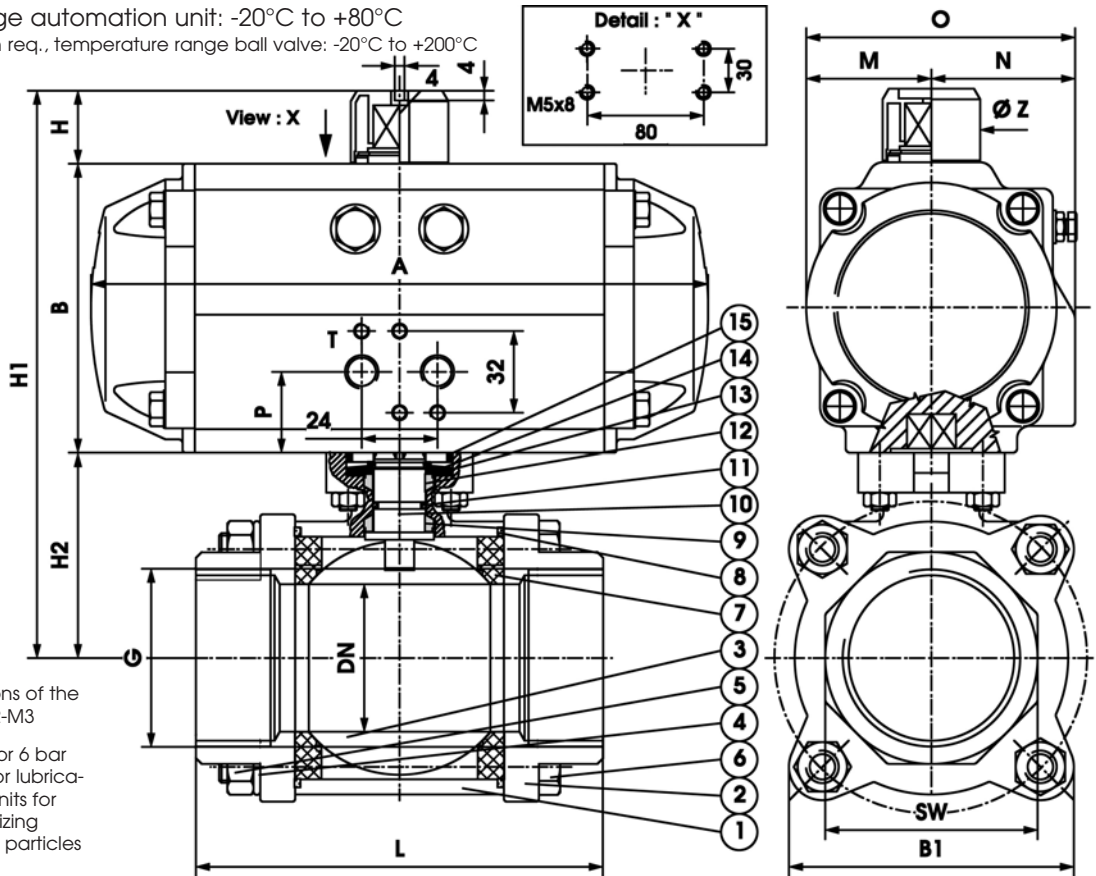


Automation unit with 3-piece ball valve

3-piece ball valve with thread ends, full bore, PN 63; DN10 - 100 in stainless steel
 Temperature range automation unit: -20°C to +80°C
 other temperatures on req., temperature range ball valve: -20°C to +200°C



Face-to-face dimensions of the valve acc. to DIN 3202-M3

The units are suitable for 6 bar control pressure and for lubricating, neutral medias. Units for not lubricating, crystallizing medias or medias with particles on request.

Pos.	pcs.	Description	Material
1	1	Body	1.4408
2	2	End cap	1.4408
3	1	Ball	1.4401
4	4 - 12	Bolt washer	1.4301
5	4 - 12	Bolt nut	1.4301
6	4 - 12	Bolt	1.4301
7	2	Seat ring	PTFE
8	2	Body seal	PTFE

