bürkert
FLUID CONTROL SYSTEMS

DTS 1000179873 EN Version: D Status: RL (released | freigegeben | validé) printed: 19.01.2015

2/2-way-Globe Control Valve with stainless steel design for media up to +185°C, DN 10-100

- Excellent control characteristic
- High cycle life
- Flow optimised body in stainless steel 316L
- Clean design for optimal use in hygienic environment
- Removable trim kit, 3 to 5 kvs value per port size

Type 2301 can be combined with…

Type 8692/8693
Positioner / Process Controller TopControl

Type 8694
Positioner TopControl Basic

Type 8696
Positioner TopControl Basic

Type 8792/93
SideControl remote version

In line with Bürkert's philosophy for modular valves and sensors the construction of the 2301 globe valve fulfils tough criteria for process environments. Unrivalled cycle life and sealing integrity is guaranteed by the proven self adjusting spindle packing with V-seals.

Each globe valve body can be fitted with three to five sizes of trim sets. These parabolic trims provide a reliable and repeatable characteristic to vary the flow. The control cones are available in either stainless steel or with a durable PTFE seal for tight shut-off. Leakage class III, IV oder VI available.

The design enables the easy integration of automation modules whether they are digital electropneumatic positioner or process controller.

The fully integrated system has a compact and smooth design, integrated pneumatic lines, IP65/67 protection class and superior chemical resistance.

Technical data	
Port size (orifice)	DN 10 to 100 (DN 4 to 100)
Port connection Weld end acc. to flange and threaded ports	 EN ISO 1127/ISO 4200, DIN 11850 R2, ASME BPE, BS see separate datasheet
Body materials	Cast stainless steel 316L
Actuator material Actuator Cover	 PPS Stainless steel 1.4561 (316Ti)
Plug sealing	PTFE/St.st. (PTFE/stainless steel) and St.st./St.st. (stainless steel/stainless steel)
Seat leakage IEC 534-4/ EN 1349	Shut-off class III and IV for St. st./St. st.. Shut-off class VI for PTFE/St. st. (see details in ordering chart)
Media	Neutral gases, water, alcohol, oils, fuels, hydraulic fluids, salt solutions, alkali solutions, organic solvents, steam, optional fuel gas (EC Gas Appliances Directive 2009/142/EG)
Viscosity	max. 600 mm²/s
Spindle packing	PTFE V-seals with spring compensation
Medium temperature	-10 to +185 °C (max. +130°C for PTFE/St.st. sealing recommended)
Ambient temperature	0 to +55 °C (when used with positioner or process controllers) 0 to +80 °C (remote version)
Control medium	Compressed air
Relevant pilot pressure for circuit function A	Port size DN 10 to 50 5.5 to 7 bar Port size DN 65 to 100 5.6 to 7 bar
Pilot air ports	Push-in connector (external ø 6mm or ¼")
Installation	As required, preferably with actuator upright

