

Ball valve / butterfly valve with pneumatic rotary actuator

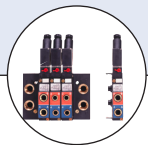


- Pneumatic rotary actuator
- External regulation of the pistons
- Full bore
- Favourable flow rate

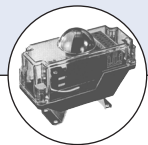
Type 8805 can be combined with...



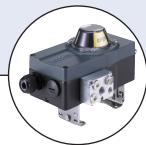
Type 8791/8792/8793
Positioner /
Process controller



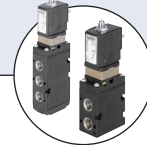
Type 5470
Solenoid valve



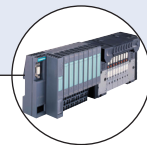
Type TEUXXX
Position feedback



Type 1061
Position feedback with
integr. solenoid valve



Type 6518/6519
6519 NAMUR
Solenoid valves

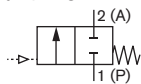


Type 8640/8644
Valve island

Type 8805 consists of a quarter turn valve (ball or butterfly valve) and a pneumatic rotary actuator. The actuators are available in single and double acting operating mode. Type 8805 can be complemented by a side control positioner (8792), a pilot valve (6519) or several kinds of position feedback boxes (1061).

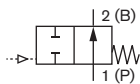
Control function A [SFA]

Single-acting actuator for pneumatically activated open/closed valve, normally closed by spring force.



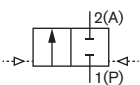
Control function B [SFB]

Single-acting actuator for pneumatically activated open/closed valve, normally opened by spring force.



Control function I [SFI]

Open/close operation on either side without spring, flow direction above seat



Technical data

Orifice	
2/2 way ball valve	10 - 100 mm
3/2 way ball valve	10 - 40 mm
Body material	
2/2 way ball valve	Stainless steel 1.4408
3/2 way ball valve	Stainless steel 1.4408
Actuator material	Aluminium
Ball material	
2/2 way ball valve	Stainless steel 1.4401
3/2 way ball valve	Stainless steel 1.4401
Selector shaft material	
2/2 way ball valve	Stainless steel 1.4401
3/2 way ball valve	Stainless steel 1.4401
Seal materials	
Ball seal	PTFE
Actuating shaft seal	FKM
Pressure range	See ordering chart
Medium	Stainless steel body: aggressive fluids, which will not attack the body and seal
Medium temperature	- 10 to + 100 °C (see pressure temperature diagram)
Ambient temperature	- 10 to + 80 °C (see pressure temperature diagram)
Control medium	Compressed air, filtered, dry or oiled
Pilot pressure	6 to 8 bar ¹⁾
Port connection	
2/2 way ball valve	2/2 way ball valve: Rp 1/4" - Rp 4" Whitworth Thread acc. DIN EN 10226-1 (old DIN 2999) Weld end Flange
3/2 way ball valve	3/2 way ball valve: Rp 1/4" - Rp 2" Whitworth Thread acc. DIN EN 10226-1 (old DIN 2999)
Installation	As required, preferably with actuator upright

¹⁾ Pressure values [bar]: Measured as overpressure with respect to the atmospheric pressure