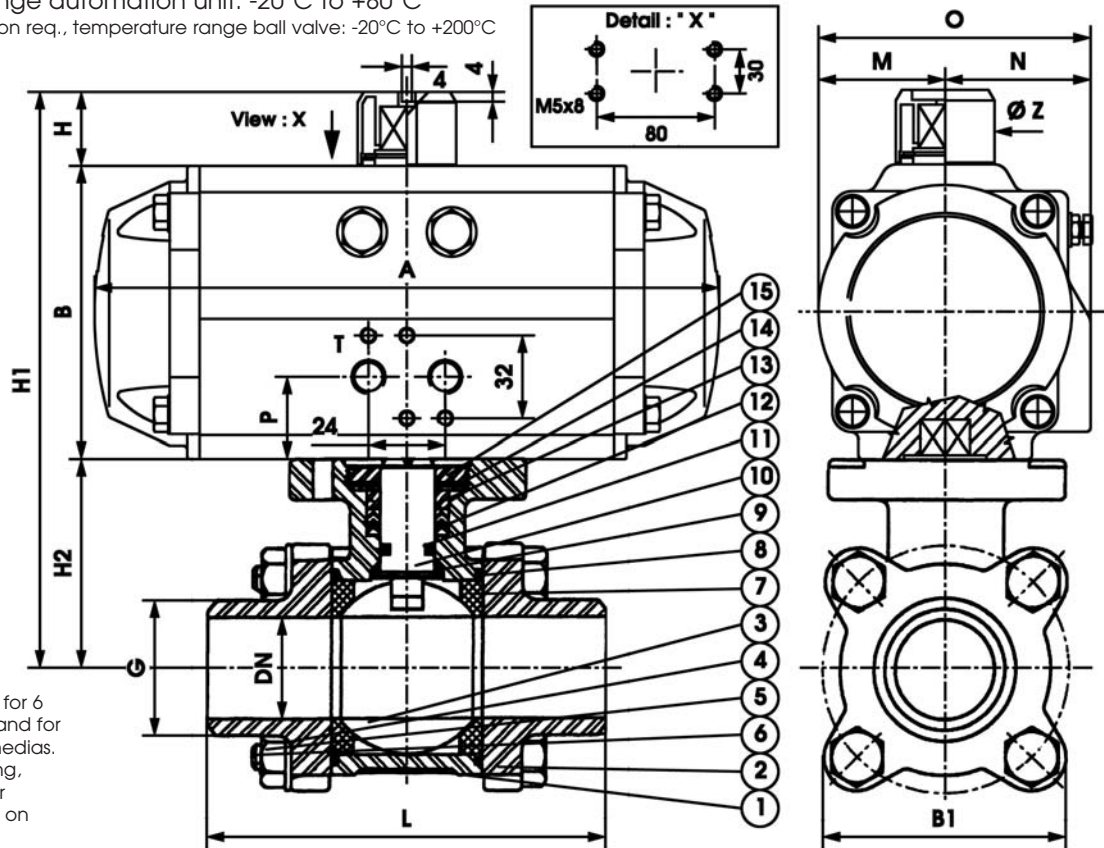
Pos.	pcs.	Description	Material
9	1	Thrust washer	PTFE
10	1	Stem	1.4401
11	1	O-Ring	Viton
12	3	Stem seal	PTFE
13	1	Gland ring	1.4301
14	2	Bevel washer	Spring steel
15	1	Gland nut	1.4301

Type ¹⁾ Size	DR 00015	SC 00015	DR 00015	SC 00015	DR 00015	SC 00030	DR 00015	SC 00030	DR 00030	SC 00060	DR 00030	SC 00060	DR 00060	SC 00100	DR 00060	SC 00100	DR 00060	SC 00150	DR 00100	SC 00150	DR 00150	SC 00220	
G	1/4"	3/8"	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"	2 1/2"	3"	4"												
DN	10	12	16	20	25	32	40	50	65	80	100												
L	60	60	75	80	90	110	120	140	185	205	240												
SW	24	24	29	35	41	50	58	73	90	105	135												
B1	50	50	50	54	60	72	81	99	125	190	222												
H2	40	40	40	44	52	58	68	77	98	110	138												
A	141	141	141	141	141	159	141	159	159	211	159	211	211	248	211	248	211	269	248	269	269	315	
B	69	69	69	69	69	85	69	85	85	102	85	102	102	115	102	115	102	127	115	127	127	145	
H	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	30	
H1	129	129	129	129	129	145	133	149	157	174	163	180	190	203	199	212	220	245	245	257	285	313	
P	27	27	27	27	27	30	27	30	30	31	30	31	31	33	31	33	31	38	33	38	38	43	
T	1/8"	1/8"	1/8"	1/8"	1/8"	1/8"	1/8"	1/8"	1/8"	1/8"	1/8"	1/8"	1/8"	1/8"	1/8"	1/8"	1/8"	1/4"	1/8"	1/4"	1/4"	1/4"	
Ø Z	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	56/65	
O	71	71	71	71	71	83	71	83	83	95	83	95	95	107	95	107	95	123	107	123	123	141	
M	29	29	29	29	29	36	29	36	36	43	36	43	43	50	43	50	43	56	50	56	56	64	
N	42	42	42	42	42	47	42	47	47	52	47	52	52	57	52	57	52	67	57	67	67	77	

¹⁾ Type DR -> double acting, type SC -> single acting

Automation unit with 3-piece ball valve

3-piece ball valve with weld ends, full bore, PN 63; DN10 - 100 in stainless steel
 Temperature range automation unit: -20°C to +80°C
 other temperatures on req., temperature range ball valve: -20°C to +200°C



Face-to-face dimensions of the valve acc. to DIN 3202-S13

The units are suitable for 6 bar control pressure and for lubricating, neutral medias. Units for not lubricating, crystallizing medias or medias with particles on request.

