the addition of a lock on the lever's protrusion (in the drawing you can see position 2). The mixing configuration is achieved by placing the pin in position 2. The flows to be mixed enter through A and C and exit through A+C.

Torque correction factors

Valve torque can vary according to operating frequency, temperature and friction characteristics of the media.
If media has more or less friction than water, multiply torque by the following factors:

Lubricating oils or liquids	0.8
Dry gases, natural gas	1.5
Slurries or liquids bearing abrasive particles	1.5÷2.5



XCES7341L - 4266

s.7641L NPT

3-way, lever, 2 seats, L-port (diverting)

1/2" - 1"

The ***RuB*** s.7641 is the right choice for fluid diversion and is designed with robust maintenance-free components ensuring ease of operation and safety. With a simple 90° turn, you can divert flow from one downstream outlet to the other. It combines traditional manual operation with modern automation. It is also very easy to convert from its sturdy lever handle to ISO 5211 actuator flange assembly. It features low operating torque and a special wear reducing selfcompensating valve seat design that meets our 100,000 cycle life test requirement. The valve can be purchased separately, with handle or with a ***RuB*** actuator already mounted.

Quality
- Electronic 100% seal test guaranteed for maximum safety
- No metal-to-metal moving parts
- No maintenance ever required
- Silicone-free lubricant on all seals
- Chrome plated brass ball for longer life
- Performs well in any orientation
- Strong configuration

Body
- Hot forged sand blasted, nickel plated brass body and cap sealed with Loctite® or equivalent thread sealant
- Integrated ISO5211 / DIN3337 mounting flange for universal connection to actuator
- Finest brass according to EN 12165 and EN 12164 specifications
- 3-way L-port design for flow diversion

Stem
- Blowout-proof nickel plated brass stem
- Maintenance-free, double FPM O-rings at the stem for maximum safety

Sealing
- Reinforced PTFE self- lubricating seats with flexible-lip and wear compensation design

Threads
- NPT taper ANSI B.1.20.1 female by female threads

Flow
- 100% full port for maximum flow

Handle
- Geomet® carbon steel handle with thick PVC dip coating. Handle coating offers both thermal and electrical protection
- Handle removable with valve in service
- **WARNING:** do not exceed reasonable temperature and/or electrical load

Working pressure & temperature
- 450 PSI (30 bar) non-shock cold working pressure
- -4°F to +350°F (-20°C to 170°C)
- **WARNING:** freezing of the fluid in the installation may severely damage the valve

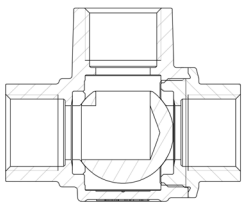
Options
- Rack and pinion pneumatic actuator (spring return or double acting)
- Compact Power electric actuator
- EN10226-1/ISO228 parallel female threads
- S.7641 without handle, actuator ready
- Various actuator linkage kit

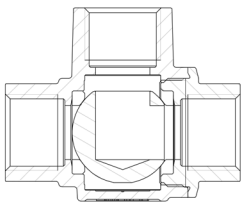
Upon request
- Custom design
- Stainless steel stem (1.4401 / AISI 316)
- Configurations with 4 seats, L-port (s.7241L) or T-port (s.7341L)

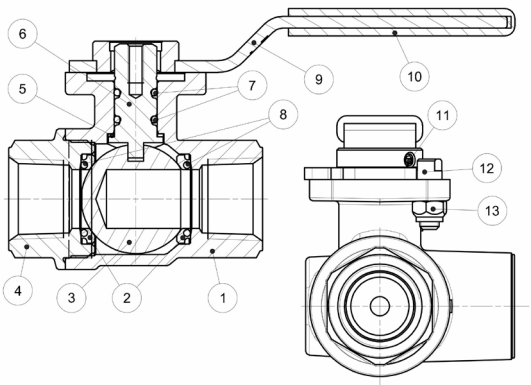
Approved by or in compliance with
- RoHS Compliant (EU)

NOTE: approvals apply to specific configurations/sizes only.

S.76 3-way "L" port operating positions







	Part description	Q.ty	Material
1	Sand blasted unplated body	1	CW617N
2	Seat	2	PTFE graphite filled 15%
3	Chrome plated ball	1	CW617N
4	Sand blasted unplated end-cap	1	CW617N
5	Washer	1	PTFE carbon filled 25%
6	Nickel plated stem O-ring design	1	CW617N
7	O-Ring	2	FPM
8	O-Ring	2	FPM
9	Geomet® plated steel handle	1	DD11 (EN10111)
10	Black dipped coating	1	PVC
11	Stainless steel screw	1	1.4401 / AISI304
12	Unplated stop	1	CW617N
13	Zinc plated steel nut	1	Class 8 (UNI7474)

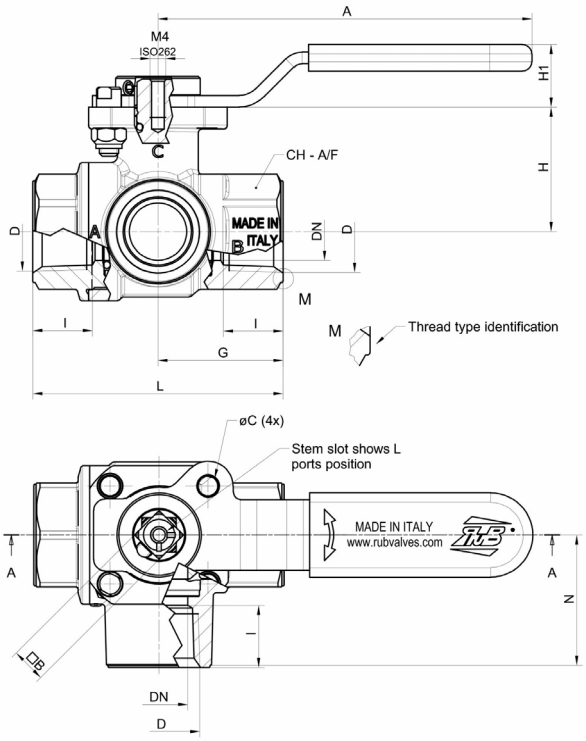


Table 2			
Valve code	S76D41L	S76E41L	S76F41L
Size (inch)	1/2" NPT	3/4" NPT	1" NPT
DN(inch)	0.591	0.787	0.984
I (inch)	0.610	0.709	0.827
L (inch)	2.559	3.110	3.642
G (inch)	1.280	1.555	1.831
H (inch)	1.280	1.555	1.673
H1 (inch)	0,650	0,650	0,650
N (inch)	1.358	1.654	1.949
øC (inch)	ø0.205 (M6)	ø0.205 (M6)	ø0.205 (M6)
Square B (inch)	0.354	0.354	0.354
CH - A/F (inch)	1.063	1.260	1.614
Flange connection DIN ISO 5211 DIN 3337	F03	F03	F03

Torque for actuator sizing in-lb

Delta P -->	0÷450 PSI	
Valve size	*to open*	*to close*
1/2″	31	31
3/4″	36	36
1″	40	40

Torque correction factors

Valve torque can vary according to operating frequency, temperature and friction characteristics of the media.

If media has more or less friction than water, multiply torque by the following factors:

Lubricating oils or liquids	0.8
Dry gases, natural gas	1.5
Slurries or liquids bearing abrasive particles	1.5÷2.5

s.7350L BSPT

3-way, lever, 4 seats, T-port

1/2" - 1"

The s.7350L series has a ball seal at every port, and offers a wide variety of possible flow configurations. Positive shut-off can be achieved at any of the exiting ports.

By specifying the appropriate ball port configuration, the T-port design allows flow direction to be adjusted for virtually any situation and is ideal for mixing applications.

Our s.73 multi-port valves can reduce the number of valves required in piping systems and can significantly lower overall costs by replacing two or three conventional 2-way valves, eliminating excess fittings, saving space and simplifying automation.

Quality
- Electronic 100% seal test guaranteed
- No metal-to-metal moving parts
- No maintenance ever required
- Silicone-free lubricant on all seals
- Chrome plated brass ball for longer life
- Each valve is seal tested for maximum safety
- Performs well in any orientation
- Strong configuration

Body
- Hot forged sand blasted, external nickel plated brass body and cap sealed with Loctite® or equivalent thread sealant
- Integrated ISO 5211 /DIN 3337 mounting flange for universal connection to actuator
- Finest brass according to EN 12165 and EN 12164 specifications
- 3-way T-port design for flow mixing

Stem
- Blowout-proof nickel plated brass stem
- Maintenance-free, double FPM O-rings at the stem for maximum safety

Sealing
- Pure PTFE self-lubricating seats with flexible-lip design
- Four seats design for mixing of various fluids in the system

Threads
- ISO 7/1, BS 21 BSPT taper female threads

Flow
- 100% full port for maximum flow

Handle
- Geomet® carbon steel handle with thick PVC dip coating. Handle coating offers both thermal and electrical protection
- Handle removable with valve in service
- **WARNING:** do not exceed reasonable temperature and/or electrical load

Working pressure & temperature
- 20 bar (300 PSI) non-shock cold working pressure
- -20°C to +150°C (-4°F to +302°F)
- **WARNING:** freezing of the fluid in the installation may severely damage the valve

Options
- Rack and pinion pneumatic actuator (spring return or double acting)
- NPT threads ANSI B.1.20.1 female threads
- S.7350 without handle actuator ready
- Various actuator linkage kit

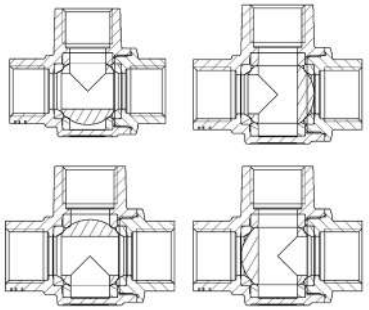
Upon request
- Custom design
- Stainless steel stem
- Configurations with 4 seats & L-port (s.7250L) or 2 seats & L-port (s.7650L)

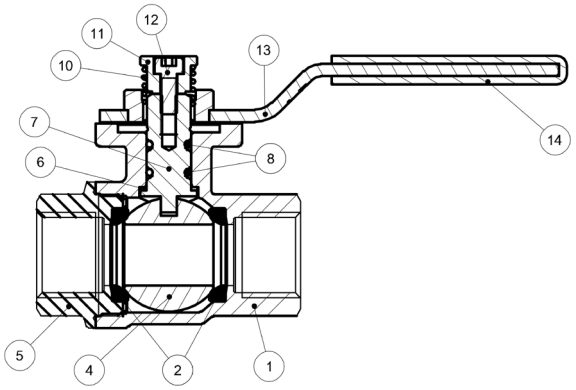
PED directive
- The product meets the requirements of PED Directive 2014/68/UE and according to art.4 par.3, it does not require CE marking

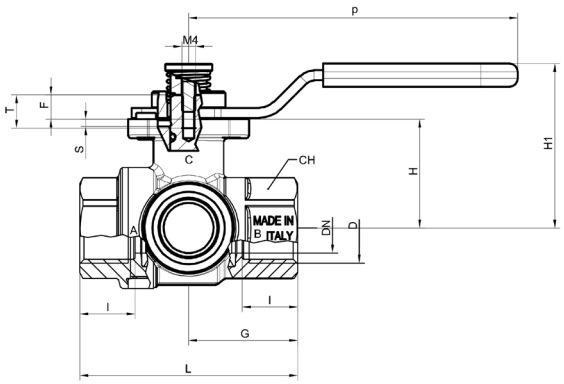
Approved by or in compliance with
- RoHS Compliant (EU)
- EAC – Declaration of conformity (Russia, Kazakhstan, Belarus)

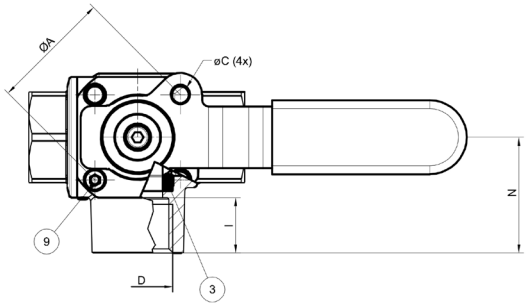
NOTE: approvals apply to specific configurations/sizes only.

s73 3-way "T" port operating positions









	Part description	Q.ty	Material
1	Nickel plated body (external nickel plated, unplated inside)	1	CW617N
2	Seat	2	PTFE
3	Seat	2	PTFE
4	Chrome plated ball	1	CW617N
5	Nickel plated end-cap (external nickel plated, unplated inside)	1	CW617N
6	Washer	1	PTFE carbon filled 25%
7	Nickel plated stem O-ring design	1	CW617N
8	O-Ring	2	FPM
9	Screw handle stop	1	CW617N
10	Spring	1	1.4310 / AISI 302
11	Unplated spring bushing	1	CW617N
12	Stainless steel screw	1	1.4301 / AISI 304
13	Geomet® plated steel handle	1	DD11 (EN10111)
14	Black dipped coating	1	PVC

Code	S73D50L	S73E50L	S73F50L
D (inch)	Rc 1/2	Rc 3/4	Rc 1
DN(mm)	15	20	25
I (mm)	16.5	19	22.5
L (mm)	65	79	92.5
G (mm)	32.5	39.5	46.5
H (mm)	32.5	39.5	42.5
N (mm)	34.5	42	49.5
øA (mm)	36	36	36
øC (mm)	ø5.2 (M6)	ø5.2 (M6)	ø5.2 (M6)
p (mm)	100	100	100
H1 (mm)	49	56	59
S (mm)	2.2	2.2	2.2
T (mm)	10	10	10
F (mm)	7.3	8.3	8.3
CH (mm)	27	32	41
Flange connection ISO 5211 DIN3337	F03	F03	F03

Torque for actuator sizing N.m

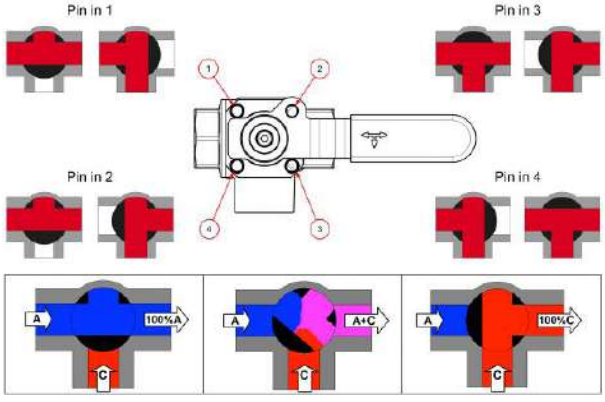
Delta P -->	0÷16 bar	
Valve size	*to open*	*to close*
1/2″	10.5	10.5
3/4″	13	13
1″	29.5	29.5

With the configuration of T-port a stop pin can be fixed in any position of the 4 provided in the flange (1, 2, 3 or 4) and the lever can be rotated freely through 90°, the flow assumes the directions indicated in the diagram; in case of need the lever can be pulled upwards and you can reach any of the four possible positions. An alternative is to mount 2 pins in 2 near holes (e.g. 1 and 2). In this case, the valve does not assume a predetermined position but can be actuated just by pulling the lever towards the top.
The valve allows also to block the lever thanks to the addition of a lock on the lever's protrusion (in the drawing you can see position 2).
The mixing configuration is achieved by placing the pin in position 2.
The flows to be mixed enter through A and C and exit through A+C.

Torque correction factors

Valve torque can vary according to operating frequency, temperature and friction characteristics of the media.
If media has more or less friction than water, multiply torque by the following factors:

Lubricating oils or liquids	0.8
Dry gases, natural gas	1.5
Slurries or liquids bearing abrasive particles	1.5÷2.5



s.7650L BSPT

3-way, lever, 2 seats, L-port (diverting)

1/2" - 1"

The ***RuB*** s.7650L is the right choice for fluid diversion and is designed with robust maintenance-free components ensuring ease of operation and safety.With a simple 90° turn, you can divert flow from one downstream outlet to the other. It combines traditional manual operation with modern automation. It is also very easy to convert from its sturdy lever handle to ISO 5211 actuator flange assembly. It features low operating torque and a special wear reducing self-compensating valve seat design that meets our 100,000 cycle life test requirement. The valve can be purchased separately, with handle or with a ***RuB*** actuator already mount

Quality
- Electronic 100% seal test guaranteed for maximum safety
- No metal-to-metal moving parts
- No maintenance ever required
- Silicone-free lubricant on all seals
- Chrome plated brass ball for longer life
- Performs well in any orientation
- Strong configuration

Body
- Hot forged sand blasted, external nickel plated brass body and cap sealed with Loctite® or equivalent thread sealant
- Integrated ISO5211 / DIN3337 mounting flange for universal connection to actuator
- Finest brass according to EN 12165 and EN 12164 specifications
- 3-way L-port design for flow diversion

Stem
- Blowout-proof nickel plated brass stem
- Maintenance-free, double O-rings at the stem for maximum safety

Sealing
- Reinforced PTFE self-lubricating seats with flexible-lip and wear compensation design

Threads
- ISO 7/1, BS 21 BSPT taper female threads

Flow
- 100% full port for maximum flow

Handle
- Geomet® carbon steel handle with thick PVC dip coating. Handle coating offers both thermal and electrical protection
- Handle removable with valve in service
- **WARNING:** do not exceed reasonable temperature and/or electrical load

Working pressure & temperature
- 30 bar (450 PSI) non-shock cold working pressure
- -20°C to +170°C (-4°F to +350°F)
- **WARNING:** freezing of the fluid in the installation may severely damage the valve

Options
- Rack and pinion pneumatic actuator (spring return or double acting)
- Compact Power electric actuator
- Female by female NPT threads
- EN10226-1, ISO228 parallel female by female threads
- S.7650 without handle actuator ready
- Various actuator linkage kit

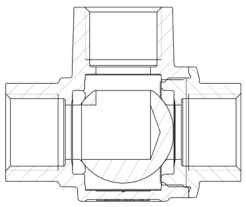
Upon request
- Custom design
- Stainless steel stem (1.4401 / AISI 316)
- Configurations with 4 seats, L-port (s.7250L) or T-port (s.7350L)

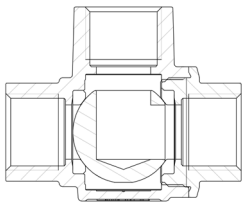
PED directive
- The product meets the requirements of PED Directive 2014/68/UE and according to art.4 par.3, it does not require CE marking.

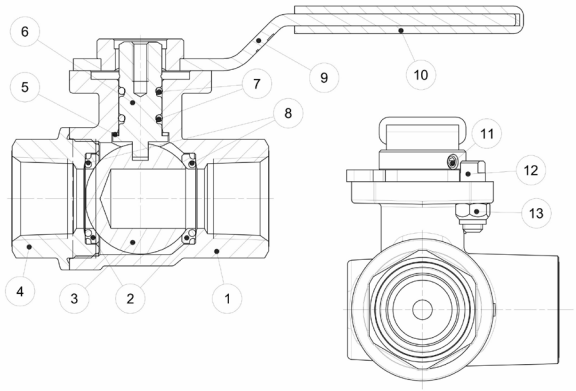
Approved by or in compliance with
- RoHS Compliant (EU)

NOTE: approvals apply to specific configurations/sizes only.

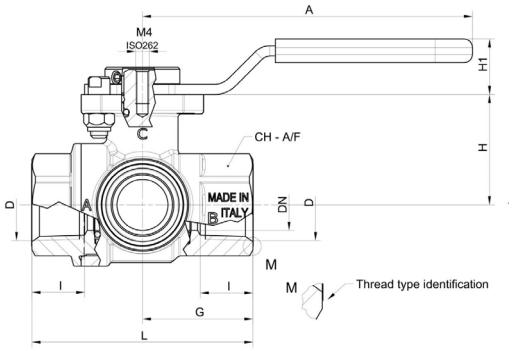
S.76 3-way "L" port operating positions







	Part description	Q.ty	Material
1	Sand blasted nickel plated body (External nickel plated, unplated inside)	1	CW617N
2	Seat	2	PTFE graphite filled 15%
3	Chrome plated ball	1	CW617N
4	Sand blasted nickel plated end cap (External nickel plated, unplated inside)	1	CW617N
5	Washer	1	PTFE carbon filled 25%
6	Nickel plated stem O-ring design	1	CW617N
7	O-Ring	2	FPM
8	O-Ring	2	FPM
9	Geomet® plated steel handle	1	DD11 (EN10111)
10	Black dipped coating	1	PVC
11	Stainless steel screw	1	1.4301 / AISI304
12	Unplated stop	1	CW617N
13	Zinc plated steel nut	1	Class 8 6S (UNI7474)



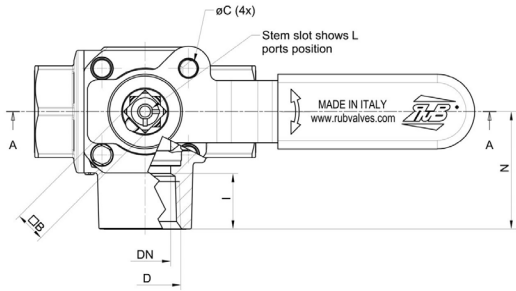


Table 2			
Valve code	S76D50L	S76E50L	S76F50L
Size (inch) EN 10226	Rp 1/2"	Rp 3/4"	Rp 1"
DN(mm)	15	20	25
I (mm)	16.5	19	22.5
L (mm)	65	79	92.5
G (mm)	32.5	39.5	46.5
H (mm)	32.5	39.5	42.5
H1 (mm)	16.5	16.5	16.5
N (mm)	34.5	42	49.5
øC (mm)	ø5.2 (M6)	ø5.2 (M6)	ø5.2 (M6)
Square B (mm)	9	9	9
CH - A/F (mm)	27	32	41
Flange connection DIN ISO 5211 DIN 3337	F03	F03	F03

Torque for actuator sizing N.m

Delta P -->	0÷16 bar	
Valve size	*to open*	*to close*
1/2"	3,5	3,5
3/4"	4,0	4,0
1"	4,5	4,5

Torque correction factors

Valve torque can vary according to operating frequency, temperature and friction characteristics of the media.

If media has more or less friction than water, multiply torque by the following factors:

Lubricating oils or liquids	0.8
Dry gases, natural gas	1.5
Slurries or liquids bearing abrasive particles	1.5÷2.5

s.130 NPT
stainless steel

1/4" - 4"
1000 PSI

Quality

• Dual sealing system allows valve to be operated in either direction making installation easier

• Handle clearly shows ball position

• Silicone-free lubricant on all seals

• Test standard API 598

• NACE compliance MR-01-75

• Handle stops on body to avoid stresses at stem

Body

• CF8M stainless steel body and cap

Stem

• Blowout-proof stainless steel stem

Sealing

• Glass filled PTFE seats

Threads

• NPT taper ANSI B.1.20.1 female by female threads

Flow

• 100% full port for maximum flow

Handle

• Plastic coated stainless steel lockable handle. Handle coating offers both thermal and electrical protection

• **WARNING:** do not exceed reasonable temperature and/or electrical load

Working pressure & temperature

• 1000 PSI non-shock cold working pressure

• 150 PSI WSP steam rating

• 2x 10-2 torr vacuum rating

• *150 psig non-shock working steam pressure. Not suitable for throttling steam.

• -50°F to +450°F

• **WARNING:** freezing of the fluid in the installation may severely damage the valve

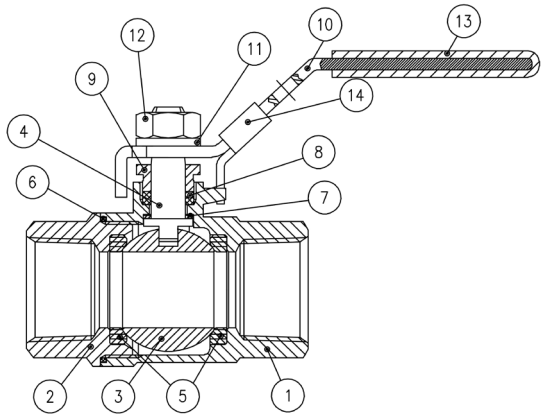
Upon request

• Oval lockable handle up to 2"

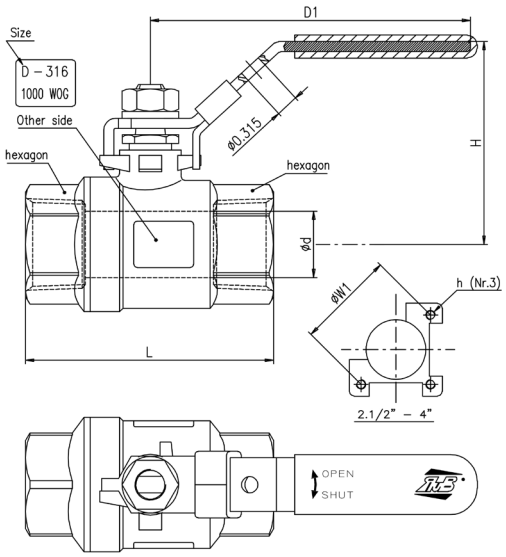
Approved by or in compliance with

• GOST-R (Russia)

NOTE: approvals apply to specific configurations/sizes only.



	Part description	Q.ty	Material
1	Body	1	A351-CF8M
2	Cap	1	A351-CF8M
3	Ball	1	A351-CF8M
4	Stem	1	A276 Gr. 316
5	Seat	2	PTFE +15% G/F
6	Gasket	1	PTFE
7	Thrust washer	1	PTFE
8	Packing	1	PTFE
9	Gland	1	A194 Gr.8
10	Lockable handle	1	A240 SS304
11	Lock washer	1	A493 SS304
12	Handle nut	1	A194 Gr.8
13	Handle sleeve	1	Vinyl grip
14	Locking plate	1	A240 SS304

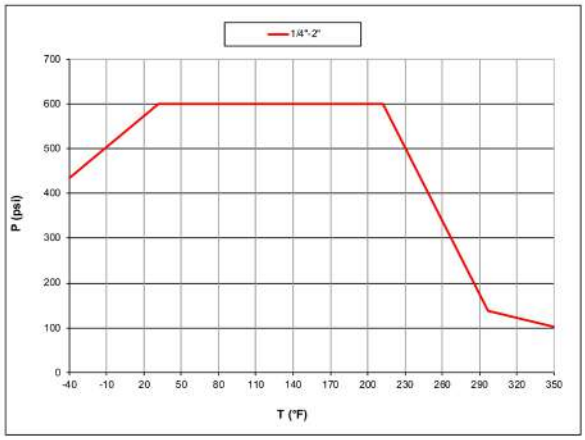


Code	130B41	130C41	130D41	130E41	130F41	130G41	130H41	130I41	130L41	130M41	130N41
D (Size)	1/4"	3/8"	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"	2 1/2"	3"	4"
d (inch)	0.433	0.492	0.591	0.787	0.984	1.26	1.496	1.969	2.559	3.15	3.937
L (inch)	2.276	2.276	2.429	2.76	3.201	3.78	4.429	4.961	6.634	7.535	8.524
H (inch)	2.252	2.252	2.327	2.463	2.783	3	3.508	3.864	4.354	4.882	6.732
D1 (inch)	4.055	4.055	4.055	4.055	5	5	6.024	7.598	7.598	10.985	13.189
W1 (inch)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	2.756	4.016	4.016
h	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	M8x1.25	M10x1.5	M10x1.5
Cv (GPM)	12	16	20	42	65	101	144	250	422	640	1000

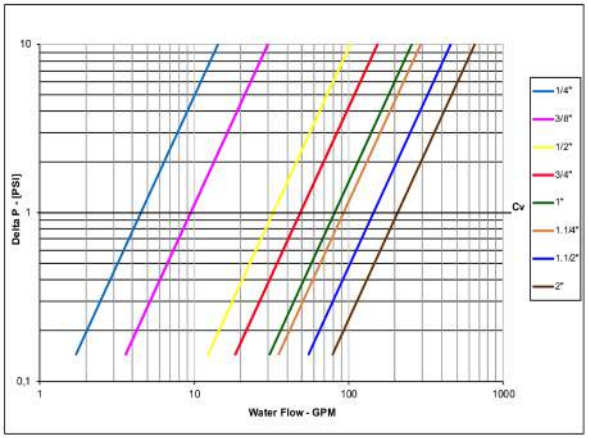
Water flow ratings

Size	1/4"	3/8"	1/2"	3/4"	1"	1 ¼"	1 ½"	2"	2 ½"	3"	4"
CV	12	16	20	42	65	101	144	250	422	640	1000

Pressure-temperature chart



Pressure drop chart



s.131 NPT
stainless steel

1/4" - 2"
1000 PSI
reduced port

Quality

• Dual sealing system allows valve to be operated in either direction making installation easier

• Handle clearly shows ball position

• Silicone-free lubricant on all seals

• Test standard API 598

• NACE compliance MR-01-75

• Handle stops on body to avoid stress at stem

Body

• CF8M stainless steel body

Stem

• Blowout-proof stainless steel stem

Sealing

• PTFE seats

Threads

• NPT taper ANSI B.1.20.1 female by female threads

Handle

• Plastic coated stainless steel lockable handle. Handle coating offers both thermal and electrical protection

• **WARNING:** do not exceed reasonable temperature and/or electrical load

Working pressure & temperature

• 1000 PSI non-shock cold working pressure

• 150 PSI WSP steam rating

• 2×10^{-2} torr vacuum rating

• *150 psig non-shock working steam pressure. Not suitable for throttling steam.

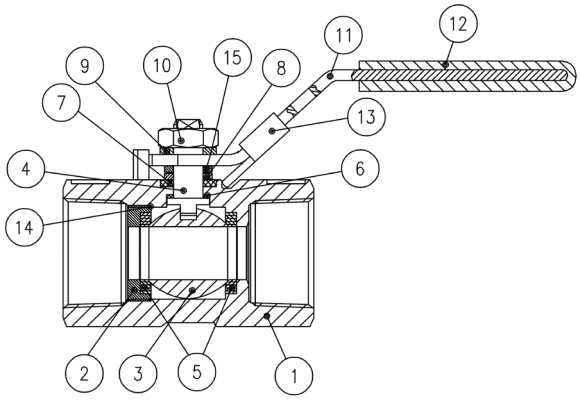
• -50°F to +400°F

• **WARNING:** freezing of the fluid in the installation may severely damage the valve

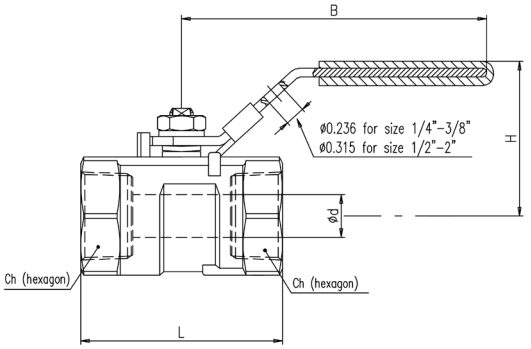
Approved by or in compliance with

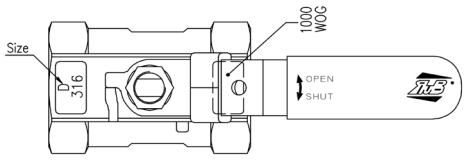
• GOST-R (Russia)

NOTE: approvals apply to specific configurations/sizes only.



	Part description	Qty	Material
1	Body	1	A351-CF8M
2	Insert	1	AISI316
3	Ball	1	AISI 316 or A351-CF8M
4	Stem	1	A276 Gr. 316
5	Seat	2	PTFE
6	Thrust washer	1	PTFE
7	Packing	1	PTFE
8	Washer	1	A240 SS304
9	Lock washer	1	A493 SS304
10	Stem nut	1	A194 Gr.8
11	Lockable handle	1	A240 SS304
12	Handle sleeve	1	Vinyl grip
13	Locking plate	1	A240 SS304
14	Gasket	1	PTFE - Only 1 ¼"-2"
15	Concave washer	1	SS301



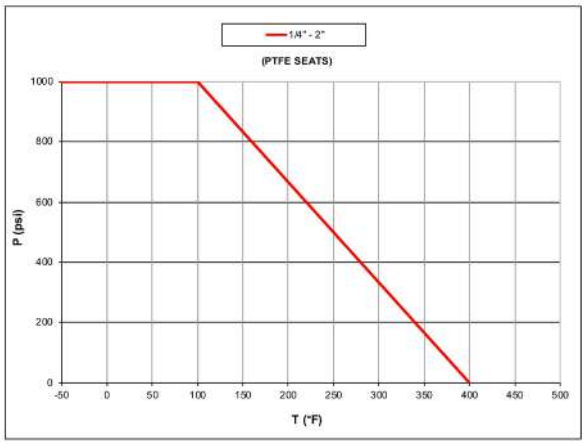


Code	131B41	131C41	131D41	131E41	131F41	131G41	131H41	131I41
D (Size)	1/4"	3/8"	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"
d (inch)	0.197	0.276	0.362	0.492	0.591	0.787	0.965	1.260
L (inch)	1.535	1.732	2.205	2.323	2.795	3.110	3.268	3.937
H (inch)	1.370	1.390	1.807	1.846	1.862	2.189	2.280	2.547
B (inch)	2.756	3.110	3.661	3.622	4.409	4.409	5.315	5.315
Ch (inch)	0.669	0.827	0.984	1.260	1.496	1.929	2.087	2.559
Cv (GPM)	2.0	6.0	7.0	14.0	23.0	36.0	56.0	92.0

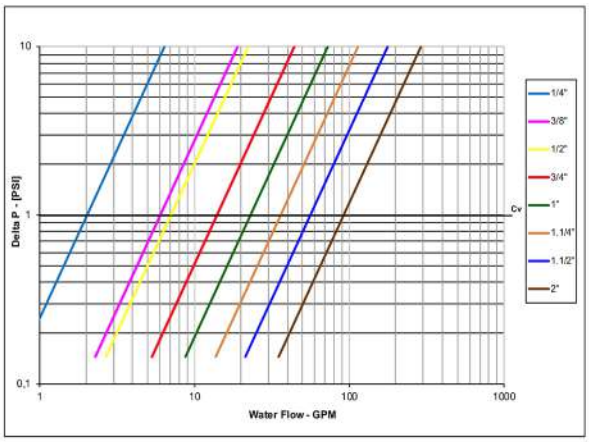
Water flow ratings

Size	1/4"	3/8"	1/2"	3/4"	1"	1 ¼"	1 ½"	2"
CV	2	6	7	14	23	36	56	92

Pressure-temperature chart



Pressure drop chart



s.132 NPT
stainless steel

1/4" - 2"
2000 PSI

Quality

• Dual sealing system allows valve to be operated in either direction making installation easier

• Handle clearly shows ball position

• Silicone-free lubricant on all seals

• Test standard API 598

• NACE compliance MR-01-75

• Handle stops on body to avoid stresses at stem

Body

• CF8M stainless steel body and cap

• Design specification ANSI B16.34 CLASS 900

Stem

• Blowout-proof stainless steel stem

Sealing

• Molecular enhanced-PTFE (ME-PTFE) seats consist in virgin PTFE (no glass or carbon fillers are used) which, due to its improved molecular structure, surepass the mechanical properties of conventional filled PTFE materials. Used in fluid sealing applications it provides superior performance in terms of high temperature strength, reduced creep distortion, and resistance to chemical attack.

Threads

• NPT taper ANSI B.1.20.1 female by female threads

Flow

• 100% full port for maximum flow

Handle

• Plastic coated stainless steel lockable handle. Handle coating offers both thermal and electrical protection

• **WARNING:** do not exceed reasonable temperature and/or electrical load

Working pressure & temperature

• 2000 PSI from 1/4" up to 1", 1500 PSI from 1 ¼" up to 2" non-shock cold working pressure

• 150 PSI WSP steam rating

• 2×10^{-2} torr vacuum rating

• *150 psig non-shock working steam pressure. Not suitable for throttling steam.

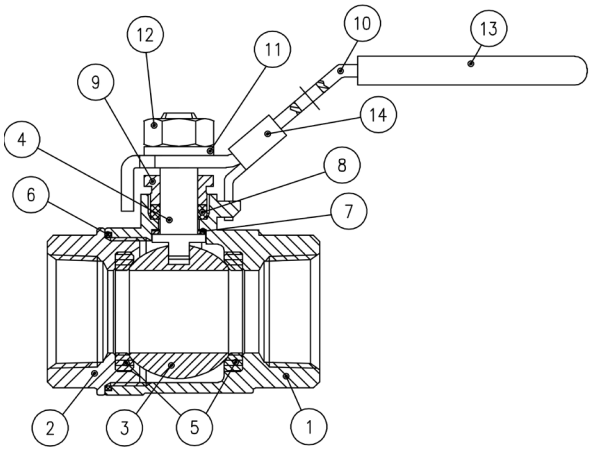
• -50°F to +475°F

• **WARNING:** freezing of the fluid in the installation may severely damage the valve

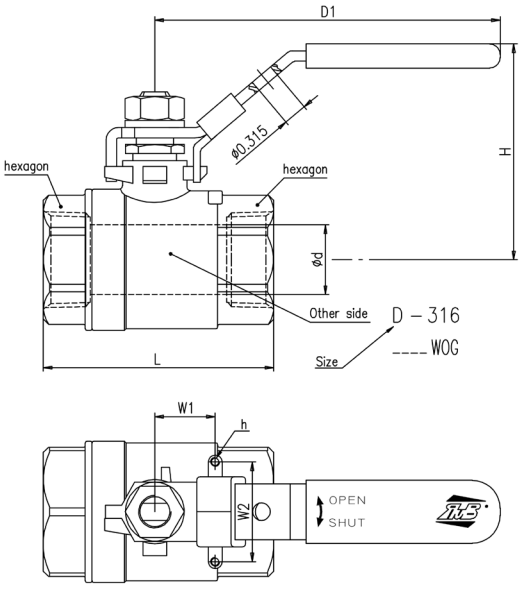
Approved by or in compliance with

• GOST-R (Russia)

NOTE: approvals apply to specific configurations/sizes only.



	Part description	Q.ty	Material
1	Body	1	A351-CF8M
2	Cap	1	A351-CF8M
3	Ball	1	A351-CF8M
4	Stem	1	A276 Gr. 316
5	Seat	2	ME-PTFE*
6	Gasket	1	ME-PTFE*
7	Thrust washer	1	ME-PTFE*
8	Packing	1	ME-PTFE*
9	Gland	1	A194 Gr.8
10	Lockable handle	1	A240 SS304
11	Lock washer	1	A493 SS304f
12	Handle nut	1	A194 Gr.8
13	Handle sleeve	1	Vinyl grip
14	Locking plate	1	A240 SS304

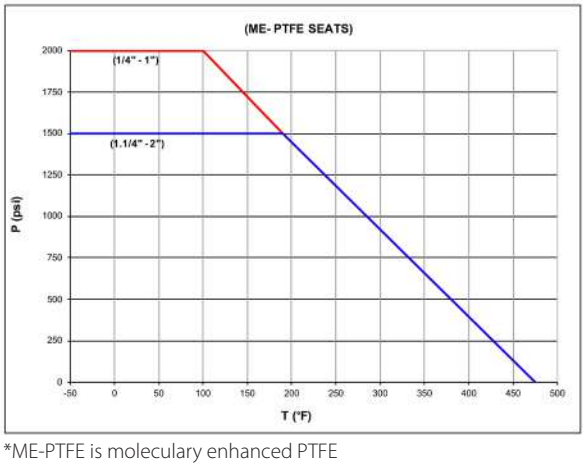


Code	132B41	132C41	132D41	132E41	132F41	132G41	132H41	132I41
D (Size)	1/4"	3/8"	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"
d (inch)	0.433	0.492	0.591	0.787	0.984	1.26	1.575	2
L (inch)	2.343	2.343	2.539	3.031	3.563	3.917	4.646	5.374
H (inch)	2.244	2.244	2.268	2.697	2.862	3.453	3.661	4.106
D1 (inch)	4.055	4.055	4.055	5	5	6.124	6.124	7.598
W1 (inch)	0.5	0.5	0.5	0.882	0.882	1	1	1
W2 (inch)	1.122	1.122	1.122	1.378	1.378	1.5	1.5	1.5
h	M5x0.8	M5x0.8	M5x0.8	M6x1	M6x1	M6x1	M6x1	M6x1
----WOG	2000	2000	2000	2000	2000	1500	1500	1500
Cv (GPM)	12	16	23	40	62	101	160	258

Water flow ratings

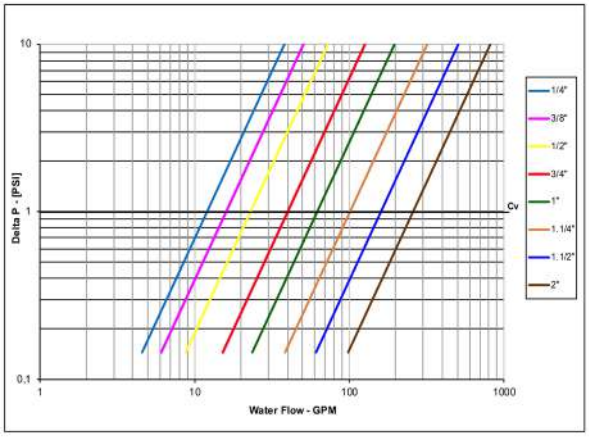
Size	1/4"	3/8"	1/2"	3/4"	1"	1 ¼"	1 ½"	2"
CV	12	16	23	40	62	101	160	258

Pressure-temperature chart



*ME-PTFE is moleculary enhanced PTFE

Pressure drop chart



s.92 NPT SS trim

1/4" - 2"

Abrasive media? Life problems with your current valves?

RuB has the solution! Thanks to its long experience in industrial applications, ***RuB*** offers a variety of configurations specifically designed to solve critical situations. Brass is notably a "soft" alloy with high copper content having features that make it ideal for plumbing and sanitary installations. When it comes to industrial applications, however, you may need the tough chemistry of stainless steel.

And here we are: ***RuB*** combines the properties of a brass body with strength of stainless steel ball and stem. Ideal for abrasive media and other severe applications.

Quality

- 24h 100% seal test guaranteed
- Dual sealing system allows valve to be operated in either direction making installation easier
- No metal-to-metal moving parts
- Handle clearly shows ball position
- Silicone-free lubricant on all seals
- Stainless steel ball and stem for abrasive liquids
- Handle stops on body to avoid stress at stem

Body

- Hot forged sand blasted, unplated brass body and cap sealed with Loctite® or equivalent thread sealant
- Finest brass according to EN 12165 and EN 12164 specifications

Stem

- Blowout-proof stainless steel stem
- Pure PTFE adjustable packing gland and reinforced washer for lower torque and easy maintenance

Sealing

- Glass filled pure PTFE self-lubricating seats with flexible-lip design

Threads

- NPT taper ANSI B. 1.20.1 female by female threads

Flow

- Full port to DIN 3357 for maximum flow

Handle

- Geomet® carbon steel handle with thick PVC dip coating. Handle coating offers both thermal and electrical protection
- **WARNING:** do not exceed reasonable temperature and/or electrical load

Working pressure & temperature

- 600 PSI (40 bar) up to 2", (150 WSP / -10 bar) non-shock cold working pressure
- *150 psig (10 bar) non-shock steam working pressure. Not suitable for throttling steam
- -40°F to +366°F (-40°C to +170°C)
- **WARNING:** freezing of the fluid in the installation may severely damage the valve

Options

- Stem extension
- T-handle
- Stainless steel handle (1.4016 / AISI 430)
- Oval lockable handle
- Patented locking device
- Stubby handle

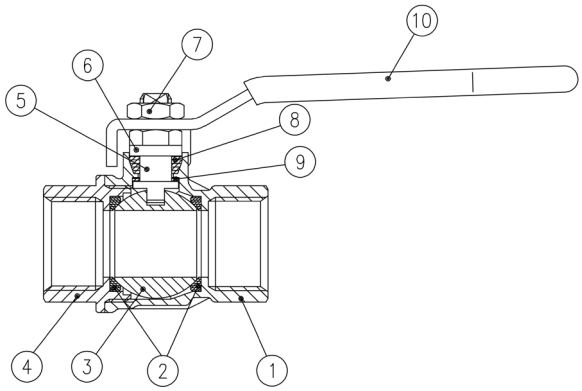
Upon request

- Custom design
- Pure PTFE seals
- Male by female NPT threads

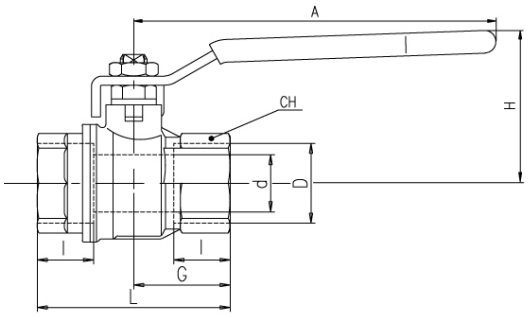
Approved by or in compliance with

- RoHS Compliant (EU)

NOTE: approvals apply to speficic configurations/sizes only.



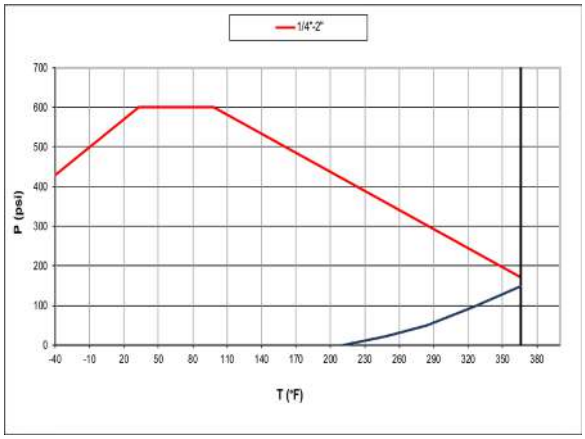
	Part description	Q.ty	Material
1	Unplated NPT body	1	CW617N
2	Seat	2	PTFE glass filled 5-15%
3	Stainless steel ball	1	1.4401 / AISI 316
4	Unplated NPT end-cap	1	CW617N
5	Stainless steel stem packing gland design	1	1.4401 / AISI 316
6	Nickel plated gland nut	1	CW617N
7	Geomet® nut	1	CB4FF (EN10263-2)
8	Packing gland seal	1	PTFE
9	Washer	1	PTFE carbon filled 25%
10	Yellow PVC coated Geomet® steel handle	1	DD11 (EN10111)



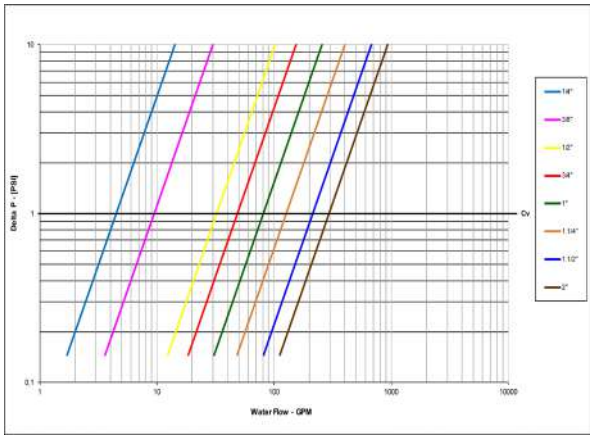
d shows the nominal flow diameter. Actual flow diameter complies with full port DIN 3357 part 4.

Code	S92B48	S92C48	S92D48	S92E48	S92F48	S92G48	S92H48	S92I48
D (inch)	1/4"	3/8"	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"
d (inch)	0.315	0.374	0.591	0.748	0.945	1.181	1.496	1.890
I (inch)	0.472	0.472	0.610	0.669	0.827	0.906	0.906	1.043
L (inch)	1.772	1.772	2.323	2.520	3.189	3.661	4.016	4.764
G (inch)	0.886	0.886	1.161	1.260	1.594	1.831	2.008	2.382
A (inch)	3.228	3.228	3.937	4.724	4.724	6.220	6.220	6.220
H (inch)	1.563	1.563	1.695	1.988	2.153	2.988	3.236	3.500
CH (inch)	0.787	0.787	0.984	1.220	1.575	1.929	2.126	2.697
Cv (GPM)	4.5	9.5	32.3	48.5	80.9	127.1	214.9	295.8

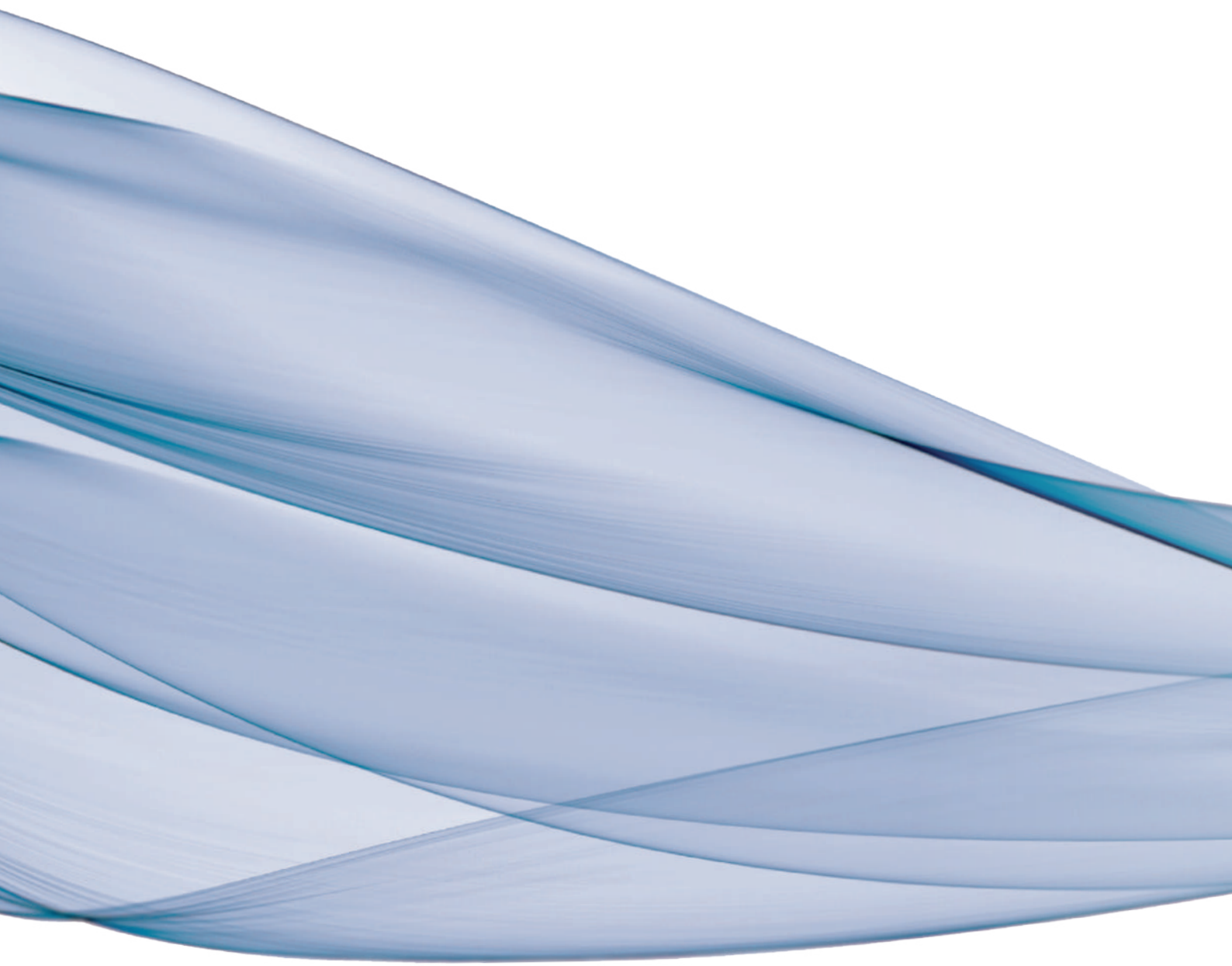
Pressure-temperature chart



Pressure drop chart



PNEUMATIC



s.34

1/8" - 1/2"
ISO 228 mini ball valve
suitable for panel mounting

Quality
- 24h 100% seal test guaranteed
- Dual sealing system allows valve to be operated in either direction making installation easier
- No metal-to-metal moving parts
- No maintenance ever required
- Handle clearly shows ball position
- Silicone-free lubricant on all seals
- Chrome plated brass ball for longer life

Body
- One piece drawn sand blasted brass body incorporating stem neck which provides excellent guidance of the stem
- Finest brass according to EN 12164 specification

Stem
- Maintenance-free, double FPM O-rings at the stem for maximum safety

Sealing
- Pure PTFE self-lubricating seats with flexible-lip design

Threads
- ISO 228 parallel female by female threads

Handle
- Lever and T-handle clearly show ball position
- Nylon black lever or T-handle removable with valve in service

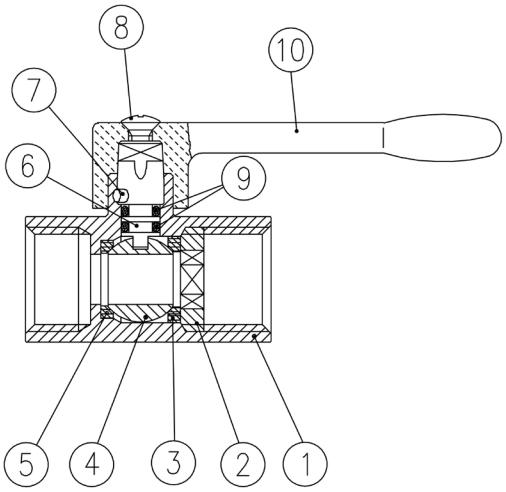
Working pressure & temperature
- 15 bar (200 PSI) non-shock cold working pressure
- -20°C to +90°C (-4°F to +200°F)
- **WARNING:** freezing of the fluid in the installation may severely damage the valve

Options
- Male by female threads
- Screw driver or wrench operated
- Yellow lever or T-handle
- NPT taper ANSI B.1.20.1 female by female threads

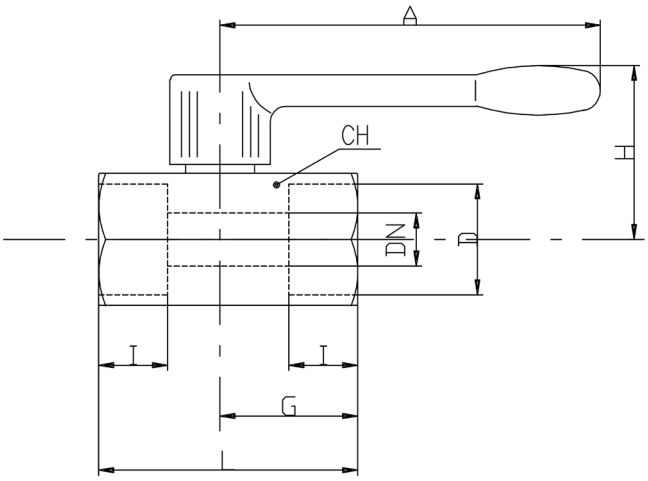
PED directive
- The product meets the requirements of PED Directive 2014/68/UE and according to art.4 par.3, it does not require CE marking

Approved by or in compliance with
- GOST-R (Russia)
- RoHS Compliant (EU)
- EAC – Declaration of conformity (Russia, Kazakhstan, Belarus)

NOTE: approvals apply to specific configurations/sizes only.