2/2 way ball valve

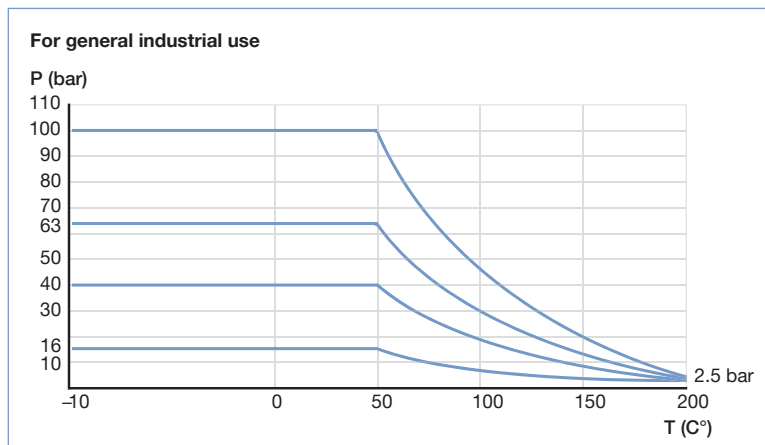
Technical data

Orifice DN [mm]	Control function ¹⁾	K _v value water [m ³ /h] 2/3-pieces/compact flange ball valve	Nominal pressure** [bar]			Weight [kg]		
			StSt 2 pieces	StSt 3 pieces	StSt compact flange ball valve	StSt 2 pieces	StSt 3 pieces	StSt compact flange ball valve
10 / 12	A, B	9/13	100	63	--	1.5	1.85	--
	I	9/13	100	63	--	1.4	1.75	--
15	A, B	19	100	63	--	2.2	2.45	--
	I	19	100	63	--	1.5	1.75	--
20	A, B	46	100	63	40	4.0	2.7	3.8
	I	46	100	63	40	2.4	1.95	2.1
25	A, B	72	100	63	40	4.3	4.6	6.0
	I	72	100	63	40	2.6	2.3	4.4
32	A, B	105	100	63	40	5.9	5.25	7.7
	I	105	100	63	40	4.2	3.6	6.2
40	A, B	170	100	63	40	7.6	7.4	9.8
	I	170	100	63	40	5.9	4.6	8.1
50	A, B	275	100	63	40	13.4	9.1	12.8
	I	275	100	63	40	7.4	7.4	9.0
65	A, B	507	100	63	16	--	16.0	20
	I	507	100	63	16	--	13.2	14
80	A, B	905	100	63	16	--	25.1	26.3
	I	905	100	63	16	--	19.6	17.3
100	A, B	1414	100	63	16	--	35.2	29
	I	1414	100	63	16	--	28	21.8

¹⁾ A, B ... single-acting
I ... double-acting

** Operating pressure: see pressure temperature chart

Pressure temperature chart for stainless steel body



2/2 way ball valve, *continued*

Ordering chart for brass and stainless steel (stst) (Minimum pilot pressure 6 bar)

Control function	Orifice DN [mm]	Port connection	K _v value water [m ³ /h]		Nominal pressure ²⁾ [bar]		Actuator		Article no.		
			StSt 2 pieces	StSt 3 pieces	StSt 2 pieces	StSt 3 pieces	StSt 2 pieces	StSt 3 pieces	StSt 3 pieces weld end port connection	StSt 2 pieces threaded port connection	StSt 3 pieces threaded port connection
A	10	¼"	9	9	100	63	15	15	--	217232	217250
	12	⅜"	13	13	100	63	15	15	217261	217233	217251
	15	½"	19	19	100	63	30	30	217262	217234	217252
	20	¾"	46	46	100	63	60	30	217263	217235	217253
	25	1"	72	72	100	63	60	60	217264	217236	217254
	32	1¼"	105	105	100	63	100	60	217265	217237	217255
	40	1½"	170	170	100	63	150	100	217266	217238	217256
	50	2"	275	275	100	63	220	100	217267	217239	217257
	65	2½"	--	507	--	63	--	150	217268	--	217258
	80	3"	--	905	--	63	--	220	217269	--	217259
100	4"	--	1414	--	63	--	300	217270	--	217260	
B	10	¼"	--	9	--	63	--	15	■	■	217292
	12	⅜"	9	9	--	63	--	15	■	■	217293
	15	½"	19	19	--	63	--	30	■	■	217294
	20	¾"	46	46	--	63	--	30	■	■	217295
	25	1"	72	72	--	63	--	60	■	■	217296
	32	1¼"	105	105	--	63	--	60	■	■	217297
	40	1½"	170	170	--	63	--	100	■	■	217298
	50	2"	275	275	--	63	--	100	■	■	217299
	65	2½"	--	507	--	63	--	150	■	--	217300
	80	3"	--	905	--	63	--	220	■	--	217301
100	4"	--	1414	--	63	--	300	■	--	217302	
I	10	¼"	9	9	100	63	15	15	--	217240	217271
	12	⅜"	9	9	100	63	15	15	217282	217241	217272
	15	½"	19	19	100	63	15	15	217283	217242	217273
	20	¾"	46	46	100	63	30	15	217284	217243	217274
	25	1"	72	72	100	63	30	15	217285	217244	217275
	32	1¼"	105	105	100	63	60	30	217286	217245	217276
	40	1½"	170	170	100	63	100	30	217287	217246	217277
	50	2"	275	275	100	63	100	60	217288	217247	217278
	65	2½"	--	507	--	63	--	100	217289	--	217279
	80	3"	--	905	--	63	--	150	217290	--	217280
100	4"	--	1414	--	63	--	150	217291	--	217281	

¹⁾ Operating pressure, see pressure temperature chart

■ on request

i Further versions on request

- >** **Additional**
 Ball valves brass, nickel-plated
 Further connections and orifices
 Non standard fittings and versions

2/2 way compact flange ball valve

Ordering chart compact flange ball valve

Control function	Orifice [mm]	K _v value water [m ³ /h]	Nominal pressure * [bar]	Actuator	Weight [kg]	Article no.
A	20	46	40	30	3.8	217306
	25	72	40	60	6.0	217307
	32	105	40	60	7.7	217308
	40	170	40	100	9.8	217309
	50	275	40	150	12.8	217310
	65	507	16	220	20	217311
	80	905	16	300	26.3	217312
	100	1414	16	300	29.0	217313
I	20	46	40	15	2.1	217314
	25	72	40	30	4.4	217315
	32	105	40	30	6.2	217316
	40	170	40	60	8.1	217317
	50	275	40	60	9.0	217318
	65	507	16	100	14.0	217319
	80	905	16	100	17.3	217320
	100	1414	16	150	21.8	217321