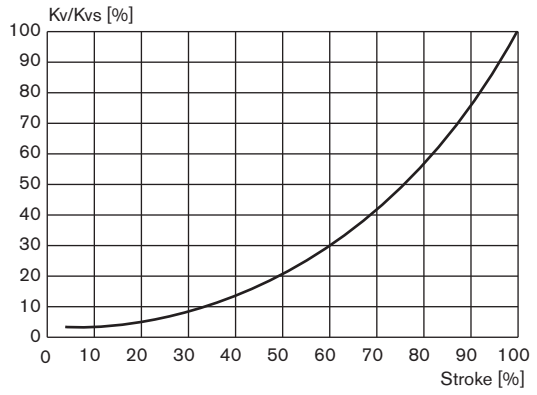
Content

Technical data Type 2301 Globe Control Valve. continued

Kvs values

Port size ISO. DIN		BS. ASME	Actuator	Orifice (seat) [mm]												
[mm]	[inch]	[inch]	[mm]	04	06	08	10	15	20	25	32	40	50	65	80	100
10	3/8"	1/2"	50/70	0.5	1.2	2	2.7	-	-	-	-	-	-	-	-	-
15	1/2"	3/4"	50/70	0.5	1.2	2.1	3.1	4.3	-	-	-	-	-	-	-	-
20	3/4"	1"	50/70	-	-	-	3.2	5.2	7.1	-	-	-	-	-	-	-
25	1"	-	50/70/90	-	-	-	-	5.3	7.2	12	-	-	-	-	-	-
32	1 1/4"	1 1/2"	90	-	-	-	-	-	5.5	9.9	13.4	-	-	-	-	-
			130	-	-	-	-	-	8	13	17.8	-	-	-	-	-
40	1 1/2"	2"	90	-	-	-	-	-	-	10.3	14.4	17.5	-	-	-	-
			130	-	-	-	-	-	-	13.6	20.2	23.8	-	-	-	-
50	2"	2 1/2"	90	-	-	-	-	-	-	-	15.3	18	28	-	-	-
			130	-	-	-	-	-	-	-	21	24.6	37	-	-	-
65	2 1/2"	3"	130	-	-	-	-	-	-	-	-	29	45	65	-	-
80	3"	-	130	-	-	-	-	-	-	-	-	-	45	73	100	-
100	4"	4"	130	-	-	-	-	-	-	-	-	-	-	77	110	140

Flow curve and description



For detailed values please see table on next page

Remarks on the flow characteristic

- Equipercentile parabolic plug for the orifices DN8 to DN100
- Linear plug for the orifices DN4 and DN6
- Flow characteristic runs within DIN/IEC 534-2-4
- Theoretical control ratio (Kvs/Kvo):
  50:1 for the orifices DN8 to DN100
  25:1 for the orifice DN6
  10:1 for the orifice DN4
- KVR value at 5% of stroke for DN > 10 mm
  KVR value at 10% of stroke for DN ≤ 10 mm

(KVR value = smallest Kv value at which the gradient tolerance to DIN/IEC 534-2-4 is still complied with)

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Technical data Type 2301 Globe Control Valve, continued

Kvs values [m³/h]