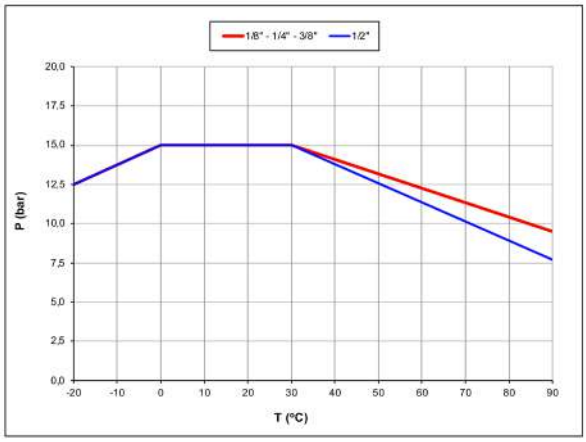
	Part description	Q.ty	Material
1	Chrome plated body	1	CW617N
2	Retainer nut	1	CW617N
3	Retainer seat	1	PTFE
4	Chrome plated ball	1	CW617N
5	Body seat	1	PTFE
6	Unplated stem	1	CW617N
7	Pin	1	1.4301 / AISI304
8	Zinc plated screw	1	CB4FF (EN10263-2)
9	O-Ring	2	FPM
10	Black handle	1	Nylon glass filled 30%



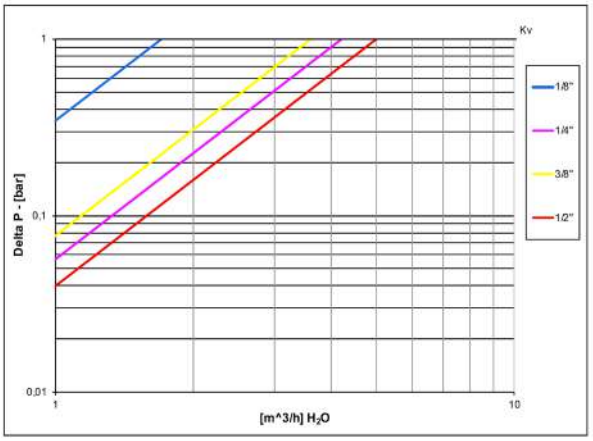
DN shows the nominal flow diameter.

Code	S34AF0	S34BF0	S34CF0	S34DF0
D (inch)	1/8	1/4	3/8	1/2
DN(mm)	6	8	8	10
I (mm)	10	11	11	13
L (mm)	41.5	41.5	41.5	49
G (mm)	22	22	22	26
A (mm)	72	72	72	72
H (mm)	30.5	30.5	30.5	32.5
CH(mm)	21	21	21	25
Kv (m3/h)	1.7	4.2	3.6	5

Pressure-temperature chart



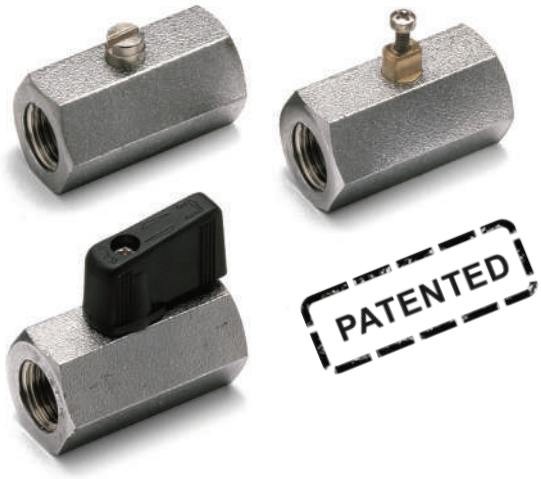
Pressure drop chart



PNEUMATIC

S.35 high pressure

1/8" - 1/2"
ISO 228 mini ball valve



Quality
- Dual sealing system allows valve to be operated in either direction making instaallation easier
- No metal-to-metal moving parts
- No maintenance ever required
- Silicone-free lubricant on all seals
- Chrome plated brass ball for longer life
- Each valve is seal tested for maximum safety
- Handle/ stem clearly shows ball position

Body
- One piece drawn sand blasted brass body with extremely compact design
- Finest brass according to EN 12164 specification
- Patent n. 7011-B/89

Stem
- Blowout-proof brass stem with FPM O-ring
- Maintenance-free thanks to FPM O-ring at the stem for maximum safety

Sealing
- Pure PTFE self-lubricating seats with flexible-lip design

Threads
- ISO 228 parallel female by female threads

Handle
- Reinforced nylon black wedge handle removable with valve in service
- **WARNING:** do not exceed reasonable temperature and/or electrical load

Working pressure & temperature
- 30 bar (450 PSI) non-shock cold working pressure
- -20°C to +90°C (-4°F to +200°F)
- +120°C (+250°F) screw driver version and metal wedge handle
- **WARNING:** freezing of the fluid in the installation may severely damage the valve

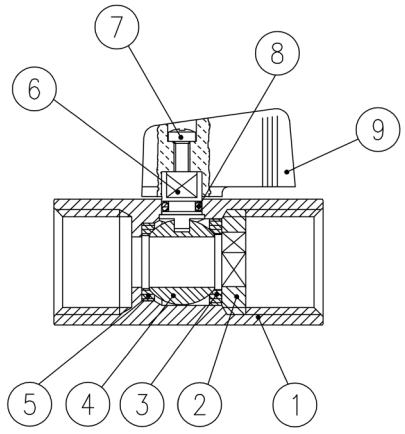
Options
- Male by female threads
- Screw driver or wrench operated
- Nylon wedge handle yellow, red or green
- Metal wedge handle available in colours red, black, yellow, green, light blue, chrome plated
- Grey wedge handle in Grivory® -high performing polymer
- NPT taper ANSI B.1.20.1 threads
- Additional connection options on demand

Upon request
- Aluminum body
- ISO 7/1 BSPT taper threads
- Dezincification resistant brass CW602N

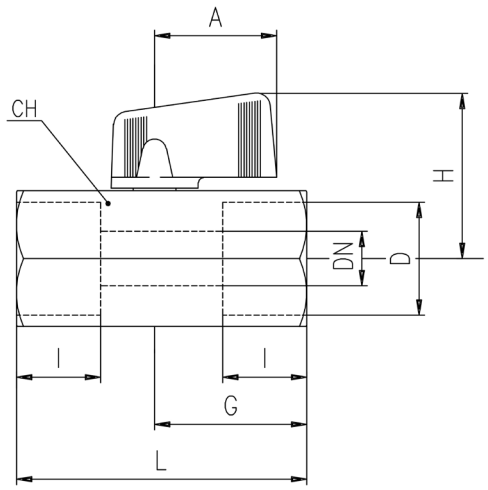
PED directive
- The product meets the requirements of PED Directive 2014/68/UE and according to art.4 par.3, it does not require CE marking

Approved by or in compliance with
- GOST-R (Russia)
- RoHS Compliant (EU)
- EAC – Declaration of conformity (Russia, Kazakhstan, Belarus)

NOTE: approvals apply to specific configurations/sizes only.



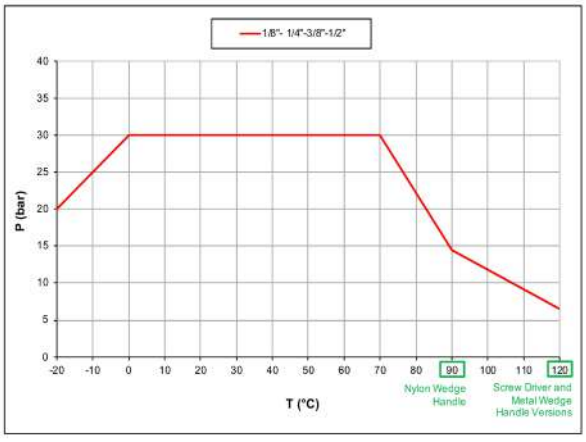
	Part description	Q.ty	Material
1	Chrome plated body	1	CW617N
2	Retainer nut	1	CW617N
3	Retainer seat	1	PTFE
4	Chrome plated ball	1	CW617N
5	Body seat	1	PTFE
6	Unplated stem	1	CW617N
7	Zinc plated screw	1	CB4FF (EN10263-2)
8	O-Ring	1	FPM
9	Black handle	1	Nylon glass filled 30%



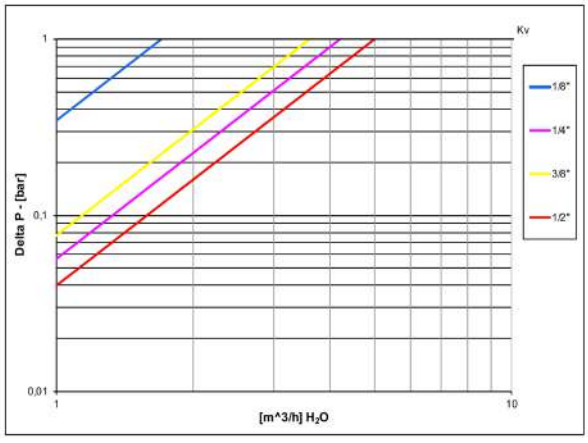
DN shows the nominal flow diameter.

Code	S35AF0	S35BF0	S35CF0	S35DF0
D (inch)	1/8	1/4	3/8	1/2
DN(mm)	6	8	8	10
l (mm)	10	11	11	13
L (mm)	41.5	41.5	41.5	49
G (mm)	22	22	22	26
A (mm)	22.5	22.5	22.5	22.5
H (mm)	31	31	31	33
CH(mm)	21	21	21	25
Kv(m3/h)	1.7	4.2	3.6	5

Pressure-temperature chart



Pressure drop chart



PNEUMATIC

S.39 forged, micro

1/8" - 1/4"
ISO 228
high pressure ball valve

Quality

- Dual sealing system allows valve to be operated in either direction making installation easier
- No metal-to-metal moving parts
- No maintenance ever required
- Silicone-free lubricant on all seals
- Chrome plated brass ball for longer life
- Each valve is seal tested for maximum safety
- Handle stops on body to avoid stresses at stem
- Handle / stem clearly shows ball position

Body

- Hot forged sand blasted brass body
- Finest brass according to EN 12165 specification

Stem

- Blowout-proof brass stem
- Maintenance-free, double FPM O-ring at the stem for maximum safety

Sealing

- Pure PTFE self-lubricating seats with flexible-lip design

Threads

- ISO 228 parallel female by female threads

Handle

- Reinforced nylon black wedge handle
- **WARNING:** do not exceed reasonable temperature and/or electrical load
- Handle removable with valve in service

Working pressure & temperature

- 60 bar (900 PSI) non-shock cold working pressure
- -20°C to +90°C (-4°F to +200°F)
- +120°C (+250°F) metal wedge handle (mini configuration only)
- **WARNING:** freezing of the fluid in the installation may severely damage the valve

Options

- Male by female threads
- Nylon wedge handle yellow, red or blue
- NPT taper ANSI B.1.20.1 threads

Upon request

- ISO 7/1 BSPT taper threads
- Other brass alloys or aluminum
- Additional connection options

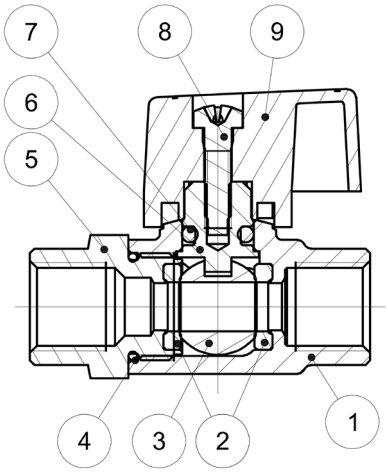
PED directive

- The product meets the requirements of PED Directive 2014/68/UE and according to art.4 par.3, it does not require CE marking

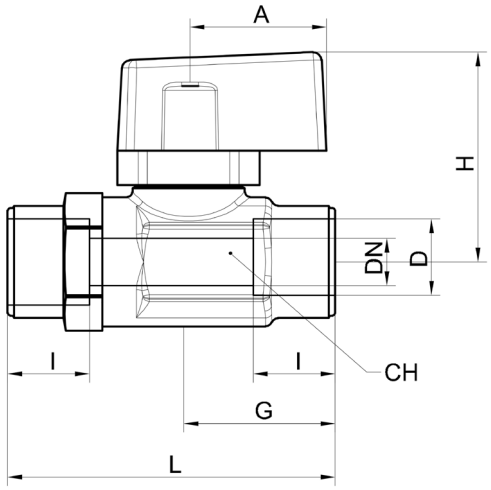
Approved by or in compliance with

- RoHS Compliant (EU)

NOTE: approvals apply to specific configurations/sizes only.



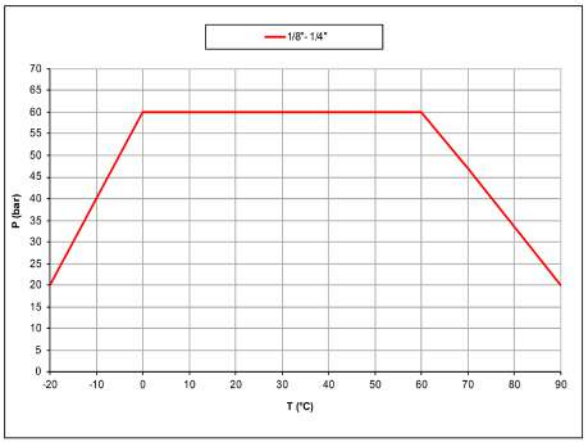
	Part description	Q.ty	Material
1	Nickel plated body (external nickel plated, unplated inside)	1	CW617N
2	Ball seat	2	PTFE
3	Chrome plated ball	1	CW617N
4	O-Ring	1	HNBR
5	Nickel plated end cap (external nickel plated, unplated inside)	1	CW617N
6	Unplated stem	1	CW617N
7	O-Ring	1	FPM
8	Zinc plated screw	1	C10C (EN10263-2)
9	Black handle	1	Nylon glass filled 30%



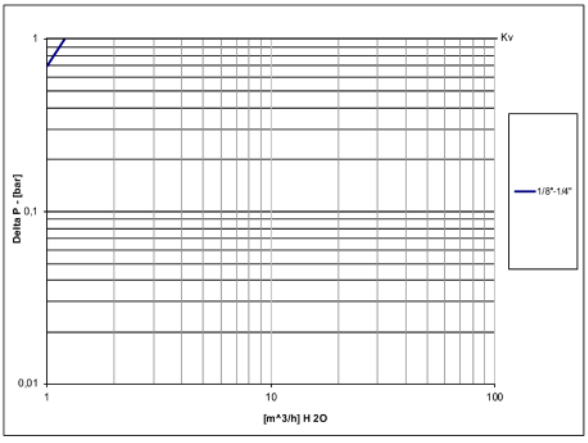
Code	S39AF0M	S39BF0M
D (inch)	1/8"	1/4"
DN (mm)	5.5	5.5
I (mm)	9.5	11
L (mm)	38	43
G (mm)	17	20
A (mm)	16	16
H (mm)	24.5	24.5
CH (mm)	15	15
Kv (m^3/h)	1.2	1.2

DN shows the nominal flow diameter.

Pressure-temperature chart

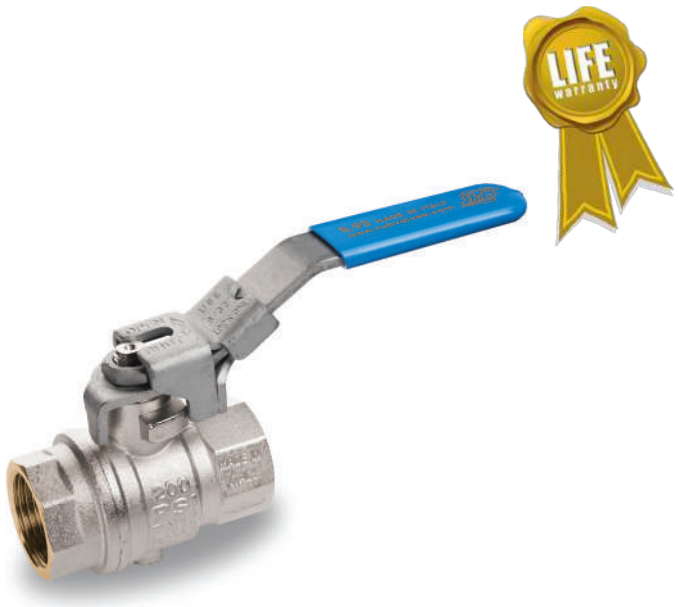


Pressure drop chart



s.93
downstream exhaust

1/4" - 2"
EN 10226-1
with patented locking handle



Featuring patented tamper-proof lockable handle that has no equal in the market.

RuB s.93 range exhausts automatically and continuously downstream air pressure as soon as turned in the closed position.

Valve is lockable in the closed position only, according to Part. 1910.147 safety OSHA (USA) requirements allowing safe maintenance of the air-supplied equipment; when valve is open, one simple 90° turn of the handle shuts flow immediately.

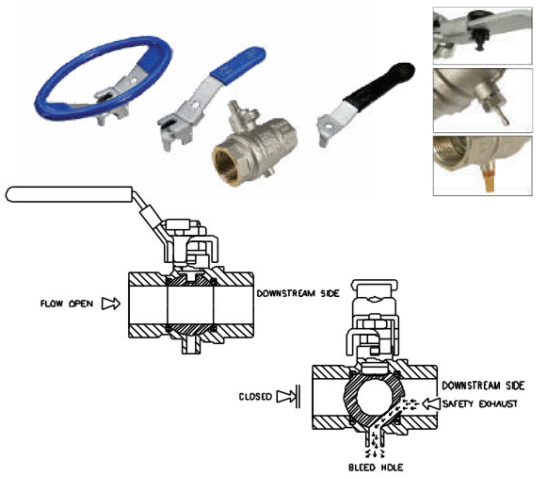
We care for those you care for.

Quality
- No metal-to-metal moving parts
- No maintenance ever required
- Handle clearly shows ball position
- Silicone-free lubricant on all seals
- Chrome plated brass ball for longer life
- Handle stops on body to avoid stresses at stem

Body
- Hot forged sand blasted, external nickel plated brass body and cap sealed with Loctite® or equivalent threads sealant
- The valve body includes a tapped downstream depressurization venting outlet to direct exhaust air or assemble mufflers for noise control
- Finest brass according to EN 12165 and EN 12164 specifications

Stem
- Blowout-proof nickel plated brass stem
- Maintenance-free, double FPM O-rings at the stem for maximum safety

Sealing
- Molybdenum filled PTFE self-lubricating seats with flexible-lip design



Threads
- EN 10226-1, ISO 228 parallel female by female threads

Flow
- Full port to DIN 3357 for maximum flow

Handle
- Geomet® carbon steel lockable handle patent n. 7074-B/90 with thick PVC dip coating. Handle coating offers both thermal and electrical protection
- Handle removable with valve in service

Working pressure & temperature
- 14 bar (200 PSI) non-shock cold working pressure
- -10°C to +100°C (+15°F to +210°F)
- **WARNING:** freezing of the fluid in the installation may severely damage the valve

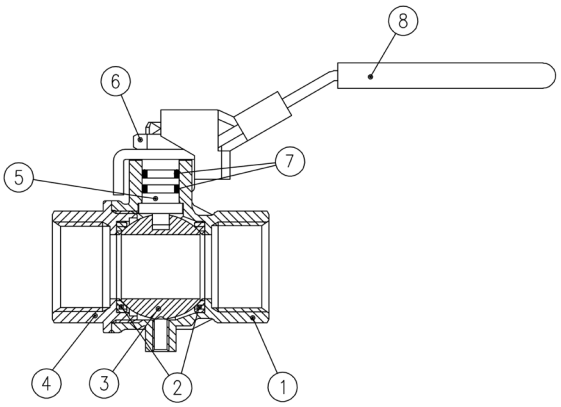
Options
- Stainless steel handle (1.4016 / AISI 430)
- Non-locking Geomet® carbon steel lever handle
- ISO 7/1 BSPT taper threads
- NPT taper ANSI B.1.20.1 threads
- Safety pin
- Muffler, hose

Upon request
- Stainless steel ball (1.4401 / AISI 316)
- Custom design
- T-handle

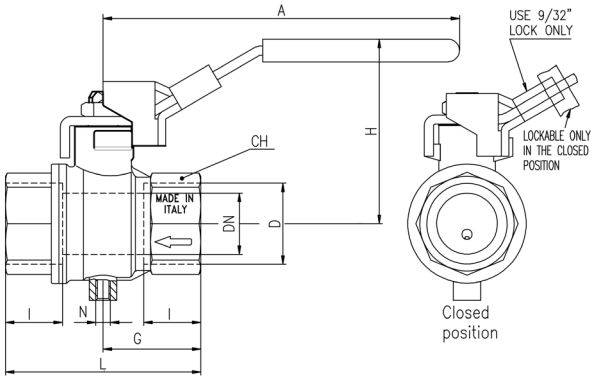
PED directive
- The product described in this document meets the requirements of PED Directive 2014/68/UE and according to art.4 par.3, it does not require CE marking; it cannot be used with dangerous gases in sizes larger than 25 mm

Approved by or in compliance with
- GOST-R (Russia)
- EAC – Declaration of conformity (Russia, Kazakhstan, Belarus)
- RoHS Compliant (EU)
- OSHA Compliant (United States)

NOTE: approvals apply to specific configurations/sizes only.



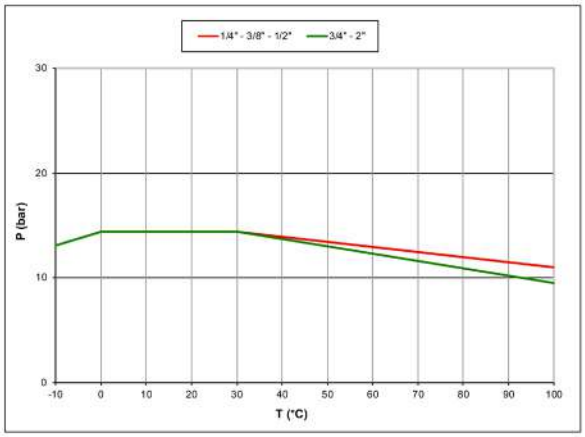
	Part description	Q.ty	Material
1	Nickel plated body (external treatment)	1	CW617N
2	Seat	2	PTFE molybdenum filled
3	Chrome plated ball	1	CW617N
4	Nickel plated end-cap (external treatment)	1	CW617N
5	Nickel plated stem O-Ring design	1	CW617N
6	Geomet® nut	1	CB4FF (EN10263-2)
7	O-Ring	2	FPM
8	Light blue PVC coated Geomet® steel lockable handle	1	DD11 (EN10111)



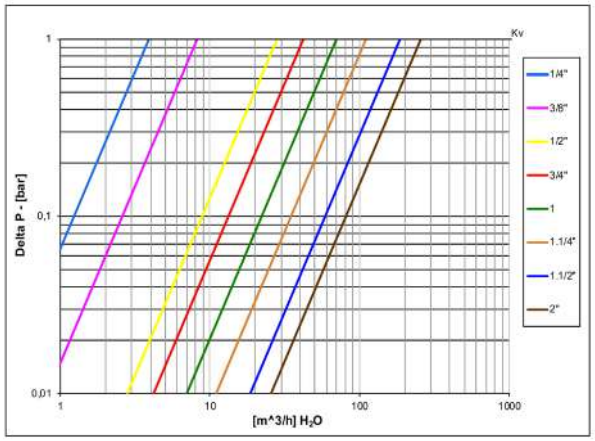
Code	S93B00	S93C00	S93D00	S93E00	S93F00	S93G00	S93H00	S93I00
D (inch)	1/4	3/8	1/2	3/4	1	1 1/4	1 1/2	2
DN (mm)	8	10	15	20	25	32	40	50
I (mm)	12	12	15.5	17	21	23	23	26.5
L (mm)	45	45	59	64	81	93	102	121
G (mm)	22.5	22.5	29.5	32	40.5	46.5	51	60.5
A (mm)	96	96	96	117	117	156.5	156.5	156.5
H (mm)	46	46	51	59	63	77	83	90
CH (mm)	20	20	25	31	40	49	54	68.5
N	M5					G 1/4"		
Kv (m3/h)	3.9	8.2	28	42	70	80	124	179

DN shows the nominal flow diameter. Actual flow diameter complies with full port DIN 3357 part 4.

Pressure-temperature chart



Pressure drop chart



s.34 NPT

1/8" - 1/2"
mini ball valve
suitable for panel mounting

Quality

- 24h 100% seal test guaranteed
- Dual sealing system allows valve to be operated in either direction making installation easier
- No metal-to-metal moving parts
- No maintenance ever required
- Handle clearly shows ball position
- Silicone-free lubricant on all seals
- Chrome plated brass ball for longer life

Body

- One piece drawn sand blasted brass body incorporating stem neck which provides excellent guidance of the stem
- Finest brass according to EN 12164 specification

Stem

- Maintenance-free, double FPM O-rings at the stem for maximum safety

Sealing

- Pure PTFE self-lubricating seats with flexible-lip design

Threads

- NPT taper ANSI B.1.20.1 female by female threads

Handle

- Lever and T-handle clearly show ball position
- Nylon back lever or T-handle removable with valve in service

Working pressure & temperature

- 200 PSI non-shock cold working pressure
- -4°F/ +200°F
- **WARNING:** freezing of the fluid in the installation may severely damage the valve

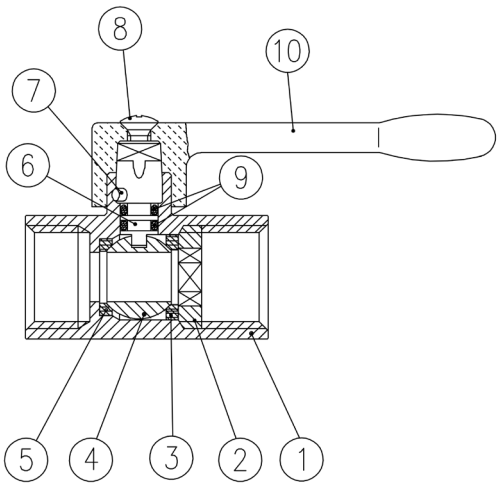
Options

- Male by female threads
- Screw driver or wrench operated
- Yellow lever or T-handle
- ISO 228 parallel threads

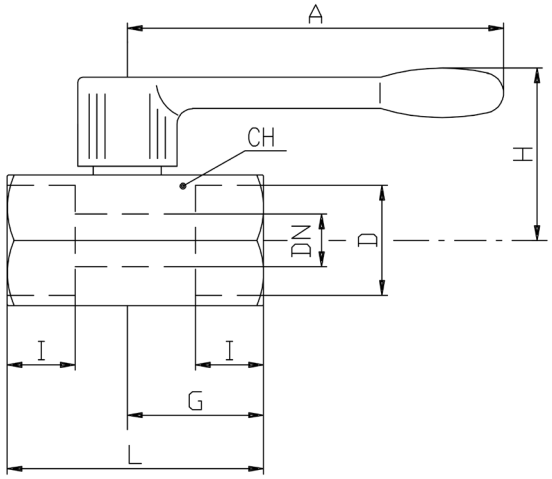
Approved by or in compliance with

- GOST-R (Russia)
- RoHS Compliant (EU)

NOTE: approvals apply to specific configurations/sizes only.



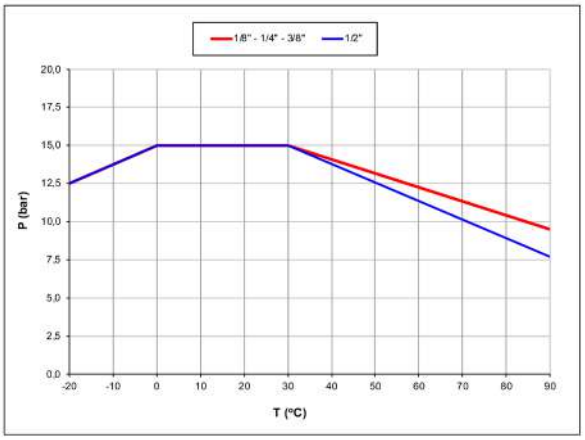
	Part description	Q.ty	Material
1	Chrome plated body	1	CW617N
2	Retainer nut	1	CW617N
3	Retainer seat	1	PTFE
4	Chrome plated ball	1	CW617N
5	Body seat	1	PTFE
6	Unplated stem	1	CW617N
7	Pin	1	1.4301 / AISI304
8	Zinc plated screw	1	CB4FF (EN10263-2)
9	O-Ring	2	FPM
10	Black handle	1	Nylon glass filled 30%



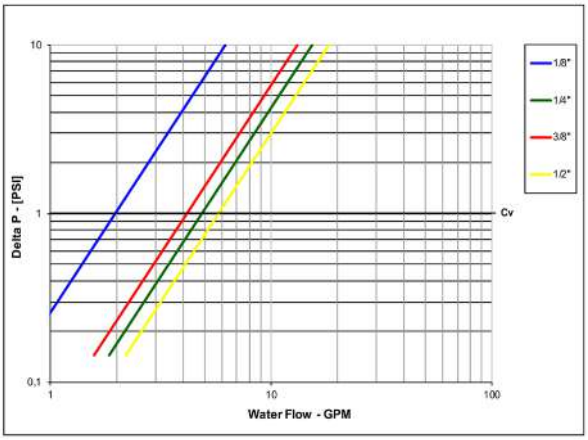
Code	S34AX0	S34BX0	S34CX0	S34DX0
D (inch)	1/8	1/4	3/8	1/2
DN (inch)	0.236	0.314	0.314	0.393
I (inch)	0.354	0.472	0.472	0.610
L (inch)	1.712	1.712	1.712	2.106
G (inch)	0.905	0.905	0.905	1.102
A (inch)	2.834	2.834	2.834	2.834
H (inch)	1.200	1.200	1.200	1.279
CH (inch)	0.826	0.826	0.826	0.984
Cv (GPM)	2.0	4.9	4.2	5.8

DN shows the nominal flow diameter.

Pressure-temperature chart



Pressure drop chart



PNEUMATIC

s.35 NPT high pressure

1/8" - 1/2"
mini ball valve

PATENTED

Quality
- Dual sealing system allows valve to be operated in either direction making installation easier
- No metal-to-metal moving parts
- No maintenance ever required
- Handle/ stem clearly shows ball position
- Silicone-free lubricant on all seals
- Each valve is seal tested for maximum safety
- Chrome plated brass ball for longer life

Body
- One piece drawn sand blasted brass body with extremely compact design
- Finest brass according to EN 12164 specification
- Patent n. 7011-B/89

Stem
- Blowout-proof brass stem with FPM O-ring
- Maintenance-free, double FPM O-ring at the stem for maximum safety

Sealing
- Pure PTFE self-lubricating seats with flexible-lip design

Threads
- NPT taper ANSI B.1.20.1 female by female threads

Handle
- Reinforced nylon black wedge handle
- Handle removable with valve in service
- **WARNING:** do not exceed reasonable temperature and/or electrical load

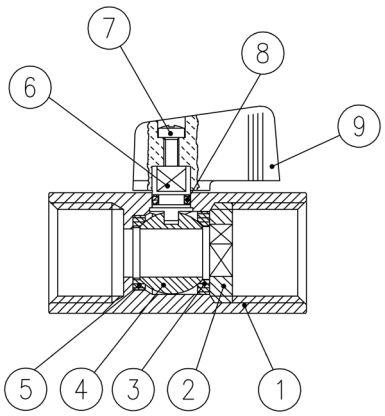
Working pressure & temperature
- 450 PSI non-shock cold working pressure
- -4°F/ +200°F
- +250°F screw driver version and metal wedge handle
- **WARNING:** freezing of the fluid in the installation may severely damage the valve

Options
- Male by female threads
- Screw driver or wrench operated
- Nylon wedge handle yellow, red or green
- Metal wedge handle available in colours red, black, yellow, green, light blue, chrome plated
- Grey wedge handle in Grivory® -high performing polymer
- ISO 228 parallel threads

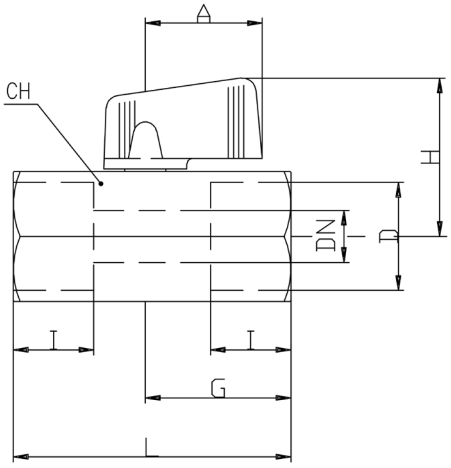
Upon request
- Aluminum body
- Additional connection options
- ISO 7/1 BSPT taper threads
- Dezincification resistant brass CW602N

Approved by or in compliance with
- GOST-R (Russia)
- RoHS Compliant (EU)

NOTE: approvals apply to specific configurations/sizes only.



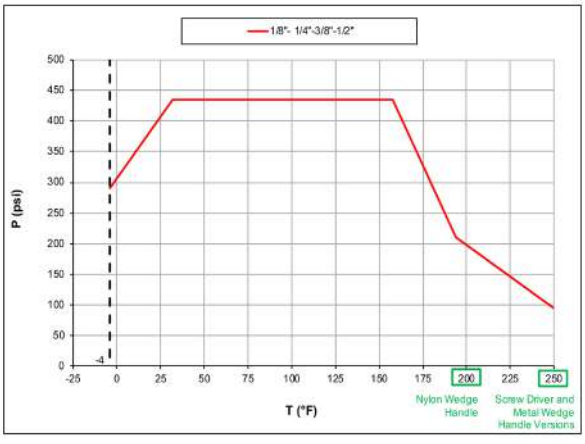
	Part description	Q.ty	Material
1	Chrome plated body	1	CW617N
2	Retainer nut	1	CW617N
3	Retainer seat	1	PTFE
4	Chrome plated ball	1	CW617N
5	Body seat	1	PTFE
6	Unplated stem	1	CW617N
7	Zinc plated screw	1	CB4FF (EN10263-2)
8	O-Ring	1	FPM
9	Black handle	1	Nylon glass filled 30%



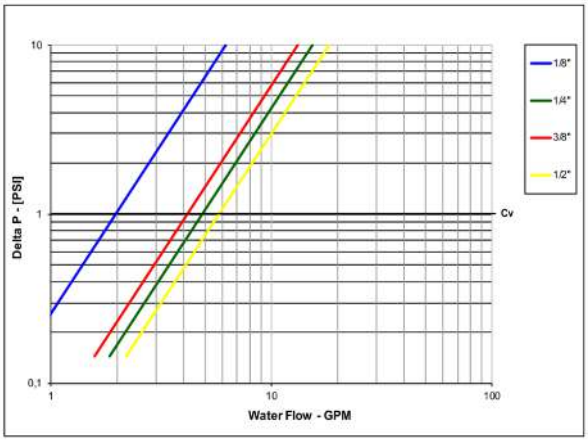
DN shows the nominal flow diameter.

Code	S35AX0	S35BX0	S35CX0	S35DX0
D (inch)	1/8	1/4	3/8	1/2
DN (inch)	0.236	0.314	0.314	0.393
I (inch)	0.354	0.472	0.472	0.610
L (inch)	1.712	1.712	1.712	2.106
G (inch)	0.905	0.905	0.905	1.102
A (inch)	0.885	0.885	0.885	0.885
H (inch)	1.220	1.220	1.220	1.299
CH (inch)	0.826	0.826	0.826	0.984
Cv (GPM)	2.0	4.9	4.2	5.8

Pressure-temperature chart



Pressure drop chart



s.39 NPT forged, micro

1/8" - 1/4"
high pressure ball valve

Quality
- Dual sealing system allows valve to be operated in either direction making installation easier
- No metal-to-metal moving parts
- No maintenance ever required
- Silicone-free lubricant on all seals
- Chrome plated brass ball for longer life
- Each valve is seal tested for maximum safety
- Handle stops on body to avoid stress at stem
- Handle/stem clearly shows ball position

Body
- Hot forged sand blasted brass body
- Finest brass according to EN 12165 specification

Stem
- Blowout-proof brass stem
- Maintenance-free, double FPM O-ring at the stem for maximum safety

Sealing
- Pure PTFE self-lubricating seats with flexible-lip design

Threads
- NPT taper ANSI B.1.20.1 female by female threads

Handle
- Reinforced nylon black wedge handle
- Handle removable with valve in service
- **WARNING:** do not exceed reasonable temperature and/or electrical load

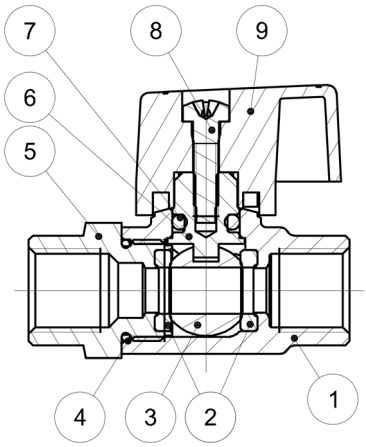
Working pressure & temperature
- 900 PSI (60 bar) non-shock cold working pressure
- -4°F to +200°F (-20°C to +90°C)
- **WARNING:** freezing of the fluid in the installation may severely damage the valve

Options
- Male by female threads
- Nylon wedge handle yellow, red or blue
- ISO 228 parallel threads

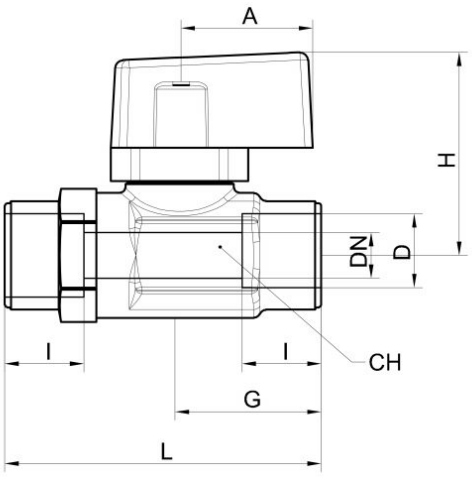
Upon request
- ISO 7/1 BSPT taper threads
- Other brass alloys or aluminum
- Additional connection options

Approved by or in compliance with
- RoHS Compliant (EU)

NOTE: approvals apply to specific configurations/sizes only.



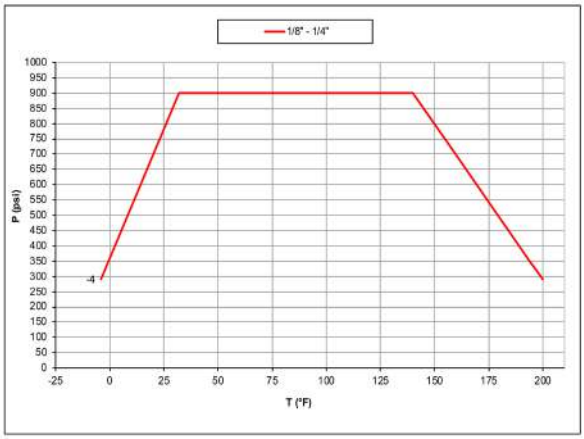
	Part description	Q.ty	Material
1	Nickel plated body (external nickel plated, unplated inside)	1	CW617N
2	Ball seat	2	PTFE
3	Chrome plated ball	1	CW617N
4	O-Ring	1	HNBR
5	Nickel plated end cap (external nickel plated, unplated inside)	1	CW617
6	Unplated stem	1	CW617N
7	O-Ring	1	FPM
8	Zinc plated screw	1	C10C (EN10263-2)
9	Black handle	1	Nylon glass filled 30%



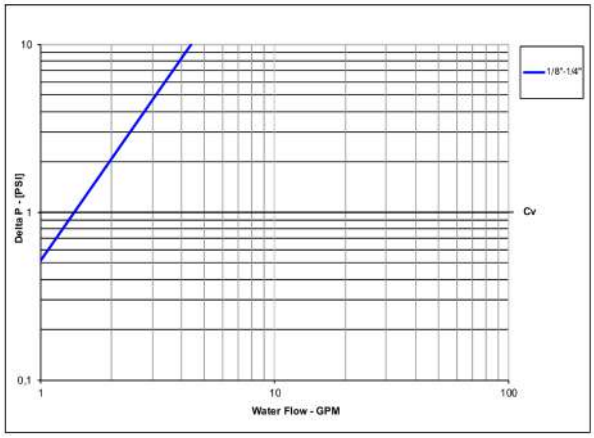
Code	S39AX0M	S39BX0M
D (inch)	1/8"	1/4"
DN (inch)	0.217	0.217
I (inch)	0.374	0.472
L (inch)	1.496	1.732
G (inch)	0.669	0.787
A (inch)	0.630	0.630
H (inch)	0.965	0.965
CH (inch)	0.591	0.591
Cv (GPM)	1.4	1.4

DN shows the nominal flow diameter.

Pressure-temperature chart



Pressure drop chart



s.93 NPT
downstream exhaust

1/4" - 2"
with patented locking handle

Featuring patented tamper-proof lockable handle that has no equal in the market.

RuB s.93 range exhausts automatically and continuously downstream air pressure as soon as turned in the closed position.

Valve is lockable in the closed position only, according to Part. 1910.147 safety OSHA (USA) requirements allowing safe maintenance of the air-supplied equipment; when valve is open, one simple 90° turn of the handle shuts flow immediately.

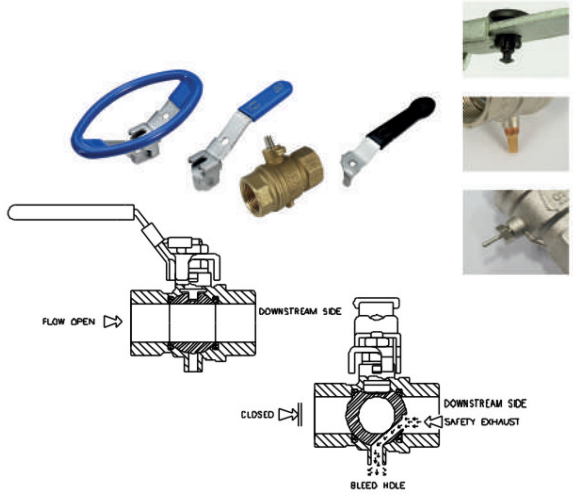
We care for those you care for.

Quality
- No metal-to-metal moving parts
- No maintenance ever required
- Handle clearly shows ball position
- Silicone-free lubricant on all seals
- Chrome plated brass ball for longer life
- Handle stops on body to avoid stress at stem

Body
- Hot forged sand blasted, unplated brass body and cap sealed with Loctite® or equivalent threads sealant
- The valve body includes a tapped downstream depressurization venting outlet to direct exhaust air or assemble mufflers for noise control
- Finest brass according to EN 12165 and EN 12164 specifications

Stem
- Blowout-proof nickel plated brass stem
- Maintenance-free, double FPM O-rings at the stem for maximum safety

Sealing
- Molybdenum filled PTFE self-lubricating seats with flexible-lip design



Threads
- NPT taper ANSI B.1.20.1 female by female threads

Flow
- Full port to DIN 3357 for maximum flow

Handle
- Geomet® carbon steel lockable handle patent n. 7074-B/90 with thick PVC dip coating. Handle coating offers both thermal and electrical protection
- Handle removable with valve in service
- **WARNING:** do not exceed reasonable temperature and/or electrical load

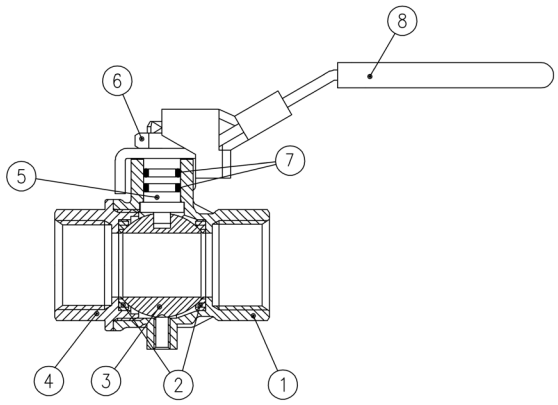
Working pressure & temperature
- 200 PSI non-shock cold working pressure
- +15°F/ +210°F
- **WARNING:** freezing of the fluid in the installation may severely damage the valve

Options
- Stainless steel handle (1.4016 / AISI 430)
- Non-locking Geomet® carbon steel lever handle
- ISO 7/1 BSPT taper threads
- EN 10226-1, ISO 228 parallel threads
- Safety pin
- Muffler, hose

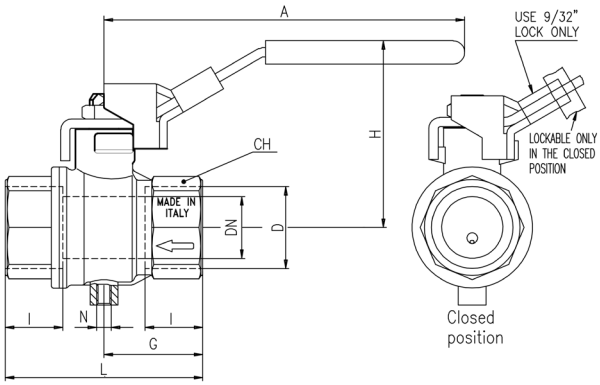
Upon request
- Stainless steel ball (1.4401 / AISI 316)
- Custom design
- T-handle

Approved by or in compliance with
- GOST-R (Russia)
- RoHS Compliant (EU)
- OSHA Compliant (United States)

NOTE: approvals apply to specific configurations/sizes only.



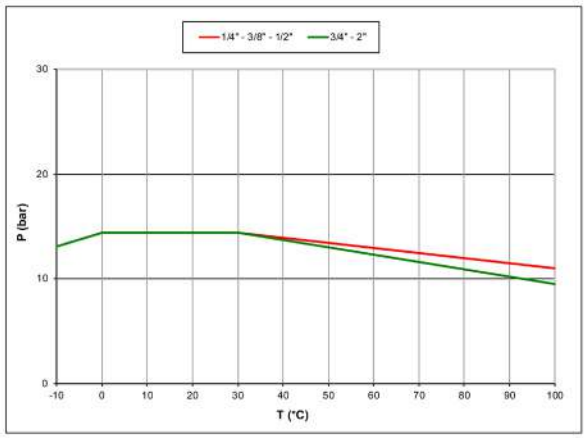
	Part description	Q.ty	Material
1	Unplated body	1	CW617N
2	Seat	2	PTFE molybdenum filled
3	Chrome plated ball	1	CW617N
4	Unplated end-cap	1	CW617N
5	Nickel plated stem O-Ring design	1	CW617N
6	Geomet® nut	1	CB4FF (EN10263-2)
7	O-Ring	2	FPM
8	Light blue PVC coated Geomet® steel lockable handle	1	DD11 (EN10111)



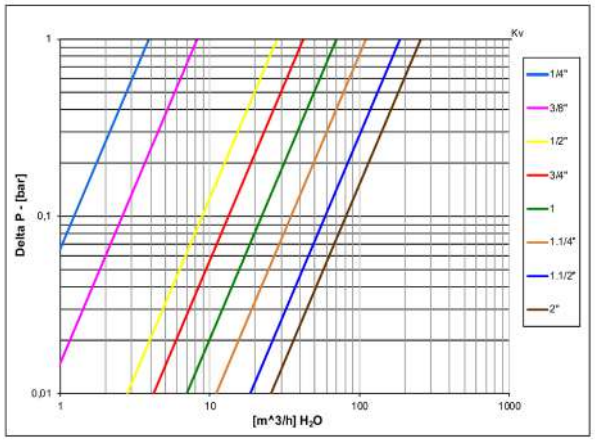
Code	S93B41	S93C41	S93D41	S93E41	S93F41	S93G41	S93H41	S93I41
D (inch)	1/4	3/8	1/2	3/4	1	1 1/4	1 1/2	2
DN (inch)	0.314	0.393	0.590	0.787	0.984	1.260	1.575	1.969
I (inch)	0.472	0.472	0.610	0.669	0.826	0.906	0.906	1.043
L (inch)	1.771	1.771	2.322	2.519	3.188	3.661	4.016	4.764
G (inch)	0.885	0.885	1.161	1.259	1.594	1.831	2.008	2.382
A (inch)	3.759	3.759	3.759	4.574	4.574	6.161	6.161	6.161
H (inch)	1.811	1.811	2.008	2.323	2.480	3.031	3.268	3.543
CH (inch)	0.787	0.787	0.984	1.220	1.574	1.929	2.126	2.697
N	10-32 UNF					1/4" NPT		
Cv (GPM)	4.5	9.5	32.3	48.5	80.9	127.1	214.9	295.8

DN shows the nominal flow diameter. Actual flow diameter complies with full port DIN 3357 part 4.