* Operating pressure: see pressure temperature chart

**Switching position 0°/90°

3/2 way ball valve

Technical data

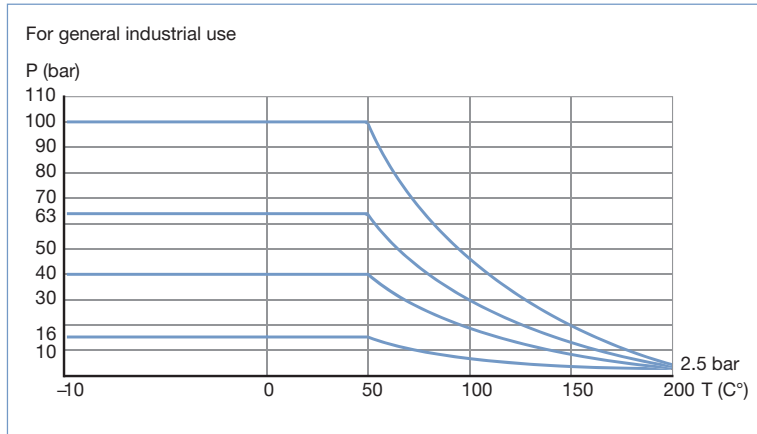
Stainless steel body

Orifice DN [mm]	Port connection	K _v value water [m ³ /h]	Nominal pressure * [bar]	Weight CFA [kg]	Weight CFI [kg]
10/12	¼" / ⅜"	4.7 / 6.9*	63	2.55	–
				–	1.85
12	½"	6.9 / 11.2*	63	2.7	–
				–	2.0
15	¾"	6.9 / 11.2*	63	4.3	–
				–	2.2
20	1"	18.9 / 29.2*	63	4.9	–
				–	3.4
25	1¼"	35.3 / 46.4	63	7.3	–
				–	5.75
32	1½"	46.4 / 72.2*	63	8.3	–
				–	6.7
40	2"	83.4 / 135.9*	63	13.9	–
				–	11.5

* acc. to switch setting

3/2 way ball valve, *continued*

Pressure temperature chart for stainless steel



Switching position

Ball configuration	T			L
Position				
Switching position	T1	T2	T3	L4

Ordering chart, stainless steel

(reduced orifice) Minimum pilot pressure 6 bar, T2 and T3 on request

Switching position	Orifice [mm]	Port connection	K_v value water [m ³ /h]	Nominal pressure * [bar]	Actuator single-acting CFA	Article no. single-acting CFA	Actuator double-acting CFI	Article no. double-acting CFI
T1 0° 90° 	10	¼"	4.7 / 6.9**	63	30	217342	15	217352
	12	⅜"	4.7 / 6.9**	63	30	217343	15	217353
	12	½"	6.9 / 11.2**	63	30	217344	15	217354
	15	¾"	6.9 / 11.2**	63	60	217345	15	217355
	20	1"	18.9 / 29.2**	63	60	217346	30	217356
	25	1¼"	35.3 / 46.4**	63	100	217347	60	217357
	32	1½"	46.4 / 72.2**	63	100	217348	60	217358
L4 0° 90° 	10	¼"	5.6	63	30	217325	15	217333
	12	⅜"	5.6	63	30	217326	15	217334
	12	½"	9.5	63	30	217327	15	217335
	15	¾"	9.5	63	60	217328	15	217336
	20	1"	25.8	63	60	217329	30	217337
	25	1¼"	40.4	63	100	217330	60	217338
	32	1½"	60.2	63	100	217331	60	217339
40	2"	114.4	63	150	217332	100	217340	

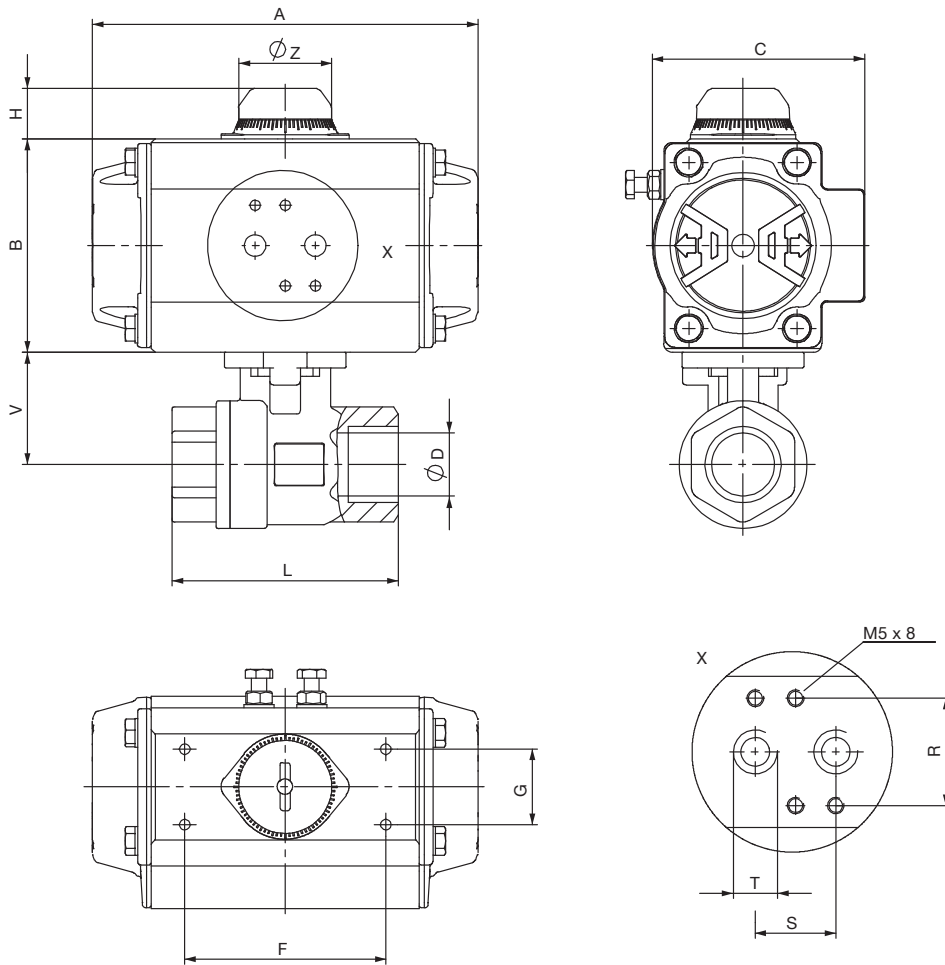
* Operating pressure: see pressure temperature chart