Pos.	pcs.	Description	Material
1	1	Body	1.4408
2	2	End cap	1.4408
3	1	Ball	1.4401
4	4-12	Bolt washer	1.4301
5	4-12	Bolt nut	1.4301
6	4-12	Bolt	1.4301
7	2	Seat ring	PTFE
8	2	Body seal	PTFE

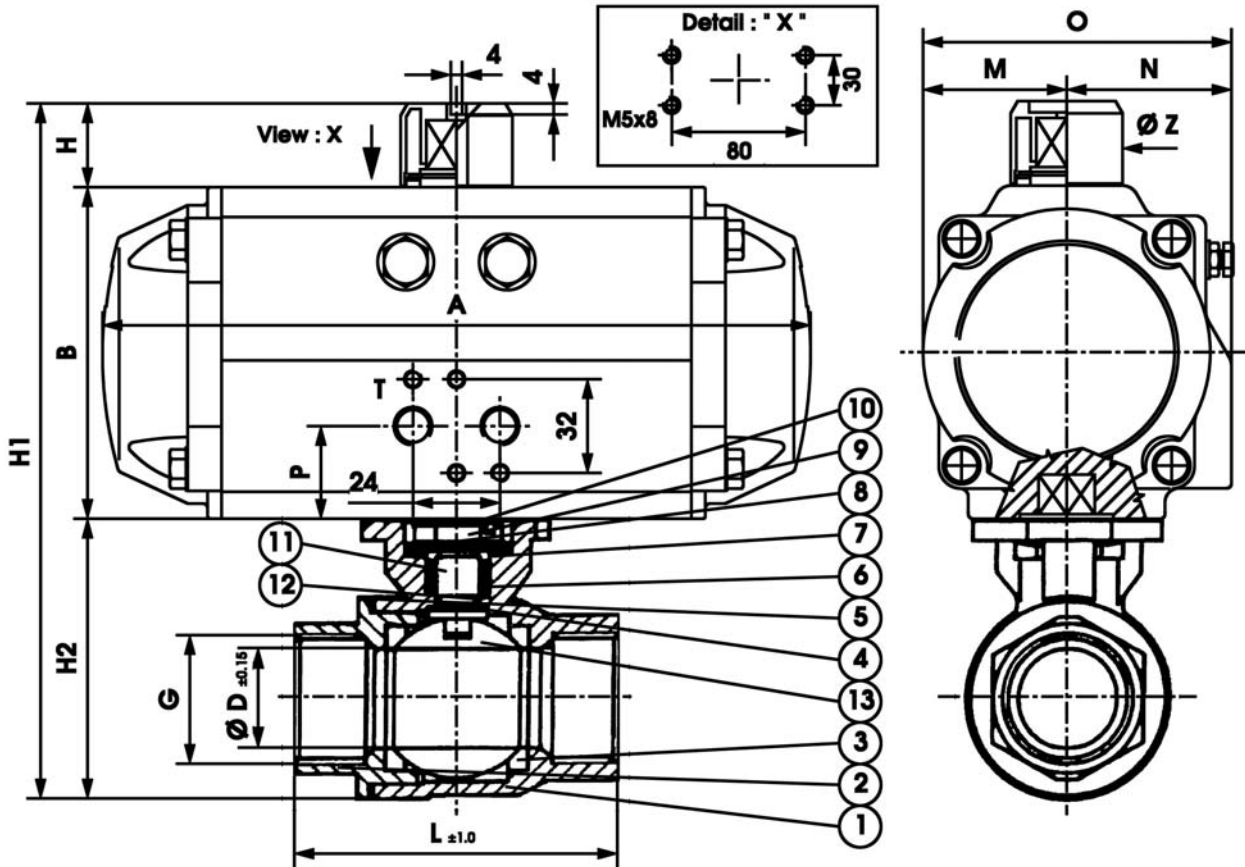
Pos.	pcs.	Description	Material
9	1	Thrust washer	PTFE
10	1	Stem	1.4401
11	1	O-Ring	Viton
12	3	Stem seal	PTFE
13	1	Gland ring	1.4301
14	2	Bevel washer	Spring steel
15	1	Gland nut	1.4301

Type ¹⁾ Size	DR 00015	SC 00015	DR 00015	SC 00015	DR 00015	SC 00030	DR 00015	SC 00030	DR 00030	SC 00060	DR 00030	SC 00060	DR 00060	SC 00100	DR 00060	SC 00100	DR 00060	SC 00150	DR 00100	SC 00150	DR 00150	SC 00220	
G	1/4"	3/8"	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"	2 1/2"	3"	4"												
DN	20	20	23	28	34	41	49	62	78	94	125												
L	10	12	16	20	25	32	40	50	65	80	100												
B1	70	70	75	90	100	110	125	150	190	220	270												
H2	50	50	50	54	60	72	81	99	125	190	222												
H	40	40	40	44	52	58	68	77	98	110	138												
A	141	141	141	141	141	159	141	159	159	211	159	211	211	248	211	248	211	269	248	269	269	315	
B	69	69	69	69	69	85	69	85	85	102	85	102	102	115	102	115	102	127	115	127	127	145	
H1	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	30	
P	129	129	129	129	129	145	133	149	157	174	163	180	190	203	199	212	220	245	245	257	285	313	
T	27	27	27	27	27	30	27	30	30	30,5	30	31	31	33	31	33	31	38	33	38	38	43	
ØZ	1/8"	1/8"	1/8"	1/8"	1/8"	1/8"	1/8"	1/8"	1/8"	1/8"	1/8"	1/8"	1/8"	1/8"	1/8"	1/8"	1/8"	1/4"	1/8"	1/4"	1/4"	1/4"	
O	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	56/65	
M	71	71	71	71	71	83	71	83	83	95	83	95	95	107	95	107	95	123	107	123	123	141	
N	29	29	29	29	29	36	29	36	36	43	36	43	43	50	43	50	43	56	50	56	56	64	
	42	42	42	42	42	47	42	47	47	52	47	52	52	57	52	57	52	67	57	67	67	77	