Pressure-temperature chart

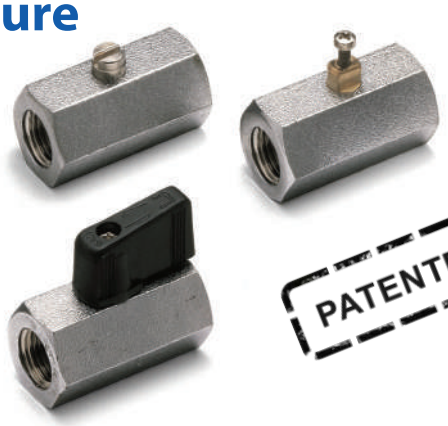


Pressure drop chart



s.35 BSPT high pressure

1/8" - 1/2"
mini ball valve



HIGH PRESSURE

PATENTED

RoHS compliant

Quality

- Dual sealing system allows valve to be operated in either direction making installation easier
- No metal-to-metal moving parts
- No maintenance ever required
- Silicone-free lubricant on all seals
- Chrome plated brass ball for longer life
- Each valve is seal tested for maximum safety
- Handle/ stem clearly shows ball position

Body

- One piece drawn sand blasted brass body with extremely compact design
- Finest brass according to EN 12164 specification
- Patent n. 7011-B/89

Stem

- Blowout-proof brass stem with FPM O-ring
- Maintenance-free, double FPM O-ring at the stem for maximum safety

Sealing

- Pure PTFE self-lubricating seats with flexible-lip design

Threads

- ISO7/1, BS 21 taper female by female threads

Handle

- Reinforced nylon black wedge handle removable with valve in service
- **WARNING:** do not exceed reasonable temperature and/or electrical load

Working pressure & temperature

- 30 bar (450 PSI) non-shock cold working pressure
- -20°C to +90°C (-4°F to +200°F)
- +120°C (+250°F) screw driver version and metal wedge handle
- **WARNING:** freezing of the fluid in the installation may severely damage the valve

Options

- Male by female threads
- Screw driver or wrench operated
- Nylon wedge handle yellow, red or green
- Metal wedge handle available in colours red, black, yellow, green, light blue, chrome plated
- Grey wedge handle in Grivory® -high performing polymer
- ISO228 parallel threads
- NPT taper ANSI B.1.20.1 threads

Upon request

- Aluminum body
- Dezincification resistant brass CW602N

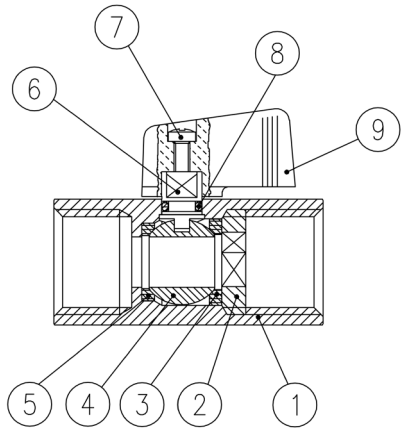
PED directive

- The product meets the requirements of PED Directive 2014/68/UE and according to art.4 par.3, it does not require CE marking

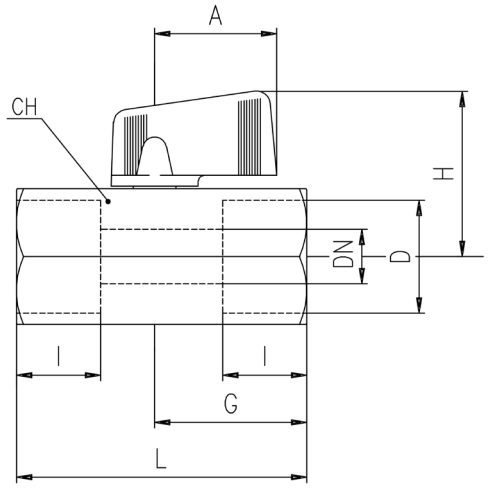
Approved by or in compliance with

- GOST-R (Russia)
- RoHS Compliant (EU)

NOTE: approvals apply to specific configurations/sizes only.



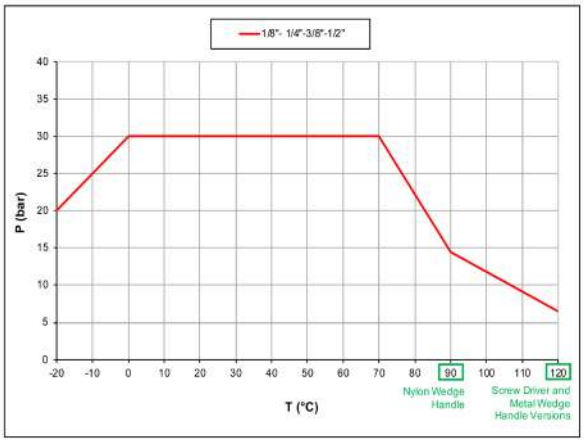
	Part description	Q.ty	Material
1	Chrome plated body	1	CW617N
2	Retainer nut	1	CW617N
3	Retainer seat	1	PTFE
4	Chrome plated ball	1	CW617N
5	Body seat	1	PTFE
6	Unplated stem	1	CW617N
7	Zinc plated screw	1	CB4FF (EN10263-2)
8	O-Ring	1	FPM
9	Black handle	1	Nylon glass filled 30%



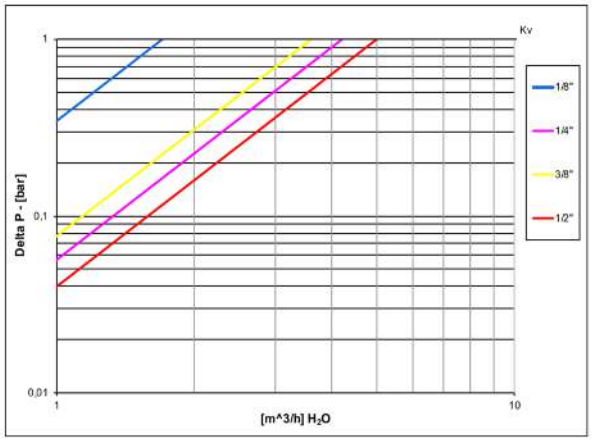
DN shows the nominal flow diameter.

Code	S35AW0	S35BW0	S35CW0	S35DW0
D (inch)	1/8	1/4	3/8	1/2
DN(mm)	6	8	8	10
l (mm)	11	12	12	15.5
L (mm)	43.5	43.5	43.5	53.5
G (mm)	23	23	23	28
A (mm)	22.5	22.5	22.5	22.5
H (mm)	31	31	31	33
CH(mm)	21	21	21	25
Kv(m3/h)	1.7	4.2	3.6	5

Pressure-temperature chart



Pressure drop chart



s.39 BSPT forged, micro

1/8" - 1/4"
high pressure ball valve

Quality
• Dual sealing system allows valve to be operated in either direction making installation easier
• No metal-to-metal moving parts
• No maintenance ever required
• Silicone-free lubricant on all seals
• Chrome plated brass ball for longer life
• Each valve is seal tested for maximum safety
• Handle stops on body to avoid stress at stem
• Handle/stem clearly shows ball position

Body
• Hot forged sand blasted brass body
• Finest brass according to EN 12165 specification

Stem
• Blowout-proof brass stem
• Maintenance-free, double FPM O-ring at the stem for maximum safety

Sealing
• Pure PTFE self-lubricating seats with flexible-lip design

Threads
• ISO7/1, BS 21 taper female-by-female threads

Handle
• Reinforced nylon black wedge handle
• Removable with valve in service
• **WARNING:** do not exceed reasonable temperature and/or electrical load

Working pressure & temperature
• 60 bar (900 PSI) non-shock cold working pressure
• -20°C to +90°C (-4°F to +200°F)
• **WARNING:** freezing of the fluid in the installation may severely damage the valve

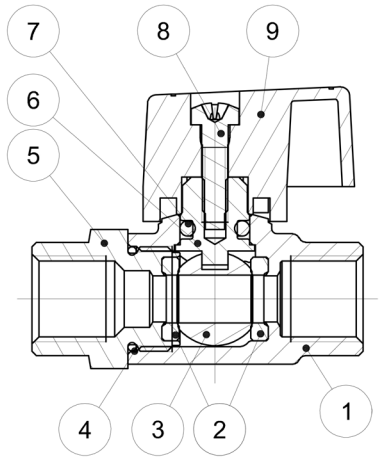
Options
• Male-by-female threads
• ISO228 parallel threads
• NPT taper ANSI B.1.20.1 threads

Upon request
• Dezincification resistant brass CW602N
• Additional connection options

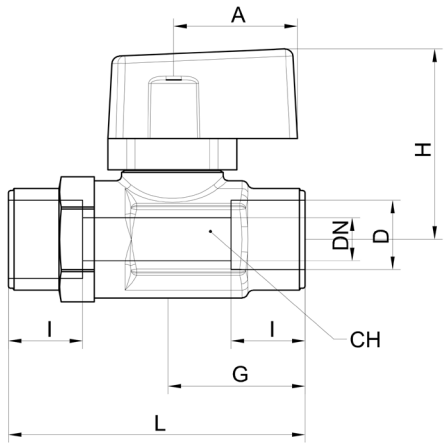
PED directive
The product meets the requirements of PED Directive 2014/68/UE and according to art.4 par.3, it does not require CE marking.

Approved by or in compliance with
• RoHS Compliant (EU)

NOTE: approvals apply to specific configurations/sizes only.



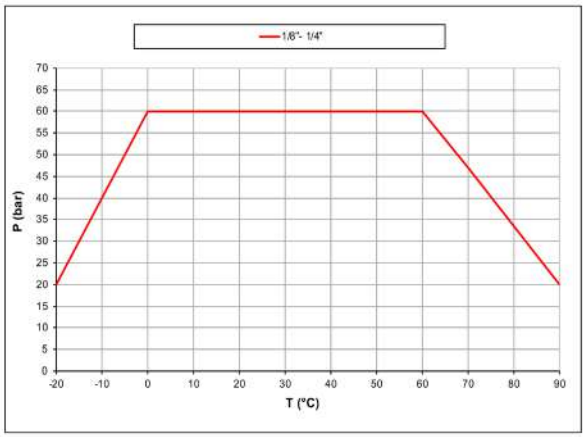
	Part description	Q.ty	Material
1	Nickel plated body (external nickel plated, unplated inside)	1	CW617N
2	Ball seat	2	PTFE
3	Chrome plated ball	1	CW617N
4	O-Ring	1	HNBR
5	Nickel plated end cap (external nickel plated, unplated inside)	1	CW617
6	Unplated stem	1	CW617N
7	O-Ring	1	FPM
8	Zinc plated screw	1	C10C (EN10263-2)
9	Black handle	1	Nylon glass filled 30%



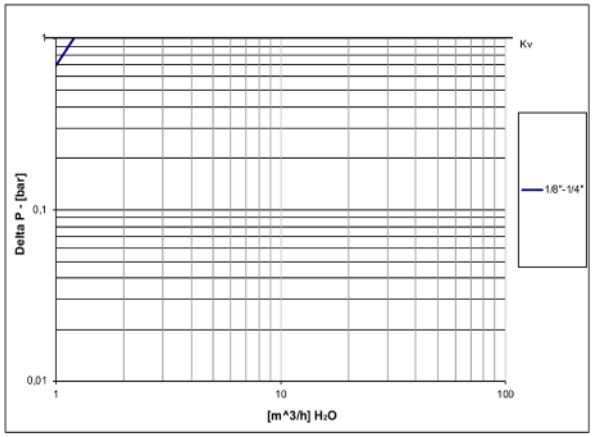
Code	S39AW0M	S39BW0M
D (inch)	1/8"	1/4"
DN (mm)	5.5	5.5
I (mm)	9.5	11
L (mm)	38	43
G (mm)	17	20
A (mm)	16	16
H (mm)	24.5	24.5
CH (mm)	15	15
Kv (m^3/h)	1.2	1.2

DN shows the nominal flow diameter.

Pressure-temperature chart



Pressure drop chart



s.93 BSPT
downstream exhaust

1/2" - 2"
with patented locking handle

Featuring patented tamper- proof lockable handle that has no equal in the market.

RuB s.93 range exhausts automatically and continuously downstream air pressure as soon as turned in the closed position.

Valve is lockable in the closed position only, according to Part. 1910.147 safety OSHA (USA) requirements allowing safe maintenance of the air-supplied equipment; when valve is open, one simple 90° turn of the handle shuts flow immediately.

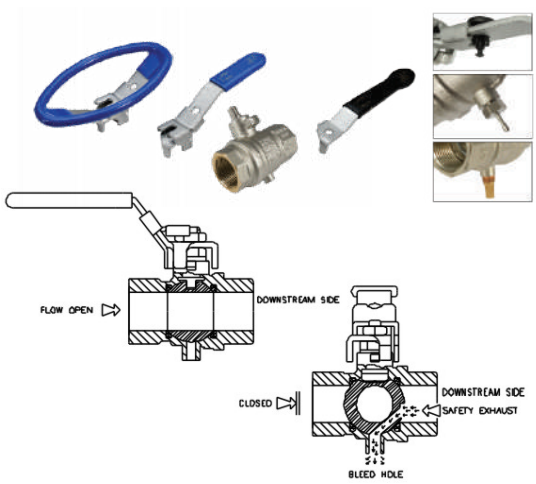
We care for those you care for.

Quality
- No metal-to-metal moving parts
- No maintenance ever required
- Handle clearly shows ball position
- Silicone-free lubricant on all seals
- Chrome plated brass ball for longer life
- Handle stops on body to avoid stress at stem

Body
- Hot forged sand blasted, external nickel plated brass body and cap sealed with Loctite® or equivalent thread sealant
- The valve body includes a tapped downstream depressurization venting outlet to direct exhaust air or assemble mufflers for noise control
- Finest brass according to EN 12165 and EN 12164 specifications

Stem
- Blowout-proof nickel plated brass stem
- Maintenance-free, double FPM O-rings at the stem for maximum safety

Sealing
- Molybdenum filled PTFE self-lubricating seats with flexible-lip design



Threads
- ISO 7/1, BS 21 BSPT taper female by female threads

Flow
- Full port to DIN 3357 for maximum flow

Handle
- Geomet® carbon steel lockable handle patent n. 7074-B/90 with thick PVC dip coating. Handle coating offers both thermal and electrical protection
- Handle removable with valve in service

Working pressure & temperature
- 14 bar (200 PSI) non-shock cold working pressure
- -10°C to +100°C (+15°F to +210°F)
- **WARNING:** freezing of the fluid in the installation may severely damage the valve

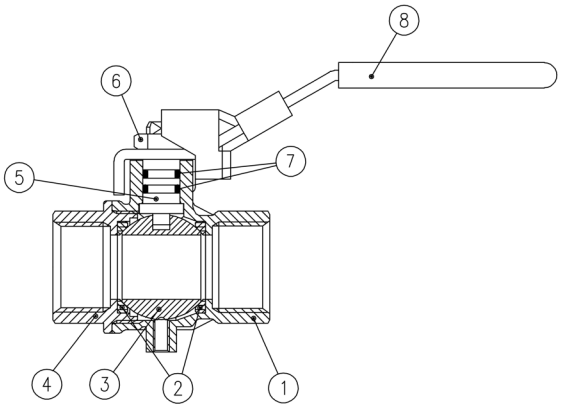
Options
- Stainless steel handle (1.4016 / AISI 430)
- Non-locking Geomet® carbon steel lever handle
- NPT taper ANSI B.1.20.1 threads
- EN 10226-1, ISO 228 parallel threads
- Safety pin
- Muffler, hose

Upon request
- Custom design
- Sizes 1/4" and 3/8"
- T-handle

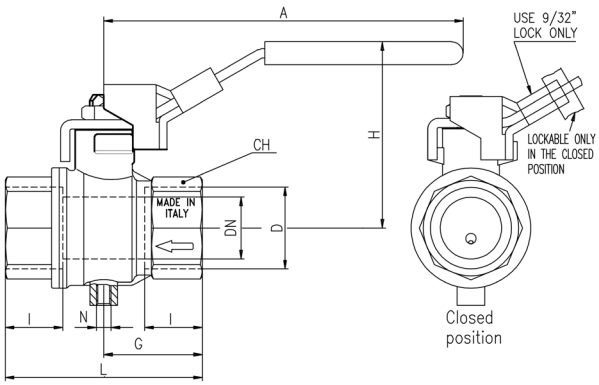
PED directive
- The product described in this document meets the requirements of PED Directive 2014/68/UE and according to art.4 par.3, it does not require CE marking; it cannot be used with dangerous gases in sizes larger than 25 mm

Approved by or in compliance with
- RoHS Compliant (EU)
- OSHA Compliant (United States)

NOTE: approvals apply to specific configurations/sizes only.



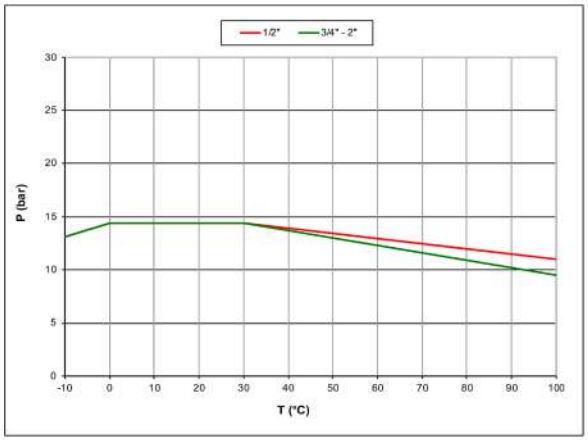
	Part description	Q.ty	Material
1	Nickel plated body (external treatment)	1	CW617N
2	Seat	2	PTFE molybdenum filled
3	Chrome plated ball	1	CW617N
4	Nickel plated end-cap (external treatment)	1	CW617N
5	Nickel plated stem O-Ring design	1	CW617N
6	Geomet® nut	1	CB4FF (EN10263-2)
7	O-Ring	2	FPM
8	Light blue PVC coated Geomet® steel lockable handle	1	DD11 (EN10111)



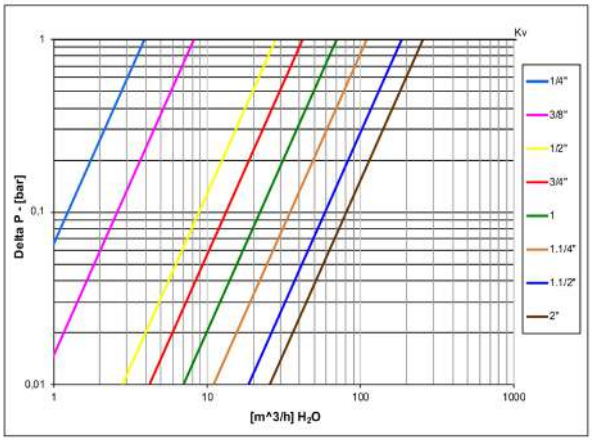
DN shows the nominal flow diameter. Actual flow diameter complies with full port DIN 3357 part 4.

Code	S93D50	S93E50	S93F50	S93G50	S93H50	S93I50
D (inch)	1/2	3/4	1	1 1/4	1 1/2	2
DN (mm)	15	20	25	32	40	50
I (mm)	15.5	17	21	23	23	26.5
L (mm)	59	64	81	93	102	121
G (mm)	29.5	32	40.5	46.5	51	60.5
A (mm)	96	117	117	156.5	156.5	156.5
H (mm)	51	59	63	77	83	90
CH (mm)	25	31	40	49	54	68.5
N	M5			G 1/4"		
Kv (m3/h)	41.7	59.4	80	113	264	384

Pressure-temperature chart



Pressure drop chart



PNEUMATIC

DRINKING WATER

s.24 DZR

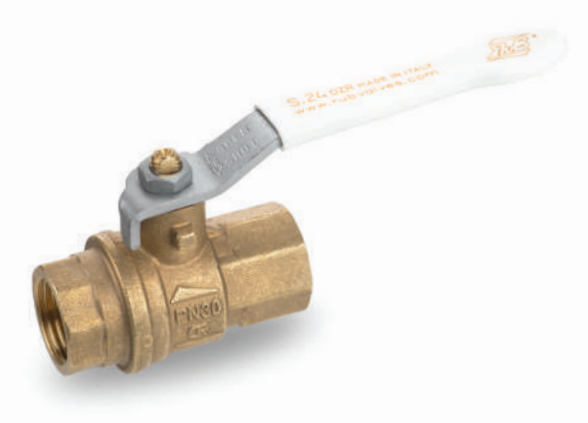
1/2" - 4"
EN 10226-1
dezincification-resistant

Several governmental authorities recommend use of special alloys for valves handling water in areas where there is a problem of dezincification.

RuB DZR valves are designed to meet such requirements.

Through the use of new technology these valves retain the reliability and competitiveness of brass, but are comparable to bronze in corrosion resistance.

Be kind with yourself, make sure the valve that brings you pure fresh water is an ***RuB*** DZR valve.



Quality
- 24h 100% seal test guaranteed
- Dual sealing system allows valve to be operated in either direction making installation easier
- No metal-to-metal moving parts
- No maintenance ever required
- Handle clearly shows ball position
- Silicone-free lubricant on all seals
- Chrome plated DZR brass ball for longer life
- Handle stops on body to avoid stress at stem

Body
- Hot forged sand blasted DZR unplated body and cap sealed with Loctite® or equivalent thread sealant
- Dezincification resistant ADZ-T and ADZ-P brass approved to SBN-PFS 1983:2 and NR-BFS 1988:18 specifications

Stem
- Maintenance-free, double FPM O-rings at the stem for maximum safety
- Blowout-proof unplated DZR brass stem

Sealing
- Pure PTFE self-lubricating seats with flexible-lip design

Threads
- EN 10226-1, ISO 228 parallel female by female threads

Flow
- Full port to DIN 3357 for maximum flow

Handle
- Geomet® carbon steel handle with thick PVC dip coating. Handle coating offers both thermal and electrical protection
- Handle removable with valve in service
- **WARNING:** do not exceed reasonable temperature and/or electrical load

Working pressure & temperature
- 30 bar (450 PSI) non-shock cold working pressure
- -40°C to +170°C (-40°F to +350°F)
- **WARNING:** freezing of the fluid in the installation may severely damage the valve

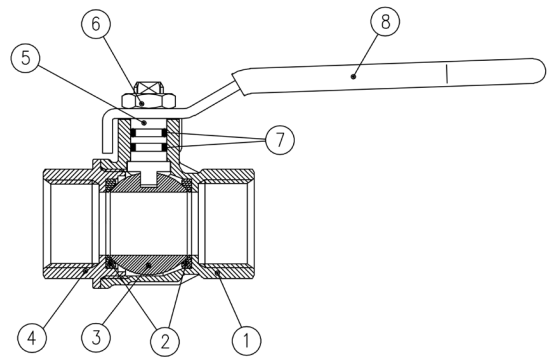
Options
- CW617N brass body and components
- T-handle
- Stainless steel handle (1.4016 / AISI 430)
- Oval lockable handle up to 2", round over 2"
- Brass stem extension
- Patented locking device
- Stubby handle up to 2"
- ***RuB*** memory stop designed to be installed with our stubby handle

Upon request
- Crimp/press end connections
- Stainless steel ball (1.4401 / AISI 316)
- Glass filled PTFE seals
- Custom design

PED directive
- According to 2014/68/UE module A: it cannot be used with dangerous gases in sizes larger than 25mm

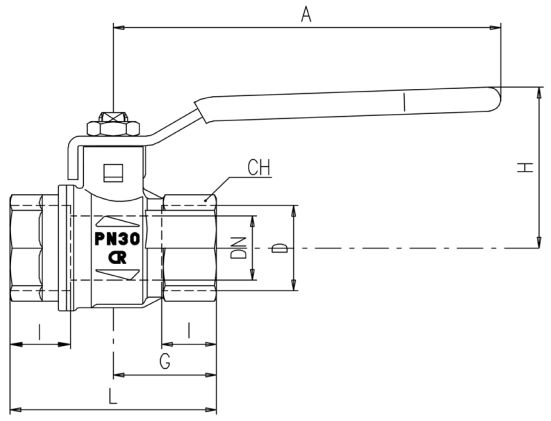
Approved by or in compliance with
- RoHS Compliant (EU)
- GOST-R (Russia)
- Water Regulations Advisory Scheme (United Kingdom)
- EAC – Declaration of conformity (Russia, Kazakhstan, Belarus)

NOTE: approvals apply to specific configurations/sizes only.



	Part description	Q.ty	Material
1	Unplated body	1	CW602N
2	Ball seat	2	PTFE
3	Chrome plated ball	1	CW602N
4	Unplated end-cap	1	CW602N
5	Unplated stem O-ring design	1	CW602N
6	Geomet® nut	1	CB4FF (EN10263-2)
7	O-Ring	2	FPM
8	White PVC coated Geomet® steel handle	1	DD11 (EN10111)

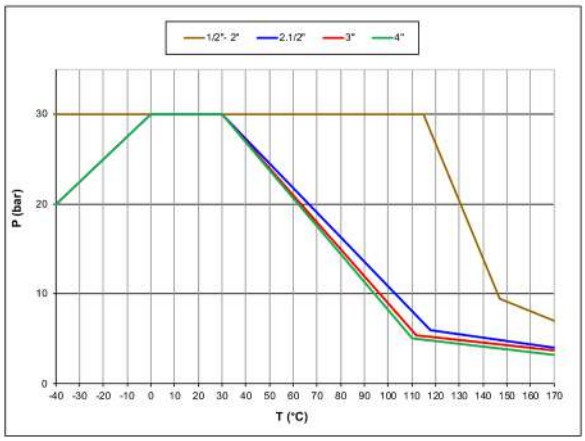
1 ¼"-2" hollow ball



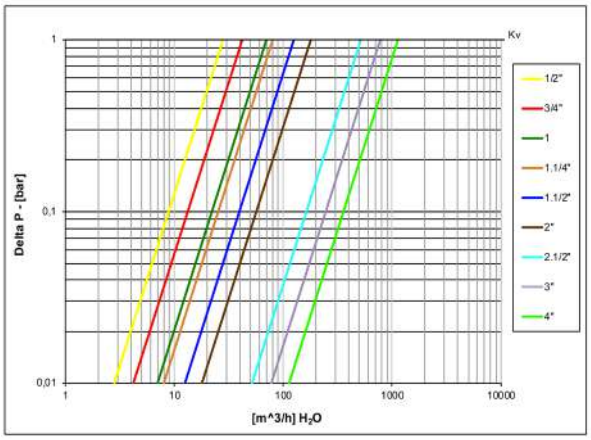
Code	S24D00	S24E00	S24F00	S24G00	S24H00	S24I00	S24L00	S24M00	S24N00
D (inch)	1/2	3/4	1	1 1/4	1 1/2	2	2 1/2	3	4
DN(mm)	15	20	25	32	40	50	65	80	100
I (mm)	15.5	17	21	23	23	26.5	32	35	41.5
L (mm)	59	64	81	93	102	121	156	177	216
G (mm)	29.5	32	40.5	46.5	51	60.5	78	88.5	108
A (mm)	100	120	120	158	158	158	255	255	255
H (mm)	43	50	54	73	79	86	132	140	154
CH(mm)	25	31	40	49	54	68.5	85	99	125
Kv (m3/h)	28	42	70	80	125	179	516	776	1130

DN shows the nominal flow diameter. Actual flow diameter complies with full port DIN 3357 part 4. Stem configuration of valves over 2" is slightly different.
Ball valves are marked CE on handle from 1 ¼" to 2", on body over 2" as follow: CE XXCODEXX Cat. I-A

Pressure-temperature chart



Pressure drop chart



DRINKING WATER

s.26 DZR

3/8" - 2"
ISO 228
for insulation
dezincification-resistant

Several governmental authorities recommend use of special alloys for valves handling water in areas where there is a problem of dezincification.

RuB DZR valves are designed to meet such requirements. Through the use of new technology these valves retain the reliability and competitiveness of brass, but are comparable to bronze in corrosion resistance.

Be kind with yourself, make sure the valve that brings you pure fresh water is an ***RuB*** DZR valve.

Quality
- 24h 100% seal test guaranteed
- Dual sealing system allows valve to be operated in either direction making installation easier
- No metal-to-metal moving parts
- No maintenance ever required
- Handle clearly shows ball position
- Silicone-free lubricant on all seals
- Chrome plated DZR brass ball for longer life
- Handle stops on body to avoid stress at stem

Body
- Hot forged sand blasted DZR unplated body and cap sealed with Loctite® or equivalent thread sealant
- Dezincification resistant ADZ-T and ADZ-P brass approved to SBN-PFS 1983:2 and NR-BFS 1988:18 specifications
- Extended stem forged in one piece with body allows perfect sealing and easy operation when valve is isolated

Stem
- Maintenance-free, double FPM O-rings at the stem for maximum safety
- Unplated DZR brass stem

Sealing
- Pure PTFE self-lubricating seats with flexible-lip design

Threads
- ISO 228 female by female threads

Flow
- Full port to DIN 3357 for maximum flow

Handle
- Geomet® carbon steel handle with thick PVC dip coating. Handle coating offers both thermal and electrical protection
- Handle removable with valve in service
- **WARNING:** do not exceed reasonable temperature and/or electrical load

Working pressure & temperature
- 30 bar (450 PSI) non-shock cold working pressure
- -40°C to +170°C (-40°F to +350°F)
- **WARNING:** freezing of the fluid in the installation may severely damage the valve

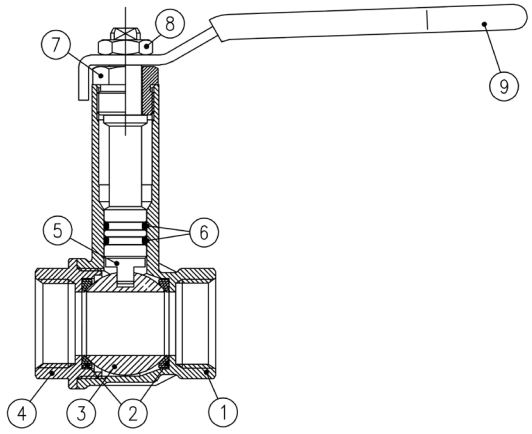
Options
- T-handle
- Oval lockable handle
- Stainless steel handle (1.4016 / AISI 430)
- Patented locking device
- Short stem design
- Stubby handle
- ***RuB*** memory stop designed to be installed with our stubby handle

Upon request
- CW617N brass body and components
- Stainless steel ball (1.4401 / AISI 316)
- Glass filled PTFE seals
- Custom design
- Male by female threads

PED directive
- According to 2014/68/UE module A: it cannot be used with dangerous gases in sizes larger than 25 mm

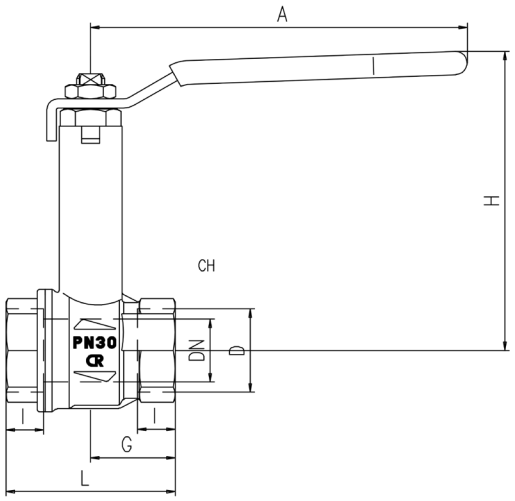
Approved by or in compliance with
- RoHS Compliant (EU)
- GOST-R (Russia)
- EAC – Declaration of conformity (Russia, Kazakhstan, Belarus)

NOTE: approvals apply to specific configurations/sizes only.



1.¼"-2" hollow ball

	Part description	Q.ty	Material
1	Unplated body	1	CW602N
2	Ball seat	2	PTFE
3	Chrome plated ball	1	CW602N
4	Unplated end-cap	1	CW602N
5	Unplated extended stem O-ring design	1	CW602N
6	O-Ring	2	FPM
7	Unplated nut	1	CW617N
8	Geomet® nut	1	CB4FF (EN10263-2)
9	White PVC coated Geomet® steel handle	1	DD11 (EN10111)

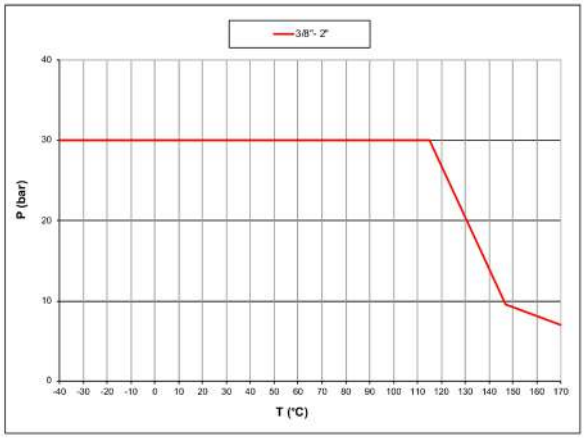


DN shows the nominal flow diameter. Actual flow diameter complies with full port DIN 3357 part 4.

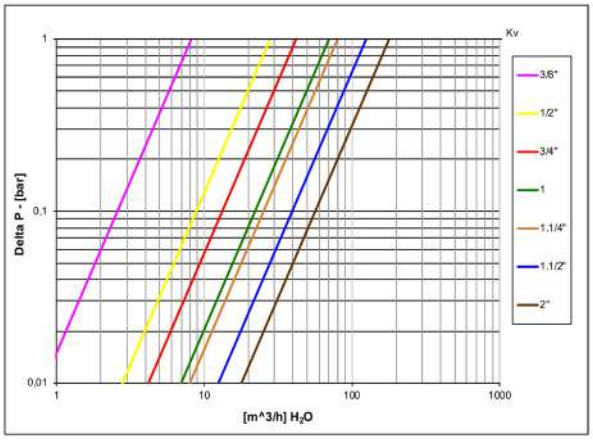
Valve code	S26C00	S26D00	S26E00	S26F00	S26G00	S26H00	S26I00
D (inch)	3/8	1/2	3/4	1	1 1/4	1 1/2	2
DN (mm)	10	15	20	25	32	40	50
I (mm)	9	11	12	14	15	17	19
L (mm)	39	50	54	67	77	90	106
G (mm)	19.5	25	27	33.5	38.5	45	53
A (mm)	100	100	120	120	158	158	158
H (mm)	85	88	95.5	99.5	124	130	137
CH (mm)	20	25	31	38	48	54	66
Kv (m3/h)	8.2	28	42	70	80	125	179

DRINKING WATER

Pressure-temperature chart



Pressure drop chart



s.20 DZR

1/4" - 2"
ISO 228
dezincification-resistant

Several governmental authorities recommend use of special alloys for valves handling water in areas where there is a problem of dezincification.

RuB DZR valves are designed to meet such requirements.

Through the use of new technology these valves retain the reliability and competitiveness of brass, but are comparable to bronze in corrosion resistance.

Be kind with yourself, make sure the valve that brings you pure fresh water is an ***RuB*** DZR valve.

Quality
- 24h 100% seal test guaranteed
- Dual sealing system allows valve to be operated in either direction making installation easier
- No metal-to-metal moving parts
- No maintenance ever required
- Handle clearly shows ball position
- Silicone-free lubricant on all seals
- Chrome plated DZR brass ball for longer life
- Handle stops on body to avoid stress at stem

Body
- Hot forged sand blasted DZR unplated body and cap sealed with Loctite® or equivalent thread sealant
- Dezincification resistant ADZ-T and ADZ-P brass approved to SBN-PFS 1983:2 and NR-BFS 1988:18 specifications

Stem
- Maintenance-free, double FPM O-rings at the stem for maximum safety
- Blowout-proof unplated DZR brass stem

Sealing
- Pure PTFE self-lubricating seats with flexible-lip design

Threads
- ISO 228 parallel female by female threads

Flow
- Full port to DIN 3357 for maximum flow

Handle
- Geomet® carbon steel handle with thick PVC dip coating. Handle coating offers both thermal and electrical protection
- Handle removable with valve in service
- **WARNING:** do not exceed reasonable temperature and/or electrical load

Working pressure & temperature
- 30 bar (450 PSI) non-shock cold working pressure
- -40°C to +170°C (-40°F to +350°F)
- **WARNING:** freezing of the fluid in the installation may severely damage the valve

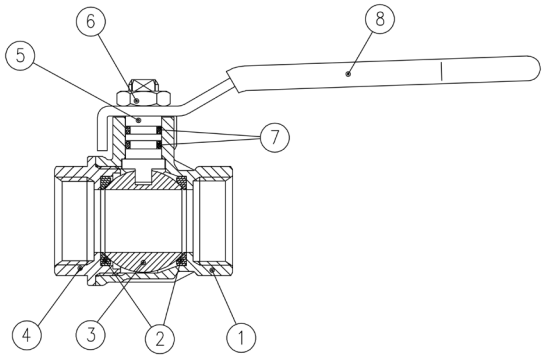
Options
- CW617N brass body and components
- T-handle
- Oval lockable handle
- Stainless steel handle (1.4016 / AISI 430)
- Patented locking device
- Brass stem extension
- Male by female threads for sizes 1/2", 3/4" and 1"
- Stubby handle
- ***RuB*** memory stop designed to be installed with our stubby handle

Upon request
- Stainless steel ball (1.4401 / AISI 316)
- Glass filled PTFE seals
- Custom design
- Male by female threads

PED directive
- According to 2014/68/UE module A: it cannot be used with dangerous gases in sizes larger than 25mm

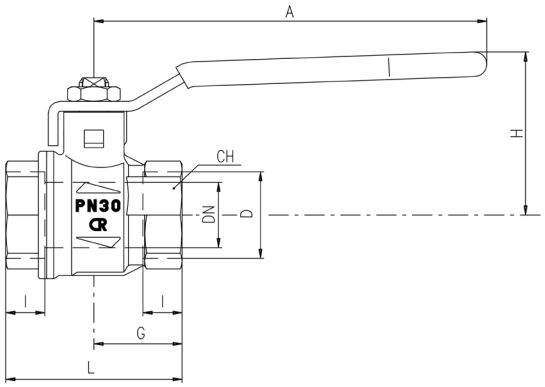
Approved by or in compliance with
- RoHS Compliant (EU)
- GOST-R (Russia)
- Water Regulations Advisory Scheme (United Kingdom)
- EAC – Declaration of conformity (Russia, Kazakhstan, Belarus)

NOTE: approvals apply to specific configurations/sizes only.



1 ¼"-2" hollow ball

	Part description	Q.ty	Material
1	Unplated body	1	CW602N
2	Ball seat	2	PTFE
3	Chrome plated ball	1	CW602N
4	Unplated end-cap	1	CW602N
5	Unplated stem O-ring design	1	CW602N
6	Geomet® nut	1	CB4FF (EN10263-2)
7	O-Ring	2	FPM
8	White PVC coated Geomet® steel handle	1	DD11 (EN10111)

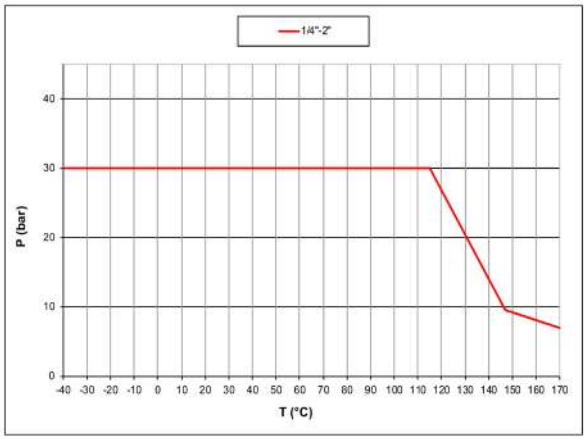


DN shows the nominal flow diameter. Actual flow diameter complies with full port DIN 3357 part 4.

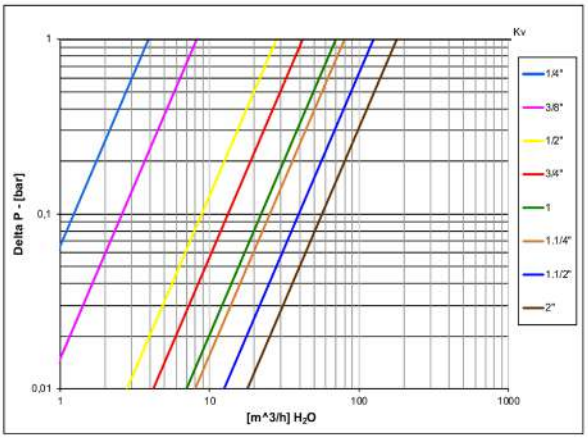
Code	S20B00	S20C00	S20D00	S20E00	S20F00	S20G00	S20H00	S20I00
D (inch)	1/4	3/8	1/2	3/4	1	1 1/4	1 1/2	2
DN(mm)	8	10	15	20	25	32	40	50
I (mm)	9	9	11	12	14	15	17	19
L (mm)	39	39	50	54	67	77	90	106
G (mm)	19.5	19.5	25	27	33.5	38.5	45	53
A (mm)	100	100	100	120	120	158	158	158
H (mm)	39	39	43	50	54	73	79	86
CH(mm)	20	20	25	31	38	48	54	66
Kv (m3/h)	3.9	8.2	28	42	70	80	125	179

DRINKING WATER

Pressure-temperature chart



Pressure drop chart



s.20 DZR M/F

3/8" - 1 ¼"
ISO 228
dezincification-resistant

Several governmental authorities recommend use of special alloys for valves handling water in areas where there is a problem of dezincification. ***RuB*** DZR valves are designed to meet such requirements.

Through the use of new technology these valves retain the reliability and competitiveness of brass, but are comparable to bronze in corrosion resistance.

Be kind with yourself, make sure the valve that brings you pure fresh water is an ***RuB*** DZR valve.

Quality
- 24h 100% seal test guaranteed
- Dual sealing system allows valve to be operated in either direction making installation easier
- No metal-to-metal moving parts
- No maintenance ever required
- Handle clearly shows ball position
- Silicone-free lubricant on all seals
- Chrome plated DZR brass ball for longer life
- Handle stops on body to avoid stress at stem

Body
- Hot forged sand blasted DZR unplated body and cap sealed with Loctite® or equivalent thread sealant
- Dezincification resistant ADZ-T and ADZ-P brass approved to SBN-PFS 1983:2 and NR-BFS 1988:18 specifications

Stem
- Maintenance-free, double FPM O-rings at the stem for maximum safety
- Blowout-proof unplated DZR brass stem

Sealing
- Pure PTFE self-lubricating seats with flexible-lip design

Threads
- ISO 228 parallel male by female threads

Flow
- Full port to DIN 3357 for maximum flow

Handle
- Geomet® carbon steel handle with thick PVC dip coating. Handle coating offers both thermal and electrical protection
- Handle removable with valve in service
- **WARNING:** do not exceed reasonable temperature and/or electrical load

Working pressure & temperature
- 30 bar (450 PSI) non-shock cold working pressure
- -40°C to+170°C (-40°F to +350°F)
- **WARNING:** freezing of the fluid in the installation may severely damage the valve

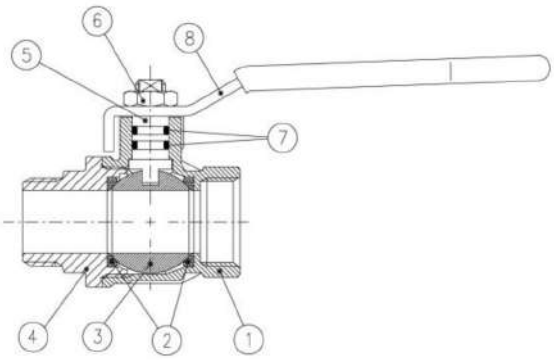
Options
- CW617N brass body and components
- T-handle
- Oval lockable handle
- Stainless steel handle (1.4016 / AISI 430)
- Patented locking device
- Brass stem extension
- Female by female threads for sizes 1/4" through 2"
- Stubby handle
- ***RuB*** memory stop designed to be installed with our stubby handle

Upon request
- Stainless steel ball (1.4401 /AISI 316)
- Glass filled PTFE seals
- Custom design

PED directive
- According to 2014/68/UE module A: it cannot be used with dangerous gases in sizes larger than 25mm

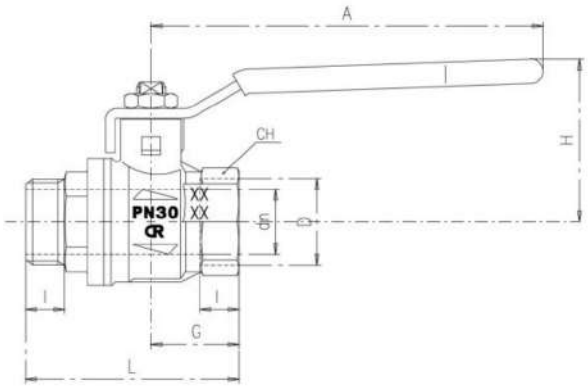
Approved by or in compliance with
- RoHS Compliant (EU)
- GOST-R (Russia)
- EAC – Declaration of conformity (Russia, Kazakhstan, Belarus)

NOTE: approvals apply to specific configurations/sizes only.



1 ¼" hollow ball

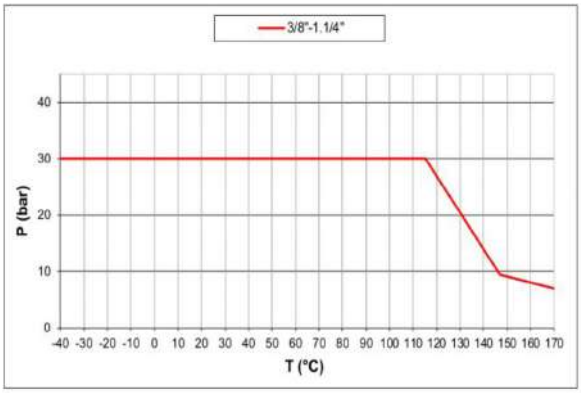
	Part description	Q.ty	Material
1	Unplated body	1	CW602N
2	Ball seat	2	PTFE
3	Chrome plated ball	1	CW602N
4	Unplated end-cap	1	CW602N
5	Unplated stem O-ring design	1	CW602N
6	Geomet® nut	1	CB4FF (EN10263-2)
7	O-Ring	2	FPM
8	White PVC coated Geomet® steel handle	1	DD11 (EN10111)



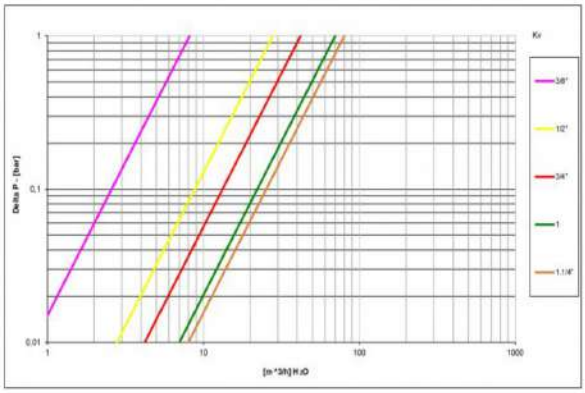
DN shows the nominal flow diameter. Actual flow diameter complies with full port DIN 3357 part 4

Code	S20C20	S20D20	S20E20	S20F20	S20G20
D (inch)	3/8	1/2	3/4	1	11/4
DN (mm)	10	15	20	25	32
I (mm)	9	11	12	14	15
L (mm)	49	60	65.5	77.5	89
G (mm)	19.5	25	27	33.5	38.5
A (mm)	82	100	120	120	158
H (mm)	38	43	50	54	73
CH (mm)	20	25	31	38	48
Kv (m3/h)	8.2	28	42	70	80

Pressure-temperature chart



Pressure drop chart



DRINKING WATER

s.21 DZR

12 - 54 mm solder ends for insulation dezincification-resistant

Several governmental authorities recommend use of special alloys for valves handling water in areas where there is a problem of dezincification.

RuB DZR valves are designed to meet such requirements.

Through the use of new technology these valves retain the reliability and competitiveness of brass, but are comparable to bronze in corrosion resistance.

Be kind with yourself, make sure the valve that brings you pure fresh water is an ***RuB*** DZR valve.

Quality

- 24h 100% seal test guaranteed
- Dual sealing system allows valve to be operated in either direction making installation easier
- No metal-to-metal moving parts
- No maintenance ever required
- Handle clearly shows ball position
- Silicone-free lubricant on all seals
- Chrome plated DZR brass ball for longer life
- Handle stops on body to avoid stress at stem

Body

- Hot forged sand blasted DZR unplated body and cap sealed with Loctite® or equivalent thread sealant
- Dezincification resistant ADZ-T and ADZ-P brass approved to SBN- PFS 1983:2 and NR- BFS 1988:18 specifications

Stem

- Maintenance-free, double FPM O-rings at the stem for maximum safety

Sealing

- Pure PTFE self-lubricating seats with flexible-lip design

Connections

- Solder ends to NS1759 and ISO 2016

Flow

- Full port to DIN 3357 for maximum flow

Handle

- Geomet® carbon steel handle with thick PVC dip coating. Handle coating offers both thermal and electrical protection
- Handle removable with valve in service
- **WARNING:** do not exceed reasonable temperature and/or electrical load

Working pressure & temperature

- 16 bar (230 PSI) non-shock cold working pressure
- -40°C to +170°C (-40°F to +350°F)
- Applicable to valve, not to solder joints
- **WARNING:** freezing of the fluid in the installation may severely damage the valve

Options

- T-handle
- Oval lockable handle
- Stainless steel handle (1.4016 / AISI 430)
- Patented locking device
- Stubby handle
- ***RuB*** memory stop designed to be installed with our stubby handle

Upon request

- Stainless steel ball (1.4401 / AISI 316)
- Glass filled PTFE seals
- Custom design

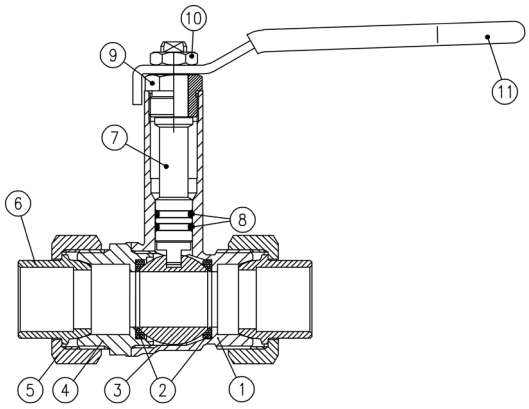
PED directive

- The product described in this document meets the requirements of PED Directive 2014/68/UE and according to art.4 par.3, it does not require CE marking; it cannot be used with dangerous gases in sizes larger than 25mm

Approved by or in compliance with

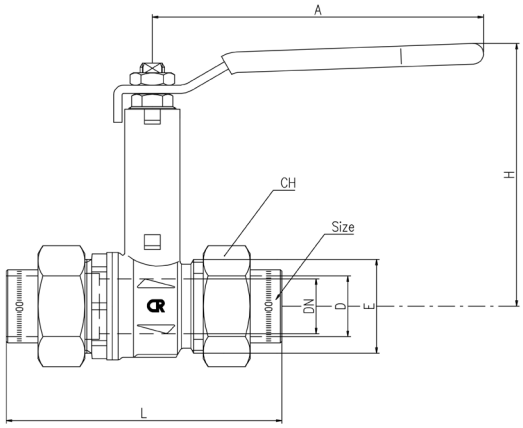
- RoHS Compliant (EU)
- GOST-R (Russia)
- Kiwa-Swedcert (Sweden)

NOTE: approvals apply to specific configurations/sizes only.