Port size (tube)			Orifice (seat)		Actuator size	Stroke [%]										
ISO, DIN		BS, ASME														
[mm]	[inch]	[inch]	[mm]	[inch]	[mm]	5	10	20	30	40	50	60	70	80	90	100
10	3/8"	1/2"	4	1/8"	50-70	0,04	0,05	0,10	0,16	0,22	0,27	0,32	0,36	0,40	0,44	0,50
			6	3/16"	50-70	0,05	0,12	0,32	0,48	0,62	0,76	0,88	0,98	1,07	1,13	1,20
			8	1/4"	50-70	0,06	0,07	0,09	0,12	0,18	0,26	0,42	0,61	0,92	1,50	2,00
			10	3/8"	50-70	0,09	0,11	0,13	0,19	0,30	0,48	0,73	1,00	1,60	2,3	2,7
15	1/2"	3/4"	4	1/8"	50-70	0,04	0,05	0,10	0,16	0,22	0,27	0,32	0,36	0,40	0,44	0,50
			6	3/16"	50-70	0,05	0,12	0,32	0,48	0,62	0,76	0,88	0,98	1,07	1,13	1,20
			8	1/4"	50-70	0,07	0,08	0,11	0,13	0,19	0,27	0,43	0,63	0,95	1,60	2,1
			10	3/8"	50-70	0,09	0,11	0,15	0,19	0,31	0,49	0,75	1,10	1,70	2,5	3,1
			15	1/2"	50-70	0,14	0,17	0,22	0,35	0,52	0,80	1,20	1,80	2,7	3,7	4,3
20	3/4"	1"	10	3/8"	50-70	0,11	0,12	0,16	0,20	0,33	0,52	0,77	1,20	1,8	2,6	3,2
			15	1/2"	50-70	0,14	0,17	0,22	0,35	0,52	0,80	1,20	1,80	2,9	4,0	5,2
			20	3/4"	50-70	0,20	0,25	0,30	0,45	0,70	1,10	1,60	2,4	3,5	5,2	7,1
25	1"	-	15	1/2"	50-70-90	0,14	0,17	0,22	0,35	0,52	0,80	1,20	1,80	2,9	4,1	5,3
			20	3/4"	50-70-90	0,20	0,25	0,31	0,47	0,70	1,10	1,60	2,5	3,8	5,4	7,2
			25	1"	50-70-90	0,35	0,38	0,65	1,00	1,50	2,2	3,4	5,1	7,0	9,4	12,0
32	1 1/4"	1 1/2"	20	3/4"	90	0,21	0,24	0,33	0,45	0,62	0,85	1,25	1,75	2,60	3,75	5,50
					130	0,22	0,25	0,35	0,50	0,75	1,10	1,60	2,5	3,8	5,8	8,0
			25	1"	90	0,38	0,45	0,65	0,95	1,35	1,95	2,85	4,00	5,55	7,40	9,90
					130	0,40	0,47	0,73	1,10	1,60	2,5	3,7	5,4	7,5	10,3	13,0
			32	1 1/4"	90	0,45	0,58	0,80	1,10	1,70	2,50	3,50	4,90	7,00	10,10	13,40
					130	0,48	0,60	0,85	1,30	2,1	3,1	4,5	6,8	10,2	14,0	17,8
40	1 1/2"	2"	25	1"	90	0,38	0,48	0,70	0,95	1,40	2,00	2,95	4,10	5,75	7,90	10,30
					130	0,40	0,50	0,75	1,10	1,70	2,6	3,8	5,6	8,0	10,7	13,6
			32	1 1/4"	90	0,45	0,55	0,80	1,10	1,70	2,50	3,60	4,95	7,15	10,80	14,40
					130	0,48	0,60	0,85	1,30	2,1	3,2	4,6	6,9	11,0	15,0	20,2
			40	1 1/2"	90	0,55	0,67	1,00	1,50	2,25	3,15	4,50	6,50	9,50	13,65	17,50
					130	0,60	0,70	1,10	1,70	2,7	4,0	6,0	9,2	13,8	18,2	23,8
50	2"	2 1/2"	32	1 1/4"	90	0,45	0,56	0,80	1,10	1,70	2,50	3,60	4,95	7,15	11,40	15,30
					130	0,48	0,60	0,90	1,30	2,1	3,2	4,6	6,9	11,6	16,0	21,0
			40	1 1/2"	90	0,57	0,68	0,90	1,45	2,10	3,15	4,50	6,40	9,50	13,80	18,00
					130	0,60	0,70	1,00	1,70	2,6	4,0	5,9	9,2	14,0	18,9	24,6
			50	2"	90	0,85	1,05	1,70	2,55	3,75	5,35	7,70	11,40	16,00	21,70	28,00
					130	0,90	1,10	1,90	2,9	4,5	6,8	10,5	15,5	22,0	29,3	37,00
65	2 1/2"	3"	40	1 1/2"	130	0.65	0.75	1.1	1.8	2.8	4.3	6.5	10.4	16	22	29
			50	2"	130	1	1.2	2	3.1	4.8	6.7	9.7	16	24	35	45
			65	2 1/2"	130	1.6	2	3	5	8	13.5	22	33	45	56	65
80	3"	-	50	2"	130	1	1.2	2	3.4	5.3	8.3	13	19	26	35	45
			65	2 1/2"	130	1.6	2	2.9	5	8.2	13	22	35	48	61	73
			80	3"	130	2.5	3.4	6.3	10.7	16	27	42.5	58	73	87	100
100	4"	4"	65	2 1/2"	130	1.4	1.8	2.8	5	8.8	15	25	37	50	64	77
			80	3"	130	2.2	3.1	5.9	10.3	17.5	30	48	66	82	97	110
			100	4"	130	3.8	5.2	9.5	15	26	46.5	67.5	90	111	128	140