1) Type DR -> double acting, type SC -> spring return

Automation unit with 2-piece ball valve

2-piece ball valve with thread ends, full bore, PN63; DN8 - 100 in stainless steel
 Temperature range automation unit: -20°C to +80°C
 other temperatures on request, temperatures ball valve: -20°C to +200°C



Pos.	pcs.	Description	Material
1	1	Body	1.4408
2	1	End cap	1.4408
3	2	Ball seat	PTFE
4	1	Thrust washer	PTFE
5	1	Body seal	PTFE
6	2	Stem packing	PTFE
7	1	Gland nut	1.4401

Pos.	pcs.	Description	Material
8	2	Spring	1.4301
9	1	Nut	1.4301
10	1	Ring	1.4301
11	1	Stem	1.4401
12	1	O-Ring	Viton
13	1	Ball	1.4401

All dimensions in mm.
 Face-to-face dimensions
 of the valve acc. to DIN
 3202 M3,
 BSP thread

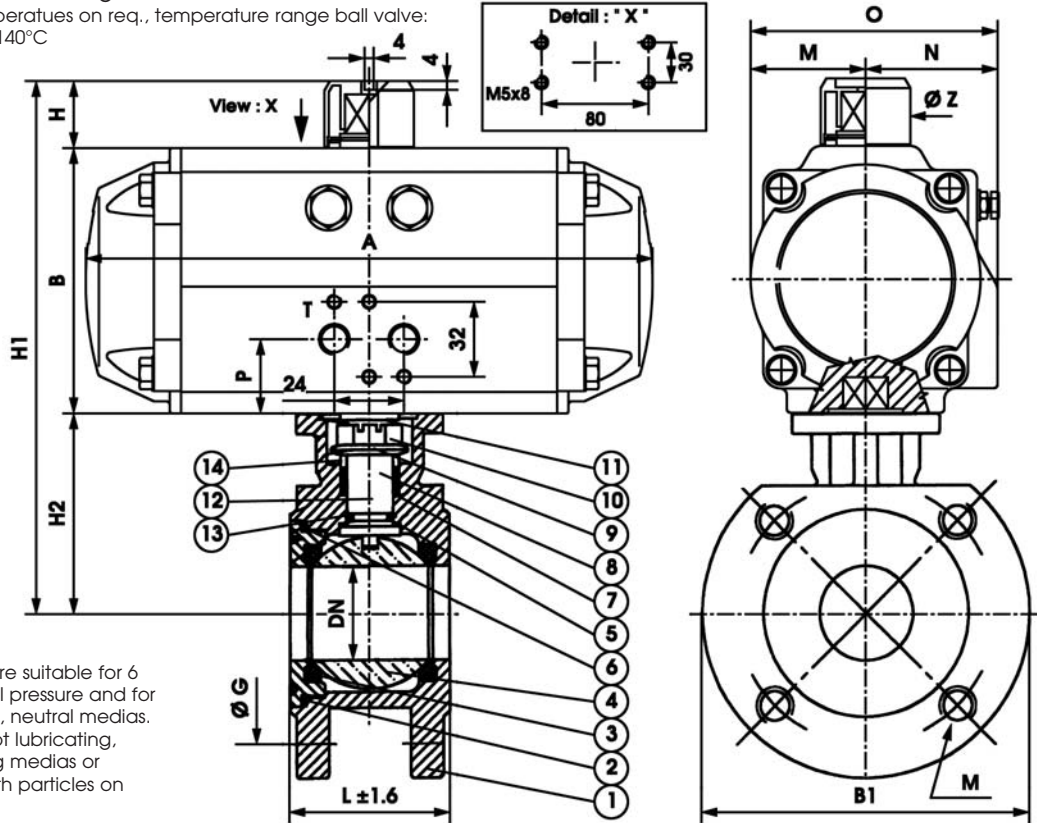
Type ¹⁾ Size	DR 00015	SC 00015	DR 00015	SC 00015	DR 00015	SC 00030	DR 00015	SC 00030	DR 00030	SC 00060	DR 00030	SC 00060	DR 00030	SC 00060	DR 00060	SC 00100
G	1/4"	3/8"	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"								
Ø D	11,6	12,7	15	20	25	31,8	38	50,8								
L	50	60	75	80	90	110	120	140								
H2	50	50	53	64	71	82	93	115								
A	141	141	141	141	141	159	141	159	159	211	159	211	159	211	211	248
B	69	69	69	69	69	85	69	85	85	102	85	102	85	102	102	115
H	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20
H1	139	139	139	139	142	158	153	169	176	193	187	204	198	215	237	250
P	27	27	27	27	27	30	27	30	30	31	30	31	30	31	31	33
T	1/8"	1/8"	1/8"	1/8"	1/8"	1/8"	1/8"	1/8"	1/8"	1/8"	1/8"	1/8"	1/8"	1/8"	1/8"	1/8"
Ø Z	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40
O	71	71	71	71	71	83	71	83	83	95	83	95	83	95	95	107
M	29	29	29	29	29	36	29	36	36	43	36	43	36	43	43	50
N	42	42	42	42	42	47	42	47	47	52	47	52	47	52	52	57

The units are suitable for
 6 bar control pressure
 and for lubricating, neu-
 tral medias.
 Units for not lubricating,
 crystallizing medias or
 medias with particles on
 request.