Hollow ball for D 35-42-54

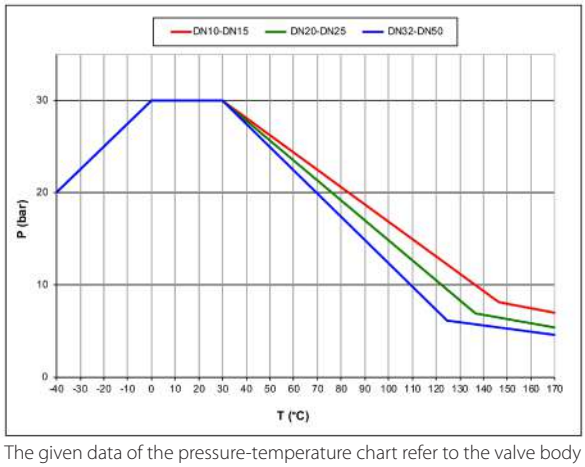
	Part description	Q.ty	Material
1	Unplated body	1	CW602N
2	Ball seat	2	PTFE
3	Chrome plated ball	1	CW602N
4	Unplated end-cap	1	CW602N
5	Unplated nut	2	CW617N
6	Unplated solder end hose	2	CC491K
7	Unplated extended stem O-ring design	1	CW602N
8	O-Ring	2	FPM
9	Unplated nut	1	CW617N
10	Geomet® nut	1	CB4FF (EN10263-2)
11	White PVC coated Geomet® steel handle	1	DD11 (EN10111)



DN shows the nominal flow diameter.

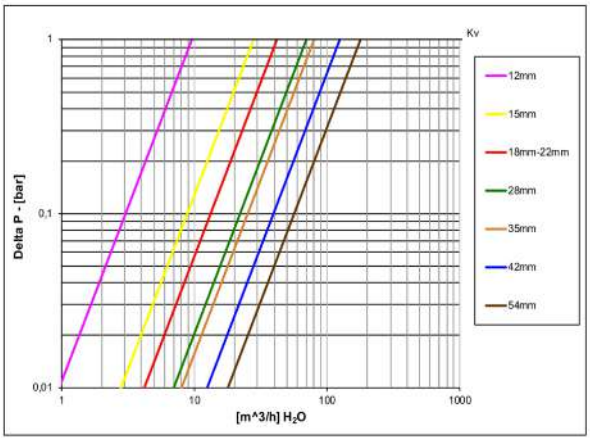
Valve code	S21C12W	S21D15W	S21E18W	S21E22W	S21F28W	S21G35W	S21H42W	S21I54W
D (mm)	12	15	18	22	28	35	42	54
E (mm)	M22x1.5	M26x1.5	M34x1.5	M34x1.5	M40x2	M50x2	M55x2	M70x2
DN (mm)	10	15	16	20	25	32	40	50
L (mm)	80	90	100	100	115	129	143	161
A (mm)	100	100	120	120	120	158	158	158
H (mm)	85	88	95	95	99	124	130	137
CH (mm)	26	30	38	38	46	55	62	78
Kv (m3/h)	9.6	28	42	42	70	80	125	179

Pressure-temperature chart



The given data of the pressure-temperature chart refer to the valve body

Pressure drop chart



DRINKING WATER

XCES21 - 4266

s.28 DZR

12 - 54 mm compression ends dezincification-resistant

Several governmental authorities recommend use of special alloys for valves handling water in areas where there is a problem of dezincification.

RuB DZR valves are designed to meet such requirements. Through the use of new technology these valves retain the reliability and competitiveness of brass, but are comparable to bronze in corrosion resistance.

Be kind with yourself, make sure the valve that brings you pure fresh water is an ***RuB*** DZR valve.

Quality
- 24h 100% seal test guaranteed
- Dual sealing system allows valve to be operated in either direction making installation easier
- No metal-to-metal moving parts
- No maintenance ever required
- Handle clearly shows ball position
- Silicone-free lubricant on all seals
- Handle stops on body to avoid stress at stem
- Chrome plated DZR brass ball for longer life

Body
- Hot forged sand blasted DZR unplated body and cap sealed with Loctite® or equivalent thread sealant
- Dezincification resistant ADZ-T and ADZ-P brass approved to SBN- PFS 1983:2 and NR-BFS 1988:18 specifications

Stem
- Maintenance-free, double FPM O-rings at the stem for maximum safety
- Blowout-proof unplated DZR brass stem

Sealing
- Pure PTFE self-lubricating seats with flexible-lip design

Connections
- Compression ends to EN 1254-2 and NKB no.12

Flow
- Full port to DIN 3357 for maximum flow

Handle
- Geomet® carbon steel handle with thick PVC dip coating. Handle coating offers both thermal and electrical protection
- Handle removable with valve in service
- **WARNING:** do not exceed reasonable temperature and/or electrical load

Working pressure & temperature
- 16 bar (230 PSI) non-shock cold working pressure
- -20°C to +120°C (-4°F to +250°F)
- **WARNING:** freezing of the fluid in the installation may severely damage the valve

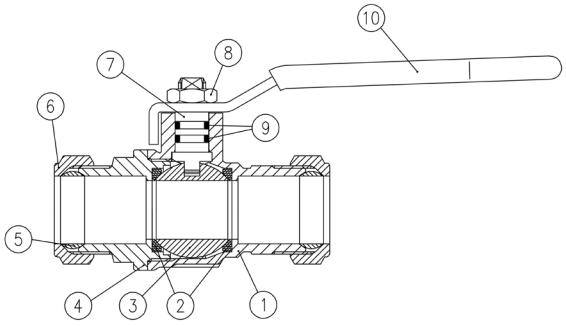
Options
- T-handle
- Oval lockable handle
- Stainless steel handle (1.4016 / AISI 430)
- Patented locking device
- Compression ends with extended stem for insulation
- Brass stem extension
- Stubby handle
- ***RuB*** memory stop designed to be installed with our stubby handle

Upon request
- Stainless steel ball (1.4401 / AISI 316)
- Glass filled PTFE seals
- Custom design

PED directive
- The product described in this document meets the requirements of PED Directive 2014/68/UE and according to art.4 par.3, it does not require CE marking; it cannot be used with dangerous gases in sizes larger than 25mm

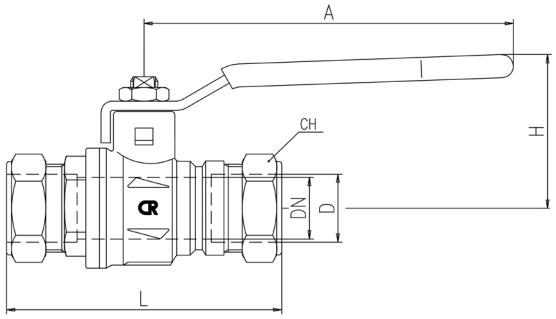
Approved by or in compliance with
- RoHS Compliant (EU)
- GOST-R (Russia)
- Water Regulations Advisory Scheme (United Kingdom)
- Kiwa-Swedcert (Sweden)

NOTE: approvals apply to specific configurations/sizes only.



Hollow ball for D 35-42-54

	Part description	Q.ty	Material
1	Unplated body	1	CW602N
2	Ball seat	2	PTFE
3	Chrome plated ball	1	CW602N
4	Unplated end-cap	1	CW602N
5	Olive	2	CW603N - CW508L - CW602N
6	Unplated nut	2	CW617N
7	Unplated stem O-ring design	1	CW602N
8	Geomet® nut	1	CB4FF (EN10263-2)
9	O-Ring	2	FPM
10	White PVC coated Geomet® steel handle	1	DD11 (EN10111)

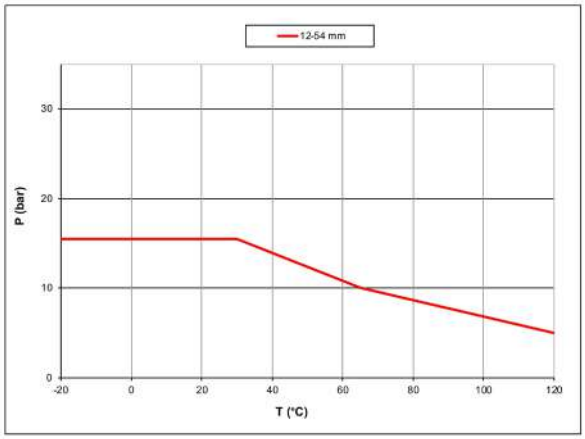


Valve code	S28C12	S28D15	S28D18	S28E22	S28F28	S28G35	S28H42	S28I54
D (mm)	12	15	18	22	28	35	42	54
DN (mm)	10	15	15	20	25	32	40	50
L (mm)	67	72	78.5	79	90.5	110	128.5	142
A (mm)	100	100	100	120	120	158	158	158
H (mm)	38	43	43	50	54	73	79	86
CH (mm)	19	24	27	32	38.5	48	54	70
Kv (m3/h)	8.2	28	28	42	70	80	125	179

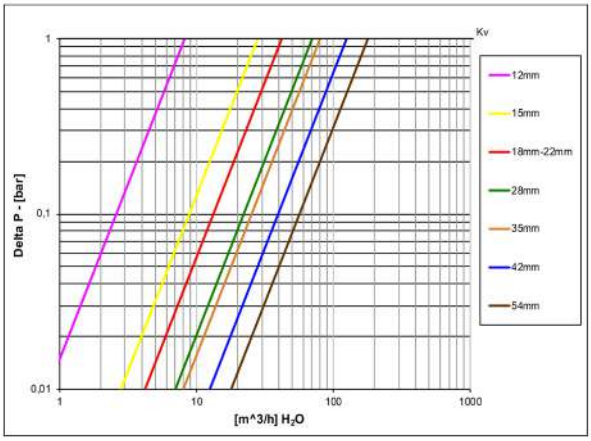
DN shows the nominal flow diameter. Actual flow diameter complies with full port DIN 3357 part 4.

DRINKING WATER

Pressure-temperature chart



Pressure drop chart



s.30 DZR

12 - 54 mm compression ends for insulation dezincification-resistant

Several governmental authorities recommend use of special alloys for valves handling water in areas where there is a problem of dezincification. ***RuB*** DZR valves are designed to meet such requirements. Through the use of new technology these valves retain the reliability and competitiveness of brass, but are comparable to bronze in corrosion resistance.
Be kind with yourself, make sure the valve that brings you pure fresh water is an ***RuB*** DZR valve.

Quality
- 24h 100% seal test guaranteed
- Dual sealing system allows valve to be operated in either direction making installation easier
- No metal-to-metal moving parts
- No maintenance ever required
- Handle clearly shows ball position
- Silicone-free lubricant on all seals
- Handle stops on body to avoid stress at stem
- Chrome plated DZR brass ball for longer life

Body
- Hot forged sand blasted DZR unplated body and cap sealed with Loctite® or equivalent thread sealant
- Dezincification resistant ADZ-T and ADZ-P brass approved to SBN-PFS 1983:2 and NR-BFS 1988:18 specifications
- Extended stem forged in one piece with body allows perfect sealing and easy operation when valve is isolated

Stem
- Maintenance-free, double FPM O-rings at the stem for maximum safety
- Unplated DZR brass stem

Sealing
- Pure PTFE self-lubricating seats with flexible-lip design

Connections
- Compression ends to EN 1254-2 and NKB no.12

Flow
- Full port to DIN 3357 for maximum flow

Handle
- Geomet® carbon steel handle with thick PVC dip coating. Handle coating offers both thermal and electrical protection
- Handle removable with valve in service
- **WARNING:** do not exceed reasonable temperature and/or electrical load

Working pressure & temperature
- 16 bar (230 PSI) non-shock cold working pressure
- -20°C to +120°C (-4°F to +250°F)
- **WARNING:** freezing of the fluid in the installation may severely damage the valve

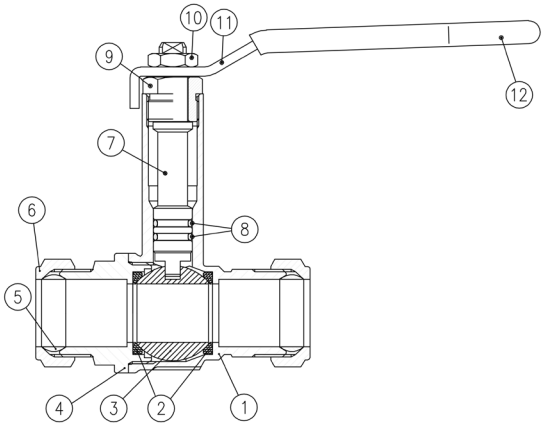
Options
- T-handle
- Oval lockable handle
- Stainless steel handle (1.4016 / AISI 430)
- Patented locking device
- Short stem design
- Stubby handle
- ***RuB*** memory stop designed to be installed with our stubby handle

Upon request
- Stainless steel ball (1.4401 / AISI 316)
- Glass filled PTFE seals
- Custom design

PED directive
- The product described in this document meets the requirements of the PED Directive 2014/68/UE and according to art.4 par.3, it does not require CE marking; it cannot be used with dangerous gases in sizes larger than 25 mm

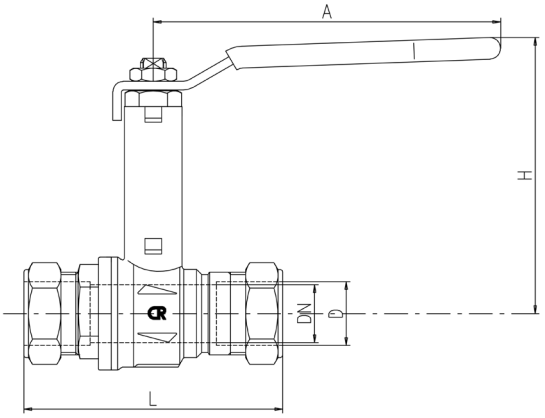
Approved by or in compliance with
- RoHS Compliant (EU)
- GOST-R (Russia)
- Kiwa-Swedcert (Sweden)

NOTE: approvals apply to specific configurations/sizes only.



Hollow ball for D 35-42-54

	Part description	Q.ty	Material
1	Unplated body	1	CW602N
2	Ball seat	2	PTFE
3	Chrome plated ball	1	CW602N
4	Unplated end-cap	1	CW602N
5	Olive	2	CW603N - CW508L - CW602N
6	Unplated nut	2	CW617N
7	Unplated extended stem O-ring design	1	CW602N
8	O-Ring	2	FPM
9	Unplated nut	1	CW617N
10	Geomet® nut	1	CB4FF (EN10263-2)
11	White PVC coated Geomet® steel handle	1	DD11 (EN10111)

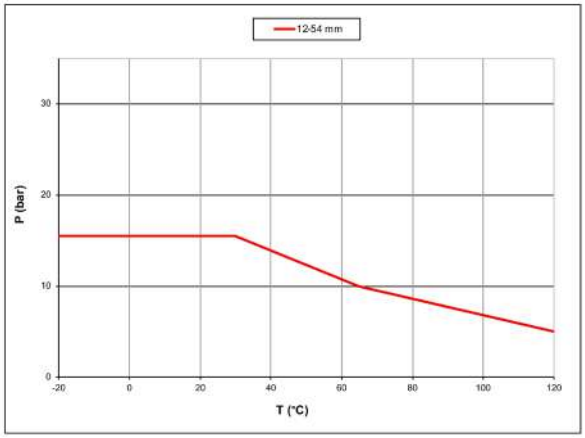


DN shows the nominal flow diameter. Actual flow diameter complies with full port DIN 3357 part 4.

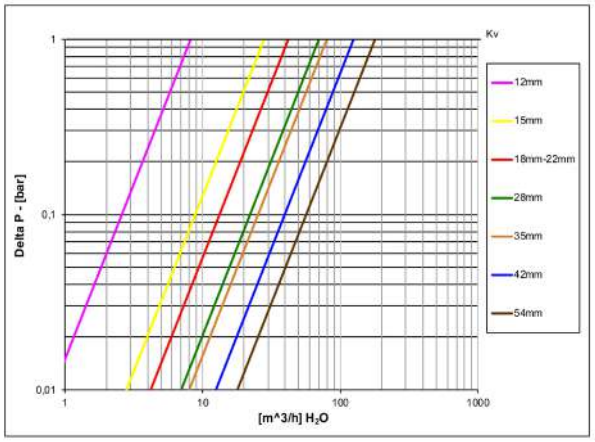
Valve code	S30C12	S30D15	S30D18	S30E22	S30F28	S30G35	S30H42	S30I54
D (mm)	12	15	18	22	28	35	42	54
DN (mm)	10.5	13	15	19	24	30	38	48
L (mm)	67	72	78.5	79	90.5	110	128.5	142
A (mm)	100	100	100	120	120	158	158	158
H (mm)	85	88	88	95	99	124	130	137
CH (mm)	19	24	27	32	38.5	48	54	70
Kv (m3/h)	8.2	28	28	42	70	80	125	179

DRINKING WATER

Pressure-temperature chart



Pressure drop chart



s.24 DZR press ends

15 - 54 mm
dezincification-resistant

Time is of essence and valve technology has progressed to save time and ease on-site installation.
RuB s.24 DZR with press ends combines first class features of our s.24 which have been optimized through years of field experience and innovative press fittings which can be pressed with all pressing jaws and tools provided for metal connections type M and V.
Be kind with yourself, make sure the valve that brings you pure fresh water is an ***RuB*** DZR ball valve. Press-end couplings are made of bronze, a material well known for its suitability to the press operation. Each coupling assembly is seal tested at the plant.

Quality
- 100% seal test guaranteed
- Dual sealing system allows valve to be operated in either direction making installation easier
- No metal-to-metal moving parts
- No maintenance ever required
- Handle clearly shows ball position
- Silicone-free lubricant on all seals
- Handle stops on body to avoid stress at stem
- Chrome plated DZR brass ball for longer life

Body
- Hot forged sand blasted DZR unplated body and cap sealed with Loctite® or equivalent threads sealant
- Dezincification resistant ADZ-T and ADZ-P brass approved to SBN-PFS 1983:2 and NR-BFS 1988:18 specifications

Stem
- Maintenance-free, double FPM O-rings at the stem for maximum safety
- Blowout-proof unplated DZR brass stem

Sealing
- Pure PTFE self-lubricating seats with flexible-lip design

Connections
- Press ends connections to EN 1254-4 approved by DVGW

Flow
- Full port to DIN 3357 for maximum flow

Handle
- Geomet® carbon steel handle with thick PVC dip coating. Handle coating offers both thermal and electrical protection
- Handle removable with valve in service
- **WARNING:** do not exceed reasonable temperature and/or electrical load

Working pressure & temperature
- 16 bar (230 PSI) non-shock cold working pressure
- -20°C to +120°C (-4°F to +250°F)
- **WARNING:** freezing of the fluid in the installation may severely damage the valve

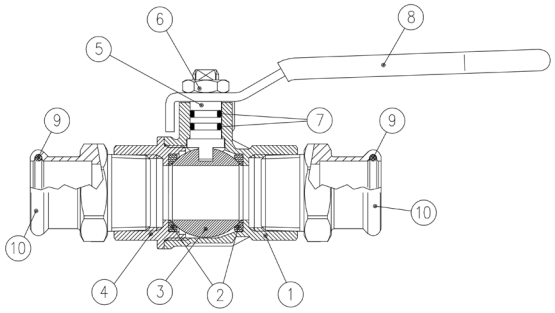
Options
- T-handle
- Oval lockable handle
- Stainless steel handle (1.4016 / AISI 430)
- Patented locking device
- Brass stem extension
- CW617N brass body and components
- Stubby handle
- ***RuB*** memory stop designed to be installed with our stubby handle

Upon request
- Stainless steel ball (1.4401 / AISI 316)
- Glass filled PTFE seals
- Custom Design

PED directive
- The product described in this document meets the requirements of PED Directive 2014/68/UE and according to art.4 par.3, it does not require CE marking; it cannot be used with dangerous gases in sizes larger than 25mm

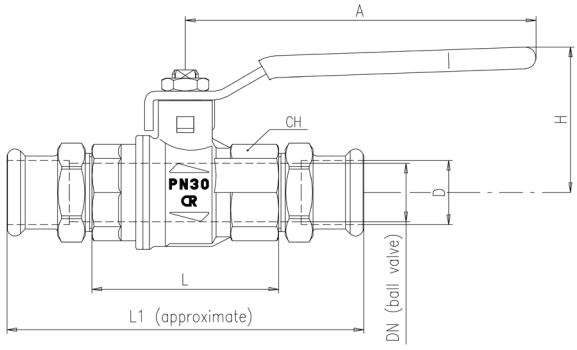
Approved by or in compliance with
- RoHS Compliant (EU)
- GOST-R (Russia)

NOTE: approvals apply to specific configurations/sizes only.



35-54 mm hollow ball

	Part description	Q.ty	Material
1	Unplated body	1	CW602N
2	Ball seat	2	PTFE
3	Chrome plated ball	1	CW602N
4	Unplated end-cap	1	CW602N
5	Unplated stem O-ring design	1	CW602N
6	Geomet® nut	1	CB4FF (EN10263-2)
7	O-Ring	2	FPM
8	White PVC coated Geomet® steel handle	1	DD11 (EN10111)
9	O-Ring	2	EPDM
10	Unplated press end connection	2	Bronze CuSn5Zn5Pb5-C

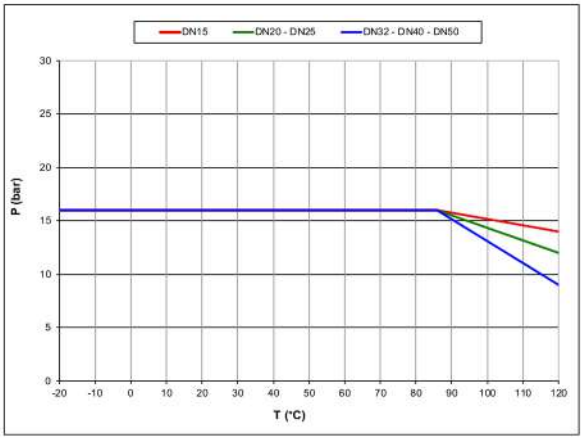


DN shows the nominal flow diameter. Actual flow diameter complies with full port DIN 3357 part 4.

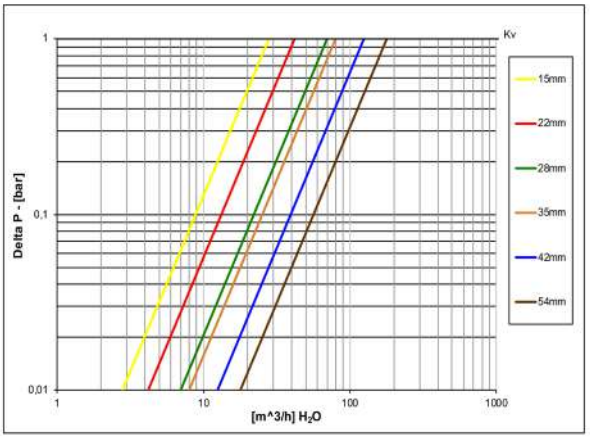
Code	S24DC15	S24EC22	S24FC28	S24GC35	S24HC42	S24IC54
D (mm)	15	22	28	35	42	54
DN(mm)	15	20	25	32	40	50
L (mm)	59	64	81	93	102	121
L1 (mm)	118	123	146	164	187	220
A (mm)	100	120	120	158	158	158
H (mm)	43	50	54	73	79	86
CH(mm)	25	31	40	49	54	68.5
Kv (m3/h)	28	42	70	80	125	179

DRINKING WATER

Pressure-temperature chart

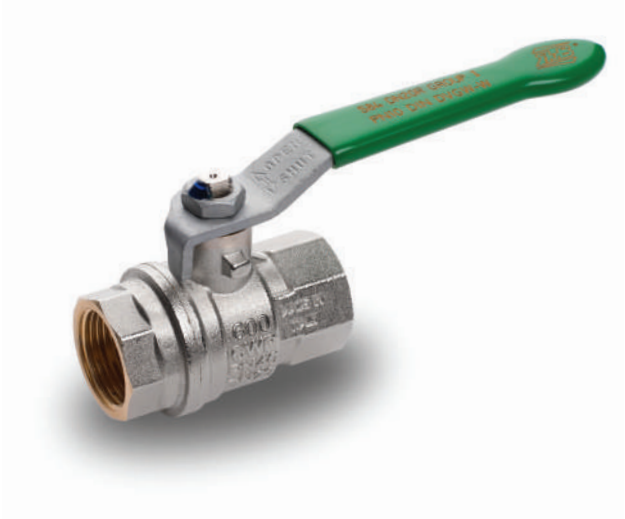


Pressure drop chart



s.84 W

1/4" - 2"
EN 10226-1



Legionella is a bacterium that lives and proliferates in natural and artificial aquatic environments at temperatures ranging between 5.7°C and 55°C and standing up to acidic and alkaline environments. New s.84W is approved for use with drinking water; the specific ball design avoids water stagnation and the spread of bacteria in the system.

Quality
- 24h 100% seal test guaranteed
- Dual sealing system allows valve to be operated in either direction making installation easier
- No metal-to-metal moving parts
- No maintenance ever required
- Handle clearly shows ball position
- Silicone-free lubricant on all seals
- Handle stops on body to avoid stress at stem
- Chrome plated brass ball with rinse hole

Body
- Hot forged sand blasted, external nickel plated brass body and cap sealed with Loctite® or equivalent thread sealant
- Finest brass according to EN 12165 and EN 12164 specifications

Stem
- Blowout-proof nickel plated brass stem
- Maintenance-free, double EPDM O-rings at the stem for maximum safety

Sealing
- Pure PTFE self-lubricating seats with flexible-lip design

Threads
- EN 10226-1 parallel female by female threads

Flow
- Full port to DIN 3357 for maximum flow

Handle
- Geomet® carbon steel handle with thick PVC dip coating. Handle coating offers both thermal and electrical protection
- Handle removable with valve in service
- **WARNING:** do not exceed reasonable temperature and/or electrical load

Working pressure & temperature
- 40 bar (600 PSI) non-shock cold working pressure
- DIN-EN 13828 limitations for potable water: 10 bar (Kg/cm^2) non- shock cold working pressure and +65°C temperature (occasional excursions up to 90°C are permitted for a period of 1 h maximum)
- -40°C to +150°C (-40°F to +302°F)
- **WARNING:** freezing of the fluid in the installation may severely damage the valve

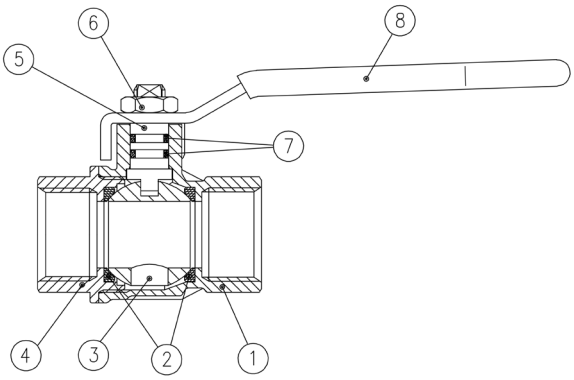
Options
- Taper male by parallel female threads
- T-handle
- Patented locking device
- Stubby handle
- Stem extension
- ***RuB*** memory stop designed to be installed with our stubby handle

Upon request
- Glass filled PTFE seals
- Stainless steel handle (1.4016 / AISI 430)
- Special configuration for industrial oxygen application
- Custom design

PED directive
- According to 2014/68/UE module A: it cannot be used with dangerous gases in sizes larger than 25mm

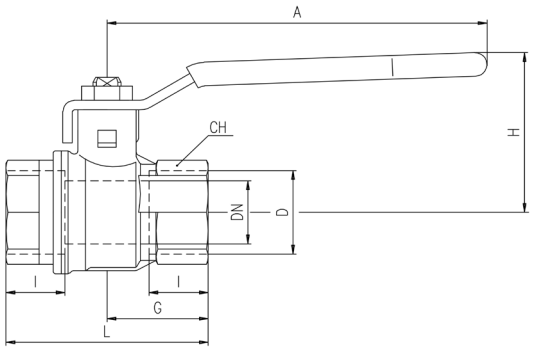
Approved by or in compliance with
- RoHS Compliant (EU)
- GOST-R (Russia)
- DVGW (Germany)
- EAC – Declaration of conformity (Russia, Kazakhstan, Belarus)
- Water Regulations Advisory Scheme (United Kingdom)
- Attestation de Conformité Sanitaire (France)

NOTE: approvals apply to specific configurations/sizes only.



1 ¼" to 2" hollow ball

	Part description	Q.ty	Material
1	Nickel plated body (external treatment)	1	CW617N
2	Seat	2	PTFE
3	Chrome plated ball with rinse hole (rinse hole on sizes from 3/4" up to 2")	1	CW617N
4	Nickel plated end-cap (external treatment)	1	CW617N
5	Nickel plated stem O-ring design	1	CW617N
6	Geomet® nut	1	CB4FF (EN10263-2)
7	O-Ring	2	EPDM
8	Green PVC coated Geomet® steel handle	1	DD11 (EN10111)

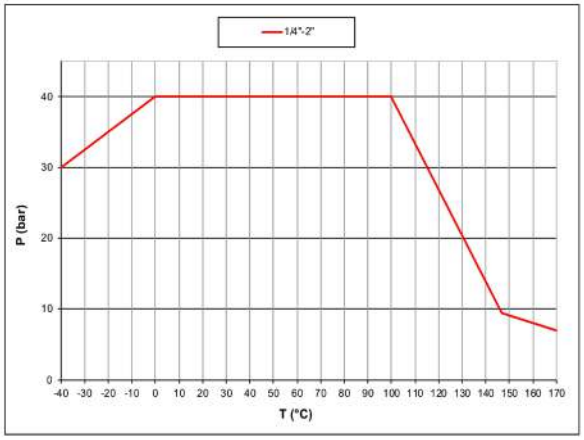


Code	S84B00W	S84C00W	S84D00W	S84E00W	S84F00W	S84G00W	S84H00W	S84I00W
D (Inch)	1/4	3/8	1/2	3/4	1	1 1/4	1 1/2	2
DN (mm)	8	10	15	20	25	32	40	50
I (mm)	12	12	15.5	17	21	23	23	26.5
L (mm)	45	45	59	64	81	93	102	121
G (mm)	22.5	22.5	29.5	32	40.5	46.5	51	60.5
A (mm)	82	82	100	120	120	158	158	158
H (mm)	38	38	43	50	54	73	79	86
CH (mm)	20	20	25	31	40	49	54	68.5
Kv(m3/h)	3.9	8.2	28	36	62	79	124	178

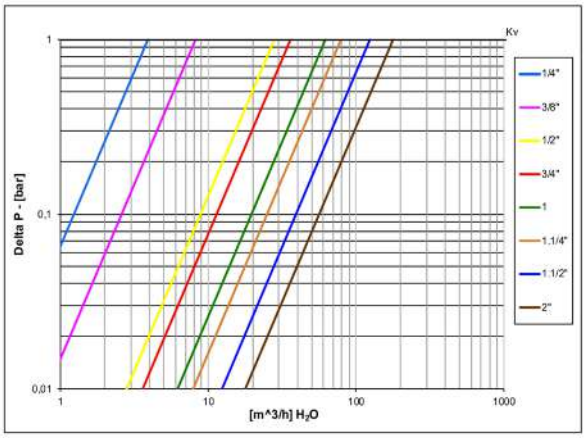
DN shows the nominal flow diameter. Actual flow diameter complies with full port DIN 3357 part 4.
Ball valves are marked CE on handle from 1 ¼" to 2" as follow:
CE XXCODEXX Cat I-A

DRINKING WATER

Pressure-temperature chart



Pressure drop chart



s.84W M/F

3/4”
for flat gasket

Legionella is a bacterium that lives and proliferates in natural and artificial aquatic environments at temperatures ranging between 5.7°C and 55°C and standing up to acidic and alkaline environments.

New s.84AW is approved for use with drinking water; the specific ball design avoids water stagnation and the spread of bacteria in the system.

Quality
• 24h 100% seal test guaranteed
• Dual sealing system allows valve to be operated in either direction making installation easier
• The valve is provided with a flat sealing surface at male thread that offers an improved performance compared to conventional connections; a wider seal surface guarantees higher sealing, reliable over time
• No metal-to-metal moving parts
• No maintenance ever required
• T-handle clearly shows ball position
• Silicone-free lubricant on all seals
• Handle stops on body to avoid stress at stem
• Chrome plated brass ball with rinse hole

Body
• Hot forged sand blasted, external nickel plated brass body and cap sealed with Loctite® or equivalent thread sealant
• Finest brass according to EN 12165 and EN 12164 specifications

Stem
• Blowout-proof nickel plated brass stem
• Maintenance-free, double EPDM O-rings at the stem for maximum safety

Sealing
• Pure PTFE self-lubricating seats with flexible-lip design

Threads
• EN 10226-1, ISO228 parallel female by ISO228 male threads

Flow
• Full port to DIN 3357 for maximum flow

Handle
• Aluminum T-handle enameled green or red
• T-handle removable with valve in service
• **WARNING:** do not exceed reasonable temperature and/or electrical load

Working pressure & temperature
• 40 bar (600 PSI) non-shock cold working pressure
• DIN-EN 13828 limitations for potable water: 10 bar (Kg/cm^2) non-shock cold working pressure and +65°C temperature (occasional excursions up to 90°C are permitted for a period of 1 h maximum)
• -40°C to +150°C (-40°F to +302°F)
• **WARNING:** freezing of the fluid in the installation may severely damage the valve

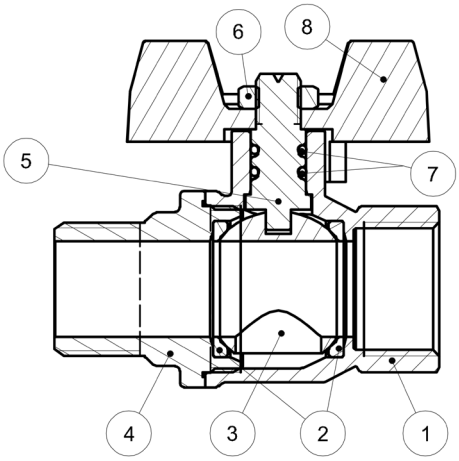
Options
• Geomet® carbon steel handle with thick PVC dip coating. Handle coating offers both thermal and electrical protection
• Patented locking device
• EN10226-1 parallel female by female threads and taper male by parallel female threads (s.84W model)
• Stubby handle
• ***RuB*** memory stop designed to be installed with our stubby handle

Upon request
• Stem extension
• Stainless steel ball (1.4401 / AISI 316)
• Glass filled PTFE seals
• Custom design

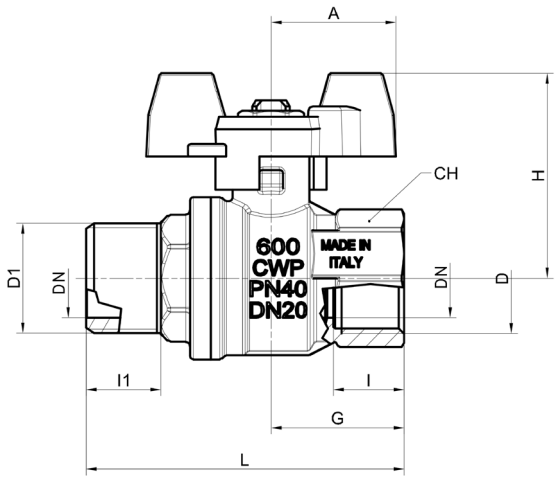
PED directive
• The product meets the requirements of PED Directive 2014/68/UE and according to art.4 par.3, it does not require CE marking

Approved by or in compliance with
• RoHS Compliant (EU)
• GOST-R (Russia)
• DVGW (Germany)
• EAC – Declaration of conformity (Russia, Kazakhstan, Belarus)
• Attestation de Conformité Sanitaire (France)

NOTE: approvals apply to specific configurations/sizes only



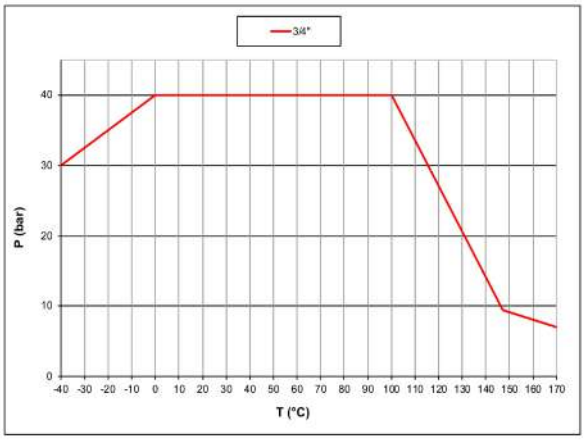
	Part description	Q.ty	Material
1	Nickel plated body (external nickel plated, unplated inside)	1	CW617N
2	Seat	2	PTFE
3	Chrome plated ball with rinse hole	1	CW617N
4	Nickel plated male end-cap (external nickel plated, unplated inside)	1	CW617N
5	Nickel plated stem O-ring design	1	CW617N
6	Geomet® nut	1	CB4FF (EN10263-2)
7	O-Ring	2	EPDM
8	Green or red T-handle	1	EN AC-46100



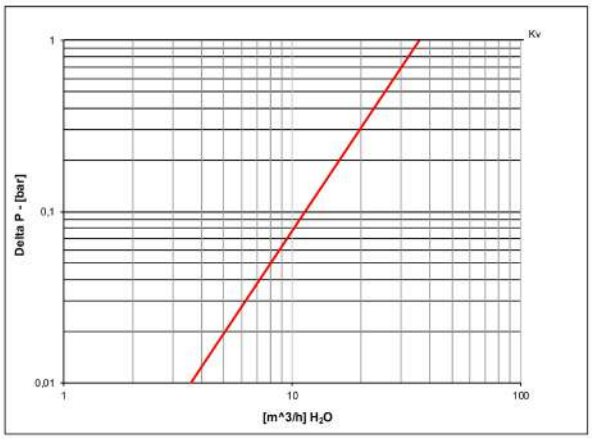
DN shows the nominal flow diameter. Actual flow diameter complies with full port DIN 3357 part 4.

Code	S84E26AW	S84E26AWR
D (inch)	Rp 3/4" (EN10226-ISO228)	Rp 3/4" (EN10226-ISO228)
D1 (inch)	G3/4" B (ISO228)	G3/4" B (ISO228)
DN (mm)	19	19
I (mm)	17	17
I1 (mm)	18	18
L (mm)	76.5	76.5
G (mm)	32	32
A (mm)	30	30
H (mm)	49	49
CH (mm)	31	31
T-handle	Green	Red
Kv (m3/h)	36	

Pressure-temperature chart



Pressure drop chart



DRINKING WATER

s.468LF DZR

22 mm compression ends
ISO 5211
Lead-Free
dezincification-resistant

AVAILABLE ON DEMAND

Quality

- 100% seal test guaranteed
- Arrow on the valve body clearly shows the flow direction
- No metal-to-metal moving parts
- No maintenance ever required
- Stem clearly shows ball position
- Silicone-free lubricant on all seals
- Chrome plated DZR and lead free brass ball for longer life and with antifreeze function

Body

- Hot forged sand blasted DZR and lead free unplated body and cap sealed with Loctite® or equivalent thread sealant
- Dezincification-resistant and lead free brass in compliance with HCACL Hygienic copper alloy composition (UBA list)

Stem

- Maintenance-free, double EPDM O-rings at the stem for maximum safety
- Blowout-proof unplated DZR and lead free brass stem

Sealing

- EPDM seats for lower torque

Threads

- Compression ends to EN 1254-2

Flow

- Full port to DIN 3357 for maximum flow

Handle

- Integrated sturdy ISO 5211 flange allows direct mounting of electric and pneumatic actuators, with no bracket or coupling required. See ***RuB*** line of electric and pneumatic actuators.

Working pressure & temperature

- Shell rating: 40 bar (600 PSI) non-shock cold working pressure
- Seat rating/compression ends: 16 bar max (230 PSI max) non-shock cold working pressure
  (see chart for pressure/temperature limits)
- -20°C to +120°C (-4°F to +250°F)
- **WARNING:** freezing of the fluid in the installation may severely damage the valve

Options

- S.468 DZR and lead free 7/8" compression ends
- Rack and pinion pneumatic actuator (spring return or double acting)
- Compact power electric actuator
- Manual lockable handle

Upon request

- Custom design

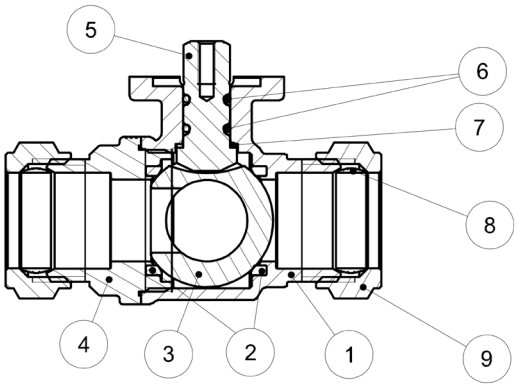
PED directive

- The product described in this document meets the requirements of PED Directive 2014/68/UE and according to art.4 par.3, it does not require CE marking

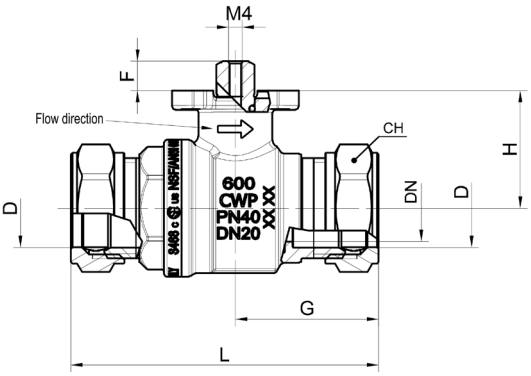
Approved by or in compliance with

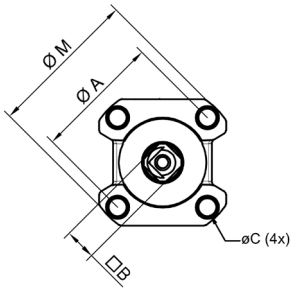
- Certified by CSA International for Drinking Water to NSF/ANSI 372 (United States)
- Water Regulations Advisory Scheme (United Kingdom)

NOTE: approvals apply to specific configurations/sizes only.



	Part description	Q.ty	Material
1	Unplated body	1	CW511L
2	Seat	2	EPDM
3	Chrome plated ball	1	CW511L
4	Unplated end-cap	1	CW511L
5	Unplated stem	1	CW511L
6	O-Ring	2	EPDM
7	Washer	1	PTFE carbon filled 25%
8	Olive	2	CW508L
9	Unplated nut	2	CW617N





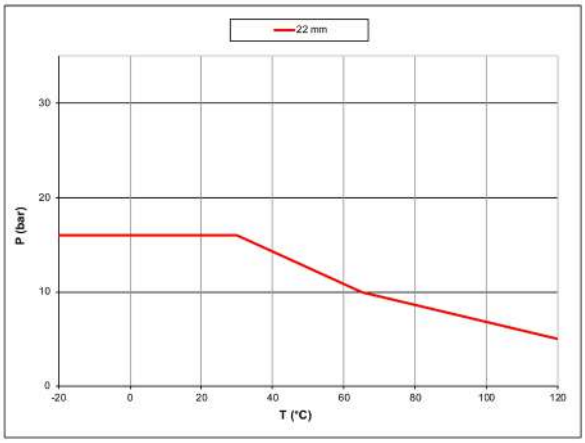
DN shows the nominal flow diameter. Actual flow diameter complies with full port DIN 3357 part 4.

Code	S468E22
D (inch)	22
DN(mm)	19
L (mm)	87.5
G (mm)	40.7
H (mm)	33.5
øA (mm)	36
øC (mm)	ø5.2 (M6)
Square B (mm)	9
øM (mm)	43.4
F (mm)	8.3
CH (mm)	32
Kv (m3/h)	36

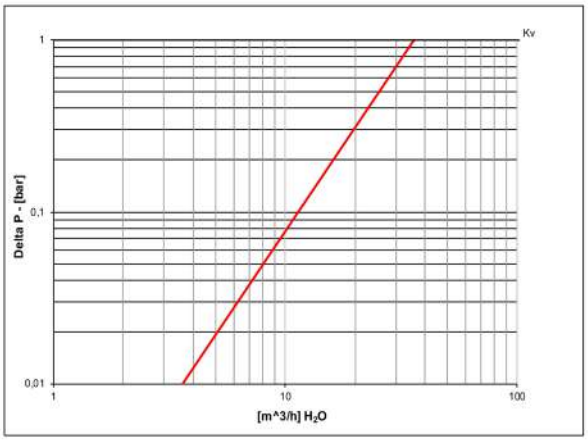
Torque for actuator sizing N.m

Delta P -->	0÷6 bar	6÷16 bar
Valve size	*to open/to close*	*to open/to close*
22 mm	2,5	3

Pressure-temperature chart



Pressure drop chart



DRINKING WATER

Puri-T 292 NPT

1/4" - 2"
Lead Free

All surfaces of this product in contact with drinking water contain less than 0.25% of lead in compliance with U.S. law

NSF/ANSI 61
NSF/ANSI 372

Quality

- Certified by CSA International to comply with U.S. s3874, California AB1953, and similar laws of other states for the safe handling of drinking water
- 24h 100% seal test guaranteed
- Dual sealing system allows valve to be operated in either direction making installation easier
- No metal-to-metal moving parts
- Handle clearly shows ball position
- Silicone-free lubricant on all seals
- Handle stops on body to avoid stress at stem

Body

- Hot forged sand blasted, unplated lead free brass body and cap sealed with Loctite® or equivalent thread sealant
- Chrome plated lead free brass ball for longer life

Stem

- Pure PTFE adjustable packing gland and reinforced washer for lower torque and easy maintenance
- Blowout-proof unplated lead free brass stem

Sealing

- Glass filled pure PTFE self-lubricating seats with flexible-lip design

Threads

- NPT taper ANSI B.1.20.1 female by female threads

Flow

- Full port to DIN 3357 for maximum flow

Handle

- Geomet® carbon steel handle with thick PVC dip coating. Handle coating offers both Thermal and electrical protection
- **WARNING:** do not exceed reasonable temperature and/or electrical load

Working pressure & temperature

- 600 PSI non-shock cold working pressure
- For general use: -40°F / +350°F
- NSF 61 limits (CSA approval): tested for use in continuous exposure to water of ambient temperature
- **WARNING:** freezing of the fluid in the installation may severely damage the valve

Options

- Stem extension
- T-handle
- Oval lockable handle
- Stainless steel handle (1.4016 / AISI 430)
- Patented locking device
- Stubby handle

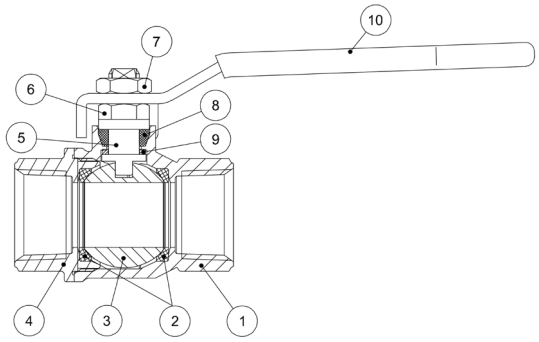
Upon request

- Custom design
- Pure PTFE seals

Approved by or in compliance with

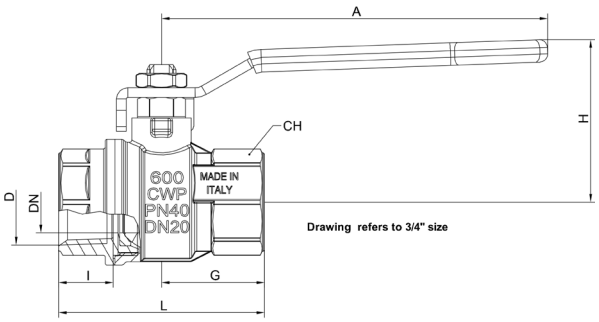
- GOST-R (Russia)
- Certified by CSA International for Drinking Water to NSF/ANSI 61 – NSF/ANSI 372 (United States)
- RoHS Compliant (EU)

NOTE: approvals apply to specific configurations/sizes only.



1 ½"-2" hollow ball

	Part description	Q.ty	Material
1	Unplated NPT body	1	CW510L
2	Seat	2	PTFE glass filled 5-15%
3	Chrome plated ball	1	CW510L
4	Unplated NPT end-cap	1	CW510L
5	Unplated stem packing gland design	1	CW510L
6	Nickel plated gland nut	1	CW617N
7	Geomet® nut	1	CB4FF (EN10263-2)
8	Packing gland seal	1	PTFE
9	Thrust washer	1	PTFE carbon filled 25%
10	Green PVC coated Geomet® steel handle	1	DD11 (EN10111)

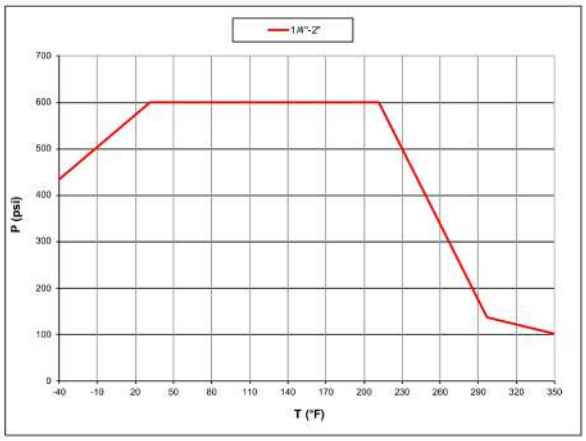


DN shows the nominal flow diameter. Actual flow diameter complies with full port DIN 3357 part 4.