**Switching position 0° / 90°

2/2 way ball valve, continued

Dimensions [mm]

stainless steel body, 2 pieces

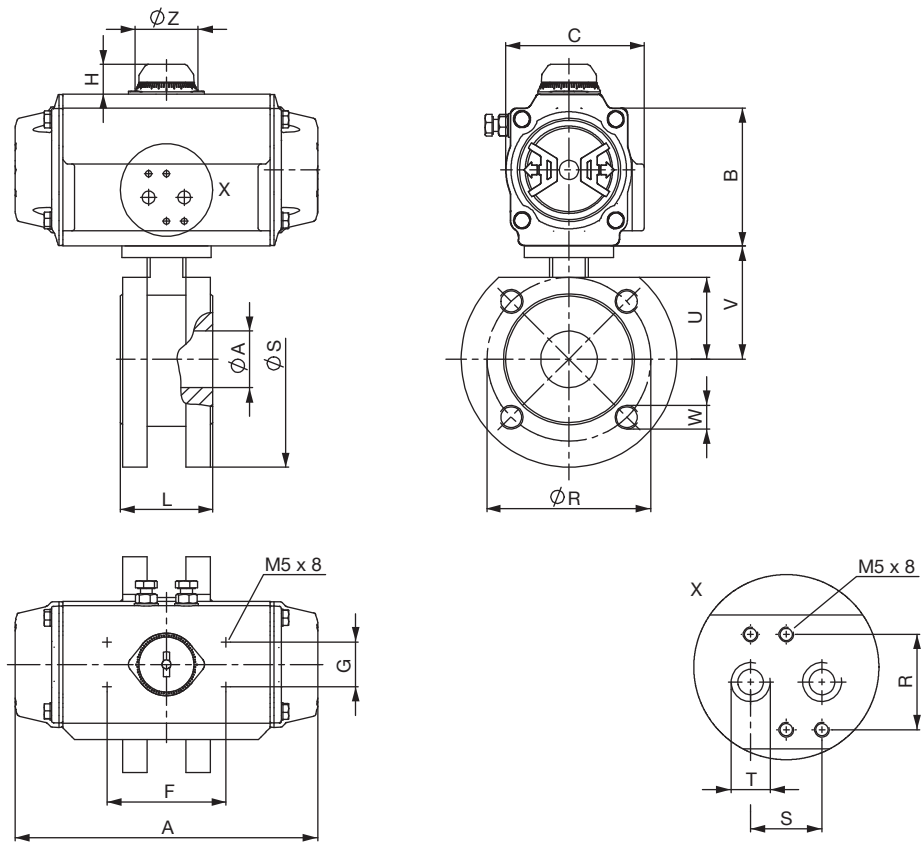


Orifice [mm]	Port Connection	Actuator	Dimensions [mm]										Valve size [mm]		
			A	B	C	F	G	H	R	S	T	ØZ	L	ØD	V
10	¼"	15	136	69	72	80	30	20	32	24	⅛	37	50	11.6	33.2
12	⅜"	15	136	69	72	80	30	20	32	24	⅛	37	60	12.7	33.2
15	½"	15	136	69	72	80	30	20	32	24	⅛	37	75	15	35
		30	153.5	85	84.5	80	30	20	32	24	⅛	37			
20	¾"	30	153.5	85	84.5	80	30	20	32	24	⅛	37	80	20	41
		60	203.5	102	93	80	30	20	32	24	⅛	37			
25	1"	30	153.5	85	84.5	80	30	20	32	24	⅛	37	90	25	44.5
		60	203.5	102	93	80	30	20	32	24	⅛	37			
		100	241	115	106	80	30	20	32	24	⅛	37			
32	1¼"	60	203.5	102	93	80	30	20	32	24	⅛	37	110	31.8	49.5
		100	241	115	106	80	30	20	32	24	⅛	37			
40	1½"	100	241	115	106	80	30	20	32	24	⅛	37	120	38	55
		150	259	127	118.5	80	30	20	32	24	¼	37			
50	2"	100	241	115	106	80	30	20	32	24	⅛	37	140	50.8	66.5
		220	304	145	136	80	30	20	32	24	¼	37			