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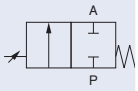
Ordering chart Type 2301 Globe Control Valve, flow direction below seat (for gases and liquid)

Weld end acc. to EN ISO 1127/ISO 4200

Control function	Port size (tube) (mm)	Orifice (seat) (mm)	Connection DS x WS [mm]	Actuator size ø [mm]	Kvs values [m³/h]	Operating pressure up to +185°C [bar]	Item no. plug sealing PTFE/St. st.	Leakag class	Item no. plug sealing St. st./ St. st.	Leakage class
A  2/2-way valve, normally closed by spring action (NC)	15	4	21.3 x 1.6	50	0,5	16	–	VI	214 127	IV
				70	0,5	16	–	VI	215 254	IV
		6	21.3 x 1.6	50	1,2	16	–	VI	214 128	IV
				70	1,2	16	–	VI	215 255	IV
		8	21.3 x 1.6	50	2,1	16	214 090	VI	213 213	IV
				70	2,1	16	212 392	VI	215 872	IV
		10	21.3 x 1.6	50	3,1	16	214 091	VI	214 129	IV
				70	3,1	16	212 393	VI	215 873	IV
		15	21.3 x 1.6	50	4,3	16	214 093	VI	214 131	IV
				70	4,3	16	209 571	VI	215 909	IV
	20	10	26.9 x 1.6	50	3,2	16	214 092	VI	214 130	IV
				70	3,2	16	215 249	VI	215 256	IV
		15	26.9 x 1.6	50	5,2	16	222 694	VI	222 715	IV
				70	5,2	16	214 094	VI	214 132	IV
		20	26.9 x 1.6	50	7,1	10	214 095	VI	214 134	III
				70	7,1	16	214 096	VI	210 696	IV
	25	15	33.7 x 2.0	50	5,3	16	222 695	VI	222 715	IV
				70	5,3	16	213 412	VI	214 133	IV
				90	5,3	16	242 208	VI	222 716	IV
		20	33.7 x 2.0	50	7,2	10	222 696	VI	242 241	III
				70	7,2	16	214 097	VI	214 135	IV
				90	7,2	16	242 209	VI	242 242	IV
		25	33.7 x 2.0	50	12,0	5	214 100	VI	214 137	III
				70	12,0	12	209 572	VI	214 138	III
				90	12,0	16	242 210	VI	242 243	IV
	32	20	42.4 x 2.0	90	5,5	16	214 098	VI	214 136	IV
				130	8,0	16	222 697	VI	222 718	IV
		25	42.4 x 2.0	90	9,9	16	214 101	VI	214 139	IV
				130	13,0	16	222 698	VI	222 719	IV
		32	42.4 x 2.0	90	13,4	16	214 103	VI	214 141	IV
				130	17,8	16	223 601	VI	222 603	IV
	40	25	48.3 x 2.0	90	10,3	16	214 102	VI	214 140	IV
				130	13,6	16	222 699	VI	222 720	IV
		32	48.3 x 2.0	90	14,4	16	214 104	VI	214 142	IV
				130	20,2	16	222 700	VI	222 721	IV
		40	48.3 x 2.0	90	17,5	12	209 440	VI	214 144	III
				130	23,8	16	222 702	VI	222 723	IV
	50	32	60.3 x 2.0	90	15,3	16	214 105	VI	214 143	IV
				130	21,0	16	222 701	VI	222 722	IV
		40	60.3 x 2.0	90	18,0	12	210 756	VI	213 561	III
				130	24,6	16	222 703	VI	222 724	IV
		50	60.3 x 2.0	90	28,0	7	214 107	VI	214 146	III
				130	37,0	16	214 108	VI	214 147	IV
	65	40	76.1 x 2.3	130	29	16	214106	VI	214 145	IV
		50		130	45	16	214 109	VI	214 148	IV
		65		130	65	16	219 623	VI	219 626	IV
	80	50	88.9 x 2.3	130	45	16	239 554	VI	239 590	IV
		65		130	73	16	239 548	VI	239 585	IV
		80		130	100	10	239 543	VI	239 579	III
	100	65	114.3 x 2.6	130	77	16	239 569	VI	239 606	IV
		80		130	110	10	239 564	VI	239 601	III
		100		130	140	6	239 559	VI	239 595	III