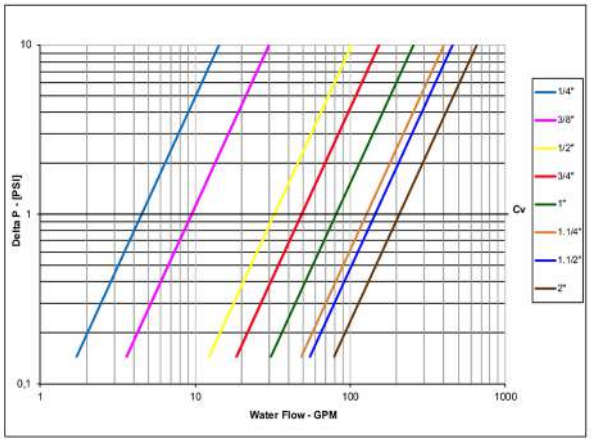
Code	T292B41	T292C41	T292D41	T292E41	T292F41	T292G41	T292H41	T292I41
D (inch)	1/4	3/8	1/2	3/4	1	1 1/4	1 1/2	2
DN (inch)	0.314	0.393	0.590	0.787	0.984	1.259	1.574	1.968
I (inch)	0.472	0.472	0.610	0.669	0.826	0.905	0.905	1.043
L (inch)	1.771	1.771	2.322	2.519	3.188	3.661	4.015	4.763
G (inch)	0.885	0.885	1.161	1.259	1.594	1.830	2.007	2.381
A (inch)	3.228	3.228	3.937	4.724	4.724	6.220	6.220	6.220
H (inch)	1.563	1.563	1.695	1.988	2.153	2.988	3.236	3.500
CH (inch)	0.787	0.787	0.984	1.220	1.574	1.929	2.125	2.696
Cv (GPM)	4.5	9.5	32.3	48.5	80.9	127.1	144.4	206.8

DRINKING WATER

Pressure-temperature chart



Pressure drop chart



Puri-T 242

1/2" - 2"
Lead Free
solder ends

All surfaces of this product in contact with drinking water contain less than 0.25% of lead in compliance with U.S. law

NSF/ANSI 61
NSF/ANSI 372

Quality

• Certified by CSA International to comply with U.S. s3874, California AB1953, and similar laws of other states for the safe handling of drinking water

• 24h 100% seal test guaranteed

• Dual sealing system allows valve to be operated in either direction making installation easier

• No metal-to-metal moving parts

• Handle clearly shows ball position

• Silicone-free lubricant on all seals

• Chrome plated lead free brass ball for longer life

• Handle stops on body to avoid stresses at stem

Body

• Hot forged sand blasted, unplated lead free brass body and cap sealed with Loctite® or equivalent thread sealant

Stem

• Pure PTFE adjustable packing gland and reinforced PTFE washer for lower torque and easy maintenance

• Blowout-proof unplated lead free brass stem

Sealing

• Pure PTFE self-lubricating seats with flexible-lip design

Connections

• Solder-end ANSI B16.18 female by female connections

Flow

• Full port to DIN 3357 for maximum flow

Handle

• Geomet® carbon steel handle with thick PVC dip coating. Handle coating offers both thermal and electrical protection

• **WARNING:** do not exceed reasonable temperature and/or electrical load

Working pressure & temperature

• 600 PSI (for solder joints rating see table 1) non-shock cold working pressure

• For general use: -4°F / +350°F

(for solder joints rating see table 1)

• NSF 61 limits (CSA approval): tested for use in continuous exposure to water of ambient temperature

• **WARNING:** freezing of the fluid in the installation may severely damage the valve

Options

• Oval lockable handle

• Patented locking device

• Stem extension (assemble after soldering)

• T-handle

• Stubby handle

Upon request

• Glass filled PTFE seals

• Stainless steel handle (1.4016 / AISI 430)

• Custom design

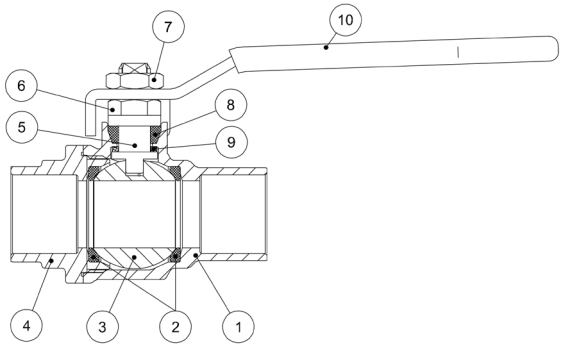
Approved by or in compliance with

• GOST-R (Russia)

• Certified by CSA International for Drinking Water to NSF/ANSI 61 – NSF/ANSI 372 (United States)

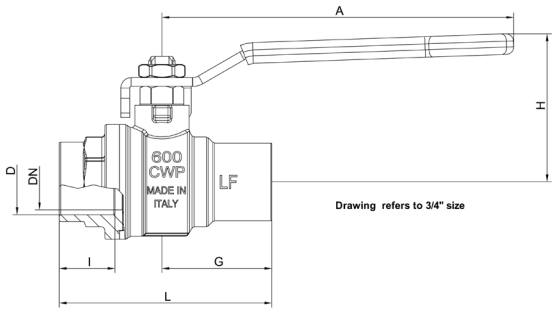
• RoHS Compliant (EU)

NOTE: approvals apply to specific configuartions/sizes only.



1 ½"-2" hollow ball

	Part description	Q.ty	Material
1	Unplated solder end body	1	CW510L
2	Seat	2	PTFE
3	Chrome plated ball	1	CW510L
4	Unplated solder end-cap	1	CW510L
5	Unplated stem packing gland design	1	CW510L
6	Nickel plated gland nut	1	CW617N
7	Geomet® nut	1	CB4FF (EN10263-2)
8	Packing gland seal	1	PTFE
9	Thrust washer	1	PTFE carbon filled 25%
10	Green PVC coated Geomet® steel handle	1	DD11 (EN10111)



DN shows the nominal flow diameter. Actual flow diameter complies with full port DIN 3357 part 4.

Code		T242D00	T242E00	T242F00	T242G00	T242H00	T242I00
D (inch)	Nominal	1/2	3/4	1	1 1/4	1 1/2	2
	actual	0.6271	0.8771	1.1279	1.3779	1.6279	2.1279
DN(inch)		0.590	0.787	0.984	1.259	1.574	1.968
I (inch)		0.492	0.748	0.905	0.964	1.102	1.338
L (inch)		2.244	2.854	3.346	3.819	4.488	5.433
G (inch)		1.181	1.476	1.673	1.909	2.244	2.716
A (inch)		3.937	4.724	4.724	6.220	6.220	6.220
H (inch)		1.695	1.988	2.153	2.988	3.236	3.500
Cv (GPM)		32.3	48.5	80.9	127.1	144.4	206.8

TABLE 1 PRESSURE - TEMPERATURE RATINGS

Joning material	Melting range degrees		Working temperature degrees		Maximum working gauge pressure					
					Size 1/8" - 1"		Size 1 ¼" - 2"		Size 2 ½" - 4"	
	°F	°C	°F	°C	PSI	kPa	PSI	kPa	PSI	kPa
50-50 tin-lead solder* ASTM B32 alloy grade 50 A	361/421	185/215	0/+100	-18/+38	200	1400	176	1200	150	1050
			0/+150	-18/+66	150	1050	125	850	100	700
			0/+200	-18/+93	100	700	90	600	75	500
			0/+250	-18/+121	85	600	75	500	50	350
95-5 tin-antimony solder ASTM B32 alloy grade 95TA	450/464	230/240	0/+100	-18/+38	500**	3500**	400**	2800**	300**	2100**
			0/+150	-18/+66	400**	2800**	350**	2400**	275**	2000**
			0/+200	-18/+93	300**	2100**	250**	1700**	200	1400
			0/+250	-18/+121	200	1400	175	1200	150	1050

Note:

Above stated limits are not imposed by the valve, but by the strength of the soldering joint according to ASME B16.22.

* This alloy contains more than 0,2% lead and, according to certain specifications, cannot be used for potable water or other foods.

** Soldered copper tube joints have been tested at 230 PSI (1600 kPa) in accordance with ISO 2016

Pressure-temperature chart

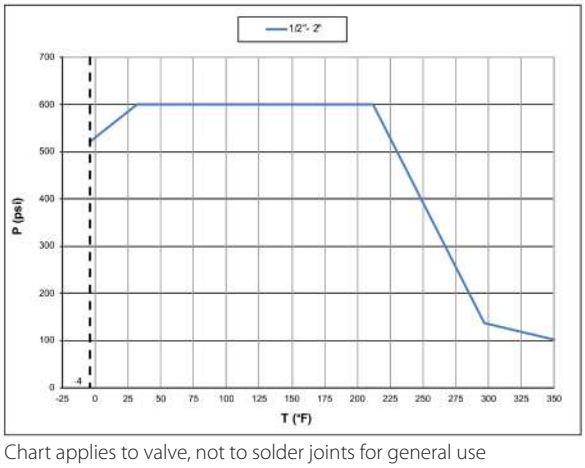
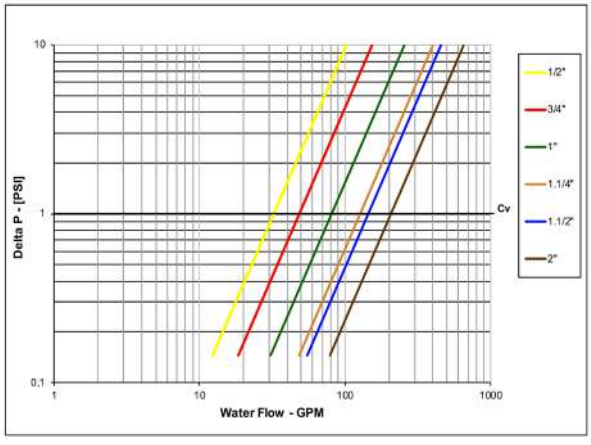


Chart applies to valve, not to solder joints for general use

Pressure drop chart



DRINKING WATER

XCET242 - 4266

Puri-T 264 NPT

1/2" - 1 ½"
Lead Free
ISO 5211

All surfaces of this product in contact with drinking water contain less than 0.25% of lead in compliance with U.S. law

NSF/ANSI 61
NSF/ANSI 372

Quality

- Certified by CSA International to comply with U.S. s3874, California AB1953, and similar laws of other states for the safe handling of drinking water
- 24h 100% seal test guaranteed
- Dual sealing system allows valve to be operated in either direction making installation easier
- No metal-to-metal moving parts
- No maintenance ever required
- Silicone-free lubricant on all seals
- Chrome plated lead free brass ball for longer life

Body

- Hot forged sand blasted, unplated lead free brass body and cap sealed with Loctite® or equivalent thread sealant
- Integrated ISO 5211 and DIN 3337 mounting flange for universal connection to actuator
- Finest brass according to EN 12165 and EN 12164 specifications

Stem

- Blowout-proof nickel plated lead free brass stem
- Maintenance-free, double FPM O-rings at the stem for maximum safety

Sealing

- Reinforced PTFE self-lubricating seats with flexible-lip and wear compensation design

Threads

- NPT taper ANSI B.1.20.1 female by female threads

Flow

- 100% full port for maximum flow

Operating mechanism

- Integrated sturdy ISO 5211 flange allows direct mounting of electric and pneumatic actuators, with no bracket or coupling required. See ***RuB*** line of electric and pneumatic actuators.

Working pressure & temperature

- 600 PSI up to 3/4" size
- For 1" size up to 1 ½" size:

-Shell rating: 600 PSI

-Seat rating: Delta P max permissible 230 PSI

- non-shock cold working pressure
- For general use: -4°F/+350°F
- NSF 61 limits (CSA approval): tested for use in continuous exposure to water of ambient temperature
- **WARNING:** freezing of the fluid in the installation may severely damage the valve

Options

- Rack and pinion pneumatic actuator (spring return or double acting)
- Compact power electric actuator for some sizes
- Manual lockable handle

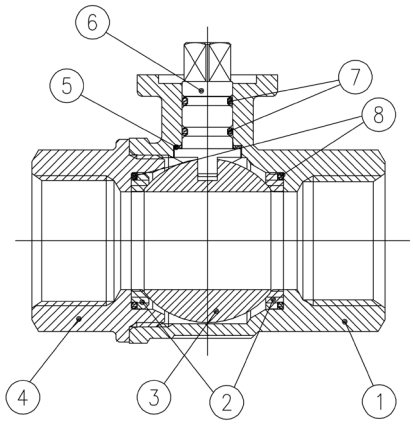
Upon request

- Custom design

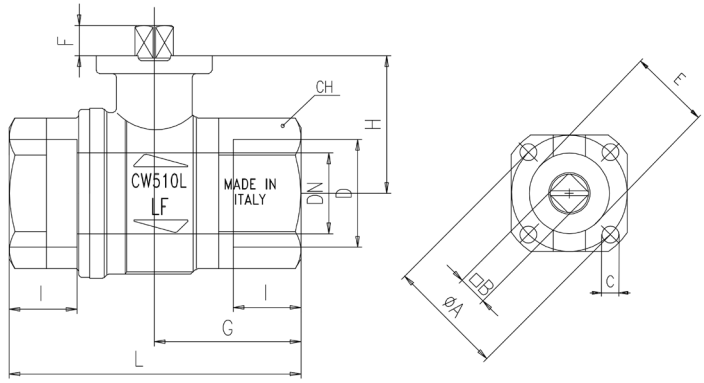
Approved by or in compliance with

- GOST-R (Russia)
- Certified by CSA International for Drinking Water to NSF/ANSI 61 – NSF/ANSI 372 (United States)
- RoHS Compliant (EU)

NOTE: approvals apply to specific configurations/sizes only.



	Part description	Q.ty	Material
1	Unplated NPT body	1	CW510L
2	Ball seat	2	PTFE graphite filled 15% up to 3/4" size, PTFE carbographite filled over 3/4" size
3	Chrome plated ball	1	CW510L
4	Unplated NPT end-cap	1	CW510L
5	Washer	1	PTFE carbon filled 25%
6	Nickel plated stem O-ring design	1	CW510L
7	O-Ring	2	FPM
8	O-Ring	2	FPM



Code	T264D41	T264E41	T264F41	T264G41	T264H41
D (inch)	1/2	3/4	1	1 1/4	1 1/2
DN(inch)	0.590	0.787	0.984	1.259	1.575
I (inch)	0.610	0.708	0.826	0.905	0.964
L (inch)	2.598	2.933	3.562	4.094	4.606
G (inch)	1.201	1.456	1.791	2.047	2.322
H (inch)	1.220	1.515	1.673	1.941	2.441
CH(inch)	1.063	1.259	1.614	1.968	2.165
ØA(inch)	1.417	1.417	1.417	1.417	1.968
□B(inch)	0.354	0.354	0.354	0.354	0.551
C (inch)	0.220	0.220	0.220	0.220	0.259
E(inch)	0.984	0.984	0.984	0.984	1.378
F(inch)	0.295	0.334	0.334	0.334	0.570
Flange connection DIN ISO 5211 DIN 3337	F03	F03	F03	F03	F05
Cv(GPM)	32.3	69.3	115.5	179.1	283.1

Torque for actuator sizing in-lb

Delta P -->	0÷200 PSI		600 PSI	
Valve size	*to open*	*to close*	*to open*	*to close*
1/2"	25	15	25	15
3/4"	33	20	33	20

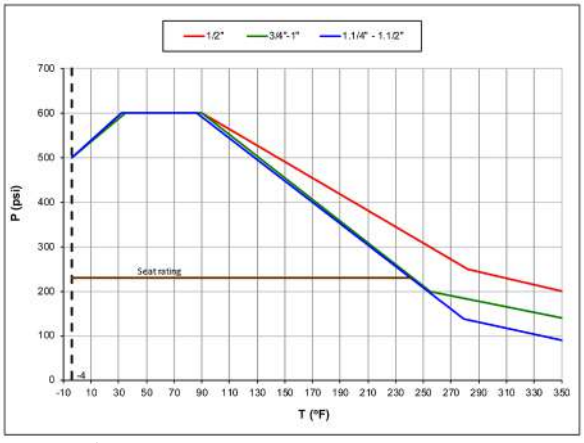
Delta P -->	0÷90 PSI		>90÷230 PSI	
Valve size	*to open*	*to close*	*to open*	*to close*
1"	19	19	31	31
1 ¼"	22	22	35	35
1 ½"	51	51	84	84

Torque correction factors

Valve torque can vary according to operating frequency, temperature and friction characteristics of the media.
If media has more or less friction than water, multiply torque by the following factors:

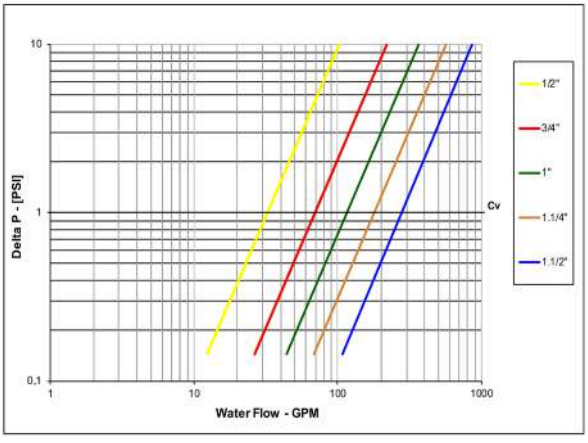
Lubricating oils or liquids	0.8
Dry gases, natural gas	1.5
Slurries or liquids bearing abrasive particles	1.5÷2.5

Pressure-temperature chart



For general use

Pressure drop chart

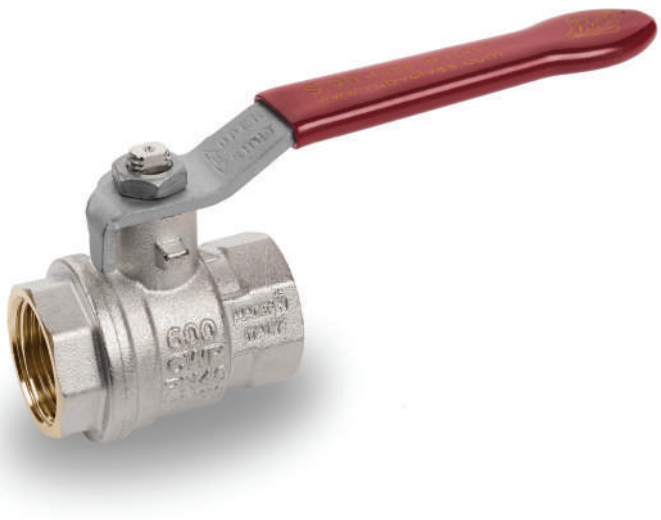


DRINKING WATER

PLUMBING

s.90

1/4" - 4"
ISO 228



Quality
• 24h 100% seal test guaranteed
• Dual sealing system allows valve to be operated in either direction making installation easier
• No metal-to-metal moving parts
• No maintenance ever required
• Handle clearly shows ball position
• Silicone-free lubricant on all seals
• Chrome plated brass ball for longer life
• Handle stops on body to avoid stress at stem

Body
• Hot forged sand blasted, external nickel plated brass body and cap sealed with Loctite® or equivalent thread sealant
• Finest brass according to EN 12165 and EN 12164 specifications

Stem
• Blowout-proof nickel plated brass stem
• Maintenance-free, double FPM O-rings at the stem for maximum safety

Sealing
• Pure PTFE self-lubricating seats with flexible-lip design

Threads
• ISO 228 parallel female by female threads

Flow
• Full port to DIN 3357 for maximum flow

Handle
• Geomet® carbon steel handle with thick PVC dip coating. Handle coating offers both thermal and electrical protection
• Handle removable with valve in service

Working pressure & temperature
• 40 bar (600 PSI) up to 2", 30 bar (450 PSI) over 2" non-shock cold working pressure
• -40°C to +170°C (-40°F to +350°F)
• **WARNING:** freezing of the fluid in the installation may severely damage the valve

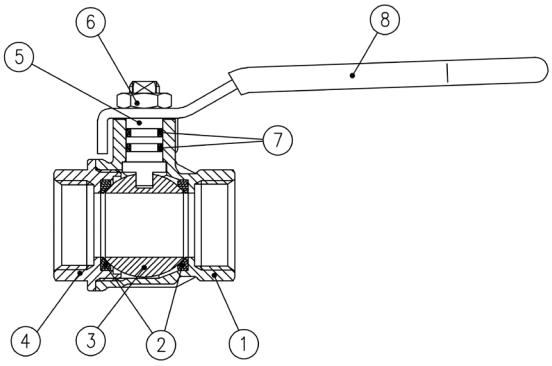
Options
• Stem extension
• T-handle
• Stainless steel handle (1.4016 / AISI 430)
• Patented locking device
• Dezincification resistant brass body and components
• Oval lockable handle up to 2", round over 2"
• Male by female threads. Male thread available also with flat face for flat sealings usage.
• Male by male threads. Male thread available also with flat face for flat sealings usage.
• Stubby handle up to 2"
• ***RuB*** memory stop is designed to be installed with our stubby handle

Upon request
• Stainless steel ball (1.4401 / AISI 316)
• Glass filled PTFE seals
• Custom design

PED directive
• According to 2014/68/UE module A: it cannot be used with dangerous gases in sizes larger than 25mm

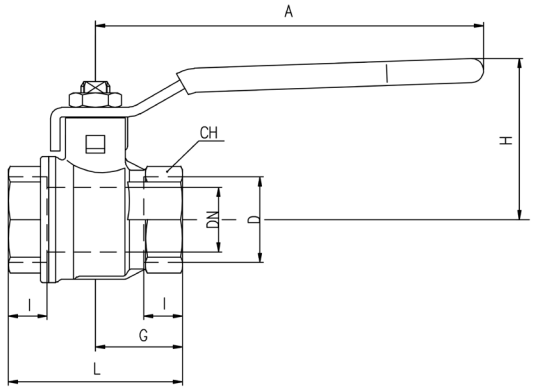
Approved by or in compliance with
• Water Regulations Advisory Scheme (United Kingdom)
• GOST-R (Russia)
• EAC – Declaration of conformity (Russia, Kazakhstan, Belarus)
• RoHS Compliant (EU)

NOTE: approvals apply to specific configurations/sizes only.



1 ¼"-2" hollow ball

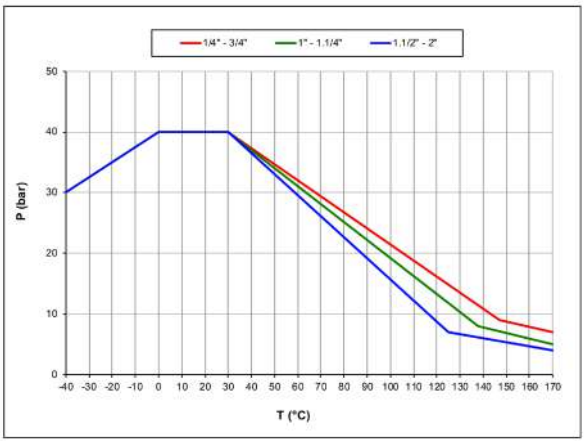
	Part description	Q.ty	Material
1	Nickel plated body (external nickel plated, unplated inside up to 2")	1	CW617N
2	Seat	2	PTFE
3	Chrome plated ball	1	CW617N
4	Nickel plated end-cap (external nickel plated, unplated inside up to 2")	1	CW617N
5	Nickel plated stem O-ring design	1	CW617N
6	Geomet® nut	1	CB4FF (EN10263-2)
7	O-ring	2	FPM
8	Red PVC coated Geomet® steel handle	1	DD11 (EN10111)



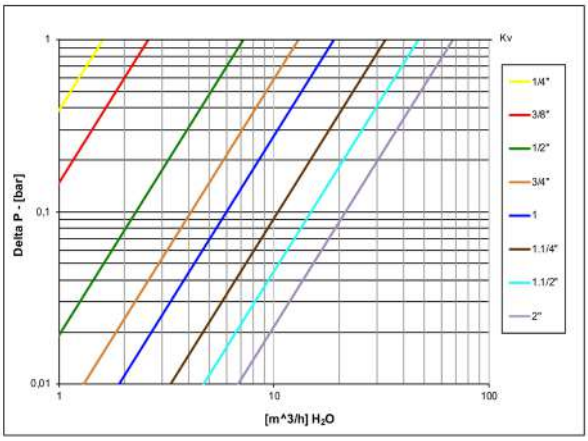
Code	S90B00	S90C00	S90D00	S90E00	S90F00	S90G00	S90H00	S90I00	S90L00	S90M00	S90N00
D (inch)	1/4	3/8	1/2	3/4	1	1 1/4	1 1/2	2	2 1/2	3	4
DN (mm)	8	10	15	20	25	32	40	50	65	80	100
I (mm)	9	9	11	12	14	15	17	19	22	25	29
L (mm)	39	39	50	54	67	77	90	106	136	157	191
G (mm)	19.5	19.5	25	27	33.5	38.5	45	53	68	78.5	95.5
A (mm)	82	82	100	120	120	158	158	158	255	255	255
H (mm)	38	38	43	50	54	73	79	86	132	140	154
CH (mm)	20	20	25	31	38	48	54	66	85	99	125
Kv(m^3/h)	3.9	8.2	28	42	70	80	125	179	516	776	1130

DN shows the nominal flow diameter. Actual flow diameter complies with full port DIN 3357 part 4. Stem configuration of valves over 2" is slightly different. Ball valves are marked CE on handle from 1 ¼" to 2", on body over 2" as follow:
CE XXCODEXX Cat I-A

Pressure-temperature chart



Pressure drop chart



PLUMBING

s.63

1/2" - 3"
reduced port
ISO 228

Quality
- 24h 100% seal test guaranteed
- Dual sealing system allows valve to be operated in either direction makaing installation easier
- No metal-to-metal moving parts
- No maintenance ever required
- Handle clearly shows ball position
- Silicone-free lubricant on all seals
- Chrome plated brass ball for longer life
- Handle stops on body to avoid stress at stem

Body
- Hot forged sand blasted, external nickel plated brass body and cap sealed with Loctite® or equivalent thread sealant
- Finest brass according to EN 12165 and EN 12164 specifications

Stem
- Blowout-proof nickel plated brass stem
- Maintenance-free, double FPM O-rings at the stem for maximum safety

Sealing
- Pure PTFE self-lubricating seats with flexible-lip design

Threads
- ISO 228 female by female threads

Flow
- One size reduced port for compact design

Handle
- Geomet® carbon steel handle with thick PVC dip coating. Handle coating offers both thermal and electrical protection
- Handle removable with valve in service
- **WARNING:** do not exceed reasonable temperature and/or electrical load

Working pressure & temperature
- 40 bar (600 PSI) non-shock cold working pressure
- -40°C to +170°C (-40°F to +350°F)
- **WARNING:** freezing of the fluid in the installation may severely damage the valve

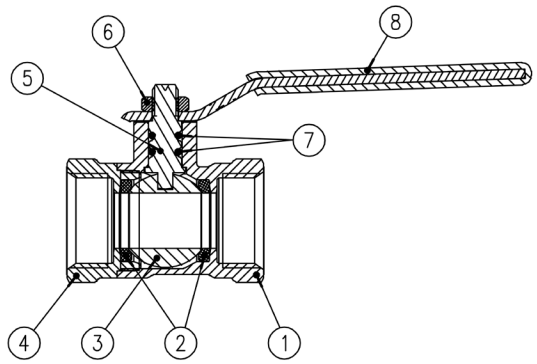
Options
- Oval lockable handle up to 2 ½", round over 2 ½"
- Male by female ISO 228 threads up to 2"
- Stem extension up to 2 ½"
- T-handle up to 2 ½"
- Stainless steel handle (1.4016 / AISI 430) up to 2 ½"
- Patented locking device for valves up to 3"
- Stubby handle up to 2"
- ***RuB*** memory stop is designed to be installed with our stubby handle

Upon request
- Stainless steel ball (1.4401 / AISI 316)
- Glass filled PTFE seals
- Custom design

PED directive
- According to 2014/68/UE module A: it cannot be used with dangerous gases in sizes larger than 25mm

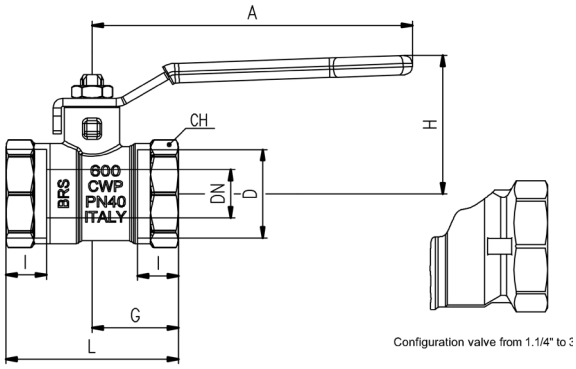
Approved by or in compliance with
- GOST-R (Russia)
- EAC – Declaration of conformity (Russia, Kazakhstan, Belarus)
- RoHS Compliant (EU)

NOTE: approvals apply to specific configurations/ sizes only.



1 ½"-2 ½" hollow ball

	Part description	Q.ty	Material
1	Nickel plated body (external nickel plated, unplated inside up to 2")	1	CW617N
2	Seat	2	PTFE
3	Chrome plated ball	1	CW617N
4	Nickel plated end-cap (external nickel plated, unplated inside up to 2")	1	CW617N
5	Nickel plated stem O-ring design	1	CW617N
6	Geomet® nut	1	CB4FF (EN10263-2)
7	O-Ring	2	FPM
8	Red PVC coated Geomet® steel handle	1	DD11 (EN10111)

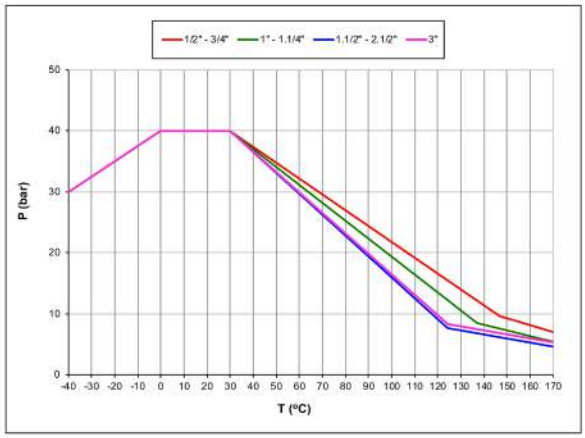


Configuration valve from 1.1/4" to 3

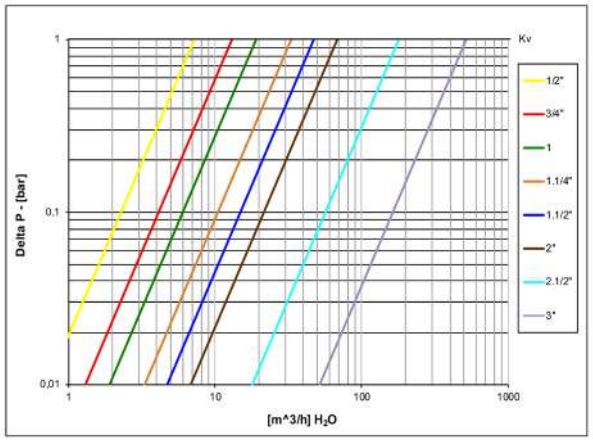
Code	S63D00	S63E00	S63F00	S63G00	S63H00	S63I00	S63L00	S63M00
D (inch)	1/2	3/4	1	1 1/4	1 1/2	2	2 1/2	3
DN (mm)	11.5	15	19	24	30	38	48	64
I (mm)	11	12	14	15	17	19	22	25
L (mm)	45	54	60	72	84	97	114	142
G (mm)	22	27	30	36	42	48.5	57	71
A (mm)	100	100	120	120	158	158	158	255
H (mm)	41	43	50	54	73	79	86	132
CH (mm)	25	31	38	49	54	68	85	99
Kv (m^3/h)	7.2	13	19	33	47	68	179	516

DN shows the nominal flow diameter. Stem configuration of valves over 2 ½" is slightly different.
Ball valves are marked CE on handle from 1 ½" to 2 ½", on body over 2 ½" as follow: CE XXCODEXX Cat. I-A

Pressure-temperature chart

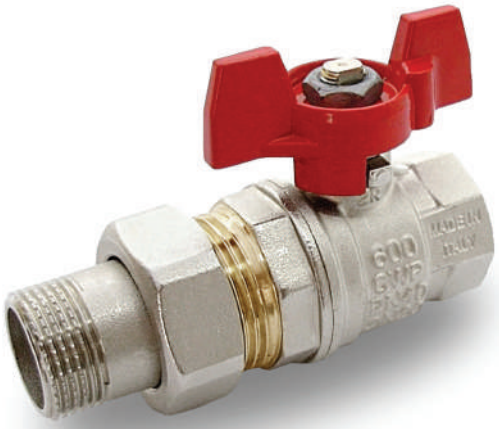


Pressure drop chart



s.9036

1/2" - 1 ¼"
ISO 228
union connection



Quality

- 24h 100% seal test guaranteed
- Dual sealing system allows valve to be operated in either direction making installation easier
- No metal-to-metal moving parts
- No maintenance ever required
- T-handle clearly shows ball position
- Silicone-free lubricant on all seals
- Chrome plated brass ball for longer life
- Handle stops on body to avoid stress at stem

Body

- Hot forged sand blasted, external nickel plated brass body and cap sealed with Loctite® or equivalent thread sealant
- Finest brass according to EN 12165 and EN 12164 specifications

Stem

- Blowout-proof nickel plated brass stem
- Maintenance-free, double FPM O-rings at the stem for maximum safety

Sealing

- Pure PTFE self-lubricating seats with flexible-lip design

Threads

- ISO 228 female by union male threads

Flow

- Full port to DIN 3357 for maximum flow

Handle

- Aluminum T-handle up to 1", Geomet® carbon steel T-handle with thick PVC dip coating over 1"
- Handle removable with valve in service

Working pressure & temperature

- 40 bar (600 PSI) non-shock cold working pressure
- -40°C to +150°C (-40°F to +302°F)
- **WARNING:** freezing of the fluid in the installation may severely damage the valve

Options

- Stem extension
- Oval lockable handle
- Stainless steel handle (1.4016 / AISI 430)
- Patented locking device
- Geomet® carbon steel handle with thick PVC dip coating. Handle coating offers both thermal and electrical protection
- Stubby handle
- ***RuB*** memory stop is designed to be installed with our stubby handle

Upon request

- Stainless steel ball (1.4401 / AISI 316)
- Glass filled PTFE seals
- Custom design

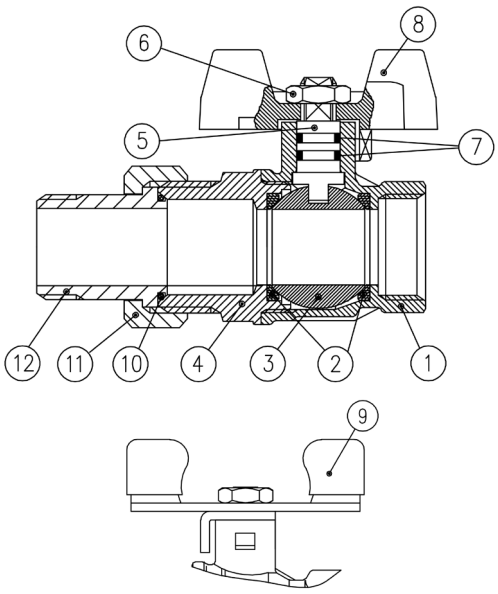
PED directive

- According to 2014/68/UE module A: it cannot be used with dangerous gases in sizes larger than 25mm

Approved by or in compliance with

- GOST-R (Russia)
- RoHS Compliant (EU)
- EAC – Declaration of conformity (Russia, Kazakhstan, Belarus)

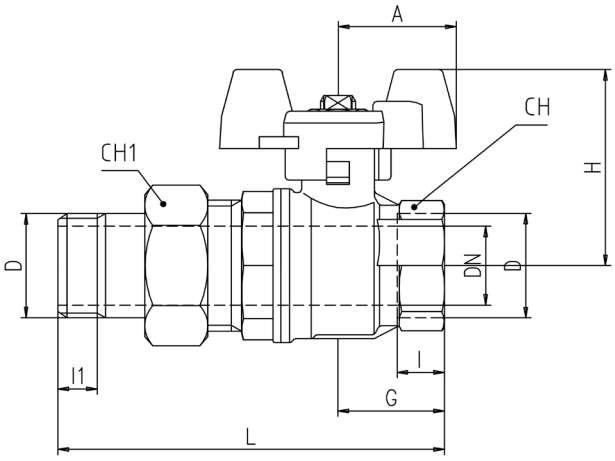
NOTE: approvals apply to specific configurations/sizes only.



1 ¼"
T–Handle configuration

1 ¼" hollow ball

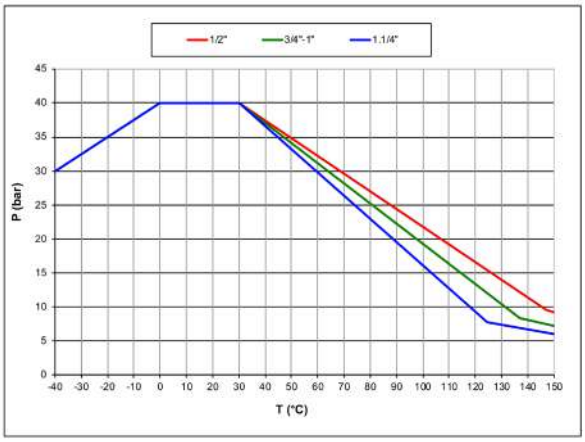
	Part description	Q.ty	Material
1	Nickel plated body (external nickel plated, unplated inside)	1	CW617N
2	Seat	2	PTFE
3	Chrome plated ball	1	CW617N
4	Nickel plated end-cap (external nickel plated excluding male thread, unplated inside)	1	CW617N
5	Nickel plated stem O-ring design	1	CW617N
6	Geomet® nut	1	CB4FF (EN10263-2)
7	O-ring	2	FPM
8	Red T-handle	1	EN AC-46100
9	Red PVC coated Geomet® steel T-handle	1	DD11 (EN10111)
10	O-Ring	1	EPDM
11	Nickel plated nut	1	CW617N
12	Nickel plated hose	1	CW617N



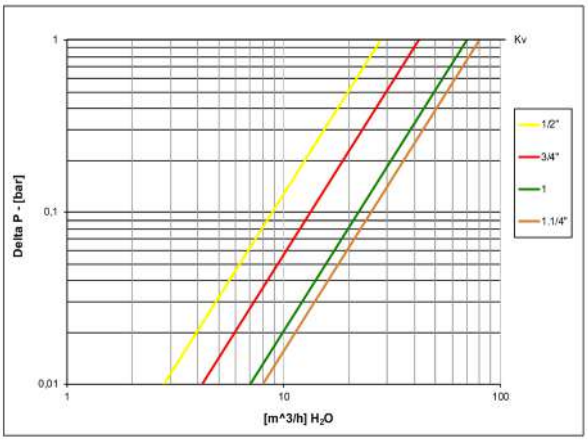
DN shower the nominal flow diameter. Actual flow diameter complies with full port DIN 3357 part 4.
Ball valves are marked CE on body 1 ¼" size as follow:
CE XXCODEXX Cat. I-A

Code	S90D36	S90E36	S90F36	S90G36
D (inch)	1/2	3/4	1	1 1/4
DN (mm)	15	20	25	32
I1 (mm)	10	12	14	15
I (mm)	11	12	14	15
L (mm)	85	98	113	126.5
G (mm)	25	27	33.5	38.5
A (mm)	25	30	30	57
H (mm)	43	49	53	84.5
CH (mm)	25	31	38	48
CH1(mm)	30	37	46	52
Kv(m^3/h)	28	42	70	80

Pressure-temperature chart



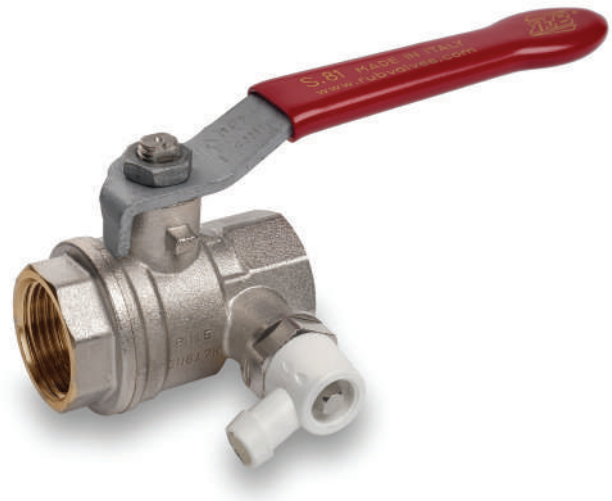
Pressure drop chart



XCES9036 - 4266

s.81

1/2" - 2"
ISO 228
side drain



Quality
• Dual sealing system allows valve to be operated in either direction making installation easier
• No metal-to-metal moving parts
• No maintenance ever required
• Handle clearly shows ball position
• Silicone-free lubricant on all seals
• Chrome plated brass ball for longer life
• Handle stops on body to avoid stress at stem

Body
• Hot forged sand blasted, external nickel plated brass body and cap sealed with Loctite® or equivalent thread sealant
• Finest brass according to EN 12165 and EN 12164 specifications
• Double side drain allows easy and safe downstream line venting

Stem
• Blowout-proof nickel plated brass stem
• Maintenance-free, double FPM O-rings at the stem for maximum safety

Sealing
• Pure PTFE self-lubricating seats with flexible-lip design

Threads
• ISO 228 parallel female by female threads
• G 1/4" ISO 228 drain on both side

Flow
• Full port to DIN 3357 for maximum flow

Handle
• Geomet® carbon steel handle with thick PVC dip coating. Handle coating offers both thermal and electrical protection
• Handle removable with valve in service
• **WARNING:** do not exceed reasonable temperature and/or electrical load

Working pressure & temperature
• 16 bar (230 PSI) non-shock cold working pressure
• Pressure applicable to valve, not to side tap
• -20°C to +170°C (-4°F to +350°F)
• Temperature applicable to valve, not to side tap
• **WARNING:** freezing of the fluid in the installation may severely damage the valve

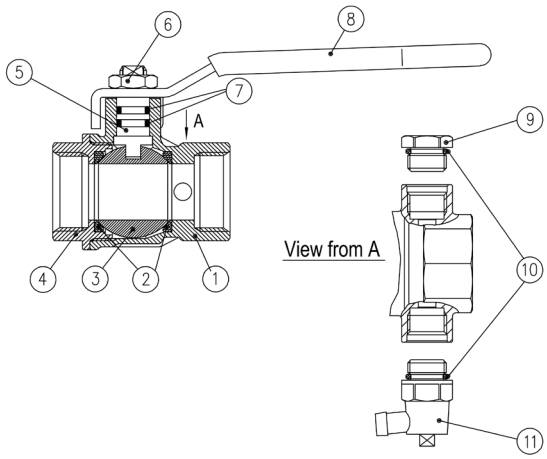
Options
• Stem extension
• T-handle
• Oval lockable handle
• Stainless steel handle (1.4016 / AISI 430)
• Patented locking device
• Compact drain
• Stubby handle
• ***RuB*** memory stop designed to be installed with our stubby handle

Upon request
• Stainless steel ball (1.4401 / AISI 316)
• Glass filled PTFE seals
• Custom design
• Male by female threads

PED directive
• The product described in this document meets the requirements of PED Directive 2014/68/UE and according to art.4 par.3, it does not require CE marking; it cannot be used with dangerous gases in sizes larger than 25mm

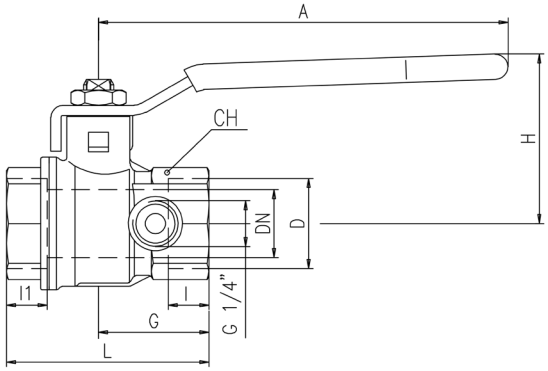
Approved by or in compliance with
• GOST-R (Russia)
• EAC – Declaration of conformity (Russia, Kazakhstan, Belarus)
• RoHS Compliant (EU)

NOTE: approvals apply to specific configurations/sizes only.



1 ¼"-2" hollow ball

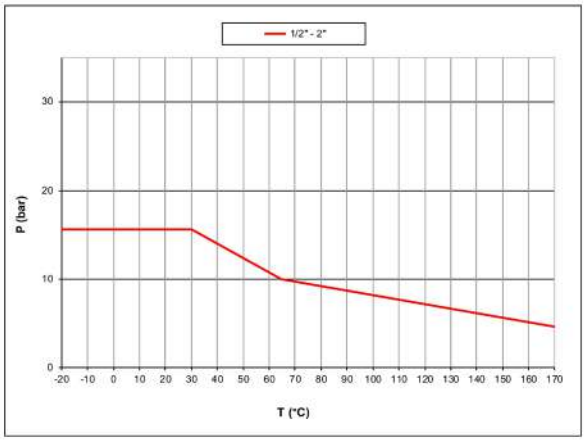
	Part description	Q.ty	Material
1	Nickel plated body (external treatment)	1	CW617N
2	Seat	2	PTFE
3	Chrome plated ball	1	CW617N
4	Nickel plated end-cap (external treatment)	1	CW617N
5	Nickel plated stem O-ring design	1	CW617N
6	Geomet® nut	1	CB4FF (EN10263-2)
7	O-Ring	2	FPM
8	Red PVC coated Geomet® steel handle	1	DD11 (EN10111)
9	Nickel plated cap	1	CW617N
10	O-Ring	2	EPDM
11	Side tap	1	-



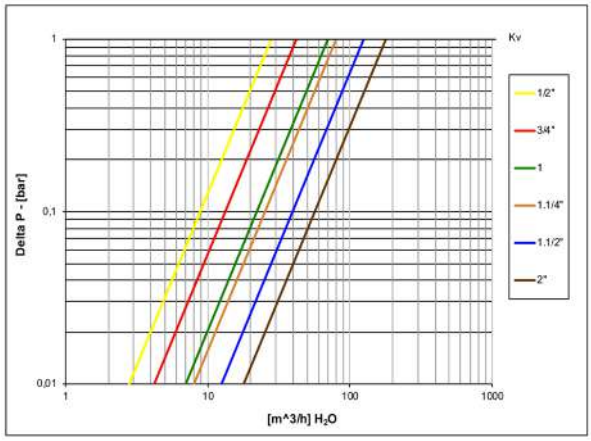
DN shows the nominal flow diameter. Actual flow diameter complies with full port DIN 3357 part 4.

Code	S81D00	S81E00	S81F00	S81G00	S81H00	S81I00
D (inch)	1/2	3/4	1	1 ¼"	1 ½"	2
DN (mm)	15	20	25	32	40	50
l1 (mm)	11	12	21	23	17	26.5
l (mm)	11	12	14	15	17	19
L (mm)	56	59.5	79.5	90.5	95.5	118.5
G (mm)	31	32.5	39	44	50.5	58
A (mm)	100	120	120	158	158	158
H (mm)	43	50	54	73	79	86
CH (mm)	25	31	40	49	54	68.5
Kv (m^3/h)	28	42	70	80	125	179

Pressure-temperature chart



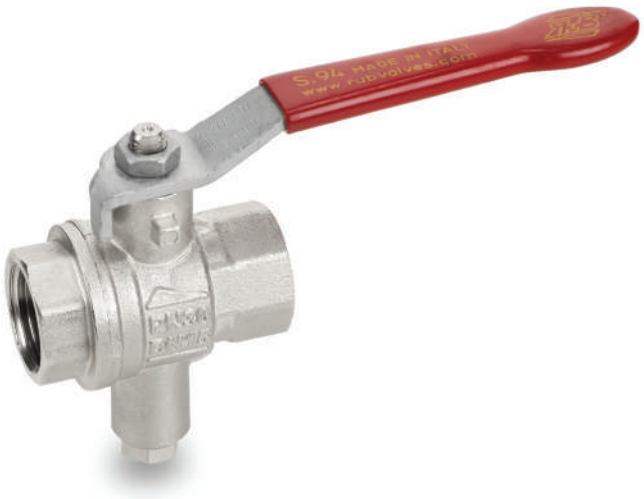
Pressure drop chart



PLUMBING

s.94

1/2" - 2"
ISO 228
for sensors



Quality

- 24h 100% seal test guaranteed
- Dual sealing system allows valve to be operated in either direction making installation easier
- No metal-to-metal moving parts
- No maintenance ever required
- Handle clearly shows ball position
- Silicone-free lubricant on all seals
- Chrome plated brass ball for longer life
- Handle stops on body to avoid stress at stem

Body

- Hot forged sand blasted, external nickel plated brass body and cap sealed with Loctite® or equivalent thread sealant
- Finest brass according to EN 12165 and EN 12164 specifications
- Tapped bottom M10x1 connection for temperature detector and other devices at user's option

Stem

- Blowout-proof nickel plated brass stem
- Maintenance-free, double FPM O-rings at the stem for maximum safety

Sealing

- Pure PTFE self-lubricating seats with flexible-lip design

Threads

- ISO 228 parallel female by female threads

Flow

- Full port to DIN 3357 for maximum flow

Handle

- Geomet® carbon steel handle with thick PVC dip coating. Handle coating offers both thermal and electrical protection
- Handle removable with valve in service
- **WARNING:** do not exceed reasonable temperature and/or electrical load

Working pressure & temperature

- 30 bar (450 PSI) non-shock cold working pressure
- -20°C to +170°C (-4°F to +350°F)
- **WARNING:** freezing of the fluid in the installation may severely damage the valve

Options

- Stem extension
- T-handle
- Oval lockable handle
- Stainless steel handle (1.4016 / AISI 430)
- Patented locking device
- Stubby handle
- ***RuB*** memory stop designed to be installed with our stubby handle

Upon request

- Glass filled PTFE seals
- Custom design

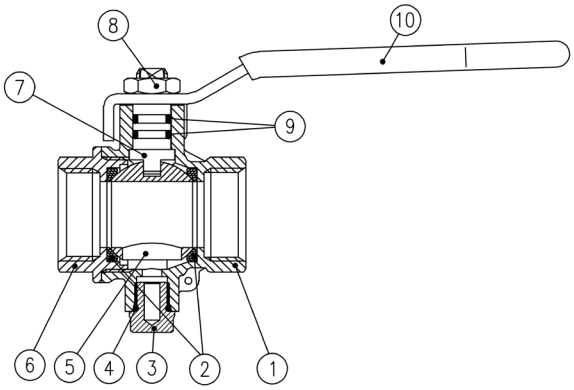
PED directive

- According to 2014/68/UE module A: it cannot be used with dangerous gases in sizes larger than 25mm

Approved by or in compliance with

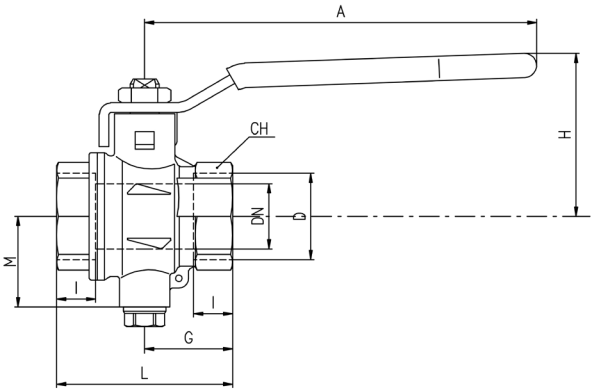
- GOST-R (Russia)
- RoHS Compliant (EU)
- EAC – Declaration of conformity (Russia, Kazakhstan, Belarus)

NOTE: approvals apply to specific configurations/sizes only.



1 ¼" – 2" hollow ball

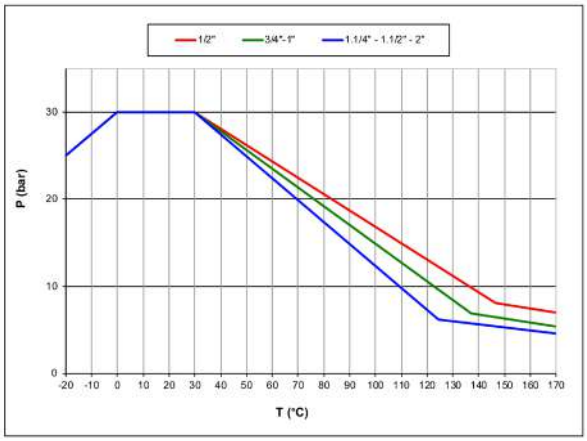
	Part description	Q.ty	Material
1	Nickel plated body (external treatment)	1	CW617N
2	Seat	2	PTFE
3	Cap	1	CW617N
4	O-Ring	1	FPM
5	Chrome plated ball	1	CW617N
6	Nickel plated end-cap (external treatment)	1	CW617N
7	Nickel plated stem O-ring design	1	CW617N
8	Geomet® nut	1	CB4FF (EN10263-2)
9	O-Ring	2	FPM
10	Red PVC coated Geomet® steel handle	1	DD11 (EN10111)



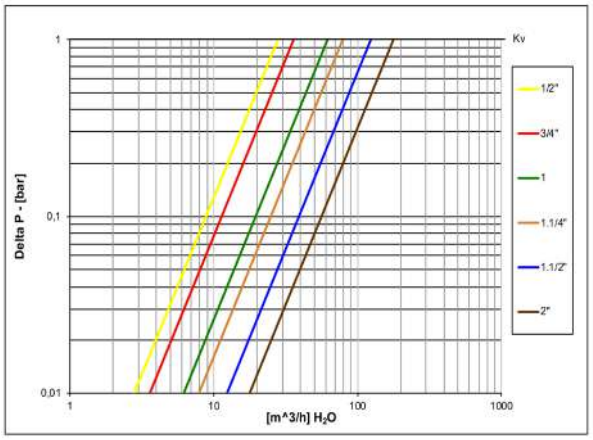
DN shows the nominal flow diameter. Actual flow diameter complies with full port DIN 3357 part 4.
Ball valves are marked CE on handle from 1 ¼" to 2" as follow: CE XXCODEXX Cat I-A

Code	S94D00	S94E00	S94F00	S94G00	S94H00	S94I00
D (inch)	1/2	3/4	1	1 1/4	1 1/2	2
DN(mm)	15	20	25	32	40	50
I (mm)	11	12	14	15	17	19
L (mm)	50	54	67	77	90	106
G (mm)	25	27	33.5	38.5	45	53
M (mm)	32	30	32	38	44.3	51.3
A (mm)	100	120	120	158	158	158
H (mm)	43	50	54	73	79	86
CH(mm)	25	31	40	49	54	68.5
Kv (m^3/h)	28	36	62	79	124	178

Pressure-temperature chart



Pressure drop chart



s.55 KFE

1/4”
ISO 228
cap & strap

Many HVAC applications require a blowdown valve to drain water from the strainer.