2/2 way ball valve, continued

Dimensions [mm]

Compact flange ball valve

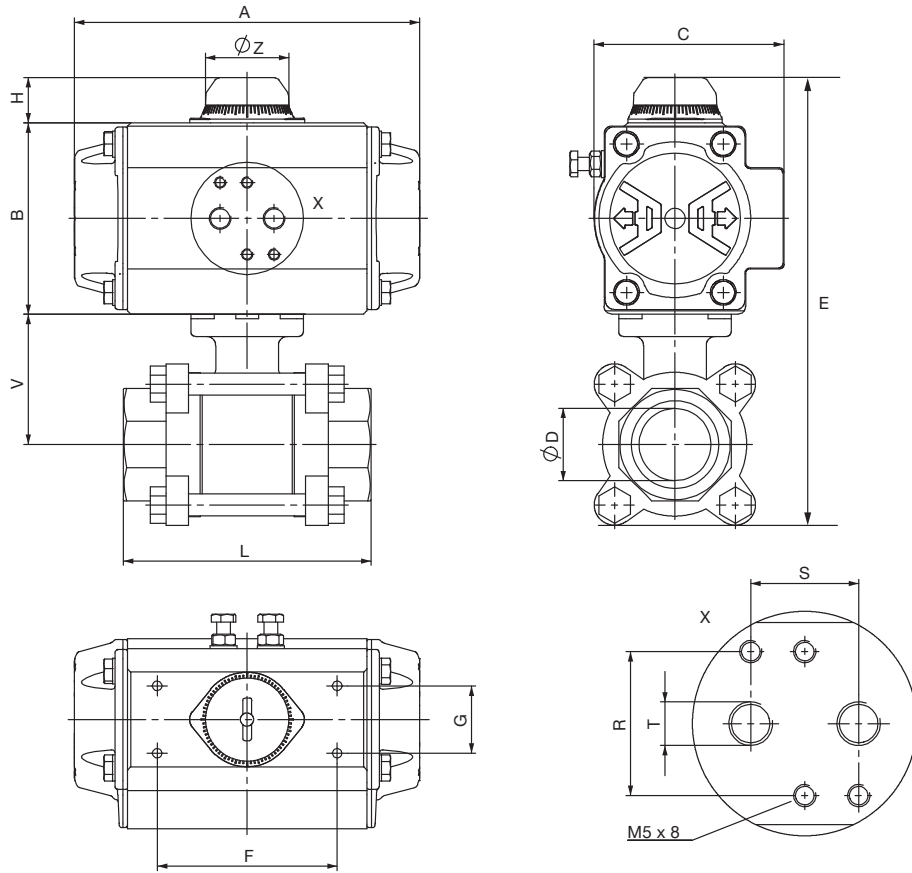


Orifice [mm]	Actuator	Dimensions [mm]										Valve size [mm]						
		A	B	C	F	G	H	R	S	T	ϕZ	L	ϕR	ϕS	ϕA	U	V	
20	15	140.5	69	59	80	30	20	32	24	1/8	42	44	75	105	20	38.5	64.3	M12 x 1.75
	30	158.5	85	72	80	30	20	32	24	1/8	42							
25	30	158.5	85	72	80	30	20	32	24	1/8	42	53	85	115	25	44.6	64.6	M12 x 1.75
	60	210.5	102	84.5	80	30	20	32	24	1/8	42							
32	30	158.5	85	72	80	30	20	32	24	1/8	42	58.4	100	135	32	51	69.0	M16 x 2
	60	210.5	102	84.5	80	30	20	32	24	1/8	42							
40	60	210.5	102	84.5	80	30	20	32	24	1/8	42	62	110	145	38	55	76.3	M16 x 2
	100	247.5	115	97.5	80	30	20	32	24	1/8	42							
50	60	210.5	102	84.5	80	30	20	32	24	1/8	42	78	125	155	50	63	85.7	M16 x 2
	150	268.5	127	111	80	30	20	32	24	1/4	42							
65	100	247.5	115	97.5	80	30	20	32	24	1/8	42	100	145	185	65	73.5	105	M16 x 2
	220	315	145	127	80	30	30	32	24	1/4	58							
80	100	247.5	115	97.5	80	30	20	32	24	1/8	42	120	160	200	76	94	123	M16 x 2
	300	345	157	136	80	30	30	32	24	1/4	42							
100	150	268.5	127	111	80	30	20	32	24	1/4	42	152	180	220	96	105	132	M16 x 2
	300	345	157	136	80	30	30	32	24	1/4	58							