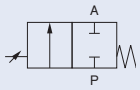
Further versions on request

Control function
B (normally open)

DTS 1000179873 EN Version: D Status: RL (released | freigegeben | validé) printed: 19.01.2015

Ordering chart Type 2301 Globe Control Valve, flow direction below seat
(for gases and liquid), cont.

Weld end acc. to DIN 11850 S2

Control function	Port size (tube) (mm)	Orifice (seat) (mm)	Connection DS x WS [mm]	Actuator size ø [mm]	Kvs values [m³/h]	Operating pressure up to +185°C [bar]	Item no. plug sealing PTFE/St. st.	Leakage class	Item no. plug sealing St. st./ St. st.	Leakage class
A  2/2-way valve, normally closed by spring action (NC)	15	4	19.0 x 1.5	50	0,5	16	–	VI	214 149	IV
				70	0,5	16	–	VI	215 257	IV
		6	19.0 x 1.5	50	1,2	16	–	VI	214 150	IV
				70	1,2	16	–	VI	215 258	IV
		8	19.0 x 1.5	50	2,1	16	214 110	VI	214 151	IV
				70	2,1	16	215 250	VI	215 911	IV
		10	19.0 x 1.5	50	3,1	16	214 111	VI	214 152	IV
				70	3,1	16	215 251	VI	215 913	IV
		15	19.0 x 1.5	50	4,3	16	211 946	VI	209 172	IV
				70	4,3	16	215 253	VI	209 173	IV
	20	10	23.0 x 1.5	50	3,2	16	214 112	VI	214 153	III
				70	3,2	16	215 252	VI	211 415	IV
		15	23.0 x 1.5	50	5,2	16	222 704	VI	222 725	IV
				70	5,2	16	214 113	VI	208 555	IV
		20	23.0 x 1.5	50	7,1	10	214 115	VI	209 175	III
				70	7,1	16	211 937	VI	211 953	IV
	25	15	29.0 x 1.5	50	5,3	16	222 705	VI	222 726	IV
				70	5,3	16	214 114	VI	212 721	IV
				90	5,3	16	242 238	VI	242 244	IV
		20	29.0 x 1.5	50	7,2	10	222 706	VI	222 727	III
				70	7,2	16	214 116	VI	214 154	IV
				90	7,2	16	242 239	VI	242 245	IV
		25	29.0 x 1.5	50	12,0	5	214 118	VI	212 844	III
				70	12,0	12	209 384	VI	209 089	III
				90	12,0	16	242 240	VI	242 247	IV
	32	20	35.0 x 1.5	90	5,5	16	214 117	VI	214 155	IV
				130	8,0	16	222 708	VI	222 729	IV
		25	35.0 x 1.5	90	9,9	16	214 119	VI	214 156	IV
				130	13,0	16	222 709	VI	222 730	IV
		32	35.0 x 1.5	90	13,4	16	211 965	VI	209 181	IV
				130	17,8	16	223 602	VI	223 604	IV
	40	25	41.0 x 1.5	90	10,3	16	214 120	VI	214 157	IV
				130	13,6	16	222 710	VI	222 731	IV
		32	41.0 x 1.5	90	14,4	16	214 121	VI	213 487	IV
				130	20,2	16	222 711	VI	222 732	IV
		40	41.0 x 1.5	90	17,5	12	211 967	VI	209 110	III
				130	23,8	16	222 713	VI	222 734	IV
	50	32	53.0 x 1.5	90	15,3	16	214 122	VI	211 654	IV
				130	21,0	16	222 712	VI	222 733	IV
		40	53.0 x 1.5	90	18,0	12	214 123	VI	213 411	III
				130	24,6	16	222 714	VI	222 735	IV
		50	53.0 x 1.5	90	28,0	7	211 968	VI	209 185	III
				130	37,0	16	214 125	VI	214 159	IV
	65	40	70.0 x 2.0	130	29	16	214 124	VI	214 158	IV
		50		130	45	16	214 126	VI	214 160	IV
		65		130	65	16	219 625	VI	219 628	IV
	80	50	85.0 x 2.0	130	45	16	239 555	VI	239 591	IV
		65		130	73	16	239 550	VI	239 586	IV
		80		130	100	10	239 544	VI	239 580	III
	100	65	104.0 x 2.0	130	77	16	239 570	VI	239 607	IV
		80		130	110	10	239 565	VI	239 602	III
		100		130	140	6	239 560	VI	239 596	III