RuB ’s new s.55 cap & strap valve is designed with a full port for maximum flow.

Because of the O-ring stem seal design, no maintenance is ever required. 3/4” thread gives the possibility to easily fit a hose holder available as option, for the connection of a waste water collection pipe.

Quality

- No metal-to-metal moving parts
- No maintenance ever required
- Handle clearly shows ball position
- Silicone-free lubricant on all seals
- Chrome plated brass ball for longer life
- Each valve is seal tested for maximum safety
- Double seal system

Body

- Hot forged sand blasted, unplated brass body and cap sealed with Loctite® or equivalent thread sealant
- Finest brass according to EN 12165 and EN 12164 specifications

Stem

- Blowout-proof brass stem with EPDM O-ring
- Maintenance-free, double EPDM O-ring at the stem for maximum safety

Sealing

- Pure PTFE self-lubricating seats with flexible-lip design

Threads

- 1/4” ISO 228 parallel male thread by 3/4” ISO 228 thread closed by cap

Flow

- Full port for maximum flow

Handle

- Reinforced nylon black wedge handle removable with valve in service

Working pressure & temperature

- 40 bar (600 PSI) non-shock cold working pressure
- -20°C to +90°C (-4°F to +200°F)
- +120°C screw driver and wrench operated version
- **WARNING:** freezing of the fluid in the installation may severely damage the valve

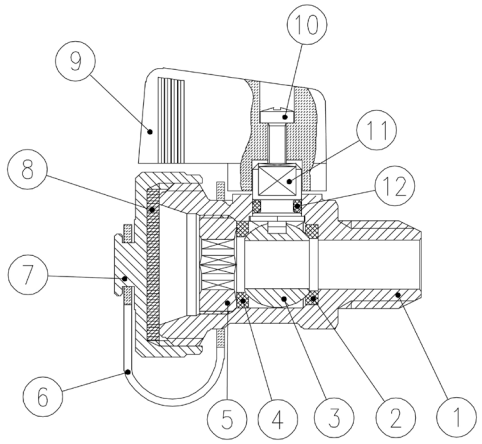
Options

- Screw driver or wrench operated
- Nylon wedge handle yellow, red or green
- Grey wedge handle in Grivory® – high performing polymer
- 1/4” NPT taper ANSI B.1.20.1 male thread by 3/4”NH hose thread
- Hose holder for connection of waste water collection pipe
- Seal washer on 1/4” ISO 228 parallel male thread
- Additional connection options on demand

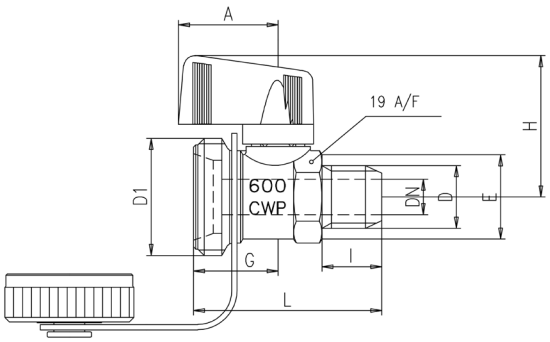
Approved by or in compliance with

- GOST-R (Russia)
- EAC – Declaration of conformity (Russia, Kazakhstan, Belarus)
- RoHS Compliant (EU)

NOTE: approvals apply to specific configurations/sizes only.



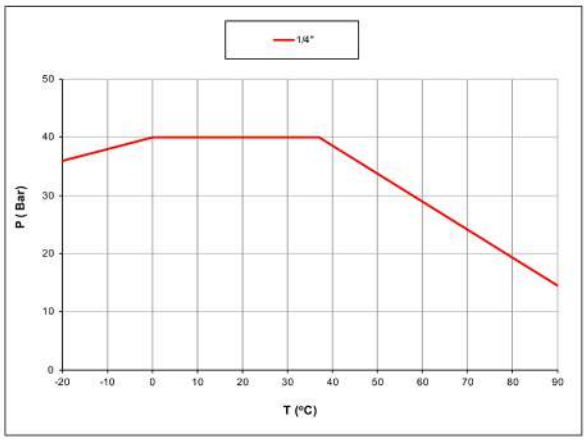
	Part description	Q.ty	Material
1	Unplated body	1	CW617N
2	Body seat	1	PTFE
3	Chrome plated ball	1	CW617N
4	Retainer seat	1	PTFE
5	Unplated retainer nut	1	CW617N
6	Black strap	1	Plastic
7	Unplated cap	1	CW617N
8	Seal cap	1	EPDM
9	Black handle	1	Nylon glass filled 30%
10	Zinc plated screw	1	CB4FF (EN10263-2)
11	Unplated stem	1	CW617N
12	O-Ring	1	EPDM



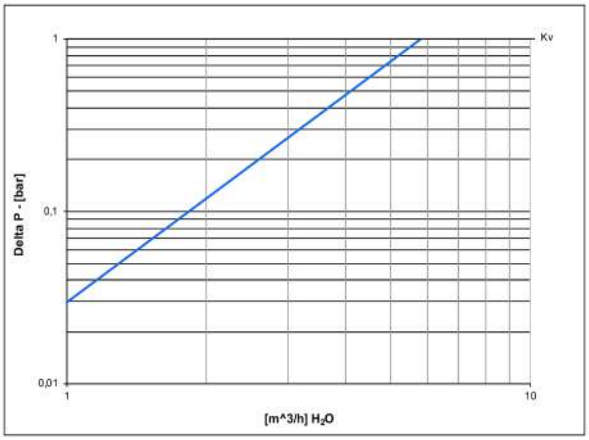
DN shows the nominal flow diameter.

Code	S55B00
D (inch)	1/4"
D1 (inch)	3/4"
DN (mm)	8
E (mm)	19
I (mm)	10
G (mm)	19.1
L (mm)	39
A (mm)	22.5
H (mm)	32
Kv (m^3/h)	5.8

Pressure-temperature chart

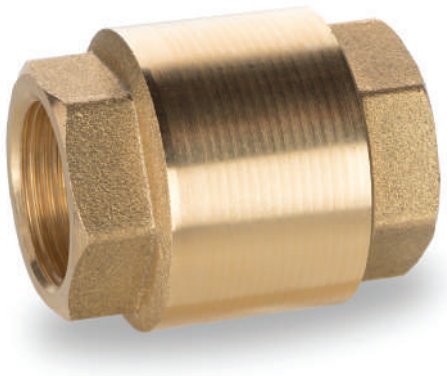


Pressure drop chart



s.120

3/8" - 4"
ISO 228
check valve



Quality

• Suitable for domestic, industrial, pneumatic and hydraulic installations

• Performs well in any orientation

Body

• Low pressure drop

• Hot forged CW617N brass body

Stem

• Nylon stem allows wide range of applications

Sealing

• NBR 65 SH/PS seal on nylon holder

Threads

• ISO 228 parallel female by female threads

Working pressure & temperature

• 12 bar up to 1", 10 bar from 1 ¼" up to 2" and 8 bar over 2" non-shock cold working pressure

• -20°C to +100°C (-4°F to +212°F)

• **WARNING:** freezing of the fluid in the installation may severely damage the valve

Options

• Stainless steel (1.4301 / AISI 304) filter

PED directive

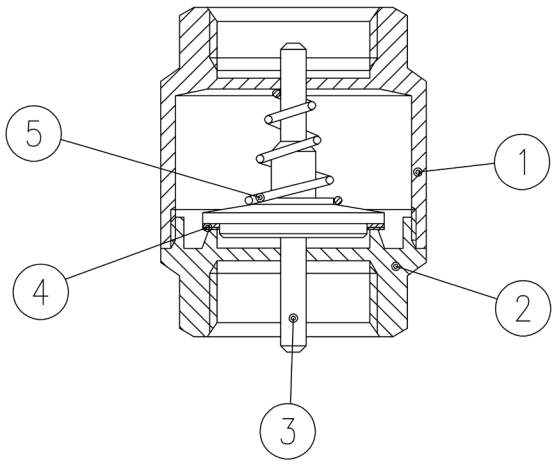
• The product described in this document meets the requirements of PED Directive 2014/68/UE and according to art.4 par.3, it does not require CE marking; it cannot be used with dangerous gases in sizes larger than 25mm

Approved by or in compliance with

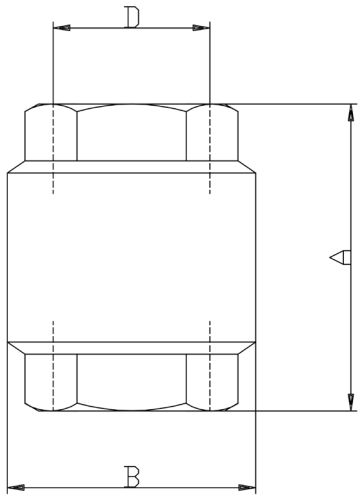
• GOST-R (Russia)

• RoHS Compliant (EU)

NOTE: approvals apply to specific configurations/sizes only.

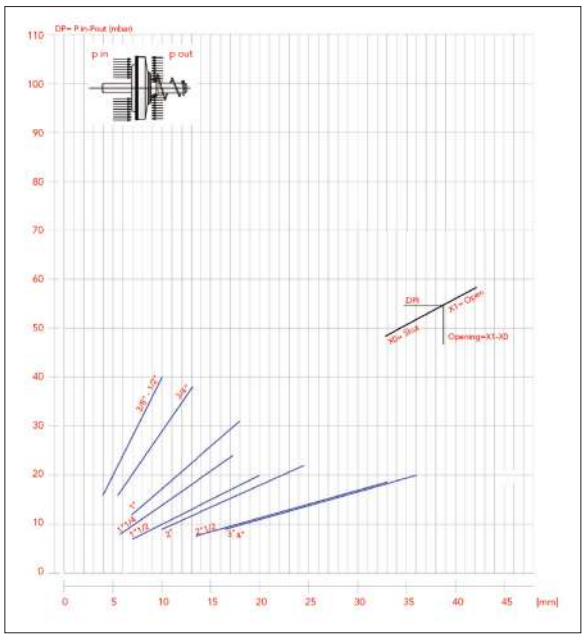


	Part description	Q.ty	Material
1	Body	1	CW617N
2	End-cap	1	CW617N
3	Stem-seat	1	Nylon
4	Seat	1	NBR
5	Stainless steel spring	1	1.4325 / AISI 302

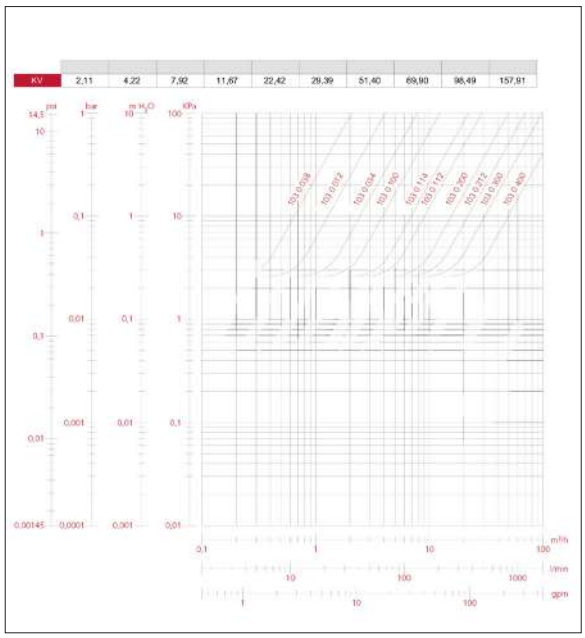


Code	120C00	120D00	120E00	120F00	120G00	120H00	120I00	120L00	120M00	120N00
D (inch)	3/8	1/2	3/4	1	1 1/4	1 1/2	2	2 1/2	3	4
A (mm)	46.5	47	53	60.5	66.5	74	80	98	103	118.5
B (mm)	34.5	34.5	42	47.5	59.5	71	86.5	102	125	155
PN (Kg/cm²)	12	12	12	12	10	10	10	8	8	8
Kv	2.11	4.22	7.92	11.67	22.42	29.39	51.40	69.90	98.49	157.91

Diagram minimum pressure to get the valves opening



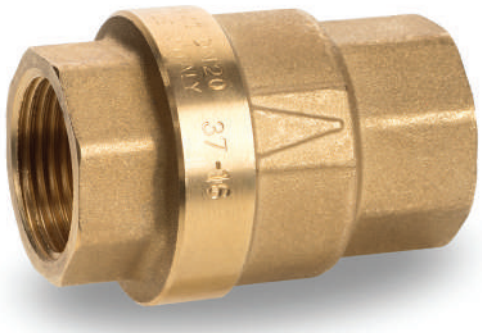
Pressure drop chart



PLUMBING

s.123

1/4" - 4"
ISO 228
heavy pattern check valve



Quality

• Suitable for domestic, industrial, pneumatic and hydraulic installations

• Performs well in any orientation

• Strong configuration suitable to most difficult applications

• Low noise

• Low water hammer

• Lowest pressure drop

Body

• Hot forged CW617N brass body

• Perfect seal at low and high pressure, within a wide temperature range

Sealing

• NBR seal from ¼" up to 3", FPM for 4" size

Threads

• ISO 228 parallel female by female threads

Working pressure & temperature

• Cracking pressure: min 0.025 bar

• Sealing pressure: min 0.05 bar

• See non-shock cold working pressure on chart

• -20°C to +100°C (-4°F to +212°F)

• **WARNING:** freezing of the fluid in the installation may severely damage the valve

Options

• Stainless steel filter

PED directive

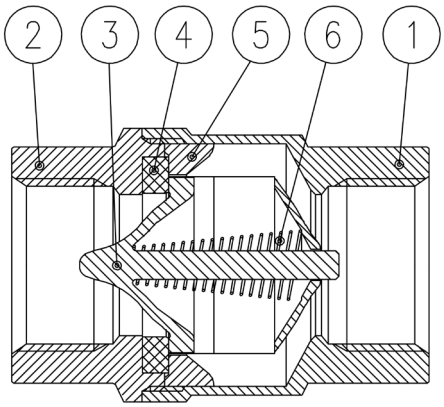
• The product described in this document meets the requirements of PED Directive 2014/68/UE and according to art.4 par.3, it does not require CE marking; it cannot be used with dangerous gases in sizes larger than 20mm; it cannot be used with non-dangerous gases in sizes larger than 40mm

Approved by or in compliance with

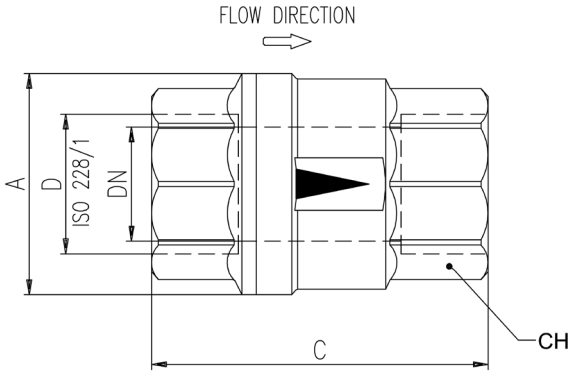
• GOST-R (Russia)

• Attestation de Conformité Sanitaire (France) in sizes 1/4" to 2"

NOTE: approvals apply to specific configurations/sizes only.

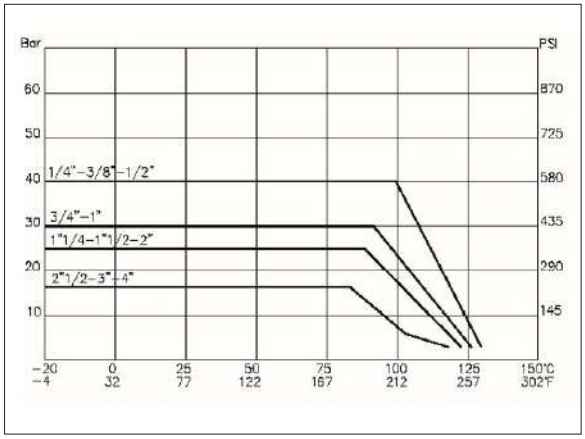


	Part description	Q.ty	Material
1	Body	1	CW617N
2	End-cap	1	CW617N
3	Disc	1	Hostaform
4	Seat	1	NBR (from 1/4" up to 3") FPM (from 4" size)
5	Disc guide	1	Hostaform
6	Stainless steel spring	1	1.4325 / AISI 302

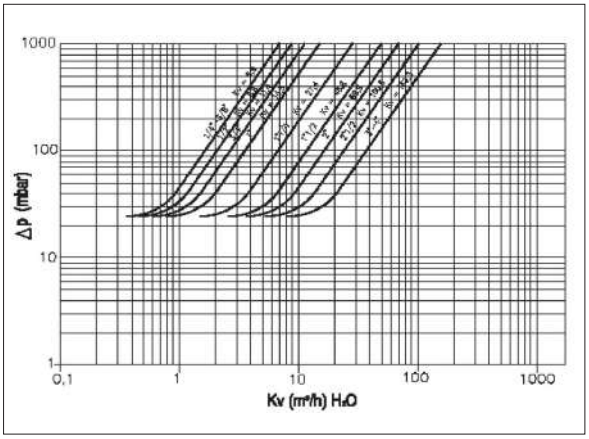


Code	123B00	123C00	123D00	123E00	123F00	123G00	123H00	123I00	123L00	123M00	123N00
D (inch)	1/4	3/8	1/2	3/4	1	1.1/4	1.1/2	2	2.1/2	3	4
DN (mm)	10	10	15	20	25	32	40	50	65	80	80
A (mm)	28	28	34	41.5	50	60.5	73.5	89	114	137	142
C (mm)	46.5	46.5	50	59	67	76	90	101	127	150	133.5
CH (mm)	21	21	26	32	39	49	56	69	86	100	124
PN (bar)	40	40	40	30	30	25	25	25	16	16	16
Kv (m^3/h)	6.9	6.9	8.8	11.4	14.5	27.4	48.8	68.9	100.6	162.3	162.3

Pressure-temperature chart

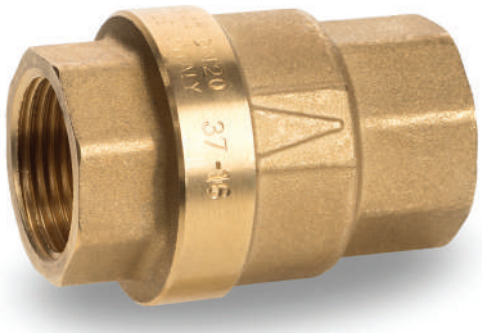


Pressure drop chart



s.123 NPT

1/4" - 1 ¼"
heavy pattern check valve



Quality

• Suitable for domestic, industrial, pneumatic and hydraulic installations

• Performs well in any orientation

• Strong configuration suitable to most difficult applications

• Low noise

• Low water hammer

• Lowest pressure drop

Body

• Hot forged CW617N brass body

• Perfect seal at low and high pressure, within a wide temperature range

Sealing

• NBR sealing

Threads

• NPT taper ANSI B.1.20.1 female by female threads

Working pressure & temperature

• Cracking pressure: min 0.36 PSI (0.025 bar)

• Sealing pressure: min 0.72 PSI (0.05 bar)

• See non-shock cold working pressure on chart

• -4°F to +212°F (-20°C to +100°C)

• **WARNING:** freezing of the fluid in the installation may severely damage the valve

Options

• Stainless steel filter

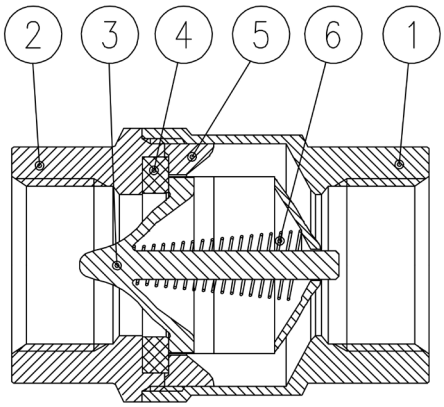
• ISO 228 parallel female by female threads

Approved by or in compliance with

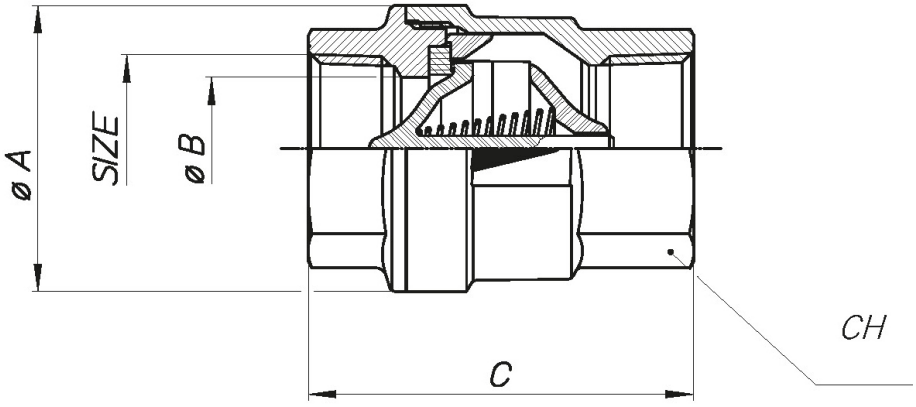
• GOST-R (Russia)

• Attestation de Conformité Sanitaire (France)

NOTE: approvals apply to specific configurations/sizes only.



	Part description	Q.ty	Material
1	Body	1	CW617N
2	End-cap	1	CW617N
3	Disc	1	Hostaform
4	Seat	1	NBR
5	Disc guide	1	Hostaform
6	Stainless steel spring	1	1.4325 / AISI 302



Code	123B41	123C41	123D41	123E41	123F41	123G41
Size (inch)	1/4"	3/8"	1/2"	3/4"	1"	1 ¼"
ØA (inch)	1,10	1,10	1,34	1,63	1,97	2,38
B (inch)	0,39	0,39	0,59	0,79	0,98	1,26
C (inch)	1,83	1,83	2,07	2,32	2,64	2,99
CH (inch)	0,83	0,83	1,02	1,26	1,54	1,93
PN (psi)	580	580	580	435	435	363

s.142 bib-cock

3/8" - 1"
with 3/4" outlet and hose

Quality

• Chrome plated brass ball for longer life

Body

• Hot forged sand blasted nickel plated brass body

• Angle pattern ball bib-cock with hose fitting

• Copper alloy brass according to EN 12165 and EN 12164 specifications

Stem

• Maintenance-free, double O-rings (FPM and NBR) at the stem for maximum safety

Sealing

• Pure PTFE seats

Threads

• UNI ISO 228 male inlet thread

• 3/4" threaded outlet complete with hose

Handle

• Enameled red steel handle

• **WARNING:** do not exceed reasonable temperature and/or electrical load

• Handle removable with valve in service

Working pressure & temperature

• 15 bar up to 3/4", 12 bar 1" non-shock cold working pressure

• -20°C to +80°C

• **WARNING:** freezing of the fluid in the installation may severely damage the valve

Options

• Configuration 1/2" or 3/4" with plain outlet (s.140)

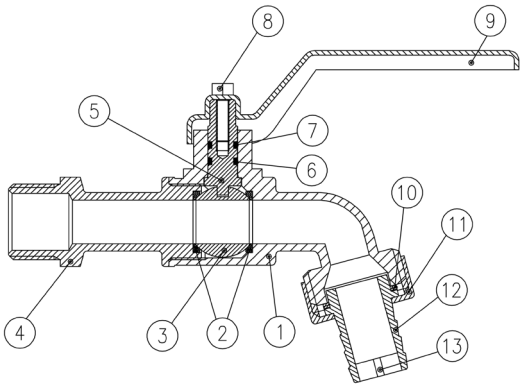
PED directive

• The product meets the requirements of PED Directive 2014/68/UE and according to art.4 par.3, it does not require CE marking

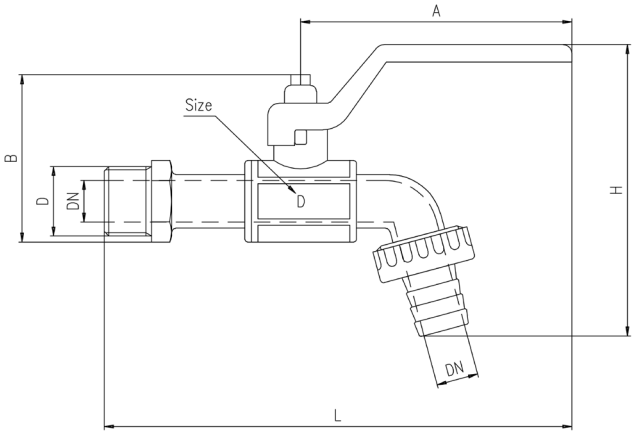
Approved by or in compliance with

• GOST-R (Russia)

NOTE: approvals apply to specific configurations/sizes only.



	Part description	Q.ty	Material
1	Nickel plated body	1	CW617N
2	Seat	2	PTFE
3	Chrome plated ball	1	CW614N
4	Nickel plated end-cap	1	CW617N
5	Stem O-Ring design	1	CW614N
6	O-Ring	1	FPM
7	O-Ring	1	NBR
8	Zinc plated screw	1	CB4 (EN10263-2)
9	Enameled red handle	1	DC04 (EN10130)
10	Washer	1	PVC rubber
11	Nickel plated nut	1	CW617N
12	Nickel plated hose	1	CW617N
13	Infuser	1	Vestolen



Code	142C0P	142D0P	142E0P	142F0P
D (inch)	3/8	1/2	3/4	1
DN(mm)	10	12	12	15
B (mm)	53	53	61	65
L (mm)	135	137	148.5	158
A (mm)	80	80	88.5	88.5
H (mm)	93	93	108.5	126

s.140 bib-cock

1/2" - 3/4"
with plain outlet

Quality

• Chrome plated brass ball for longer life

• Plain outlet

Body

• Hot forged sand blasted nickel plated brass body

• Angle pattern ball bib-cock

• Copper alloy brass according to EN 12165 and EN 12164 specifications

Stem

• Blowout-proof brass stem

• Maintenance-free, double O-rings (FPM and NBR) at the stem for maximum safety

Sealing

• Pure PTFE seats

Threads

• UNI ISO 228 male inlet thread

Handle

• Enameled red steel handle

• **WARNING**: do not exceed reasonable temperature and/or electrical load

• Handle removable with valve in service

Working pressure & temperature

• 15 bar non-shock cold working pressure

• -20°C to +80°C (-4°F to +175°F)

• **WARNING:** freezing of the fluid in the installation may severely damage the valve

Options

• Configuration from 3/8" up to 1" with hose (s.142)

PED directive

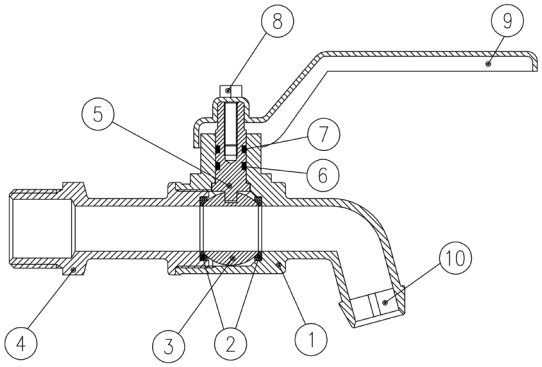
• The product meets the requirements of PED Directive 2014/68/UE and according to art.4 par.3, it does not require CE marking

Approved by or in compliance with

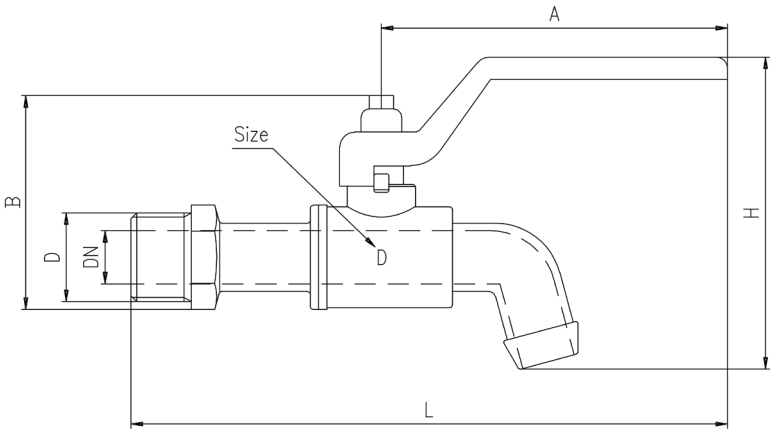
• GOST-R (Russia)

• EAC – Declaration of conformity (Russia, Kazakhstan, Belarus)

NOTE: approvals apply to specific configurations/sizes only.



	Part description	Q.ty	Material
1	Nickel plated body	1	CW617N
2	Seat	2	PTFE
3	Chrome plated ball	1	CW614N
4	Nickel plated end-cap	1	CW617N
5	Stem O-Ring design	1	CW617N
6	O-Ring	1	FPM
7	O-Ring	1	NBR
8	Screw	1	Steel
9	Enameled red handle	1	Steel
10	Infuser	1	Vestolen



Code	140D00	140E00
D (inch)	1/2	3/4
DN(mm)	10	12
B (mm)	49	54
L (mm)	129	131.5
A (mm)	80	80
H (mm)	60	65.5

s.110

3/8" - 4"
ISO 228
gate valve

Quality

• Suitable for domestic and agricultural installations

Threads

• ISO 228 parallel female by female threads

Body

• Hot forged sand blasted brass body

• Low pressure drop

Stem

• High performance EPDM stem seal

Handle

• Red coated steel hand-wheel

• Zinc plated steel top nut

• **WARNING:** do not exceed reasonable temperature and/or electrical load

Working pressure & temperature

• 10 bar non-shock cold working pressure

• -10°C to +80°C (+15°F to +175°F)

• **WARNING:** freezing of the fluid in the installation may severely damage the valve

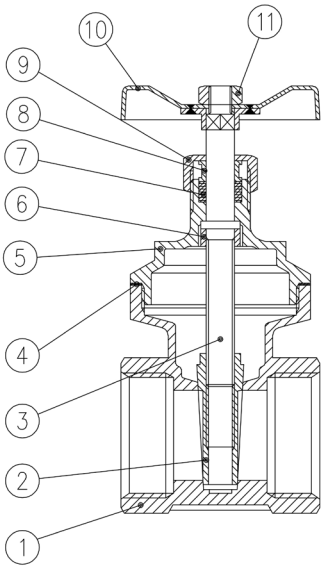
PED directive

• The product described in this document meets the requirements of PED Directive 2014/68/UE and according to art.4 par.3, it does not require CE marking; it cannot be used with dangerous gases in sizes larger than 25mm

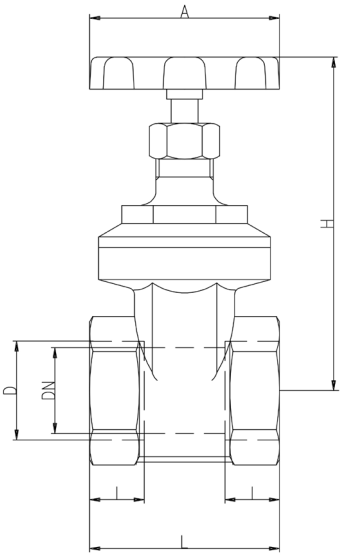
Approved by or in compliance with

• GOST-R (Russia)

NOTE: approvals apply to specific configurations/sizes only.



	Part description	Q.ty	Material
1	Body	1	CW617N
2	Gate	1	CB 754S
3	Stem	1	CW614N
4	Body cap sealing	1	Guarnital Fibre
5	Cap	1	CW617N
6	Stem ring	1	CW614N
7	Packing gland seal	1	EPDM90
8	Packing gland	1	CW614N
9	Packing gland nut	1	CW614N
10	Red round handle	1	Steel
11	Handle nut	1	Steel



Code	110C00	110D00	110E00	110F00	110G00	110H00	110I00	110L00	110M00	110N00
D (inch)	3/8	1/2	3/4	1	1 1/4	1 1/2	2	2 1/2	3	4
DN (mm)	13	13.5	15.5	19	27	33	44	47	60	72
l (mm)	8	9	9	10	10	11	12	13	13	15
L (mm)	33	35	39	43	48	54	58	63	70	80
A (mm)	45	45	45	50	55	60	70	80	100	100
H (mm)	67	68	68	80	86	107	134	143	175	202

s.111

1/4" - 4"
ISO 228
heavy pattern gate valve

Quality

• Suitable for water-works, domestic and agricultural installations

• Heavy configuration suitable to most difficult applications

Body

• Hot forged sand blasted unplated brass body

• Low pressure drop

Stem

• High performance EPDM stem seal

Threads

• ISO 228 parallel female by female threads

Handle

• Strong red coated steel hand-wheel

• Zinc plated steel top nut

• **WARNING**: do not exceed reasonable temperature and/or electrical load

Working pressure & temperature

• 20 bar (300 PSI) non-shock cold working pressure

• -10°C to +80°C (+15°F to +175°F)

• **WARNING**: freezing of the fluid in the installation may severely damage the valve

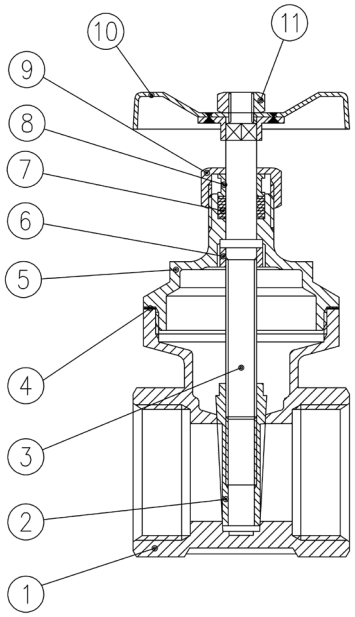
PED directive

• The product described in this document meets the requirements of PED Directive 2014/68/UE and according to art.4 par.3, it does not require CE marking; it cannot be used with dangerous gases in sizes larger than 25mm; it cannot be used with non-dangerous gases in sizes larger than 50mm

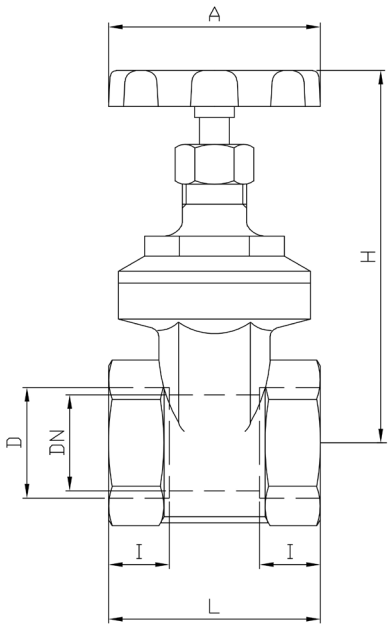
Approved by or in compliance with

• GOST-R (Russia)

NOTE: approvals apply to specific configurations/sizes only.



	Part description	Q.ty	Material
1	Body	1	CW617N
2	Gate	1	CB 754S
3	Stem	1	CW614N
4	Body cap sealing	1	Guarnital Fibre
5	Cap	1	CW617N
6	Stem ring	1	CW614N
7	Packing gland seal	1	EPDM90
8	Packing gland	1	CW614N
9	Packing gland nut	1	CW614N
10	Red round handle	1	Steel
11	Handle nut	1	Steel



Code	111B00	111C00	111D00	111E00	111F00	111G00	111H00	111I00	111L00	111M00	111N00
D (inch)	1/4	3/8	1/2	3/4	1	1 1/4	1 1/2	2	2 1/2	3	4
DN (mm)	11	13	15	19	24	32	37	47	60	72	93
I (mm)	8	8	10	11	13	14	14	16	17	19	22
L (mm)	33	33	43	47	53	57	61	67	74	86	98
A (mm)	45	45	45	50	55	60	70	80	100	100	120
H (mm)	67	67	68	78	93	108	125	143	175	205	235

s.126

3/8" - 4"
ISO 228
swing check valve

Quality

• Suitable for domestic, industrial, pneumatic and hydraulic installations

• Robust construction

Body

• Hot forged brass body

• Inspection cap

Sealing

Two options:

• NBR seals for sizes from 3/8" through 2"

• Metal to metal sealing for sizes from 3/8" through 4"

Threads

• ISO 228 female parallel thread

Working pressure & temperature

• 16 bar up to 3/4", 12 bar 1", 10 bar from 1 ¼" up to 2", 8 bar over 2" nonshock cold working pressure

• 0°C to +90°C (+32°F to +194°F)

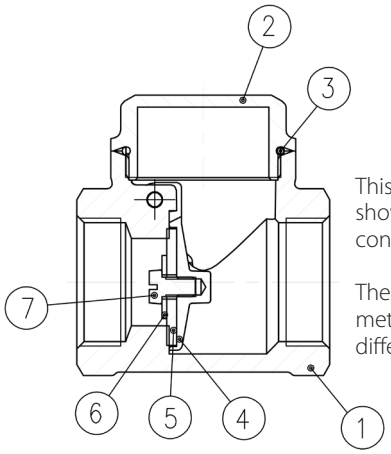
• **WARNING:** freezing of the fluid in the installation may severely damage the valve

Options

• NPT threads ANSI B. 1. 20.1 for size from 2 ½" up to 4"

PED directive

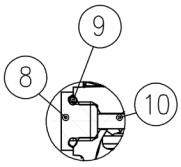
• The product described in this document meets the requirements of PED Directive 2014/68/UE and according to art .4 par.3, it does not require CE marking; it cannot be used with dangerous gases in sizes larger than 25 mm



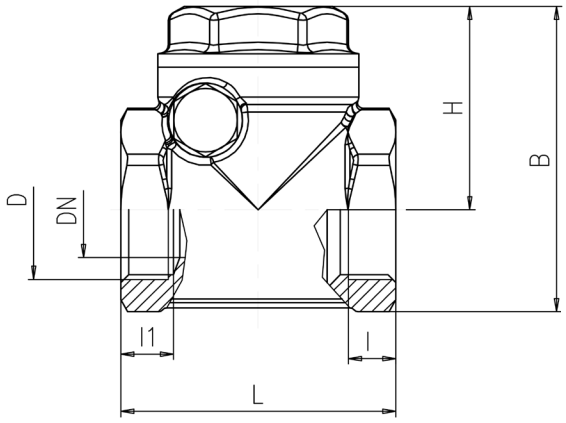
This drawing shows NBR seals configuration.

The configuration of metal seals is slightly different.

	Part description	Q.ty	Material
1	Unplated body	1	CW617N
2	Unplated hexagonal cap	1	CW617N
3	Hexagonal cap O-ring	1	NBR
4	Bonnet	1	CW617N
5	Washer	1	NBR
6	Flat washer	1	CW508L
7	Screw	1	CW617N
8	Plug	1	CW614N
9	Plug O-ring	1	NBR
10	Nail	1	CW614N



Section view of lateral exagonal cap.



Code	126C00	126D00	126E00	126F00	126G00	126H00	126I00	126L0M	126M0M	126N0M
D (inch)	3/8	1/2	3/4	1	1 ¼	1 ½	2	2 ½	3	4
DN (mm)	10	15	20	25	32	40	50	65	80	100
l (mm)	8	8	9	11.5	11.5	14.5	13	18	20	24
l1 (mm)	12	9.5	10	13	13	13	13.5	20.5	22.5	30.5
L (mm)	43	43	52	62	72	81	94	119	134	169
H (mm)	34	34	38.5	42	47	54	59	78	90	111
B (mm)	50	50	58	66	76	86	99	127	147	184
PN (Kg/cm²)	16	16	16	12	10	10	10	8	8	8

s.126 NPT

1/2" - 4"
swing check valve

Quality

• Suitable for domestic, industrial, pneumatic and hydraulic installations

• Robust construction

Body

• Hot forged brass body

• Inspection cap

Sealing

• Metal to metal sealing

Threads

• NPT taper ANSI B.1.20.1 female by female threads

Working pressure & temperature

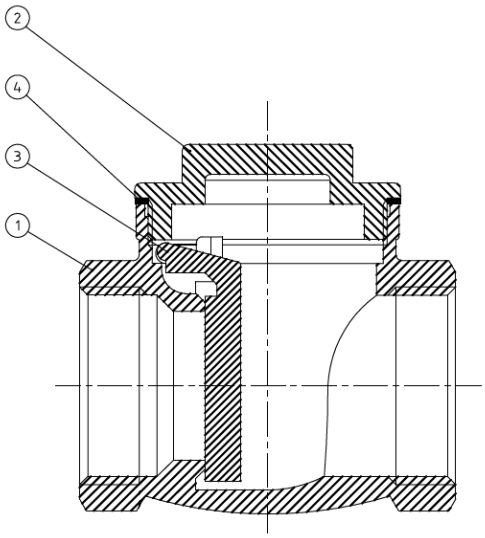
• 145 psi (10 bar) from 1/2" to 2", 85 psi (6 bar) over 2" non-shock cold working pressure

• +32°F to +194°F (0°C to +90°C)

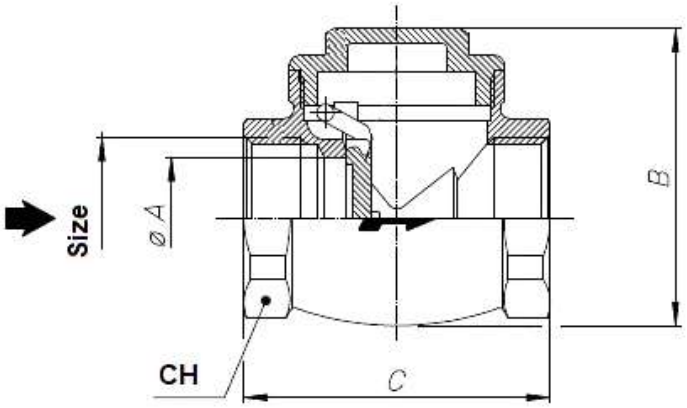
• **WARNING:** freezing of the fluid in the installation may severely damage the valve

Options

• ISO 228 female parallel thread



	Part description	Q.ty	Material
1	Unplated body	1	CW617N
2	Unplated bonnet	1	CW617N
3	Unplated sealing disc	1	CW617N
4	Gasket disc (only in 2 ½", 3" and 4" sizes)	1	FIBER



Code	126D41	126E41	126F41	126G41	126H41	126I41	126L41	126M41	126N41
Size (inch)	1/2"	3/4"	1"	1 ¼"	1 ½"	2"	2 ½"	3"	4"
ØA (inch)	0,59	0,78	0,98	1,29	1,45	1,85	2,16	2,75	3,54
B (inch)	1,81	2,00	2,40	2,87	3,34	3,70	4,21	5,11	6,25
C (inch)	1,85	2,08	2,48	2,91	3,42	3,81	4,64	5,31	6,45
CH (inch)	0,98	1,22	1,49	1,85	2,12	2,63	3,22	3,81	4,80
PN (psi)	145	145	145	145	145	145	85	85	85

s.124

1/2" - 4"
ISO 228
foot valve

Quality

• Suitable for domestic, industrial, pneumatic and hydraulic installations

• Valve will perform its duty no matter if installed horizontally, vertically or half way

• Strong configuration

Body

• Hot forged brass body

Sealing

• Soft seat for positive shut-off

Threads

• ISO 228 female parallel thread

Working pressure & temperature

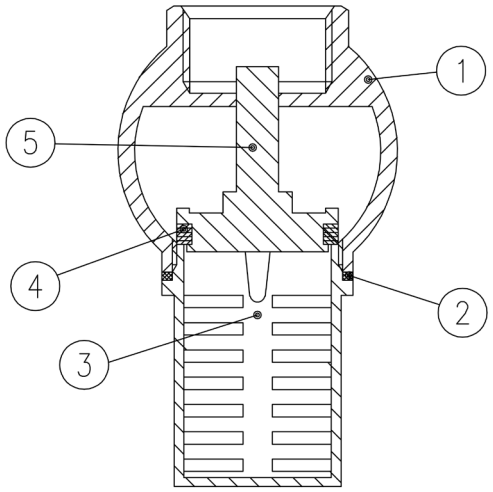
• 10 bar up to 1", 8 bar from 1 ¼" to 2", 6 Bar over 2" non-shock cold working pressure

• 0°C to +90°C (+32°F to +194°F)

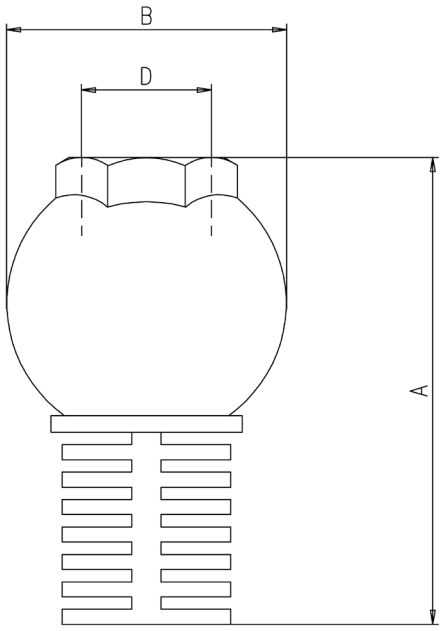
• **WARNING:** freezing of the fluid in the installation may severely damage the valve

PED directive

• The product described in this document meets the requirements of PED Directive 2014/68/UE and according to art.4 par.3, it does not require CE marking; it cannot be used with dangerous gases in sizes larger than 25mm



	Part description	Q.ty	Material
1	Body	1	CW617N
2	Washer	1	Sinterite
3	Strainer	1	CB753S
4	Seal	1	NBR
5	Seat	1	CW617N



Code	124D00	124E00	124F00	124G00	124H00	124I00	124L00	124M00	124N00
D (inch)	1/2	3/4	1	1 ¼	1 ½	2	2 ½	3	4
A (mm)	59.5	70	81	94	101.5	119	139	175	194
B (mm)	39	45	51	61	68.5	80	100	121	145
PN (Kg/cm²)	10	10	10	8	8	8	6	6	6

s.128

1/4" - 4"
ISO 228
Y-strainer

Quality

• Suitable for industrial, pneumatic and hydraulic installations

Body

• Hot forged CW617N brass body

• Stainless steel (1.4301 / AISI 304) filter

• Degree of filtration: 1/4" through 2" 500 µm, 2 ½", 3", 4" 800 µm

Threads

• ISO 228/1 female by female parallel threads and inspection plug

Working pressure & temperature

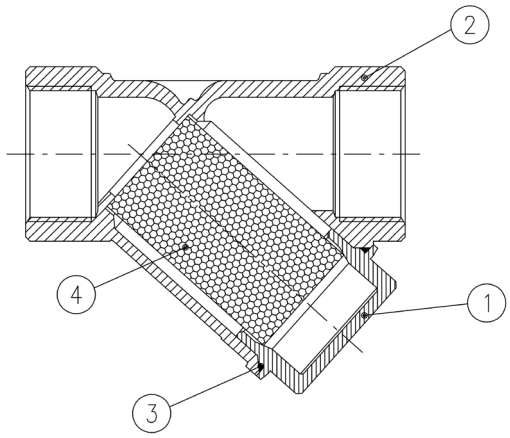
• 20 bar up to 2", 16 bar over 2" non-shock cold working pressure

• -20°C to +110°C (-4°F to +230°F) in absence of steam

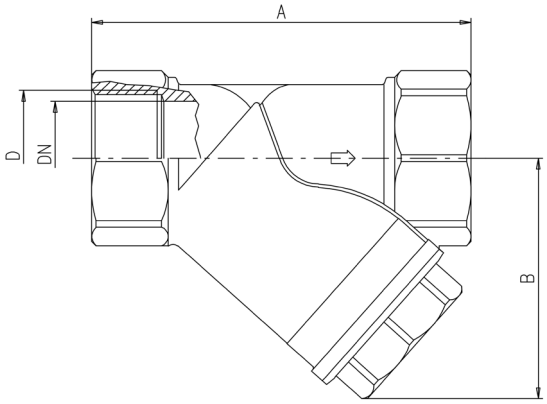
• **WARNING**: freezing of the fluid in the installation may severely damage the valve

PED directive

• The product described in this document meets the requirements of PED Directive 2014/68/UE and according to art.4 par.3, it does not require CE marking; it cannot be used with dangerous gases in sizes larger than 25 mm; it cannot be used with non-dangerous gases in sizes larger than 50mm

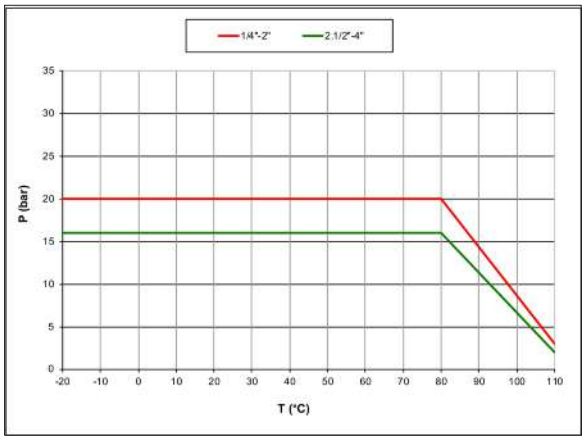


	Part description	Q.ty	Material
1	End-cap	1	CW617N
2	Body	1	CW617N
3	O-Ring	1	NBR
4	Stainless steel strainer	1	1.4301 / AISI 304



Code	128B00	128C00	128D00	128E00	128F00	128G00	128H00	128I00	128L00	128M00	128N00
D (inch)	1/4	3/8	1/2	3/4	1	1 1/4	1 1/2	2	2 1/2	3	4
A (mm)	55	55	58	70	87	96	106	126	150	169	219
B (mm)	40	40	40	48	56	64	73	88.5	105	120	162
DN	8	10	15	20	25	32	40	50	65	80	100
PN (Kg/cm²)	20	20	20	20	20	20	20	20	16	16	16

Pressure-temperature chart



s.42

1/2" - 3"
solder-ends ball valve

Quality
- 24h 100% seal test guaranteed
- Dual sealing system allows valve to be operated in either direction making installation easier
- No metal-to-metal moving parts
- Handle clearly shows ball position
- Silicone-free lubricant on all seals
- Chrome plated brass ball for longer life
- Handle stops on body to avoid stress at stem

Body
- Hot forged sand blasted, unplated brass body and cap sealed with Loctite® or equivalent thread sealant
- Finest brass according to EN 12165 and EN 12164 specifications

Stem
- Blowout-proof nickel plated brass stem
- Pure PTFE adjustable packing gland and reinforced washer for lower torque and easy maintenance

Sealing
- Pure PTFE self-lubricating seats with flexible-lip design

Connections
- Solder end female by female connections

Flow
- Full port to DIN 3357 for maximum flow

Handle
- Geomet® carbon steel handle with thick PVC dip coating. Handle coating offers both thermal and electrical protection
- **WARNING:** do not exceed reasonable temperature and/or electrical load

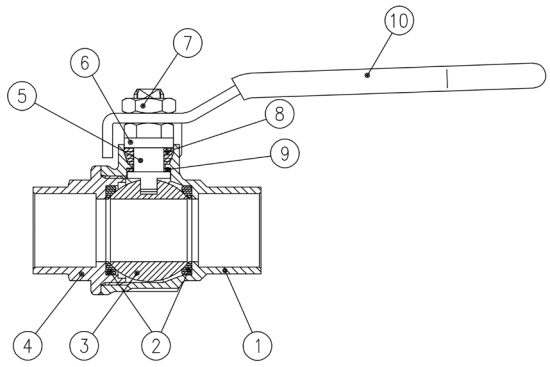
Working pressure & temperature
- 600 PSI (40 bar) up to 2", 450 PSI (30 bar) over 2", (150 WSP -10 bar all sizes) non-shock cold working pressure
- **NOTE:** for solder joints ratings see Table 1 on reverse
- 250 PSI (17 bar) non-shock working pressure for LP-Gas
- *150 psig (10 bar) non-shock working steam pressure. Not suitable for throttling steam.
- -4°F/+366°F (-20°C / +170°C) (for solder joints ratings see Table 1 on reverse)
- **WARNING:** freezing of the fluid in the installation may severely damage the valve

Options up to 2" size
- Stem extension (assemble after soldering)
- Lead free for safe drinking water (0.25% or less Pb)
- Oval lockable handle up to 2", round over 2"
- Patented locking device for valves up to 3"
- T-handle
- Stubby handle

Upon request
- Stainless steel ball and/or stem (1.4401 / AISI 316)
- Glass filled PTFE seals
- Stainless steel handle (1.4016 / AISI 430)
- Custom design

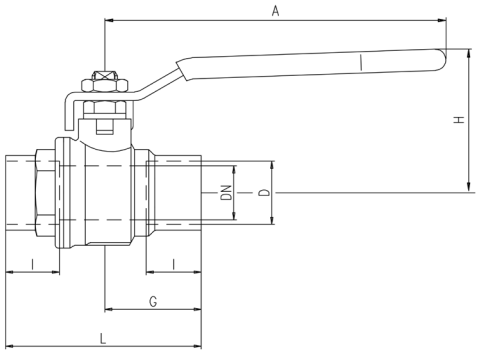
Approved by or in compliance with
- Underwriters Laboratories (United States, Canada):
  - Guide YSDT: LP-Gas shut-off valve
  - Guide YRBX: Flammable liquid shut-off valve
  - Guide YRPV: Gas shut-off valve for use with natural and manufactured gases
  - Guide MHKZ: No. 6 oil at 250°F
- GOST-R (Russia)
- RoHS Compliant (EU)
- CRN-TSSA acc. to MSS SP110 (Canada)
- Meeting WW-V-35C Federal U.S. Specification (United States)

NOTE: approvals apply to specific configurations/sizes only.