1) Type DR -> double acting, type SC -> spring return

Automation unit with compact flange ball valve

Compact flange ball valve, full bore, PN16/40; DN15 - 100 in stainless steel
 DN15 - DN50 flanges acc. to PN 40; DN65 - DN100 flanges acc. to PN 16
 Temperature range automation unit: -10°C to +80°C
 other temperatures on req., temperature range ball valve:
 -10°C to +140°C



The units are suitable for 6 bar control pressure and for lubricating, neutral medias.
 Units for not lubricating, crystallizing medias or medias with particles on request.

Pos.	pcs.	Description	Material
1	1	Body	1.4408
2	1	End cap	1.4408
3	2	Seat	PTFE
4	1	Ball	1.4401
5	1	Thrust washer	PTFE
6	1	Body seat	PTFE
7	1	Gland packing	PTFE

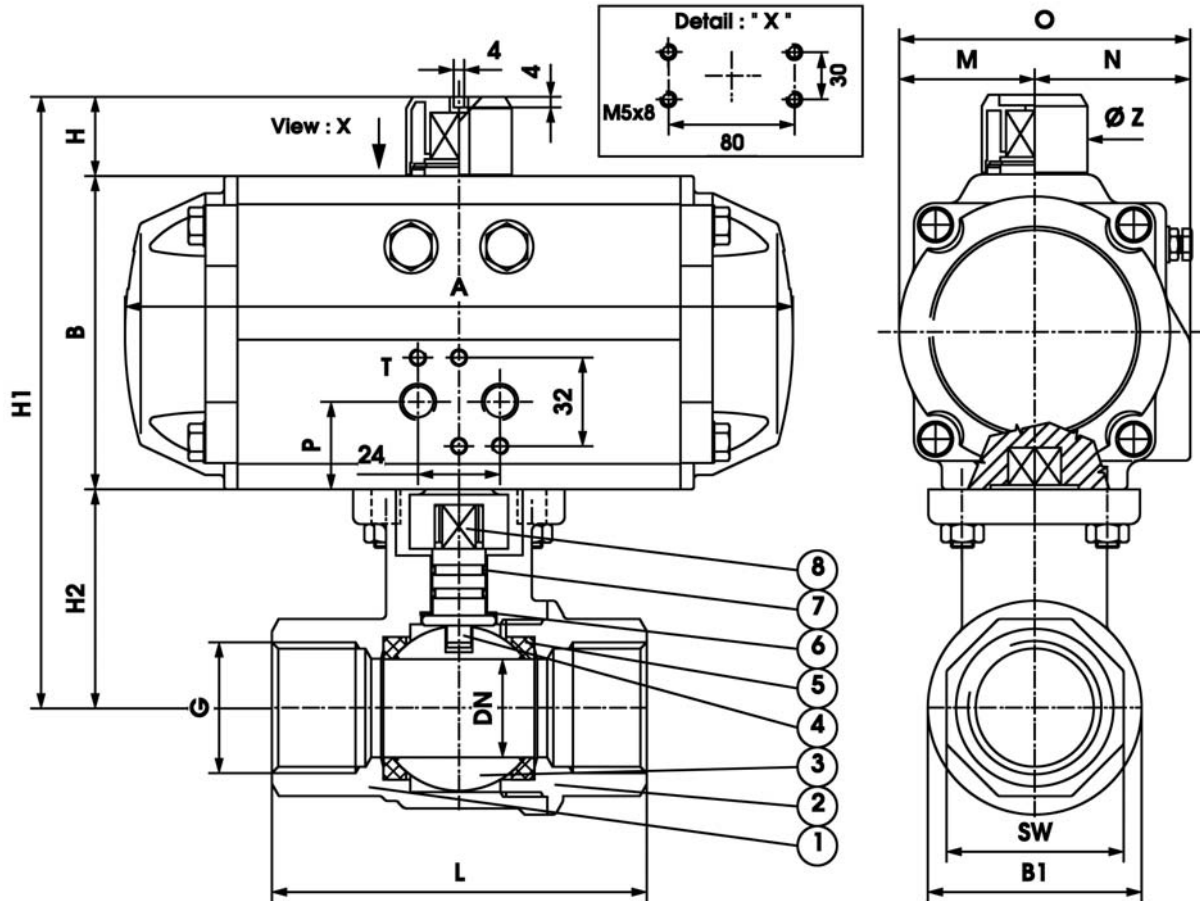
Pos.	pcs.	Description	Material
8	1	Stem	1.4401
9	2	Disc spring	SUS 301
10	1	Gland nut	1.4301
11	1	Tab washer	1.4301
12	1	optional antistatic	1.4301
13	1	O-Ring	Viton
14	2	Gland	1.4301