Further versions on request

Control function
B (normally open)

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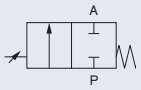
Ordering chart Type 2301 Globe Control Valve, flow direction below seat
(for gases and liquid) cont.

Weld end acc. to ASME BPE

Control function	Port size (tube) [inch]	Orifice (seat) [mm]	Orifice (seat) [inch]	Connection DS x WS [mm]	Actuator size [Ø mm]	Kvs values [m³/h]	Operating pressure up to +185°C [bar]	Item no. plug sealing PTFE/ St. st.	Leakage class	Item no. plug sealing St. st./ St. st.	Leakage class
A  2/2-way valve, normally closed by spring action (NC)	1/2	4	1/8	12.7 x 1.6	50	0,5	16	-	-	464904	IV
					70	0,5	16	-	-	464905	IV
		6	3/16		50	1,2	16	-	-	464906	IV
					70	1,2	16	-	-	464907	IV
		8	1/4		50	2,0	16	464 877	VI	464908	IV
					70	2,0	16	464 878	VI	464909	IV
		10	3/8		50	2,7	16	464 881	VI	464911	IV
					70	2,7	16	464 882	VI	222997	IV
	3/4	8	1/4	19.05 x 1.6	50	2,1	16	464 879	VI	464910	IV
					70	2,1	16	464 880	VI	464051	IV
		10	3/8		50	3,1	16	464 883	VI	464912	IV
					70	3,1	16	464 884	VI	464913	IV
		15	1/2		50	4,3	16	464 887	VI	464916	IV
					70	4,3	16	464 455	VI	211017	IV
	1	10	3/8	25.4 x 1.6	50	3,2	16	464 885	VI	464914	IV
					70	3,2	16	464 886	VI	464915	IV
		15	1/2		50	5,2	16	464 888	VI	464917	IV
					70	5,2	16	464 889	VI	464918	IV
		20	3/4		50	7,1	10	464 890	VI	464919	III
					70	7,1	16	464 891	VI	464920	IV
	1 1/2	20	3/4	38.1 x 1.6	90	5,5	16	464 892	VI	464921	IV
					130	8,0	16	464 893	VI	464922	IV
		25	1		90	9,9	16	464 894	VI	464923	IV
					130	13,0	16	464 895	VI	464924	IV
		32	1 1/4		90	13,4	16	464 898	VI	464927	IV
					130	17,8	16	464 899	VI	464928	IV
	2	25	1	50.8 x 1.6	90	10,3	16	464 896	VI	464925	IV
					130	13,6	16	464 897	VI	464926	IV
		32	1 1/4		90	14,4	16	464 900	VI	464929	IV
					130	20,2	16	464 901	VI	464930	IV
		40	1 1/2		90	17,5	12	464 902	VI	464931	III
					130	23,8	16	464 903	VI	464932	IV