2/2 way ball valve, continued

Dimensions [mm]

stainless steel body, 3 pieces
threaded ports

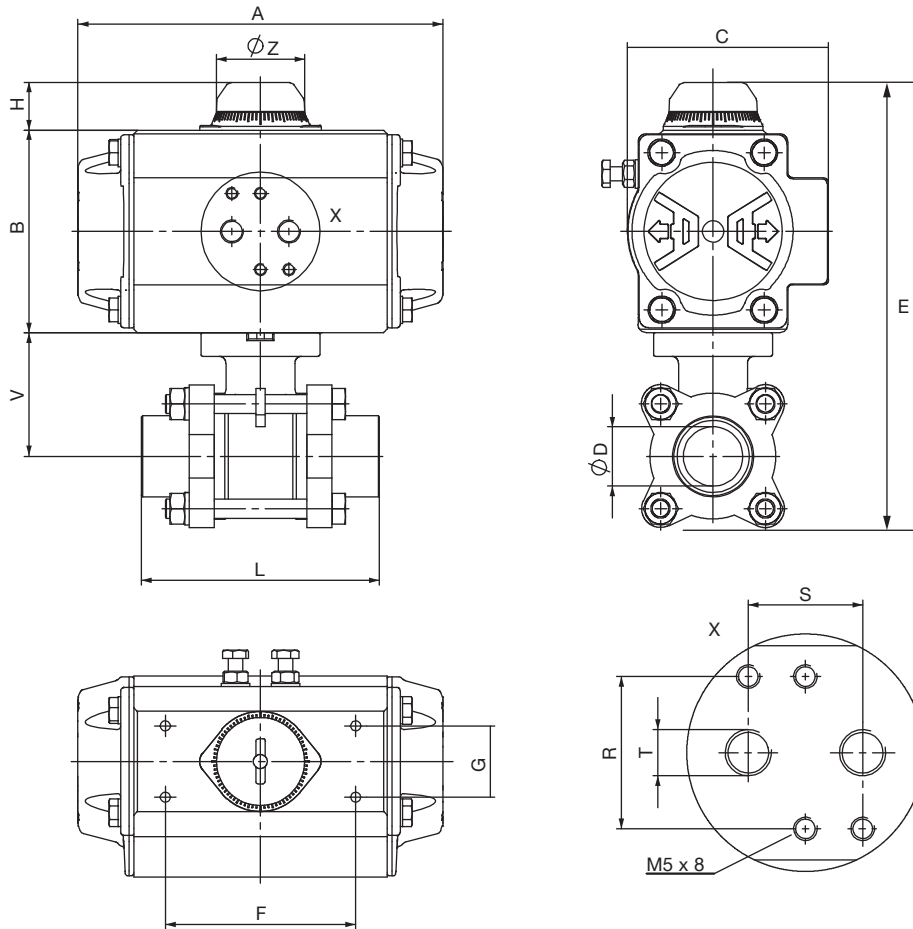


Orifice [mm]	Port Con- nection	Actua- tor	Dimensions [mm]											Valve size [mm]		
			A	B	C	E	F	G	H	R	S	T	ØZ	L	ØD	V
10	1/4"	15	136	69	72	155	80	30	20	32	24	1/8	37	65	10	40
12	3/8"	15	136	69	72	155	80	30	20	32	24	1/8	37	65	12	40
15	1/2"	15	136	69	72	171	80	30	20	32	24	1/8	37	75	15	40
		30	153.5	85	84.5		80	30	20	32	24	1/8	37			
20	3/4"	15	136	69	72	177	80	30	20	32	24	1/8	37	80	20	44
		30	153.5	85	84.5		80	30	20	32	24	1/8	37			
25	1"	15	136	69	72	206	80	30	20	32	24	1/8	37	90	25	52
		60	203.5	102	93		80	30	20	32	24	1/8	37			
32	1 1/4"	30	153.5	85	84.5	217.5	80	30	20	32	24	1/8	37	110	32	58
		60	203.5	102	93		80	30	20	32	24	1/8	37			
40	1 1/2"	30	153.5	85	84.5	245	80	30	20	32	24	1/8	37	120	40	68
		100	241	115	106		80	30	20	32	24	1/8	37			
50	2"	60	203.5	102	93	262.5	80	30	20	32	24	1/8	37	140	50	77
		100	241	115	106		80	30	20	32	24	1/8	37			
65	2 1/2"	100	241	115	106	309	80	30	20	32	24	1/8	37	185	65	98
		150	259	127	118.5		80	30	20	32	24	1/4	37			
80	3"	150	259	127	118.5	370.5	80	30	20	32	24	1/4	37	205	80	110
		220	304	145	136		80	30	30	32	24	1/4	51			
100	4"	150	259	127	118.5	422	80	30	20	32	24	1/4	37	240	100	138
		300	333	157	146.5		80	30	30	32	24	1/4	51			