Type ¹⁾ Size	DR		SC		DR		SC		DR		SC		DR		SC		DR		SC	
	00015	00030	00015	00030	00030	00060	00030	00060	00060	00100	00060	00150	00100	00220	00100	00220	00150	00300		
DN	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"	2 1/2"	3"	4"											
L	15	20	25	32	38	50	65	76	96											
Ø G	40	44	53	58,4	62	78	100	120	152											
M	65	75	85	100	110	125	145	160	180											
B1	M12x1,75	M12x1,75	M12x1,75	M16x2	M16x2	M16x2	M16x2	M16x2	M16x2											
H2	95	105	115	135	145	155	185	200	220											
	60	64,3	64,6	69	76,3	85,7	105	123	132											
A	141	159	141	159	159	211	159	211	211	248	211	269	248	315	248	315	269	345		
B	69	85	69	85	85	102	85	102	102	115	102	127	115	145	115	145	127	157		
H	20	20	20	20	20	20	20	20	20	20	20	20	20	30	20	30	20	30		
H1	149	165	153	169	170	187	174	191	198	211	208	233	240	280	258	298	279	319		
P	27	30	27	30	30	31	30	31	31	33	31	38	33	43	33	43	38	45		
T	1/8"	1/8"	1/8"	1/8"	1/8"	1/8"	1/8"	1/8"	1/8"	1/8"	1/8"	1/4"	1/8"	1/4"	1/8"	1/4"	1/4"	1/4"		
Ø Z	40	40	40	40	40	40	40	40	40	40	40	40	56/65	40	56/65	40	56/65			
O	71	83	71	83	83	95	83	95	95	107	95	123	107	141	107	141	123	152		
M	29	36	29	36	36	43	36	43	43	50	43	56	50	64	50	64	56	70		
N	42	47	42	47	47	52	47	52	52	57	52	67	57	77	57	77	67	82		

1) Type DR -> double acting, type SC -> single acting

Automation unit with brass ball valve

Ball valve with thread ends, full bore, PN 40; DN8 - 50 in brass
 Temperature range automation unit: -20°C to +80°C
 other temperatures on request, temperature range ball valve: -20°C to +200°C



Pos.	pcs.	Description	Material
1	1	Body	2.0402 nickel plated
2	1	End cap	2.0402 nickel plated
3	1	Ball	2.0402 nickel plated
4	1	Stem	2.0402 nickel plated

Pos.	pcs.	Description	Material
5	2	Ball seat	PTFE
6	1	Stem seat	PTFE
7	2	O-Ring	Viton
8	1	Coupling	2.0402 nickel plated

All dimensions in mm.
 Face-to-face dimensions of the valve acc. to DIN 3202 M3, Thread acc. to DIN 2999, Part 1

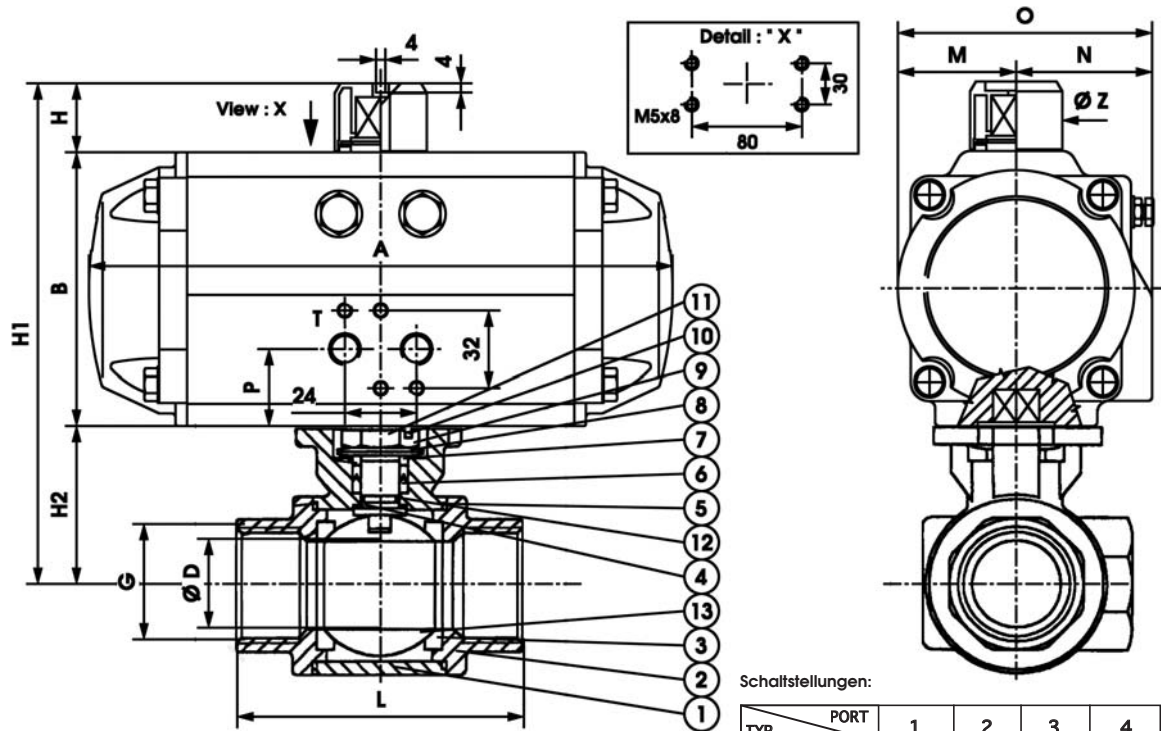
Actuator	DR		SC		DR		SC		DR		SC		DR		SC	
	00006	00015	00006	00015	00006	00015	00015	00015	00015	00030	00030	00060	00030	00100	00060	00100
G	1/4"	3/8"	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"								
DN	8	10	15	20	25	32	40	50								
L	50	60	75	80	90	110	120	140								
SW	19	22	27	32	41	50	55	70								
B1	25,5	25,5	34	44	53	66	79	95								
H2	33	34	35,5	45,5	49,5	63	69	85								
A	115	141	115	141	115	141	141	141	159	159	211	159	248	211	248	
B	45	69	45	69	45	69	69	69	69	85	85	102	85	115	102	115
H	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20
H1	98	122	99	123	100,5	124,5	134,5	134,5	138,5	105	168	185	174	204	207	220
P	*)	27	*)	27	*)	27	27	27	27	30	30	31	30	33	31	33
T	1/8"	1/8"	1/8"	1/8"	1/8"	1/8"	1/8"	1/8"	1/8"	1/8"	1/8"	1/8"	1/8"	1/8"	1/8"	1/8"
Ø Z	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40
O	45	71	45	71	45	71	71	71	71	83	83	95	83	107	95	107
M	22,5	29	22,5	29	22,5	29	29	29	29	36	36	43	36	50	43	50
N	22,5	42	22,5	42	22,5	42	42	42	42	47	47	52	47	57	52	57