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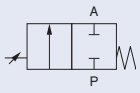
Ordering chart Type 2301 Globe Control Valve, flow direction below seat (for gases and liquid)

Weld end acc. to BS4825

Control function	Port size (tube) [inch]	Orifice (seat) [mm]	Orifice (seat) [inch]	Connection DS x WS [mm]	actuator size [Ø mm]	Kvs values [m³/h]	Operating pressure up to +185°C [bar]	Item no. plug sealing PTFE/ St. st.	Leakage class	Item no. plug sealing St. st./ St. st.	Leakage class
A  2/2-way valve, normally closed by spring action (NC)	1/2	4	1/8	12.7 x 1.2	50	0,5	16	-	-	242 562	IV
					70	0,5	16	-	-	242 563	IV
		6	3/16		50	1,2	16	-	-	242 564	IV
					70	1,2	16	-	-	242 565	IV
		8	1/4		50	2,0	16	242 539	VI	242 566	IV
					70	2,0	16	226 686	VI	242 567	IV
		10	3/8		50	2,7	16	242 542	VI	242 570	IV
					70	2,7	16	242 543	VI	242 572	IV
	3/4	8	1/4	19.05 x 1.2	50	2,1	16	242 540	VI	242 568	IV
					70	2,1	16	242 541	VI	242 569	IV
		10	3/8		50	3,1	16	242 544	VI	242 573	IV
					70	3,1	16	242 545	VI	242 574	IV
		15	1/2		50	4,3	16	242 547	VI	242 577	IV
					70	4,3	16	242 548	VI	239 446	IV
	1	10	3/8	25.4 x 1.6	50	3,2	16	242 546	VI	242 575	IV
					70	3,2	16	241 633	VI	242 576	IV
		15	1/2		50	5,2	16	242 549	VI	242 578	IV
					70	5,2	16	226 329	VI	242 579	IV
		20	3/4		50	7,1	10	242 550	VI	242 580	III
					70	7,1	16	230 405	VI	216 902	IV
	1 1/2	20	3/4	38.1 x 1.6	90	5,5	16	242 552	VI	242 581	IV
					130	8,0	16	242 553	VI	242 582	IV
		25	1		90	9,9	16	230 902	VI	242 583	IV
					130	13,0	16	242 554	VI	242 584	IV
		32	1 1/4		90	13,4	16	230 409	VI	242 587	IV
					130	17,8	16	242 557	VI	242 589	IV
	2	25	1	50.8 x 1.6	90	10,3	16	242 555	VI	242 585	IV
					130	13,6	16	242 556	VI	242 586	IV
		32	1 1/4		90	14,4	16	242 558	VI	242 590	IV
					130	20,2	16	242 560	VI	242 591	IV
		40	1 1/2		90	17,5	12	211 655	VI	242 592	III
					130	23,8	16	242 561	VI	242 593	IV

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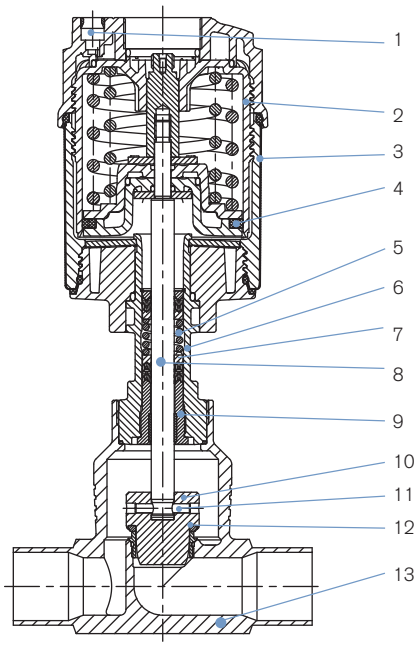
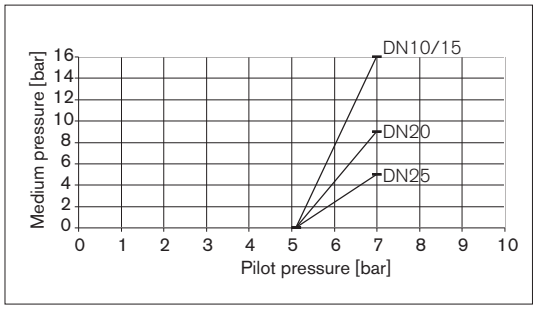
Materials Type 2301 Globe Control Valve