1.¼"-2" hollow ball

	Part description	Q.ty	Material
1	Unplated solder end body	1	CW617N
2	Seat	2	PTFE
3	Chrome plated ball	1	CW617N
4	Unplated solder end-cap	1	CW617N
5	Nickel plated stem packing gland design	1	CW617N
6	Nickel plated gland nut	1	CW617N
7	Geomet® nut	1	CB4FF (EN10263-2)
8	Packing gland seal	1	PTFE
9	Washer	1	PTFE carbon filled 25%
10	Yellow PVC coated Geomet® steel handle	1	DD11 (EN10111)



Code		S42D00	S42E00	S42F00	S42G00	S42H00	S42I00	S42L00	S42M00
D (inch)	Nominal	1/2	3/4	1	1 1/4	1 1/2	2	2 1/2	3
	actual	0.6271	0.8771	1.1279	1.3779	1.6279	2.1279	2.628	3.128
DN(inch)		0.590	0.787	0.984	1.259	1.574	1.968	2.559	3.149
I (inch)		0.492	0.748	0.905	0.964	1.102	1.338	1.476	1.673
L (inch)		2.244	2.854	3.346	3.819	4.488	5.433	6.614	7.598
G (inch)		1.181	1.476	1.673	1.909	2.244	2.716	3.307	3.799
A (inch)		3.937	4.724	4.724	6.220	6.220	6.220	10.039	10.039
H (inch)		1.695	1.988	2.153	2.988	3.236	3.500	5.196	5.511
Cv (GPM)		32.3	48.5	80.9	92.4	144.4	206.8	596.2	896.5

TABLE 1 PRESSURE - TEMPERATURE RATINGS

Joning material	Melting range degrees		Working temperature degrees		Maximum working gauge pressure					
					Size 1/8" - 1"		Size 1 ¼" - 2"		Size 2 ½" - 4"	
	°F	°C	°F	°C	psi	kPa	psi	kPa	psi	kPa
50-50 tin-lead solder* ASTM B32 alloy grade 50 A	361/421	185/215	0/+100	-18/+38	200	1400	176	1200	150	1050
			0/+150	-18/+66	150	1050	125	850	100	700
			0/+200	-18/+93	100	700	90	600	75	500
			0/+250	-18/+121	85	600	75	500	50	350
95-5 tin-antimony solder ASTM B32 alloy grade 95TA	450/464	230/240	0/+100	-18/+38	500**	3500**	400**	2800**	300**	2100**
			0/+150	-18/+66	400**	2800**	350**	2400**	275**	2000**
			0/+200	-18/+93	300**	2100**	250**	1700**	200	1400
			0/+250	-18/+121	200	1400	175	1200	150	1050

NOTE:

Above stated limits are not imposed by the valve, but bythe strength of the soldering joint according to ASME B16.22.

* This alloy contains more than 0,2% lead and, according to certain specifications, cannot be used for potable water or other foods.

** Soldered copper tube joints have been tested at 230 PSI (1600 kPa) in accordance with ISO 2016

Pressure-temperature chart

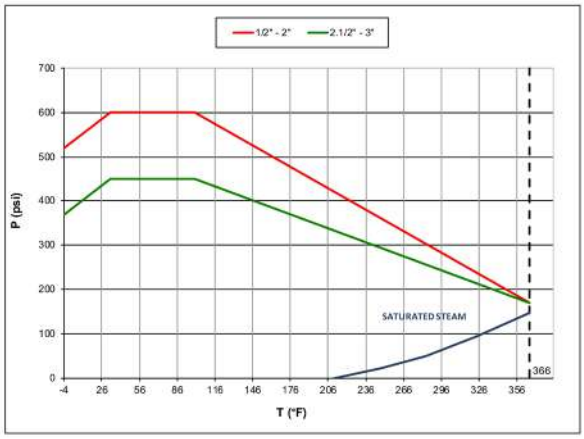
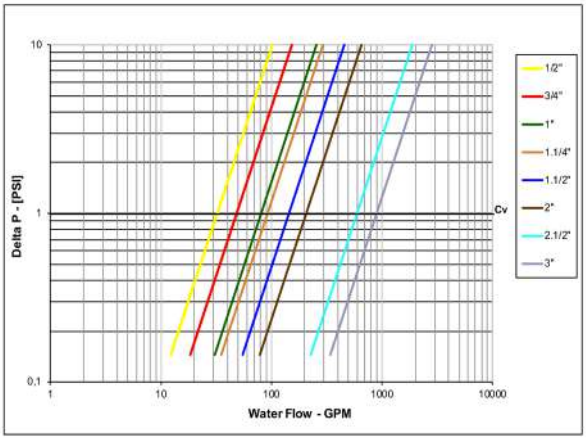


Chart applies to valve, not to solder joints

Pressure drop chart



PLUMBING

s.50

1/4" - 2"
standard port

Quality

- 24h 100% seal test guaranteed
- Dual sealing system allows valve to be operated in either direction making installation easier
- No metal-to-metal moving parts
- No maintenance ever required
- Handle clearly shows ball position
- Silicone-free lubricant on all seals
- Handle stops on body to avoid stress at stem
- Chrome plated brass ball for longer life with rinse hole (the rinse hole is expected from 1/2" up to 2" sizes)

Body

- Hot forged sand blasted, external nickel plated brass body and cap sealed with Loctite® or equivalent thread sealant
- Finest brass according to EN 12165 and EN 12164 specifications

Stem

- Blowout-proof nickel plated brass stem
- Maintenance-free, double FPM O-rings at the stem for maximum safety

Sealing

- Pure PTFE self-lubricating seats with flexible-lip design

Threads

- ISO 228 parallel female by female threads

Flow

- Full port to DIN 3357 for 1/4" and 3/8" sizes, nominal port for compact design from 1/2" to 2" sizes.

Handle

- Geomet® carbon steel handle with thick PVC dip coating. Handle coating offers both thermal and electrical protection
- Handle removable with valve in service
- **WARNING:** do not exceed reasonable temperature and/or electrical load

Working pressure & temperature

- 40 bar (600 PSI) up to 3/8", 30 bar (450 PSI) over 3/8" non-shock cold working pressure
- -40°C to +170°C (-40°F to +350°F)
- **WARNING:** freezing of the fluid in the installation may severely damage the valve

Options

- EN 10226-1 parallel female by female threads (S.51 model)
- Male by female threads
- Stem extension
- T-handle
- Oval lockable handle
- Stainless steel handle (1.4016 / AISI 430)
- Patented locking device
- Stubby handle
- ***RuB*** memory stop designed to be installed with our stubby handle

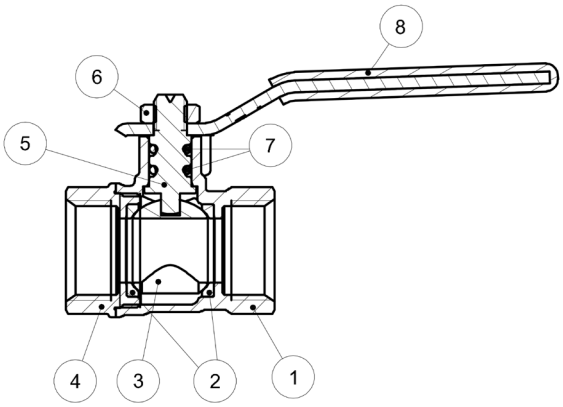
PED directive

- According to 2014/68/UE module A: it cannot be used with dangerous gases in sizes larger than 25mm

Approved by or in compliance with

- RoHS Compliant (EU)
- EAC – Declaration of conformity (Russia, Kazakhstan, Belarus)
- GOST-R (Russia)

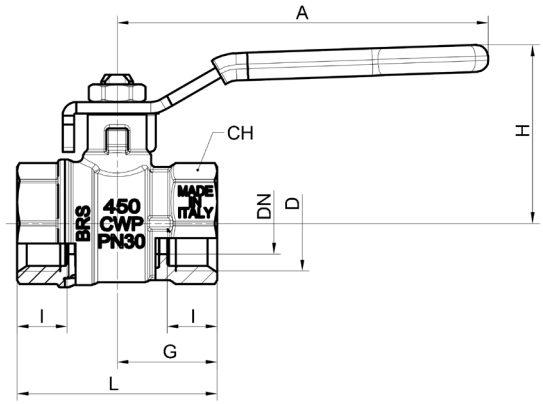
NOTE: approvals apply to specific configurations/sizes only.



1 ¼"-2" hollow ball

	Part description	Q.ty	Material
1	Nickel plated body (external nickel plated, unplated inside)	1	CW617N
2	Seat	2	PTFE
3	Chrome plated ball with rinse hole (read rinse hole on sizes from 1/2" up to 2")	1	CW617N
4	Nickel plated end-cap (external nickel plated, unplated inside)	1	CW617N
5	Nickel plated stem O-ring design	1	CW617N
6	Geomet® nut	1	CB4FF (EN10263-2)
7	O-Ring	2	FPM
8	Red PVC coated Geomet® steel handle	1	DD11 (EN10111)

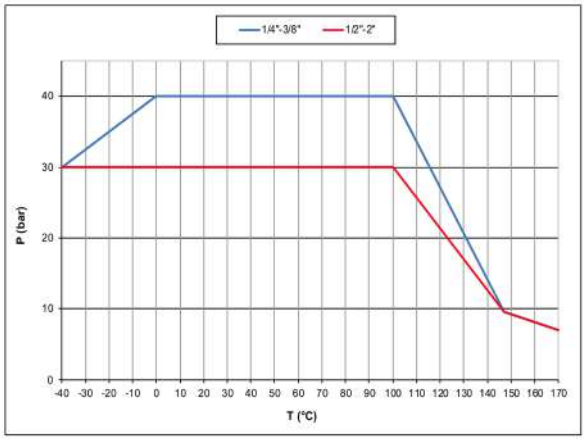
NOTE: drawings refer to 1/2" up to 2" sizes



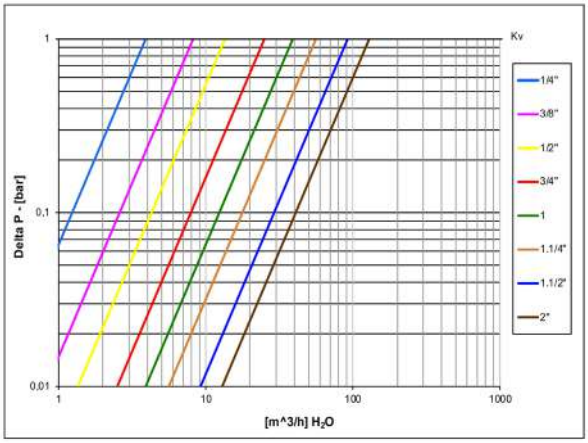
Code	S50B00	S50C00	S50D00	S50E00	S50F00	S50G00	S50H00	S50I00
D (inch)	1/4	3/8	1/2	3/4	1	1 ¼"	1 ½"	2
DN (mm)	8	10	13.5	18	22.5	28.5	36	45
I (mm)	9	9	11	12	14	15	17	19
L (mm)	39	39	44	52	61.5	73	86	101
G (mm)	19.5	19.5	22	26	30.7	36.5	43	50.5
A (mm)	82	82	82	100	120	120	158	158
H (mm)	38	38	39.5	43.5	52	57	75.5	82.5
CH (mm)	20	20	25	31	38	48	54	66
Kv(m^3/h)	3.9	8.2	13.5	25	39	56	92	129

DN shows actual flow diameter. Configuration of valves 1/4" and 3/8" sizes is slightly different.
Ball valves are marked CE on handle from 1 ¼" to 2" as follow:
CE XXCODEXX Cat. I-A

Pressure-temperature chart



Pressure drop chart



PLUMBING

s.51

1/2" - 2"
EN 10226-1
standard port

Quality

- 24h 100% seal test guaranteed
- Dual sealing system allows valve to be operated in either direction making installation easier
- No metal-to-metal moving parts
- No maintenance ever required
- Handle clearly shows ball position
- Silicone-free lubricant on all seals
- Handle stops on body to avoid stress at stem
- Chrome plated brass ball for longer life with rinse hole

Body

- Hot forged sand blasted, external nickel plated brass body and cap sealed with Loctite® or equivalent thread sealant
- Finest brass according to EN 12165 and EN 12164 specifications

Stem

- Blowout-proof nickel plated brass stem
- Maintenance-free, double FPM O-rings at the stem for maximum safety

Sealing

- Pure PTFE self-lubricating seats with flexible-lip design

Threads

- EN 10226-1 parallel female by female threads

Flow

- Nominal port for compact design

Handle

- Geomet® carbon steel handle with thick PVC dip coating. Handle coating offers both thermal and electrical protection
- Handle removable with valve in service
- **WARNING:** do not exceed reasonable temperature and/or electrical load

Working pressure & temperature

- 30 bar (450 PSI) non-shock cold working pressure
- -40°C to +170°C (-40°F to +350°F)
- **WARNING:** freezing of the fluid in the installation may severely damage the valve

Options

- ISO 228 parallel female by female threads (S.50 model)
- Taper male by parallel female threads
- Stem extension
- T-handle
- Oval lockable handle
- Stainless steel handle (1.4016 / AISI 430)
- Patented locking device
- Stubby handle
- ***RuB*** memory stop designed to be installed with our stubby handle

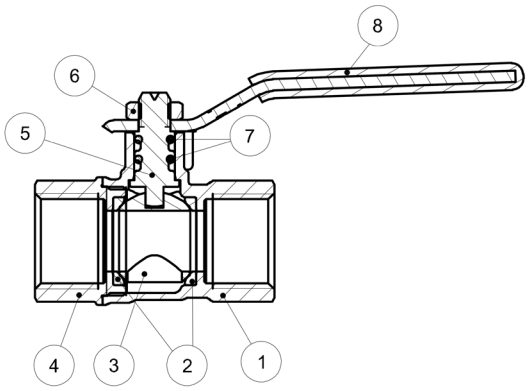
PED directive

- According to 2014/68/UE module A: it cannot be used with dangerous gases in sizes larger than 25mm

Approved by or in compliance with

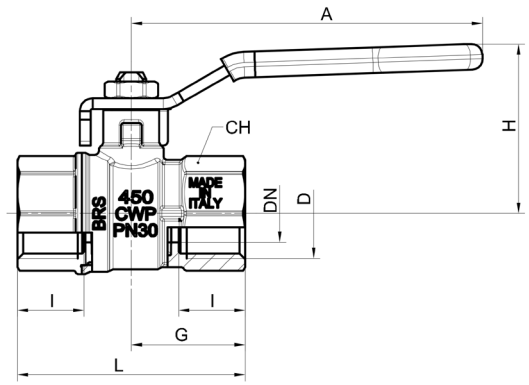
- RoHS Compliant (EU)
- EAC – Declaration of conformity (Russia, Kazakhstan, Belarus)
- GOST-R (Russia)

NOTE: approvals apply to specific configurations/sizes only.



1 ¼"-2" hollow ball

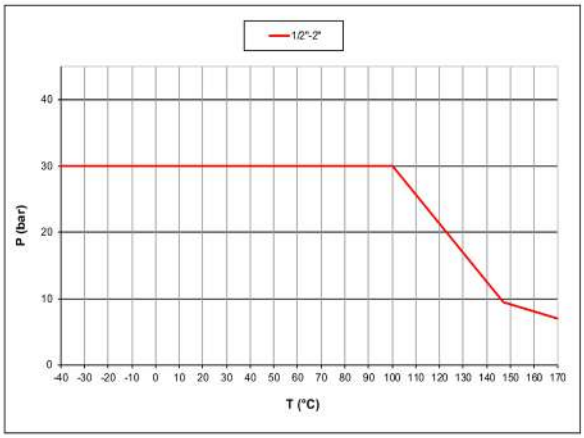
	Part description	Q.ty	Material
1	Nickel plated body (external nickel plated, unplated inside)	1	CW617N
2	Seat	2	PTFE
3	Chrome plated ball with rinse hole	1	CW617N
4	Nickel plated end-cap (external nickel plated, unplated inside)	1	CW617N
5	Nickel plated stem O-ring design	1	CW617N
6	Geomet® nut	1	CB4FF (EN10263-2)
7	O-Ring	2	FPM
8	Red PVC coated Geomet® steel handle	1	DD11 (EN10111)



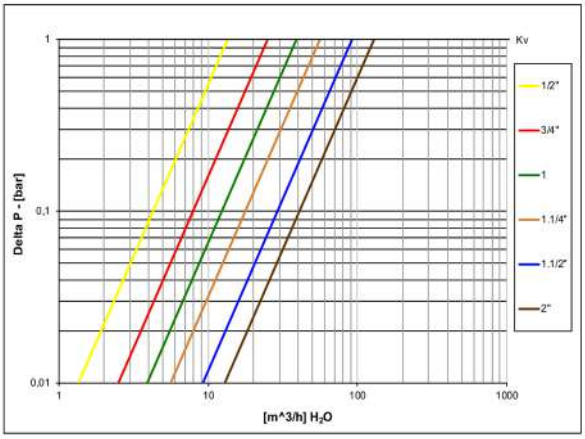
DN shows the nominal flow diameter.
Ball valves are marked CE on handle from 1 ¼" to 2" as follow:
CE XXCODEXX Cat I-A

Code	S51D00	S51E00	S51F00	S51G00	S51H00	S51I00
D (inch)	1/2	3/4	1	1 1/4	1 1/2	2
DN (mm)	13.5	18	22.5	28.5	36	45
I (mm)	15.5	17	21	23	23	26.5
L (mm)	53	62	75.5	89	98	116
G (mm)	26.5	31	37.7	44.5	49	58
A (mm)	82	100	120	120	158	158
H (mm)	39.5	43.5	52	57	75.5	82.5
CH (mm)	25	31	38	48	54	66
Kv (m^3/h)	13.5	25	39	56	92	129

Pressure-temperature chart



Pressure drop chart



PLUMBING

s.190

1/2" - 2"
ISO 228
with built-in filter

This ball valve with built-in vertical filter allows a large flow rate with a low pressure drop and supports a maximum pressure of 30 bar (PN).
This innovative product avoids the installation of two ball valves, before and after the filter. Quick and easy assembly, maintenance and cleaning.

Quality
- Substitutes 3 different components (2 ball valves and one filter)
- Reduces leakage risks due to lower sealing points
- Cost saving due to reduced number of components
- Time saving at installation and maintenance
- Built-in vertical filter with cartridge structure in AISI304 + Nylon (filtration degree: 500 microns / 35 mesh). Size 1/2" has a central rib to ease filter extraction.
- Final test conforming with UNI EN 12266-1 points A3 / A4 (for 1 ½" and 2" sizes: acc. to directive 2014/68/UE)
- No metal-to-metal moving parts
- Handle clearly shows ball position
- Chrome plated brass ball for longer life
- Handle stop on body to avoid stress at stem

Body
- Hot forged sand blasted, external nickel plated brass body and cap sealed with Loctite® or equivalent thread sealant
- Finest brass according to EN 12165 and EN 12164 specifications
- Bottom plug for an easy filter maintenance

Stem
- Blowout-proof unplated brass stem
- Two O-rings at the stem (FKM + NBR) for maximum safety

Sealing
- Pure PTFE seats

Threads
- ISO 228 parallel female by female threads

Flow
- Nominal port

Handle
- Zinc plated steel handle with plastic dip coating
- **WARNING:** do not exceed reasonable temperature and/or electrical load

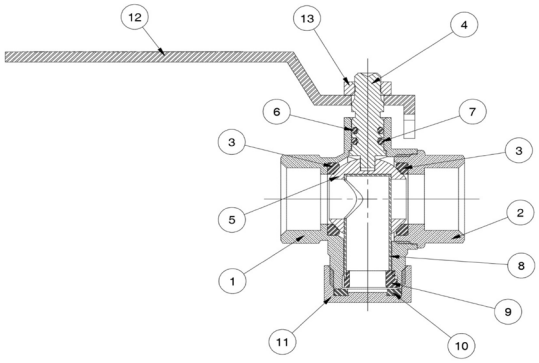
Working pressure & temperature
- 30 bar (450 PSI) non-shock cold working pressure for sizes 1/2" to 1", 20 bar (290 PSI) for sizes 1 ¼" to 2"
- -20°C to +150°C (-4°F to +300°F)
- **WARNING:** freezing of the fluid in the installation may severely damage the valve

Options
- T-handle for 1/2" to 1" sizes.

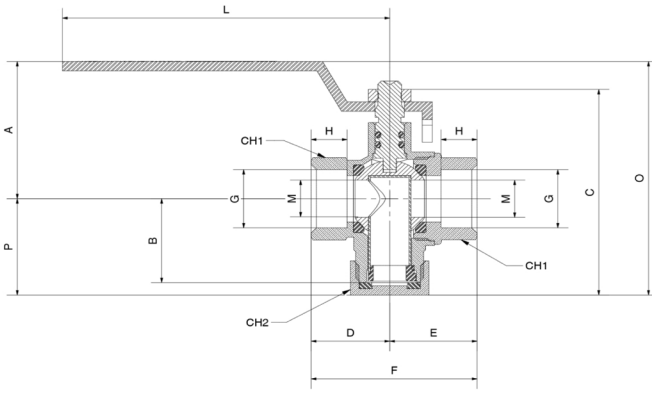
PED directive
- According to 2014/68/UE, 1 ¼" and superior sizes cannot be used with dangerous fluids

Approved by or in compliance with
- Water Regulations Advisory Scheme (United Kingdom)

NOTE: approvals apply to specific configurations/sizes only.

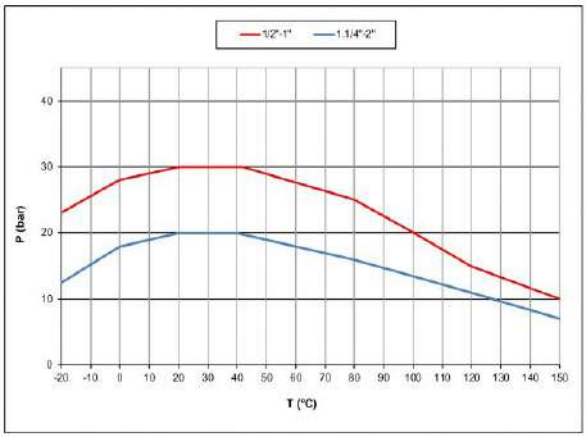


	Part description	Q.ty	Material
1	Nickel plated body (external treatment)	1	CW617N
2	Nickel plated end-cap (external treatment)	1	CW617N
3	Seat	1	PTFE
4	Unplated stem O-ring design	1	CW614N
5	Chrome plated ball	1	CW617N
6	O-Ring	1	NBR
7	O-Ring	1	FKM
8	Filter	1	AISI304 + Nylon
9	Filter	1	AISI304 + Nylon
10	Flat seal	1	NBR
11	Plug	1	CW614N
12	Black plastic coated zinc plated handle	1	Steel
13	Zinc plated nut	1	Steel

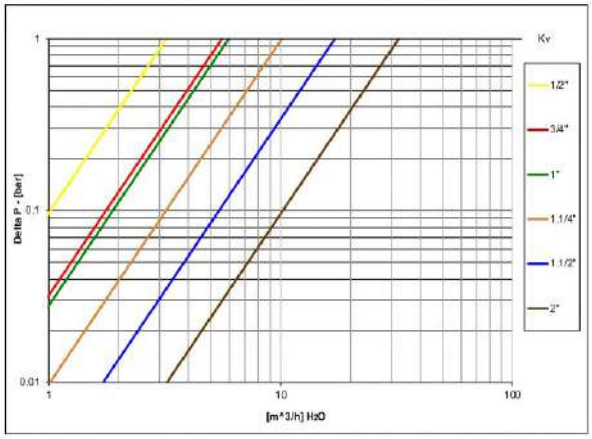


Code	190D00	190E00	190F00	190G00	190H00	190I00
G (inch)	1/2"	3/4"	1"	1 ¼"	1 ½"	2"
A (mm)	44.2	47.4	50.8	74	80	88.5
B (mm)	27	30.9	34.5	46.5	52.5	63.5
C (mm)	66.2	73.5	80.5	106	118	143
D (mm)	24	29	34.5	40	45.5	54
E (mm)	26.7	32.3	35.6	45	52	63
F (mm)	50.7	61.3	70.1	85	97.5	117
H (mm)	11	13	15	17	17	20
L (mm)	100	100	100	158	158	158
M (mm)	12	16	20	28	36	46
O (mm)	75.2	82.5	89.5	125.5	137.5	157
P (mm)	31	35.1	38.7	51.5	57.5	68.5
CH1 (mm)	25	31	38	48	54	66
CH2 (mm)	24	30	38	46	55	65
PN (bar)	30	30	30	20	20	20
Kv (m^3/h)	3.22	5.58	5.97	10.12	17.14	32.30

Pressure-temperature chart



Pressure drop chart



PLUMBING

s.190M

3/4" - 2"
ISO 228
with built-in filter and magnet

This ball valve with built-in vertical filter allows a large flow rate with a low pressure drop and supports a maximum pressure of 30 bar (PN).
This innovative product avoids the installation of two ball valves, before and after the filter.
Quick and easy assembly, maintenance and cleaning.

Quality
- Substitutes 3 different components (2 ball valves and one filter)
- Reduces leakage risks due to lower sealing points
- Cost saving due to reduced number of components
- Time saving at installation and maintenance
- Built-in vertical filter with cartridge structure in 1.4301 / AISI304 + Nylon (filtration degree: 500 microns / 35 mesh).
- Final test conforming with UNI EN 12266-1 points A3 / A4 (for 1 ½" and 2" sizes: acc. to directive 2014/68/UE)
- No metal-to-metal moving parts
- Handle clearly shows ball position
- Chrome plated brass ball for longer life
- Handle stop on body to avoid stress at stem

Body
- Hot forged sand blasted, external nickel plated brass body and cap sealed with Loctite® or equivalent thread sealant
- Finest brass according to EN 12165 and EN 12164 specifications
- Bottom plug for an easy filter maintenance

Stem
- Blowout-proof unplated brass stem
- Two O-rings at the stem (FKM + NBR) for maximum safety

Sealing
- Pure PTFE seats

Threads
- ISO 228/1 parallel female by female threads

Flow
- Nominal port

Handle
- Zinc plated steel handle with plastic cover
- **WARNING:** do not exceed reasonable temperature and/or electrical load

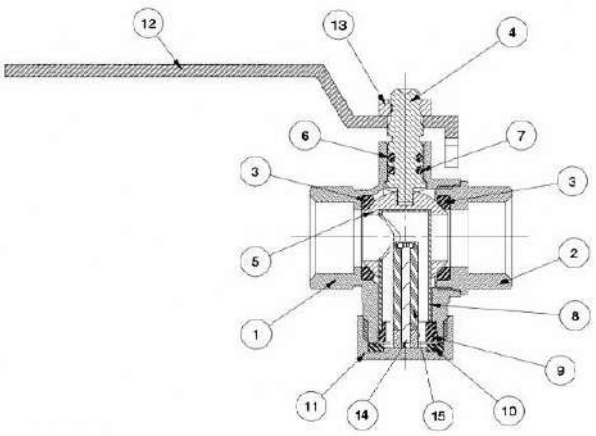
Working pressure & temperature
- 30 bar (450 PSI) non-shock cold working pressure for sizes 3/4" to 1", 20 bar (290 PSI) for sizes 1 ¼" to 2"
- -20°C to +100°C (-4°F to +212°F)
- Valve conforming with directive 2014/68/EU
- **WARNING:** freezing of the fluid in the installation may severely damage the valve

Options
- T-handle for 1/2" to 1" sizes

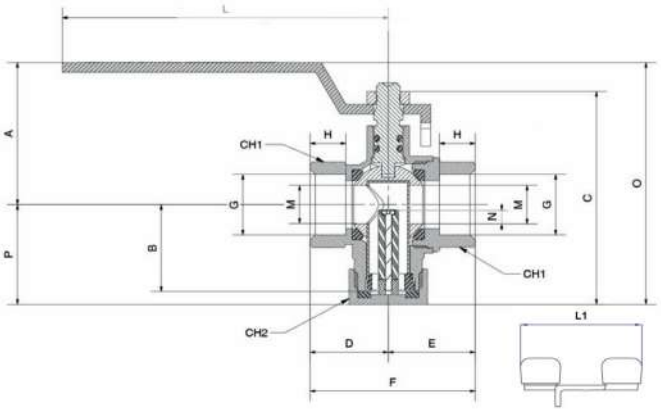
PED directive
- According to 2014/68/UE, 1 ¼" and superior sizes cannot be used with dangerous fluids

Approved by or in compliance with
- Water Regulations Advisory Scheme (United Kingdom)

NOTE: approvals apply to specific configurations/sizes only.



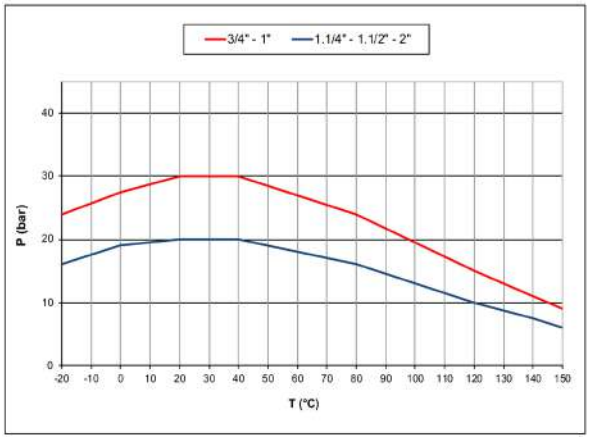
	Part description	Q.ty	Material
1	Nickel plated body	1	CW617N
2	End connection	1	CW617N
3	Seals	2	PTFE
4	Stem	1	CW614N
5	Chrome plated ball	1	CW617N
6	O-Ring	1	NBR
7	O-Ring	1	FKM
8	Filter	1	1.4301 / AISI304 + Nylon
9	Filter	1	1.4301 / AISI304 + Nylon
10	Flat seal	1	NBR
11	Plug	1	CW614N
12	Handle	1	Zinc plated steel, plastic cover
13	Nut	1	Zinc plated steel
14	Screw	1	Stainles steel
15	Magnet	1	Neodymium (12,000gauss) NdFeB



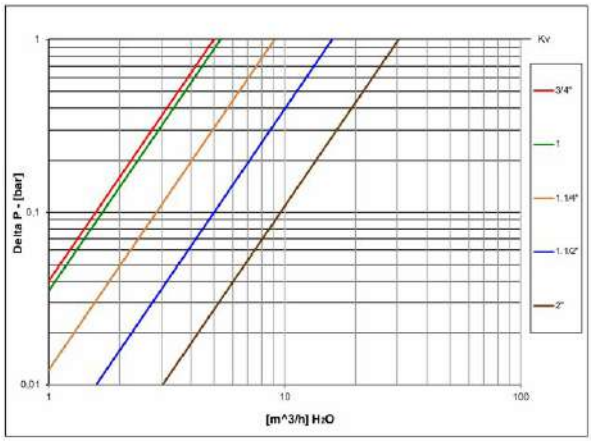
COD.	190E00M	190F00M	190G00M	190H00M	190I00M
G (Threads, including on plug)	3/4"	1"	1 ¼"	1 ½"	2"
A	47,4	50,8	74	80	88,5
B	30,9	34,5	46,5	52,5	63,5
C	73,5	80,5	106	118	143
D	29	34,5	40	45,5	54
E	32,3	35,6	45	52	63
F	61,3	70,1	85	97,5	117
H	13	15	17	17	20
L	100	100	158	158	158
L1	68	68	-	-	-
DN M	16	20	28	36	46
N	8	5,5	13	11	13
O	82,5	89,5	125,5	137,5	157,0
P	35,1	38,7	51,5	57,5	68,5
CH1 OCT.	31	38	48	54	66
CH2 HEX.	30	38	46	55	65
PN Max bar	30	30	20	20	20

Suitable for dangerous fluids, in compliance with **DIRECTIVE 2014/68/EU Group 1 fluids**

Pressure-temperature chart



Pressure drop chart



s.90 NPT short

1/4" - 2"

Quality

- 24h 100% seal test guaranteed
- Dual sealing system allows valve to be operated in either direction making installation easier
- No metal-to-metal moving parts
- No maintenance ever required
- Handle clearly shows ball position
- Chrome plated brass ball for longer life
- Handle stops on body to avoid stress at stem

Body

- Hot forged full port sand blasted, unplated brass body and cap sealed with Loctite® or equivalent thread sealant

Sealing

- PTFE self-lubricating seats with flexible-lip design

Threads

- NPT short taper female by female threads

Handle

- Geomet® carbon steel handle with thick PVC dip coating. Handle coating offers both thermal and electrical protection
- Handle removable with valve in service
- **WARNING:** do not exceed reasonable temperature and/or electrical load

Stem

- Blowout-proof nickel plated brass stem
- Maintenance-free, double FPM O-rings at the stem for maximum safety

Working pressure & temperature

- 600 PSI non-shock cold working pressure
- -40°F/+350°F
- **WARNING:** freezing of the fluid in the installation may severely damage the valve

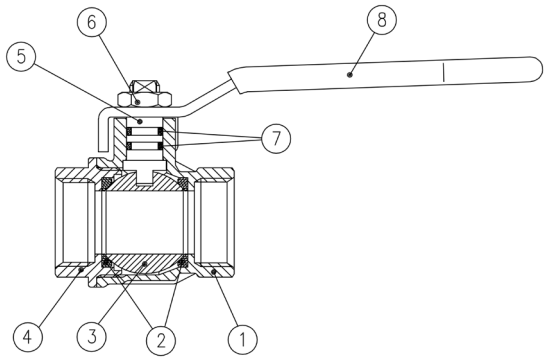
Options

- Stem extension
- T-handle
- Oval lockable handle
- Stainless steel handle (1.4016 / AISI 430)
- Patented locking device
- Stubby handle
- ***RuB*** memory stop designed to be installed with our stubby handle

Approved by or in compliance with

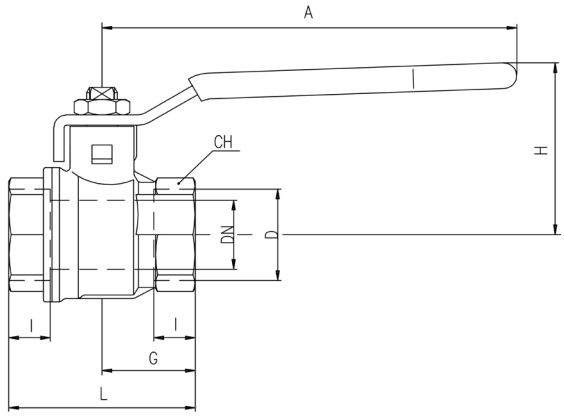
- GOST-R (Russia)
- RoHS Compliant (EU)

NOTE: approvals apply to specific configurations/sizes only.



1 ¼"-2" hollow ball

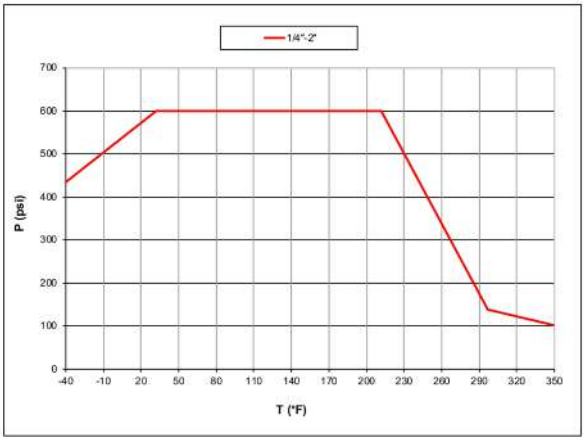
	Part description	Q.ty	Material
1	Unplated NPT body	1	CW617N
2	Seat	2	PTFE
3	Chrome plated ball	1	CW617N
4	Unplated NPT end-cap	1	CW617N
5	Nickel plated stem O-ring design	1	CW617N
6	Geomet® nut	1	CB4FF (EN10263-2)
7	O-ring	2	FPM
8	Red PVC coated Geomet® steel handle	1	DD11 (EN10111)



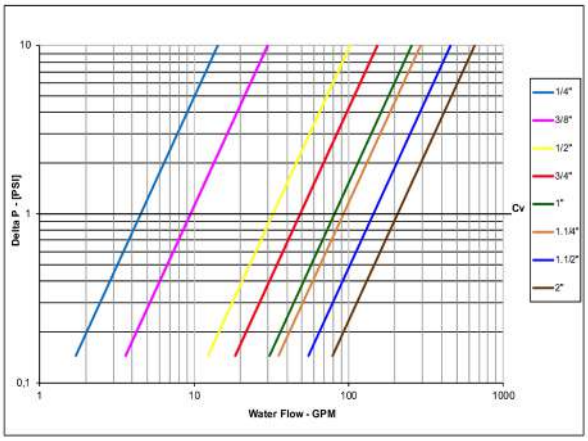
Code	S90B41	S90C41	S90D41	S90E41	S90F41	S90G41	S90H41	S90I41
D (inch)	1/4	3/8	1/2	3/4	1	1 1/4	1 1/2	2
DN(inch)	0.314	0.393	0.590	0.787	0.984	1.259	1.574	1.968
I (inch)	0.354	0.354	0.433	0.472	0.551	0.590	0.669	0.748
L (inch)	1.535	1.535	1.968	2.125	2.637	3.031	3.543	4.173
G (inch)	0.767	0.767	0.984	1.062	1.318	1.515	1.771	2.086
A (inch)	3.228	3.228	3.937	4.724	4.724	6.220	6.220	6.220
H (inch)	1.480	1.480	1.679	1.956	2.114	2.858	3.094	3.370
CH (inch)	0.787	0.787	0.984	1.220	1.496	1.889	2.125	2.598
Cv (GPM)	4.5	9.5	32.3	48.5	80.9	92.4	144.4	206.8

DN shows the nominal flow diameter. Actual flow diameter complies with full port DIN 3357 part 4.

Pressure-temperature chart



Pressure drop chart



PLUMBING

s.71 NPT

1/2" - 4"
standard port

Quality

- 24h 100% seal test guaranteed
- Dual sealing system allows valve to be operated in either direction making installation easier
- No metal-to-metal moving parts
- Handle clearly shows ball position
- Silicone-free lubricant on all seals
- Chrome plated brass ball for longer life
- Handle stops on body to avoid stress at stem

Body

- Hot forged sand blasted, unplated brass body and cap sealed with Loctite® or equivalent thread sealant
- Finest brass according to EN 12165 and EN 12164 specifications

Stem

- Blowout-proof nickel plated brass stem
- Pure PTFE adjustable packing gland and reinforced washer for lower torque and easy maintenance
- Triple stem seals in sizes over 2 ½"

Sealing

- Pure PTFE self-lubricating seats with flexible-lip design

Threads

- NPT taper ANSI B.1.20.1 female by female threads

Flow

- Standard port for compact design

Handle

- Geomet® carbon steel handle with thick PVC dip coating. Handle coating offers both thermal and electrical protection

Working pressure & temperature

- 600 PSI non-shock cold working pressure
- *150 psig non-shock steam working pressure. Not suitable for throttling steam.
- -40°F/+366°F
- **WARNING:** freezing of the fluid in the installation may severely damage the valve

Options

- Oval lockable handle up to 2 ½", round over 2 ½"
- Stem extension up to 2 ½"
- T-handle up to 2 ½"
- Stainless steel handle (1.4016 / AISI 430) up to 2 ½"
- Patented locking device
- Stubby handle up to 2"

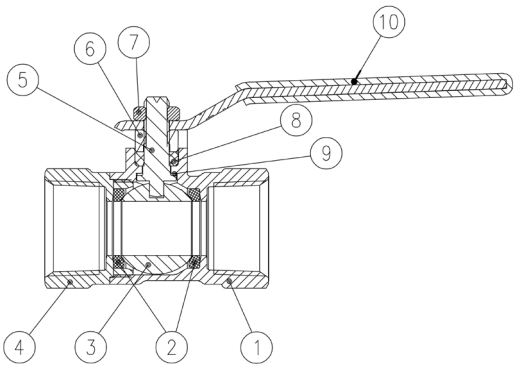
Upon request

- Stainless steel ball and/or stem (1.4401 / AISI 316)
- Glass filled PTFE seals
- Custom design

Approved by or in compliance with

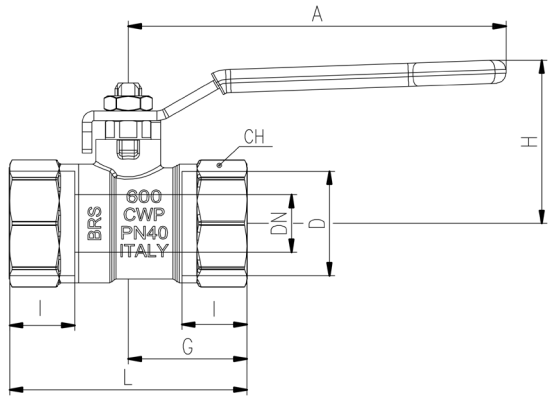
- Canadian standards Association (United States, Canada)
- RoHS Compliant (EU)

NOTE: approvals apply to specific configurations/sizes only.



1 ½"-2 ½" hollow ball

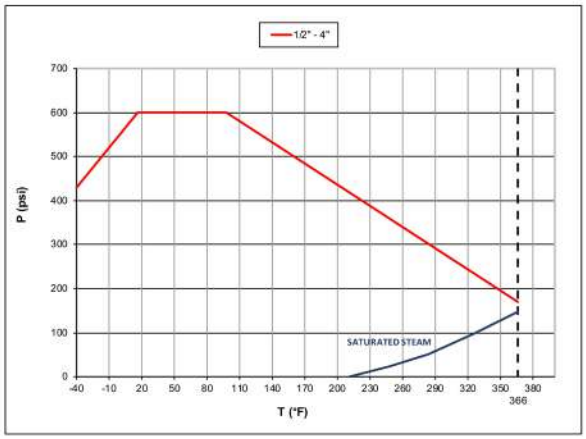
	Part description	Q.ty	Material
1	Unplated body	1	CW617N
2	Seat	2	PTFE
3	Chrome plated ball	1	CW617N
4	Unplated end-cap	1	CW617N
5	Nickel plated stem packing gland design	1	CW617N
6	Nickel plated gland nut	1	CW617N
7	Geomet® nut	1	CB4FF (EN10263-2)
8	Packing gland seal	1	PTFE
9	Washer	1	PTFE carbon filled 25%
10	Black PVC coated Geomet® steel handle	1	DD11 (EN10111)



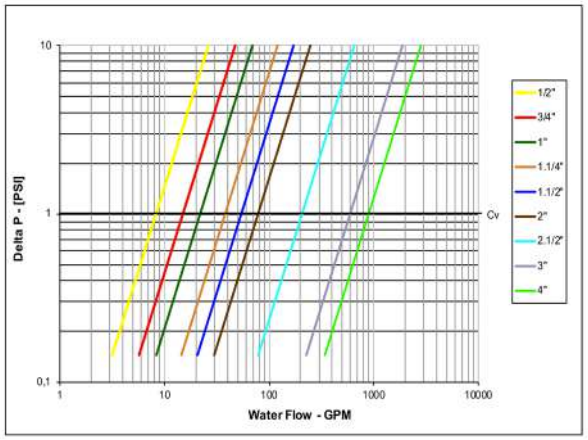
DN shows the nominal flow diameter.
Stem configuration of valves over 2 ½" is slightly different.

Code	S71D41	S71E41	S71F41	S71G41	S71H41	S71I41	S71L41	S71M41	S71N41
D (inch)	1/2	3/4	1	1 1/4	1 1/2	2	2 1/2	3	4
DN (inch)	0.453	0.591	0.787	0.984	1.260	1.575	1.968	2.559	3.150
I (inch)	0.610	0.669	0.827	0.905	0.905	1.043	1.260	1.378	1.634
L (inch)	2.126	2.441	2.835	3.464	3.779	4.409	5.276	6.378	7.480
G (inch)	1.043	1.220	1.417	1.732	1.890	2.205	2.638	3.189	3.740
A (inch)	3.937	3.937	4.724	4.724	6.220	6.220	6.220	10.039	10.039
H (inch)	1.693	1.695	1.984	2.153	2.988	3.236	3.500	5.197	5.512
CH (inch)	0.984	1.220	1.496	1.929	2.126	2.677	3.346	3.898	4.921
Cv (GPM)	8.3	15.0	22.0	38.1	54.3	78.6	206.8	596.2	896.5

Pressure-temperature chart



Pressure drop chart



PLUMBING

s.112 NPT

1/2" - 4"
gate valve

Quality

• Suitable for water-works, domestic and agricultural installations

• Non rising stem suitable to most difficult applications

Body

• Hot forged sand blasted brass body

• Low pressure drop

Handle

• Red coated steel hand-wheel

• **WARNING**: do not exceed reasonable temperature and/or electrical load

• Zinc plated steel top nut

Threads

• NPT female by female taper threads

Stem

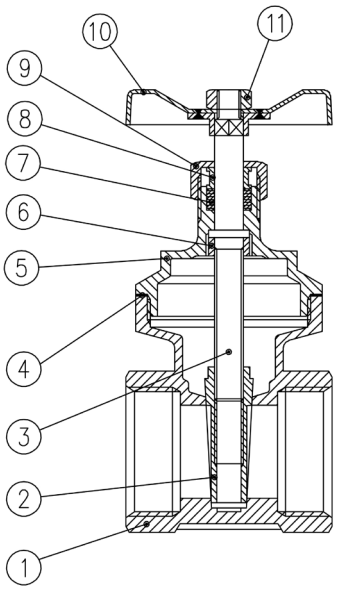
• High performance EPDM stem seal

Working pressure & temperature

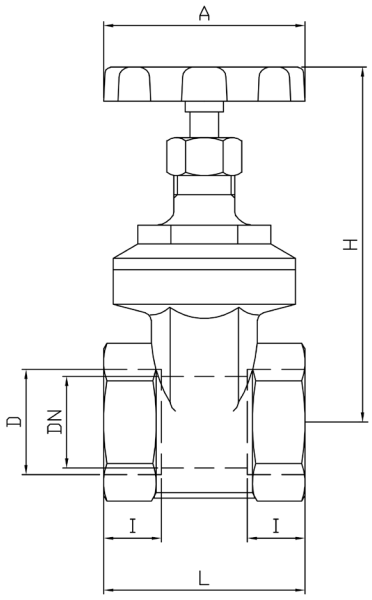
• 150 PSI non-shock cold working pressure

• +40°F to +200°F

• **WARNING:** freezing of the fluid in the installation may severely damage the valve



	Part description	Q.ty	Material
1	Body	1	CW617N
2	Gate	1	CB 754S
3	Stem	1	CW614N
4	Body cap sealing	1	Guarnital Fibre
5	Cap	1	CW617N
6	Stem ring	1	CW614N
7	Packing gland seal	1	EPDM90
8	Packing gland	1	CW614N
9	Packing gland nut	1	CW614N
10	Red round handle	1	Steel
11	Handle nut	1	Steel



Code	112D00	112E00	112F00	112G00	112H00	112I00	112L00	112M00	112N00
D (inch)	1/2	3/4	1	1 1/4	1 1/2	2	2 1/2	3	4
DN (inch)	0.531	0.610	0.748	1.062	1.299	1.732	1.850	2.362	2.834
I (inch)	0.354	0.354	0.393	0.393	0.433	0.472	0.511	0.511	0.590
L (inch)	1.377	1.535	1.692	1.889	2.125	2.283	2.480	2.755	3.149
A (inch)	1.771	1.771	1.968	2.165	2.362	2.755	3.149	3.937	3.937
H (inch)	2.677	2.677	3.149	3.385	4.212	5.275	5.629	6.889	7.952

s.114 NPT

1/2" - 4"
heavy pattern gate valve

Quality

• Suitable for water-works, domestic and agricultural installations

• Non rising stem suitable to most difficult applications

Body

• Low pressure drop

• Finely cast sand blasted heavy brass body

Stem

• High performance PTFE stem seal

Threads

• NPT female by female taper threads

Handle

• Strong cast aluminum hand-wheel

• **WARNING**: do not exceed reasonable temperature and/or electrical load

Working pressure & temperature

• 200 PSI non-shock cold working pressure

• -4°F to +350°F

• **WARNING:** freezing of the fluid in the installation may severely damage the valve

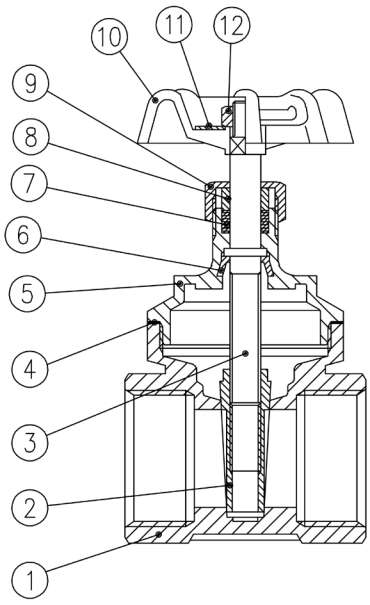
Options

• S.115 solder end connections

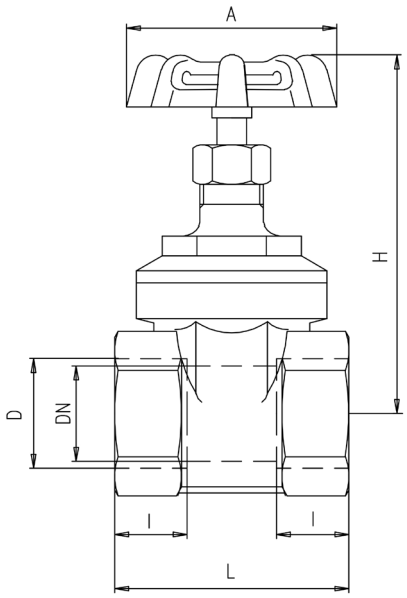
Approved by or in compliance with

• GOST-R (Russia)

NOTE: approvals apply to specific configurations/sizes only.