*) Port for solenoid valve turned for 90°

The units are suitable for 6 bar control pressure and for lubricating, neutral medias. Units for not lubricating, crystallizing medias or medias with particles on request.

Automation unit with 3-way valve

3-way ball valve with L or T bore, PN 63; DN8 - 50 in stainless steel
 Temperature range automation unit: -20°C bis +80°C
 other temperatures on request, temperature range ball valve: -20°C to +150°C



Prinziple of the possible positions of the ball valve, turning range actuator 90° (turning range 180° or 3-position actuators on request):

Schaltstellungen:

TYP	PORT	1	2	3	4
L	1	2	1	2	1
	2	3	3	3	3
T	1	2	1	2	1
	2	3	3	3	3

Pos.	Stück	Bezeichnung	Werkstoff
1	1	Gehäuse	1.4408
2	3	Gewindestutzen	1.4408
3	4	Kugeldichtung	PTFE verst.
4	1	Druckring	PTFE
5	3	Gehäusedichtung	PTFE
6	2	Schaltwellendicht.	PTFE
7	1	Anlaufring	1.4301

Pos.	Stück	Bezeichnung	Werkstoff
8	2	Tellerfeder	1.4301
9	1	Stopfbuchsmutter	1.4301
10	1	Sicherungsring	1.4301
11	1	Schaltwelle	1.4401
12	1	O-Ring	Viton
13	1	Kugel	1.4401

Typ ¹⁾	DR	SC	DR	SC	DR	SC	DR	SC	DR	SC	DR	SC	DR	SC	DR	SC
Größe	00015	00015	00015	00015	00015	00030	00015	00030	00030	00060	00030	00060	00030	00100	00060	00100
G	1/4"	3/8"	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"								
Ø D	11,6	12,7	12	15	20	25	32	40								
L	80	80	80	88	100	123	143	171								
H2	36	36	36	42	46,5	52	57,5	66								
A	141	141	141	141	141	159	141	159	159	211	159	211	159	248	211	248
B	69	69	69	69	69	85	69	85	85	102	85	102	85	115	102	115
H	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20
H1	125	125	125	125	125	141	131	147	151,5	168,5	157	174	162,5	192,5	188	201
P	27	27	27	27	27	30	27	30	30	31	30	31	30	33	31	33
T	1/8"	1/8"	1/8"	1/8"	1/8"	1/8"	1/8"	1/8"	1/8"	1/8"	1/8"	1/8"	1/8"	1/8"	1/8"	1/8"
Ø Z	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40
O	71	71	71	71	71	83	71	83	83	95	83	95	83	107	95	107
M	29	29	29	29	29	36	29	36	36	43	36	43	36	50	43	50
N	42	42	42	42	42	47	42	47	47	52	47	52	47	57	52	57

1) Typ DR -> doppeltwirkend, Typ SC -> einfachwirkend

The units are suitable for 6 bar control pressure and for lubricating, neutral medias.

Units for not lubricating, crystallizing medias or medias with particles on request.

Automation unit with flange ball valve FKHE-VL816

Flange ball valve acc. to face-to-face length DIN 3202 F4, PN 16; DN15 - 100 in stainless steel
 Temperature range automation unit: -20°C to +80°C
 other temperatures o.r., temperature range ball valve: -20°C to +200°C