2/2 way ball valve, continued

Dimensions [mm]

stainless steel body, 3 pieces
Weld end

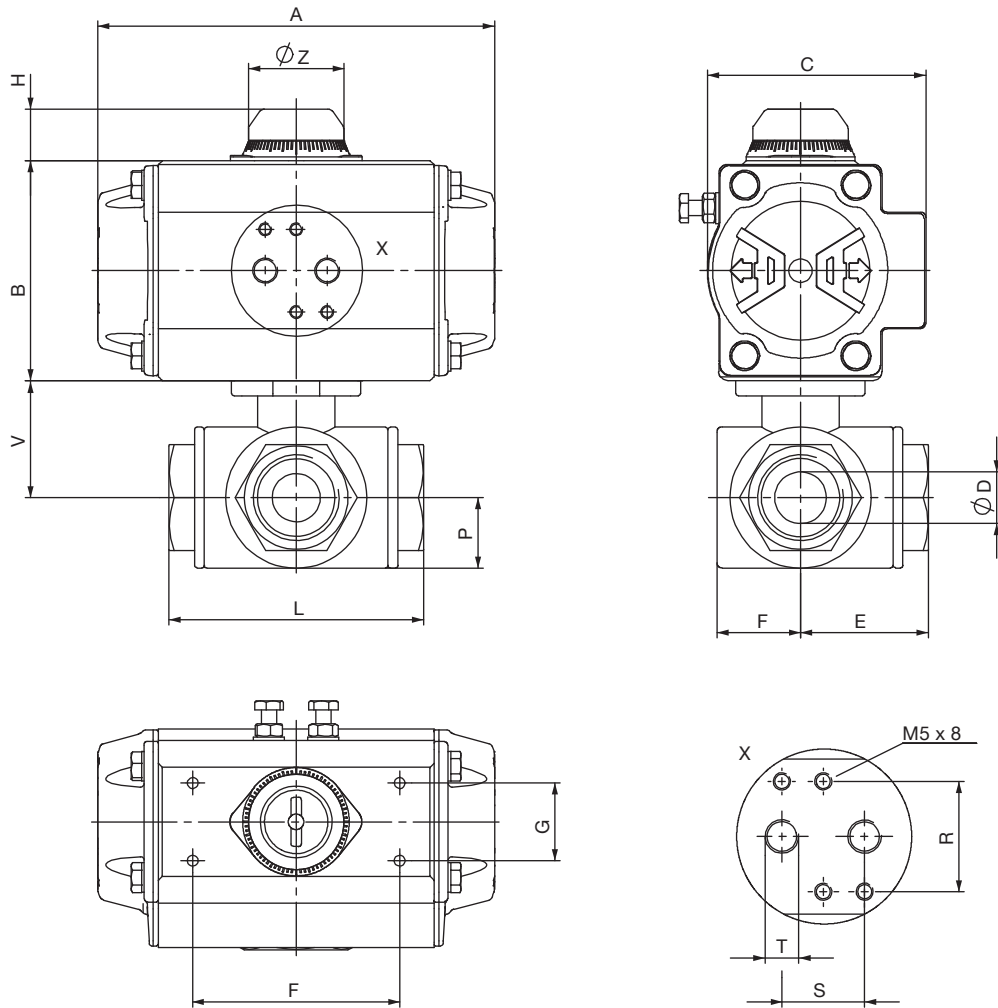


Orifice [mm]	Port Connection	Actuator	Dimensions [mm]											Valve size [mm]		
			A	B	C	E	F	G	H	R	S	T	ØZ	L	ØD	V
12	3/8"	15	136	69	72	155	80	30	20	32	24	1/8	37	70	12	40
15	1/2"	15	136	69	72	171	80	30	20	32	24	1/8	37	75	15	40
		30	153.5	85	84.5		80	30	20	32	24	1/8	37			
20	3/4"	15	136	69	72	177	80	30	20	32	24	1/8	37	90	20	44
		30	153.5	85	84.5		80	30	20	32	24	1/8	37			
25	1"	15	136	69	72	206	80	30	20	32	24	1/8	37	100	25	52
		60	203.5	102	93		80	30	20	32	24	1/8	37			
32	1 1/4"	30	153.5	85	84.5	217.5	80	30	20	32	24	1/8	37	110	32	58
		60	203.5	102	93		80	30	20	32	24	1/8	37			
40	1 1/2"	30	153.5	85	84.5	245	80	30	20	32	24	1/8	37	125	40	68
		100	241	115	106		80	30	20	32	24	1/8	37			
50	2"	60	203.5	102	93	262.5	80	30	20	32	24	1/8	37	150	50	77
		100	241	115	106		80	30	20	32	24	1/8	37			
65	2 1/2"	100	241	115	106	309	80	30	20	32	24	1/8	37	190	65	98
		150	259	127	118.5		80	30	20	32	24	1/4	37			
80	3"	150	259	127	118.5	370.5	80	30	20	32	24	1/4	37	220	80	110
		220	304	145	136		80	30	30	32	24	1/4	51			
100	4"	150	259	127	118.5	422	80	30	20	32	24	1/4	37	270	100	138
		300	333	157	146.5		80	30	30	32	24	1/4	51			