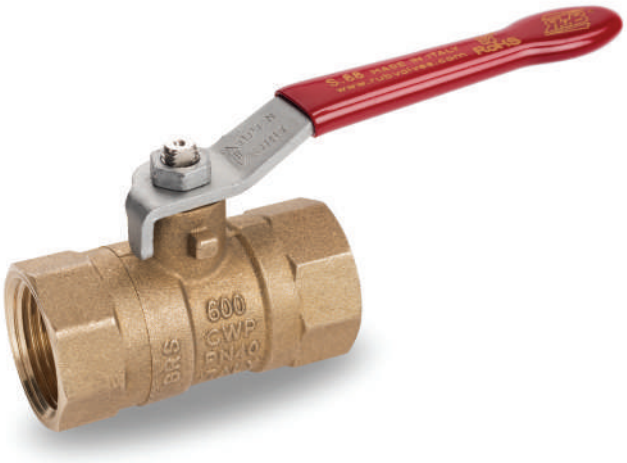
	Part description	Q.ty	Material
1	Body	1	CW617N
2	Gate	1	CW617N
3	Stem	1	CW617N
4	Body cap sealing	1	PTFE
5	Cap	1	CW617N
6	Stem ring	1	CW617N
7	Packing gland seal	1	PTFE
8	Packing gland	1	CW617N
9	Packing gland nut	1	CW617N
10	Red round handle	1	Steel
11	Disc	1	Aluminum
12	Handle nut	1	CW617N



Code	114D41	114E41	114F41	114G41	114H41	114I41	114L41	114M41	114N41
D (inch)	1/2	3/4	1	1 1/4	1 1/2	2	2 1/2	3	4
DN (inch)	0.504	0.669	0.827	1.063	1.339	1.772	2.205	2.667	3.543
I (inch)	0.449	0.492	0.559	0.657	0.669	0.728	0.925	1.004	1.181
L (inch)	1.693	1.772	2.047	2.323	2.480	2.716	3.465	3.740	4.488
A (inch)	2.165	2.165	2.362	2.835	2.835	3.150	3.937	4.331	5.118
H (inch)	2.795	2.992	3.445	4.055	4.475	5.256	6.437	7.480	9.252
PSI	200	200	200	200	200	200	200	200	200

s.88 BSPT

1/4" - 2"
reduced port



AVAILABLE ON DEMAND

Quality
• 24h 100% seal test guaranteed
• Dual sealing system allows valve to be operated in either direction making
installation easier
• No metal-to-metal moving parts
• No maintenance ever required
• Handle clearly shows ball position
• Silicone-free lubricant on all seals
• Chrome plated brass ball for longer life
• Handle stops on body to avoid stress at stem

Body
• Hot forged sand blasted, unplated brass body and cap sealed with Loctite® or equivalent thread sealant
• Finest brass according to EN 12165 and EN 12164 specifications

Stem
• Blowout-proof nickel plated brass stem
• Maintenance-free, double FPM O-rings at the stem for maximum safety

Sealing
• Pure PTFE self-lubricating seats with flexible-lip design

Threads
• ISO 7/1, BS 21 BSPT taper female by female threads

Flow
• One size reduced port compact design

Handle
• Geomet® carbon steel handle with thick PVC dip coating. Handle coating offers both thermal and electrical protection
• Handle removable with valve in service
• **WARNING:** do not exceed reasonable temperature and/or electrical load

Working pressure & temperature
• 40 bar (600 PSI) non-shock cold working pressure
• -40°C to +170°C (-40°F to +350°F)
• **WARNING:** freezing of the fluid in the installation may severely damage the valve

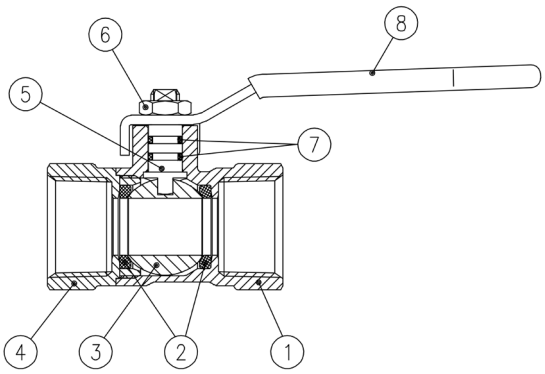
Options
• NPT taper ANSI B.1.20.1 threads (s. 71 model with packing gland seal)
• Stem extension
• T-handle
• Oval lockable handle
• Stainless steel handle (1.4016 / AISI 430)
• Patented locking device
• Stubby handle
• ***RuB*** memory stop designed to be installed with our stubby handle

Upon request
• Stainless steel ball (1.4401 / AISI 316)
• Glass filled PTFE seals
• Custom Design
• Male by female threads

PED directive
• According to 2014/68/UE module A: it cannot be used with dangerous gases in sizes larger than 25 mm

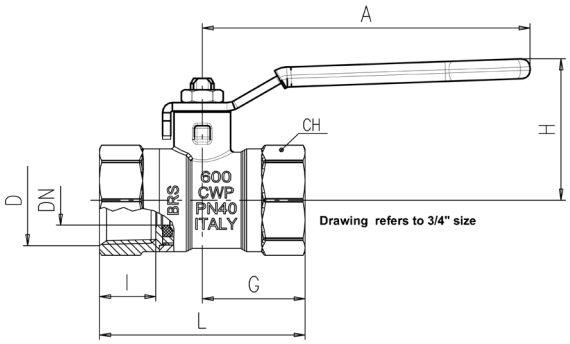
Approved by or in compliance with
• GOST-R (Russia)
• RoHS Compliant (EU)

NOTE: approvals apply to specific configurations/sizes only



1 ½"-2" hollow ball

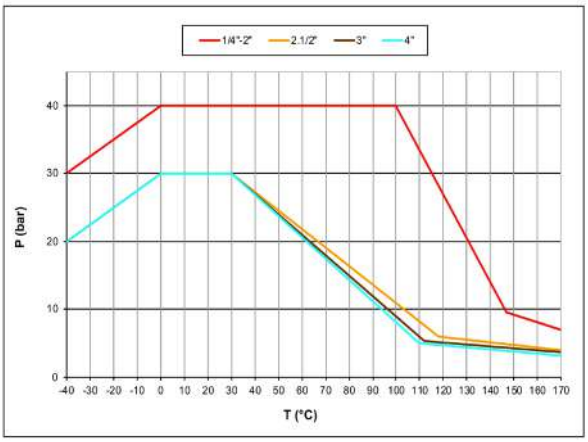
	Part description	Q.ty	Material
1	Unplated body	1	CW617N
2	Seat	2	PTFE
3	Chrome plated ball	1	CW617N
4	Unplated end-cup	1	CW617N
5	Nickel plated stem O-ring design	1	CW617N
6	Geomet® nut	1	CB4FF (EN10263-2)
7	O-ring	2	FPM
8	Red PVC coated Geomet® steel handle	1	DD11 (EN10111)



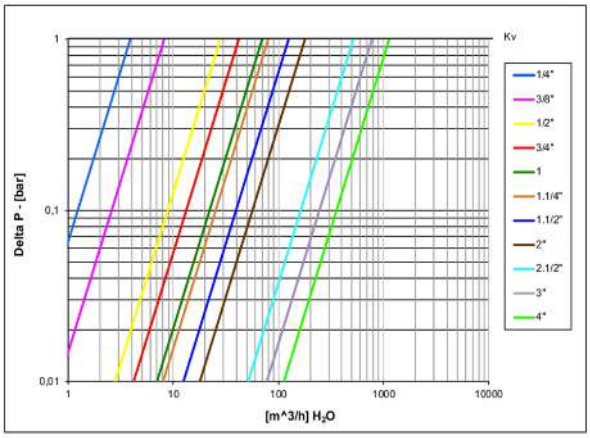
DN shows the nominal flow diameter. Ball valves are marked CE on handle from 1 ½" to 2" as follow:
CE XXCODEXX Cat. I-A

Code	S88B50	S88C50	S88D50	S88E50	S88F50	S88G50	S88H50	S88I50
D (inch)	1/4	3/8	1/2	3/4	1	1 1/4	1 1/2	2
DN (mm)	6	8	11.5	15	20	25	32	40
I (mm)	12	12	15.5	17	21	23	23	26.5
L (mm)	45	45	54	62	72	88	96	112
G (mm)	22.5	22.5	26.5	31	36	44	48	56
A (mm)	82	82	100	100	120	120	158	158
H (mm)	38	38	41	43	50	54	73	79
CH (mm)	20	20	25	31	38	49	54	68
Kv (m^3/h)	1.6	2.6	7.2	13.0	19.0	33.0	47.0	68.0

Pressure-temperature chart



Pressure drop chart



PLUMBING

ACCESSORIES

Accessories to forged *RuB* ball valves

Accessories to mini and micro ball valves

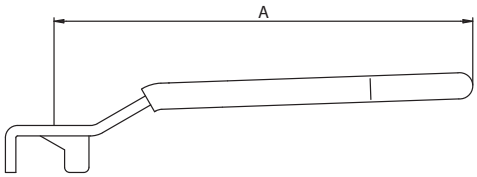
Miscellaneous accessories


OPEN
SHUT

Accessories

to forged *RuB* ball valves

Geomet® carbon steel lever

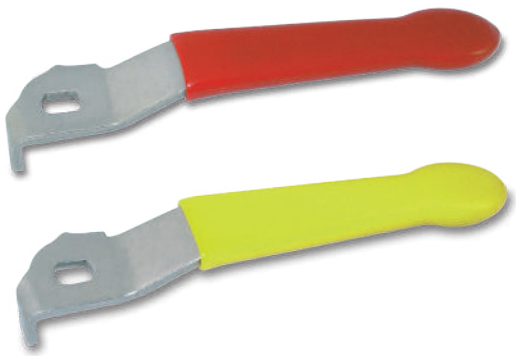


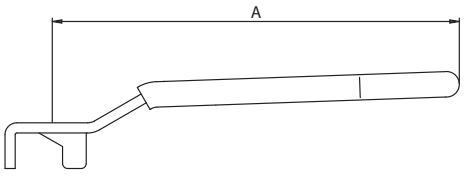
Full port		1/4"÷3/8"	1/2"	3/4÷1"	1 ¼"÷2"	2 ½÷4"
Standard port		**1/4"÷3/8"**	**1/2"÷3/4"**	**1"÷1 ¼"**	**1 ½"÷2 ½"**	**3"÷4"**
A (mm)		82	100	120	158	255
Red	Code	PLFR11	PLFR13	PLFR16	PLFR19	PMFR20
Yellow	Code	PLFG11	PLFG13	PLFG16	PLFG19	PMFG20
Black	Code	PLFN11	PLFN13	PLFN16	PLFN19	PMFN20
White	Code	PLFW11	PLFW13	PLFW16	PLFW19	PMFW20
Light Blue	Code	PLFA11	PLFA13	PLFA16	PLFA19	PMFA20
Green	Code	PLFV11	PLFV13	PLFV16	PLFV19	PMFV20

Description	Q.ty	Material
Geomet® plated steel handle	1	DD11 (EN10111)
Dipped coating	1	PVC

* PMFG20

AISI 430 stainless steel lever



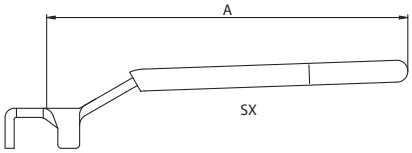


Full port		1/4"÷3/8"	1/2"	3/4÷1"	1 ¼"÷2"
Standard port		**1/4"÷3/8"**	**1/2"÷3/4"**	**1"÷1 ¼"**	**1 ½"÷2 ½"**
A (mm)		82	100	120	158
Red	Code	PLAR11	PLAR13	PLAR16	PLAR19
Yellow	Code	PLAG11	PLAG13	PLAG16	PLAG19

Description	Q.ty	Material
Stainless steel handle	1	AISI 430
Dipped coating	1	PVC

Geomet® carbon steel left lever

AVAILABLE ON DEMAND



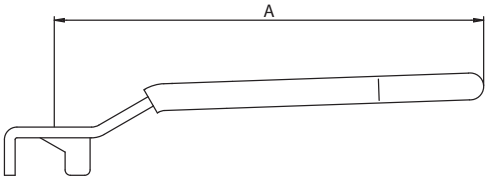
Description	Q.ty	Material
Geomet® plated steel handle	1	DD11 (EN10111)
Dipped coating	1	PVC

Full port	1/4"÷3/8"	1/2"
Standard port	1/4"÷3/8"	1/2"÷3/4"
A (mm)	100	100
Black Code	PLFN10	PLFN10

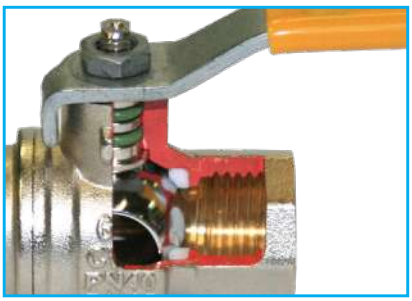
The left handles are the solution where the valves are installed on a parallel piping system.

Geomet® carbon steel 90° reverse lever

AVAILABLE ON DEMAND



Full port	1/2"
Standard port	1/2"÷3/4"
A (mm)	100
Yellow Code	PLIG03
Light Blue Code	PLIA03
Light Blue SX Code	PLIA00



Description	Q.ty	Material
Geomet® plated steel handle	1	DD11 (EN10111)
Dipped coating	1	PVC

We have also reversed handle: in this version the handle is parallel to the pipe when the valve is closed and perpendicular when the valve is open. This option is available only in the small size for valves up to 1/2" (or 3/4" for reduced bore)

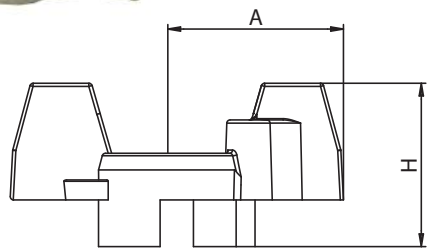
Stem flats show actual ball position

Aluminum - brass - Geomet® carbon steel T-handle

Corrosion is a big problem that many have to face when using valves in underground or outdoor installations, especially near sea, or when valves are used in swimming pools (chlorine), trucks or fire-fighting equipment.

Most people understand that brass components performance are quite high, while the problem with a ball valve may arise from a component you would have never thought about: the aluminum T-handle.

To benefit of brass resistance to corrosion, ***RuB*** has developed brass T-handles.



Full port		1/4"÷3/8"	1/2"	3/4÷1"
Standard port		1/4"÷3/8"	1/2"÷3/4"	1"÷1 ¼"
A (mm)		25	25	30
H (mm)		25	25	28
Red	Code	PFAR03	PFAR03	PFAR06
Yellow	Code	PFAG03	PFAG03	PFAG06
Light Blue	Code	PFAB03	PFAB03	PFAB06
Green	Code	PFAV03	PFAV03	PFAV06

Description	Q.ty	Material
T-handle	1	EN AC- 46100

Full port		1 ¼"÷2"
Standard port		1 ½"÷2 ½"
A (mm)		57
H (mm)		51
Red	Code	PFFR09
Yellow	Code	PFFG09
Light Blue	Code	PFFA09
Green	Code	PFFV09
Brass unplated	Code	--
Brass nickel plated	Code	--

Description	Q.ty	Material
Geomet® plated steel T-handle	1	DD11 (EN10111)
Dipped coating	1	PVC

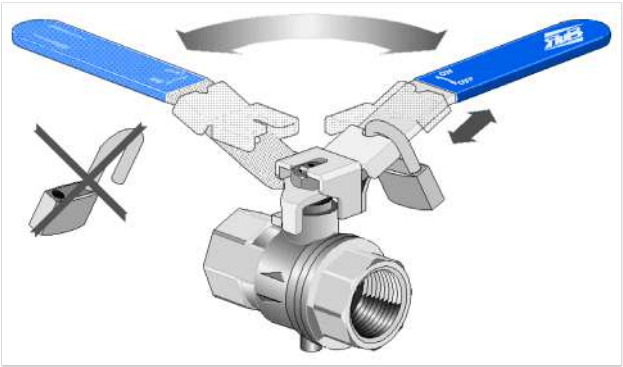
Full port		1/4"÷3/8"	1/2"	3/4÷1"
Standard port		1/4"÷3/8"	1/2"÷3/4"	1"÷1 ¼"
A (mm)		25	25	30
H (mm)		25	25	28
Brass unplated	Code	PFOG03	PFOG03	PFOG06
Brass nickel plated	Code	PFON03	PFON03	PFON06

Description	Q.ty	Material
Unplated brass T-handle	1	CW617N
Nickel plated brass T-handle	1	CW617N

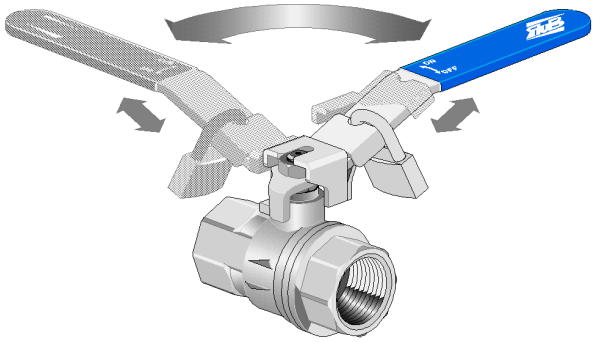
Patented lockable handle

for *RuB* manual ball valves

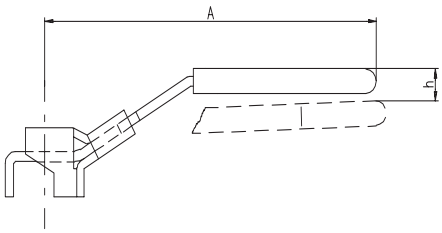
The ***RuB*** lockable handle is made of strong Geomet® carbon steel and designed to discourage tampering.
The ***RuB*** locking device covers the top nut of the valve making padlock removal impossible without a key.
Easy to install on valves in the field, the ***RuB*** lockable handle will lock s.93 ***RuB*** valves in closed position only in compliance with OSHA (USA) safety requirements, while other ***RuB*** valves can be locked in both the open and closed positions.



Lockable only in closed position when assembled on s.93 ***RuB*** range



Lockable in both open and closed positions when assemble on any other ***RuB*** range



Code	PBFA13	PBFA16	PBFA19	PBFA20
Full port	1/4"÷3/8"÷1/2"	3/4"÷ 1"	1 ¼"÷1 ½" ÷2"	2 ½"÷3"÷4"
Reduced port	1/2"÷3/4"	1"÷1 ¼"	1 ½"÷2"÷2 ½"	3"÷4"
A (mm)	96	117	156.5	250
h (mm)	8.5	9.5	4	8

Description	Q.ty	Material
Geomet® plated steel handle	1	DD11 (EN10111)
Dipped coating	1	PVC

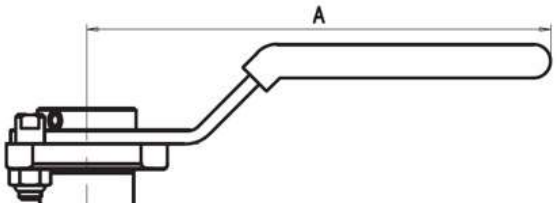
Dimension A shows handle length from center of stem; dimension h shows height of handle compared to standard handle assembled on valves. Two bottom lines show size of valve to fit wish each size of lockable handle. Use 9/32" size shackle padlock up to 2", and 5/16" over.

Lockable handle

for 3-way ball valves series s.76 (L-port) and s.64/T.264 with ISO5211 F03 flange

Flange Size		F03
A (mm)		103
Black	Code	SLFD03

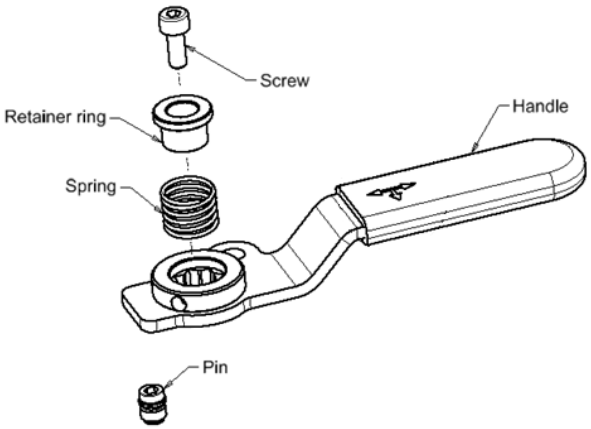
Description	Q.ty	Material
Geomet® plated steel handle	1	DD11 (EN10111)
Dipped coating	1	PVC
Stainless steel screw	1	AISI 304
Zinc plated steel nut	1	Class 8 (UNI7474)
Unplated stop	1	CW617N



This kit easily converts an actuated valve to a manual one.
To lock valve in any position, use 4mm (5/32") shackle padlock.

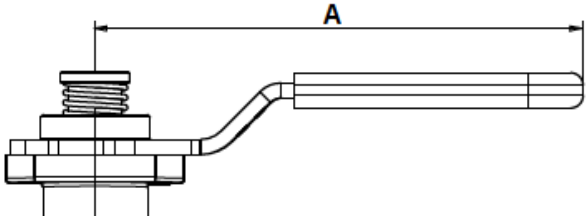
Lockable push & turn handle

for 3-way ball valves series s.73 (T-port) with ISO5211 F03 flange



Flange Size		F03
A (mm)		103
Black	Code	K73N13

Description	Q.ty	Material
Geomet® plated steel handle	1	DD11 (EN10111)
Dipped coating	1	PVC
Screw	1	AISI 304
Retainer ring	1	CW617N
Spring	1	AISI 302
Pin	1	CW617N

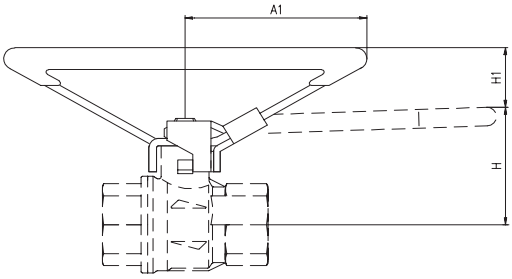


To lock valve in any position, use 4mm (5/32") shackle padlock.

Oval lockable handle

for *RuB* manual ball valves

The ***RuB*** oval/round lockable handle is for service where there isn't enough space for levers or T-handles, or where lever handles might be moved unintentionally.
It is made of steady carbon steel and it features the patented ***RuB*** lockable device.
The ***RuB*** oval lockable handle is available for all sizes of forged ***RuB*** valves up to 2" and in round shape for sizes 2 ½" thru 4"; it is easy to install on valves in the field or you can simply order your ***RuB*** valves with this option.



Code	PBOA03		PBOA06	PBOA09	PBOA10
Size	1/4"÷3/8"	1/2"	3/4"÷1"	1 ¼"÷1 ½"÷2"	2 ½"÷3"÷4"
A1 (mm)	58	58	70	70	155
H1 (mm)	20	19.5	22	15	3.2

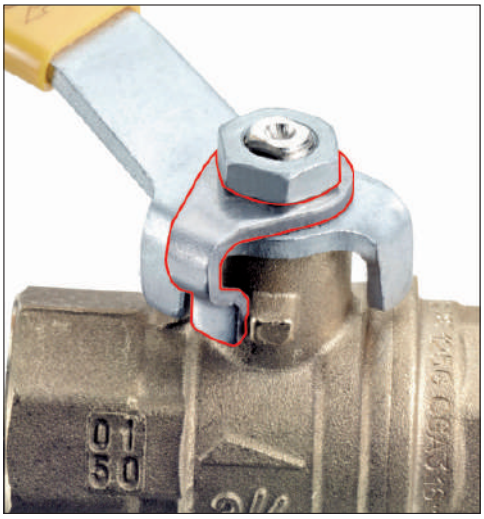
Size	1/4"÷ 2"	2 ½"÷ 4"
Locker shackle	9/32"	5/16"

Description	Q.ty	Material
Geomet® plated steel handle	1	DD11 (EN10111)
Dipped coating	1	PVC

Dimension A1 shows handle dimension from centre of stem. Dimension H1 shows height of handle compared to standard handle assembled on valves.

Memory stop

Use together with *RuB* stubby handles with knurling

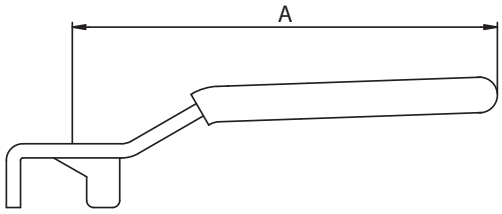


Full port valve	1/4"÷3/8"	1/2"	3/4÷1"	1 ¼"÷2"
Standard port valve	1/4"÷3/8"	1/2"÷3/4"	1"÷1 ¼"	1 ½"÷2 ½"
Code	PPMA03	PPMA03	PPMA06	PPMA09

Description	Q.ty	Material
Geomet® plated steel memory stop	1	DD11 (EN10111)

Memory Stop allows to control flow passing through the valve by curbing ball movement from fully closed to a preset position. Installing a memory stop on a standard ***RuB*** valve is very easy and can be done even while valve is being used. Memory stops should be used only with ***RuB*** valves with O-Ring stem design

Geomet® carbon steel stubby handle



Full port valve	1/4"÷3/8"	1/2"	3/4÷1"	1 ¼"÷2"
Standard port valve	1/4"÷3/8"	1/2"÷3/4"	1"÷1 ¼"	1 ½"÷2 ½"
A (mm)	45	45	90	100
Yellow Code	PLTG13	PLTG13	PLTG16	PLTG19

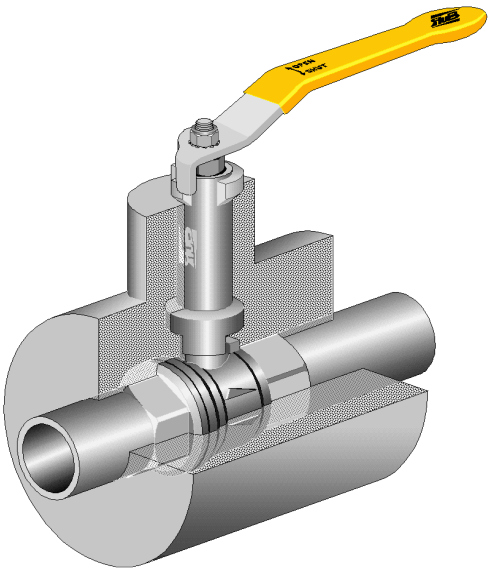
Description	Q.ty	Material
Geomet® plated steel handle	1	DD11 (EN10111)
Dipped coating	1	PVC

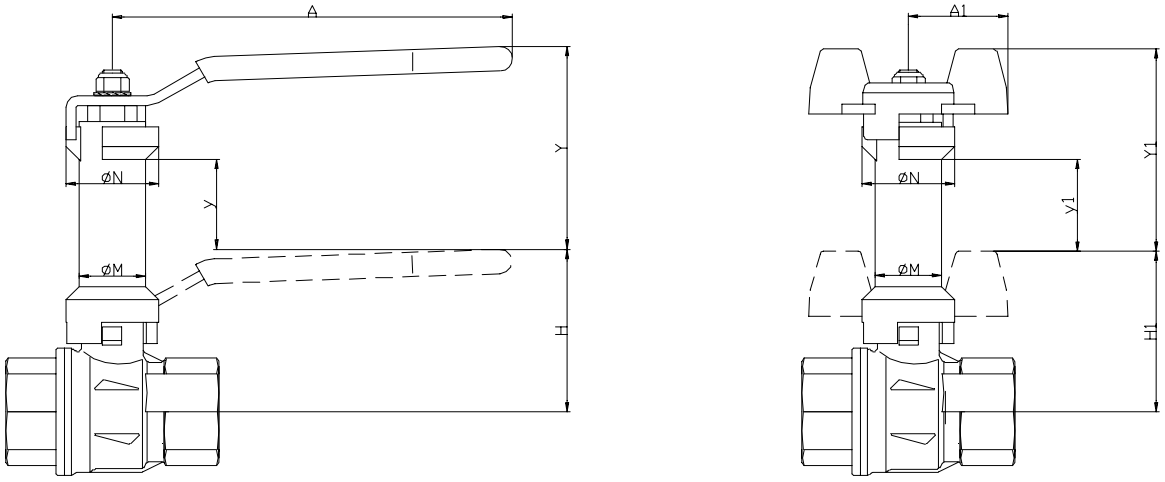
RuB levers are not only strong, but also long for easy maneuver. To solve space constraints issues, install our stubbies.

Stem Extension

for *RuB* ball valves with O-ring stem design

Today's world is conscious of the energy savings required to maintain resources for the future. To avoid heat loss from insulated pipes. ***RuB*** offers stem extensions which provide easy operation over insulation.
RuB stem extensions are made of strong hot forged brass and are designed for low heat losses from the pipe to the ambient environment. They are easy to install on ***RuB*** valves even while valves are in service.

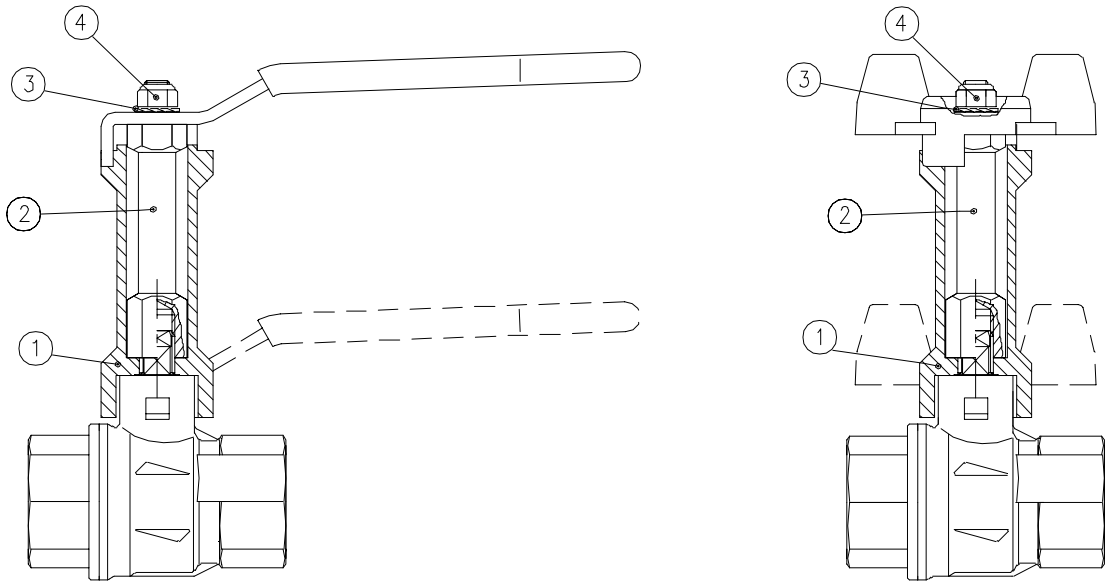




Dimensions Y, y, Y1 and y1 are additional to dimension H on the relevant valve drawing

Code	PPRO03		PPRO06	PPRO09
Full port valve	1/4"÷3/8"	1/2"	3/4"÷1"	1 ¼"÷1 ½"÷2"
Reduced port valve		1/2"÷3/4"	1"÷1 ¼"	1 ½"÷2"÷2 ½"
M (mm)	17	17	20	26
N (mm)	25	25	28	36
A (mm)	82	100	120	158
Y (mm)	56.5	56.5	62.5	67.5
y (mm)	26.5	26.5	27.5	20.5
A1 (mm)	25	25	30	--
Y1 (mm)	56.5	56.5	62.5	--
y1 (mm)	25.5	26	30.5	--

Note: Stem extensions should not be used on valves with packing gland designs due to regular required maintenance adjustments.



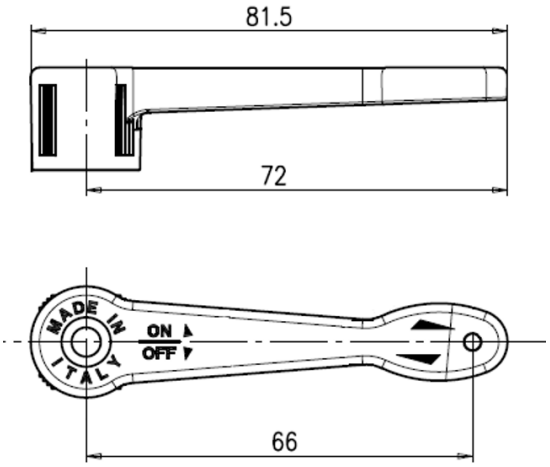
Item	Description	Q.ty	Material
1	Body	1	CW617N
2	Connection	1	CW617N
3	Tab washer	1	Steel
4	Self-locking nut	1	Steel

Accessories

to mini and micro ball valves

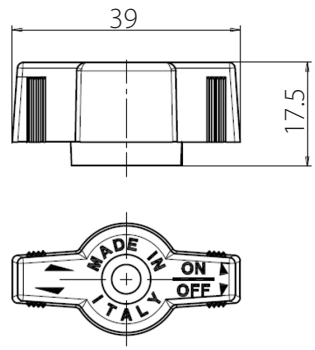
Nylon lever and T-handle

for s.34



Item No	Description	Colour
PLNB34	Blue nylon lever for s.34	RAL5017
PLNG34	Yellow nylon lever for s.34	RAL1028
PLNN34	Black nylon lever for s.34	RAL9005
PLNR34	Red nylon lever for s.34	RAL3000

Description	Q.ty	Material
Lever for s.34	1	Nylon glass filled 30%

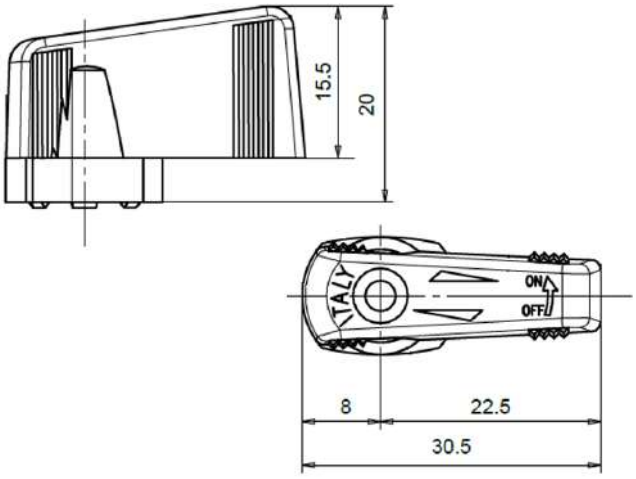


Item No	Description	Colour
PFNA34	Orange nylon T-handle for s.34	RAL2009
PFNB34	Blue nylon T-handle for s.34	RAL5017
PFNG34	Yellow nylon T-handle for s.34	RAL1028
PFNN34	Black nylon T-handle for s.34	RAL9005
PFNR34	Red nylon T-handle for s.34	RAL3000

Description	Q.ty	Material
T-handle for s.34	1	Nylon glass filled 30%

Nylon wedge handle

for s.35



Item No	Description	Colour
PLN35G	Yellow nylon wedge handle for s.35	RAL1028
PLN35N	Black nylon wedge handle for s.35	RAL9005
PLN35R	Red nylon wedge handle for s.35	RAL3000
PLN35V	Green nylon wedge handle for s.35	RAL6001
PLG35N (Upon request)	Grey Grivory® wedge handle for s.35	RAL7012

Description	Q.ty	Material
Wedge handle for s.35	1	Nylon glass filled 30%

Metal wedge handle

for s.35

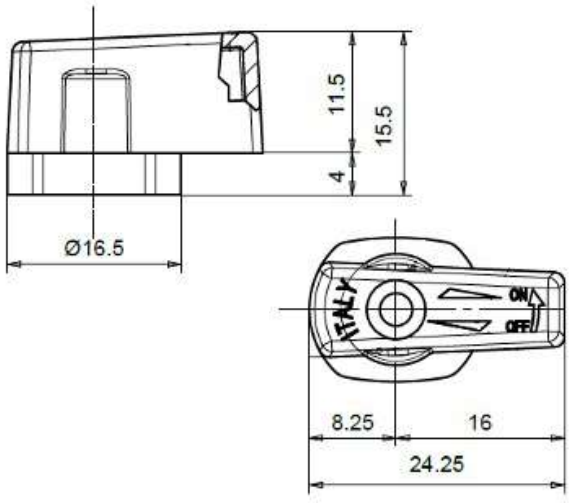
Colours	Yellow	Blue	Black	Red	Green	Chrome
Code	PLZ35G	PLZ35B	PLZ35N	PLZ35R	PLZ35V	PLZ35C

Description	Q.ty	Material
Metal wedge handle for s.35	1	ZAMA Z5

Thanks to the metal wedge handles mounted on s35 series, it's now possible to reach working temperatures up to 120°C (250°F). The metal wedge handles are available in red, black, yellow, green, light blue and chrome plated. Same dimensions as nylon wedge handle.

Nylon wedge handle

for s.39 micro



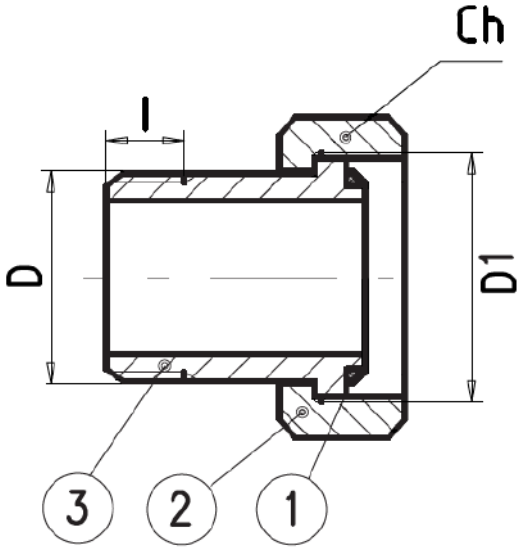
Item No	Description	Colour
PLN39N	Black nylon wedge handle for s.39	RAL9005

Description	Q.ty	Material
Wedge handle for s.39	1	Nylon glass filled 30%

Miscellaneous accessories

Union connection set

for s.9036

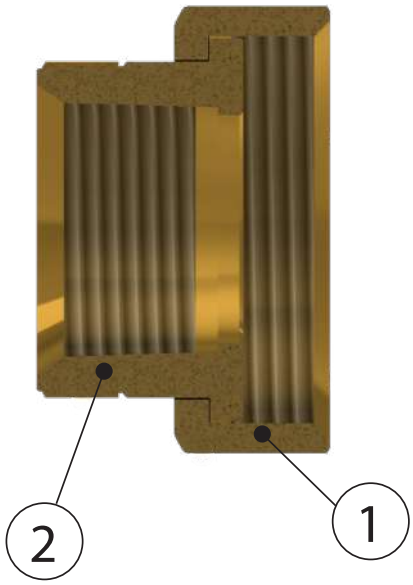


Pos.	Description	Q.ty	Material
1	O-Ring	1	EPDM
2	Nickel plated union nut	1	CW617N
3	Nickel plated union tailpiece	1	CW617N

Size	1/2" x 3/4"	3/4" x 1"	1" x 1 ¼"	1 ¼" x 1 ½"
D (inch)	1/2" ISO228	3/4" ISO228	1" ISO228	1 ¼" ISO228
D1 (inch)	3/4" ISO228	1" ISO228	1 ¼" ISO228	1 ½" ISO228
l1 (mm)	10	12	14	15
Ch (mm)	30	37	46	52

Union connection set

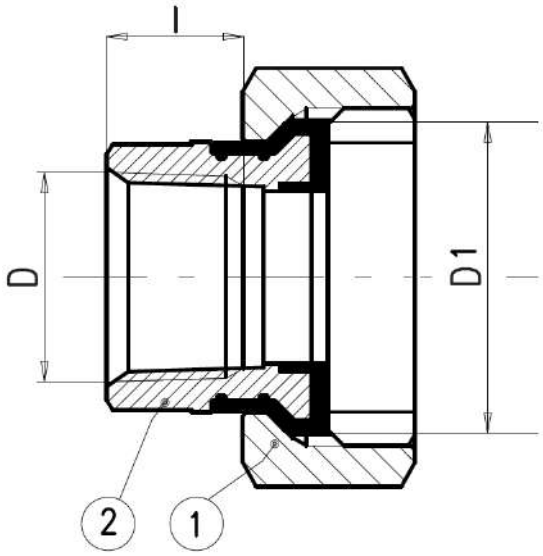
for s.80



Item	Description	Q.ty	Thread type	Material
1	Sand blasted unplated nut	1	G 1.1/2" ISO228	CW617N
2	Unplated female tailpiece	1	1" NPT ANSI B1.20.1	CW617N

Dielectric union connection set

for s.80

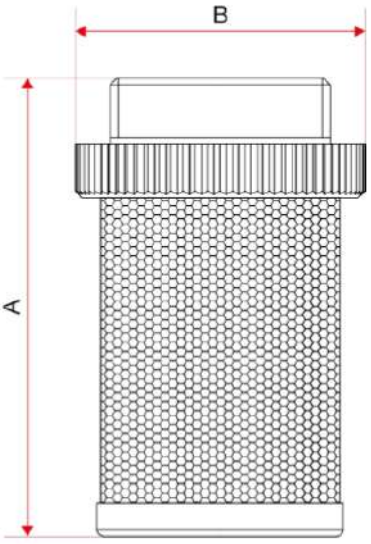


Item	Description	Q.ty	D1	D	I	Material
1	Sand blasted unplated nut	1	G 1 ¼" ISO228			CW617N
2	Unplated female dielectric tailpiece	1		3/4" NPT ANSI B1.20.1	0.67"	CW617N + PA

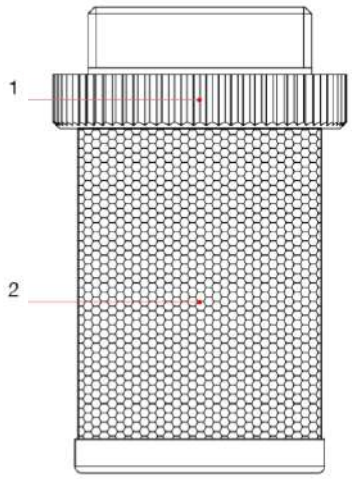
Filter

for check valves s.120

- Degree of filtration: from 3/8" to 2": 1200µm; from 2 ½" to 4": 2000µm.
- Threaded connection: ISO 228.



	3/8"	1/2"	3/4"	1"	1 ¼"	1 ½"	2"	2 ½"	3"	4"
A	42	47	58	70	76	83	99,5	123	138	152,5
B	25,7	30	35,9	43,9	50,9	56,9	68,9	86	102	129



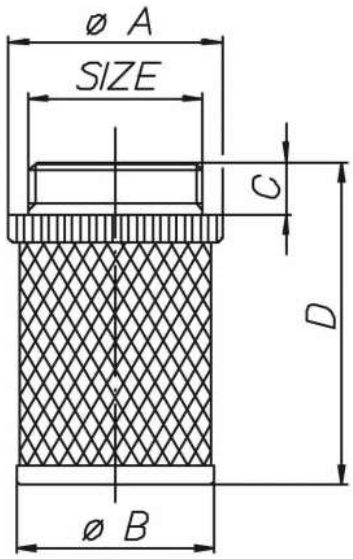
Item	Description	Q.ty	Material
1	Hose	1	Polymer
2	Grid	1	AISI 304

Item No.	For ball valve s.190 size
PFILAC	3/8"
PFILAD	1/2"
PFILAE	3/4"
PFILAF	1"
PFILAG	1 ¼"
PFILAH	1 ½"
PFILAI	2"
PFILAL	2 ½"
PFILAM	3"
PFILAN	4"

Filter

for check valves s.123

- Threaded connection: ISO 228.



SIZE	3/8"	1/2"	3/4"	1"	1 ¼"	1 ½"	2"	2 ½"	3"	4"
Ø A mm	21	26	32	40	49	55	68	85	99	121
Ø B mm	19	23	29	37	44	50	61	80	93	116
C mm	7	8	9	10	11	11	12	13	14	14
D mm	46,5	50	57	62	68	78	90	97	110	128

Item No.	For ball valve s.123 size
PFI3AC	3/8"
PFI3AD	1/2"
PFI3AE	3/4"
PFI3AF	1"
PFI3AG	1 ¼"
PFI3AH	1 ½"
PFI3AI	2"
PFI3AL	2 ½"
PFI3AM	3"
PFI3AN	4"

Item	Description	Q.ty	Material
1	Hose	1	Polymer
2	Grid	1	AISI 304

Filter (500 µm mesh)

for s.190

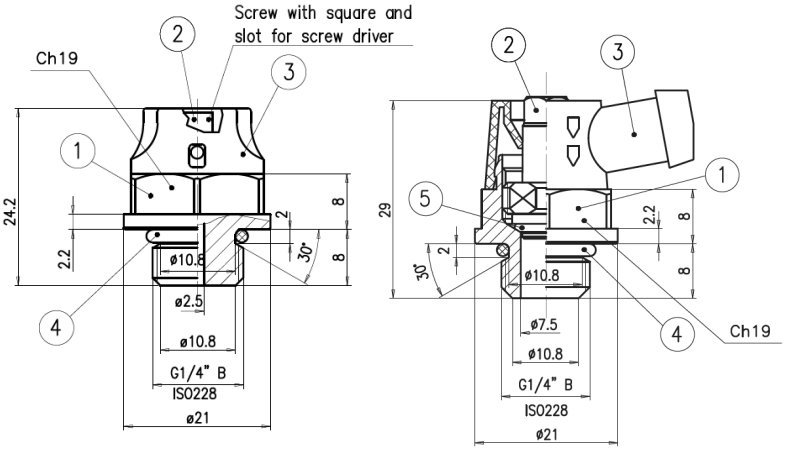
Item	For ball valve s.190 size
PF190D	1/2"
PF190E	3/4"
PF190F	1"
PF190G	1 ¼"
PF190H	1 ½"
PF190I	2"

Description	Q.ty	Material
Body	1	Nylon
Internal grid	1	AISI 304

Drains and caps

for s.81

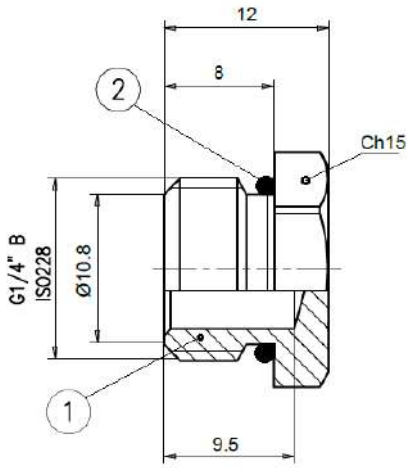
Item No.	Description
PSPR811	Side drain valve G 1/4", compact version screwdriver operated
PSPR81	Side drain valve G 1/4" with hose connection
PTNR81	Side cap G 1/4"



PSPR81 - Side drain valve G 1/4" with hose connection

PSPR811 - Side drain valve G 1/4", compact version screwdriver operated

Pos.	Description	Q.ty	Material
1	Nickel plated body	1	CW614N
2	Nickel plated screw	1	CW612N
3	Rotating plastic head	1	Nylon-6
4	O-Ring	1	EPDM
5	O-Ring for PSPR81 only	1	EPDM



PTNR81 - Side cap G 1/4"

Pos.	Description	Q.ty	Material
1	Nickel plated cap	1	CW617N
2	O-Ring	1	EPDM

XCEACC - 4523

ACTUATION

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DRINKING WATER

PLUMBING

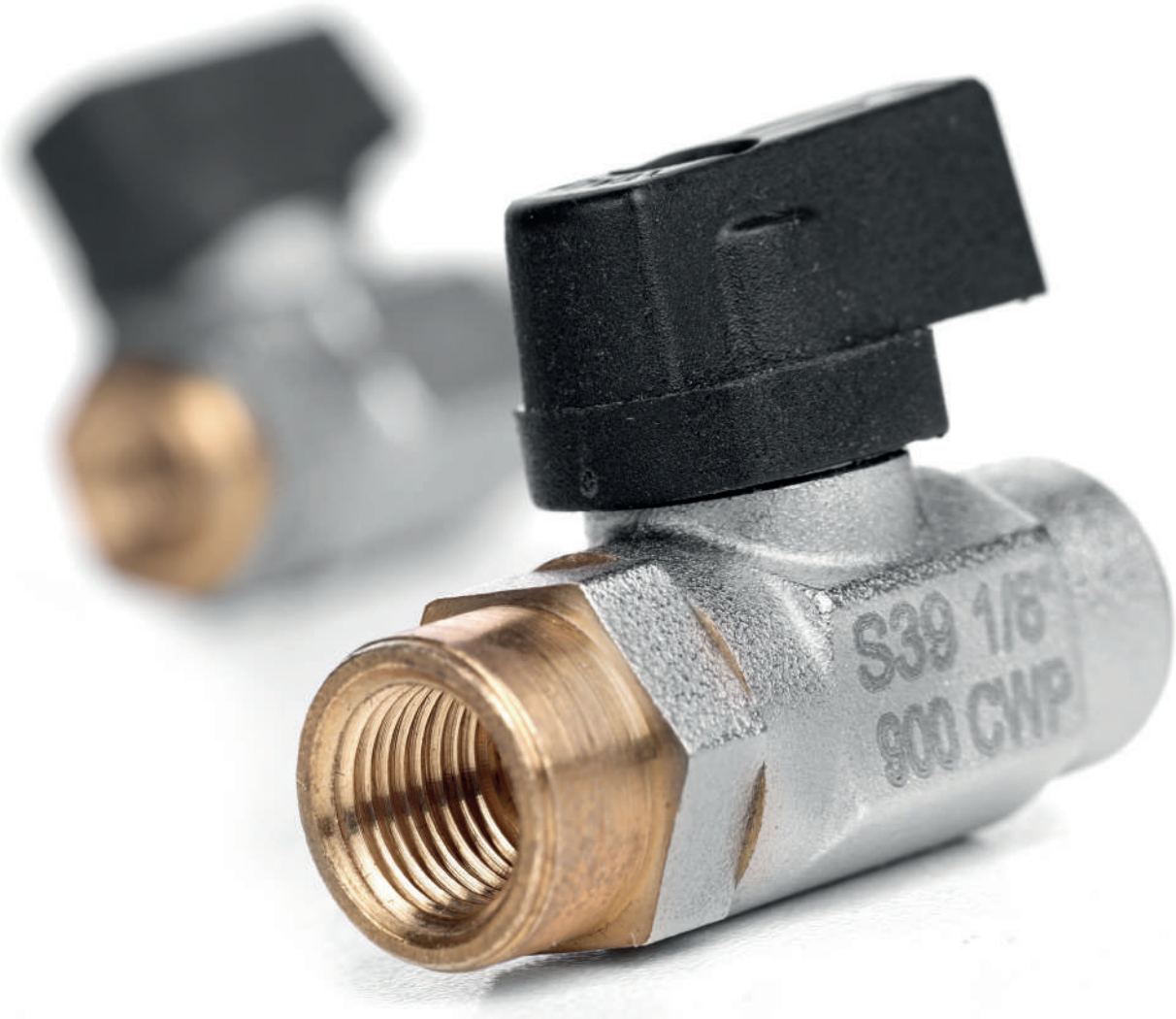
ACCESSORIES

Accessories to forged *RuB* ball valves

MASTER INDEX

Accessories to mini and micro ball valves

Miscellaneous accessories



NOTES


4"
CW617N

Ask for additional information on the whole range of ***RuB*** products and consult with your supplier for special applications.
For complete disclaimer: www.rubvalves.com/disclaimer

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