Maintenance-free, self-adjustable stem bearing

spring backed packing box acc. to TA-Luft

Anti blow out stem

Antistatic design

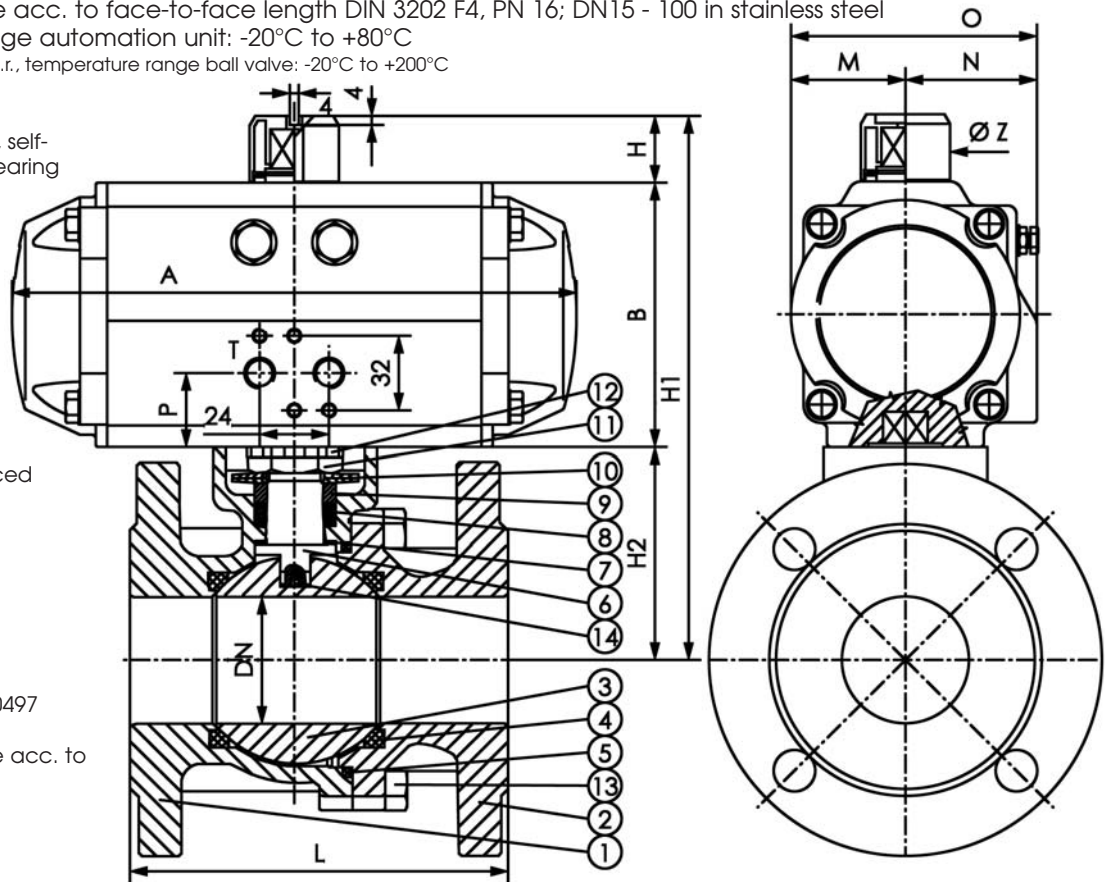
dead space reduced

full bore

optional:

Fire safe acc. to BS 6755 and ISO 10497

Material certificate acc. to EN 10204/3.1B



Pos.	pcs.	Description	Material
1	1	Body	1.4408
2	1	End cap	1.4408
3	1	Ball	1.4401/08
4	2	Ball seat	PTFE reinf.
5	1	Body seal	PTFE
6	1	Stem	1.4401
7	1	bottom bearing	PTFE reinf.

Pos.	pcs.	Description	Material
8	1	V-Ring package	PTFE
9	1	clamping ring	1.4401
10	1	disc spring	1.4301
11	1	hexagonal nut	A2
12	1	lock washer	1.4301
13	4/8	hexagon bolt	A4-70
14	1	Antistatic ball	1.4401

Typ ¹⁾ Size	DR		SC		DR		SC		DR		SC		DR		SC		DR		SC	
	00030	00030	00030	00030	00030	00060	00030	00060	00060	0100	00060	0100	0100	0150	00150	00220	00220	00300		
G	1/2"		3/4"		1"		1 1/4"		1 1/2"		2"		2 1/2"		3"		4"			
DN	15		20		25		32		40		50		65		80		100			
L	115		120		125		130		140		150		170		180		190			
H2	50		53,5		58,5		71		76		83,5		95		113		131			
A	159	159	159	159	159	211	159	211	211	248	211	248	248	269	269	315	315	345		
B	85	85	85	85	85	102	85	102	102	115	102	115	115	127	127	145	145	157		
H	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	30	30	30		
H1	155	155	159	159	164	181	176	193	198	211	206	219	230	242	260	288	306	318		
P	30	30	30	30	30	31	30	31	31	33	31	33	33	38	38	43	43	45		
T	1/8"	1/8"	1/8"	1/8"	1/8"	1/8"	1/8"	1/8"	1/8"	1/8"	1/8"	1/8"	1/8"	1/4"	1/4"	1/4"	1/4"	1/4"		
Ø Z	40	40	40	40	40	40	40	40	40	40	40	40	40	40	40	56/65	56/65	56/65		
O	83	83	83	83	83	95	83	95	95	107	95	107	107	123	123	141	141	152		
M	36	36	36	36	36	43	36	43	43	50	43	50	50	56	56	64	64	70		
N	47	47	47	47	47	52	47	52	52	57	52	57	57	67	67	77	77	82		

1) Type DR -> double acting, type SC -> spring return

The units are suitable for 6 bar control pressure and for lubricating, neutral medias.
 Units for not lubricating, crystallizing medias or medias with particles on request.