3/2 way ball valve, continued

Dimensions [mm]

stainless steel body



Orifice [mm]	Port Connection	Actuator	Dimensions [mm]										Valve size [mm]					
			A	B	C	F	G	H	R	S	T	ØZ	L	ØD	E	F	P	V
12	¼"	15	136	69	72	80	30	30	32	24	1/8	37	80	12	39.9	22	19.8	35.9
		30	153.5	85	84.5	80	30	20	32	24	1/8	37						
12	¾"	15	136	69	72	80	30	20	32	24	1/8	37	80	12	39.9	22	19.8	35.9
		30	153.5	85	84.5	80	30	20	32	24	1/8	37						
12	½"	15	136	69	72	80	30	20	32	24	1/8	37	80	12	39.9	22	19.8	35.9
		30	153.5	85	84.5	80	30	20	32	24	1/8	37						
15	¾"	15	136	69	72	80	30	20	32	24	1/8	37	87.5	15	43.7	23	32.2	42.1
		60	203.5	102	93	80	30	20	32	24	1/8	37						
20	1"	30	153.5	85	84.5	80	30	20	32	24	1/8	37	100	20	46.5	32.4	27.2	46.5
		60	203.5	102	93	80	30	20	32	24	1/8	37						
25	1¼"	60	203.5	102	93	80	30	20	32	24	1/8	37	123	25	52.1	38.3	34.2	52.1
		100	241	115	106	80	30	20	32	24	1/8	37						
32	1½"	60	203.5	102	93	80	30	20	32	24	1/8	37	142.2	32	57.4	43	38.3	57.4
		100	241	115	106	80	30	20	32	24	1/8	37						
40	2"	100	241	115	106	80	30	20	32	24	1/8	37	170.6	40	66	56.2	49	66
		150	259	127	118.5	80	30	20	32	24	1/4	37						

Ordering chart Accessories

5470 Namur*

(see also datasheet type 5470)

Circuit function	Orifice [mm]	Q _{Nn} value air [l/min]	Pressure range [bar]	Power consumption (1 and 3 / 2 and 4)	Voltage/frequency [V/Hz]	Power consumption [W]	Article no.
C	4.0	300	2-10	1/8 (connections 1 and 3) Namur flange (conn. 2 and 4)	24/DC	2	136761
					110-120/DC	3	136762
					220-240/DC	3	136763
				Push-in connection Ø 6 mm (connections 1 and 3) Namur flange (Anschl. 2 and 4)	24/DC	2	136764
					110-120/DC	3	136765
					220-240/DC	3	136766
G	4.0	300	2-10	1/8 (connections 1 and 3) Namur flange (Anschl. 2 and 4)	24/DC	2	136767
					110-120/DC	3	136768
					220-240/DC	3	136769
				Push-in connection Ø 6 mm (connections 1 and 3) Namur flange (conn. 2 and 4)	24/DC	2	136770
					110-120/DC	3	136771
					220-240/DC	3	136772
				1/8 (connections 1 and 3) Namur flange with oneway flow restrictor (conn. 2 and 4)	24/DC	2	136773
					110-120/DC	3	136774
					220-240/DC	3	136775

* Only recommended up to actuator size 220

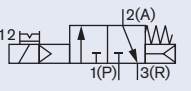
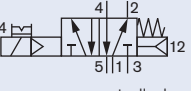
Cable plug Type 2506 acc. to DIN 43650 Form C:

(see also datasheet type 2506)

Circuitry	Voltage	Type of current	Article no.
without circuitry (standard)	0-250 V	DC	008353

6519 Namur


(see also datasheet type 6519)

Circuit function	Orifice [mm]	Seal material body	Thread insert material ¹⁾	Port connection threaded port	Q _{Nn} value air ²⁾ [l/min]	Pressure range ³⁾ [bar]	Weight [g]	Power consumption [W]	Voltage/frequency [V/Hz]	Article no.
 <p>3/2 way servo-controlled solenoid valve, normally closed, with manual override</p>	6.0	NBR and PUR	stainless steel	1/4	900	2-8	460	2	24/DC	131425
									24/50-60	131426
									110/50-60	131427
									230/50-60	131428
 <p>5/2 way servo-controlled solenoid valve, with manual override</p>	6.0	NBR and PUR	brass, nickel-plated	1/4	900	2-8	460	2	24/DC	131421
									24/50-60	131422
									110/50-60	131423
									230/50-60	131424

¹⁾ If the connectors are from stainless steel, the mounting screws will also be from stainless steel²⁾ Flow rate: Q_{Nn} value air [l/min]: Measured at +20 °C, 6 bar pressure at valve inlet, 1 bar pressure difference³⁾ Pressure values [bar]: Gauge pressures with respect to the prevailing atmospheric pressure

Cable plug Type 2508 acc. DIN 175301-803 Form A:


(see also datasheet type 2508)

Circuitry	Voltage	Article no.
For standard version 6518/19 fixing screw in steel (zinc plated and chromatised)		
without circuit (standard)	0-250 V	008376 

Ordering chart – accessory zum Anbau von Positioner

Description	Article no.
Universal adapter for wave	787338 
Universal assembly bridge	770294 

Further versions on request

-  **Additional**
Electrical-mechanical position feedback
Contactless position feedback

To find your nearest Bürkert facility, click on the orange box →

www.burkert.com