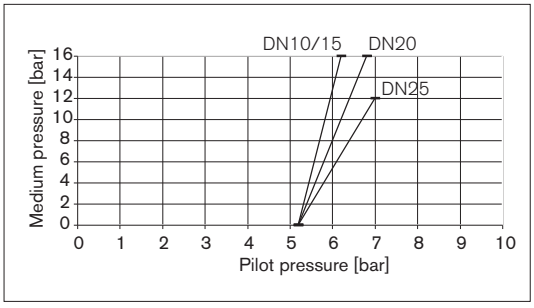
1	**Pilot air ports**	Push-in connector PP
2	**Actuator**	PPS
3	**Cover**	Stainless steel 1.4561 (316Ti)
4	**Piston seal**	FKM
5	**Spring**	Stainless steel 1.4310
6	**Tube**	Stainless steel 1.4401 (316)/1.4404 (316L)
7	**Spindle packing**	PTFE
8	**Spindle**	Stainless steel 1.4401 (316)/1.4404 (316L)
9	**Spindle guidance**	Stainless steel 316L (1.4404)
10	**Plug**	Stainless steel 1.4571
11	**Spring straight pin**	Stainless steel 1.4310
12	**Plug seal**	Stainless steel 1.4571 / PTFE disc for soft seat sealing
13	**Valve body**	Cast stainless steel 316L

Pressure Charts with control function B (normally open, NO)

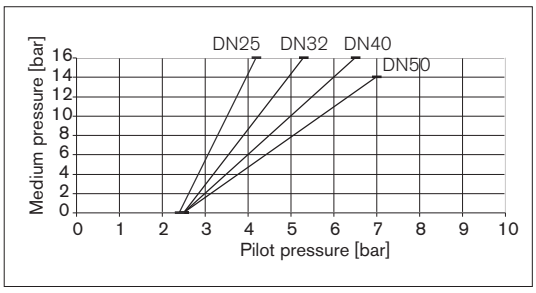
Actuator Ø 50



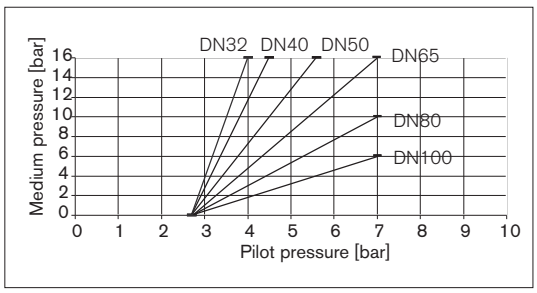
Actuator Ø 70



Actuator Ø 90



Actuator Ø 130



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bürkert

Ordering information for valve system Continuous ELEMENT Type 8802-GD

A **valve system Continuous ELEMENT Type 8802-GD** consists of a **globe control valve Type 2301** and a digital electropneumatic Positioner **Type 8692**, a digital electropneumatic Process Controller **Type 8693,** a digital electropneumatic Positioner Basic **Type 8694** (below), an electropneumatic Positioner **Type 8792/8793** (for valve actuator sizes ø 70/90/130 mm) or a digital electropneumatic Positioner **Type 8696** (for valve actuator size ø 50 mm) (see next page and separate datasheets). For the configuration of further valve systems please use the "Request for quotation" on p. 15

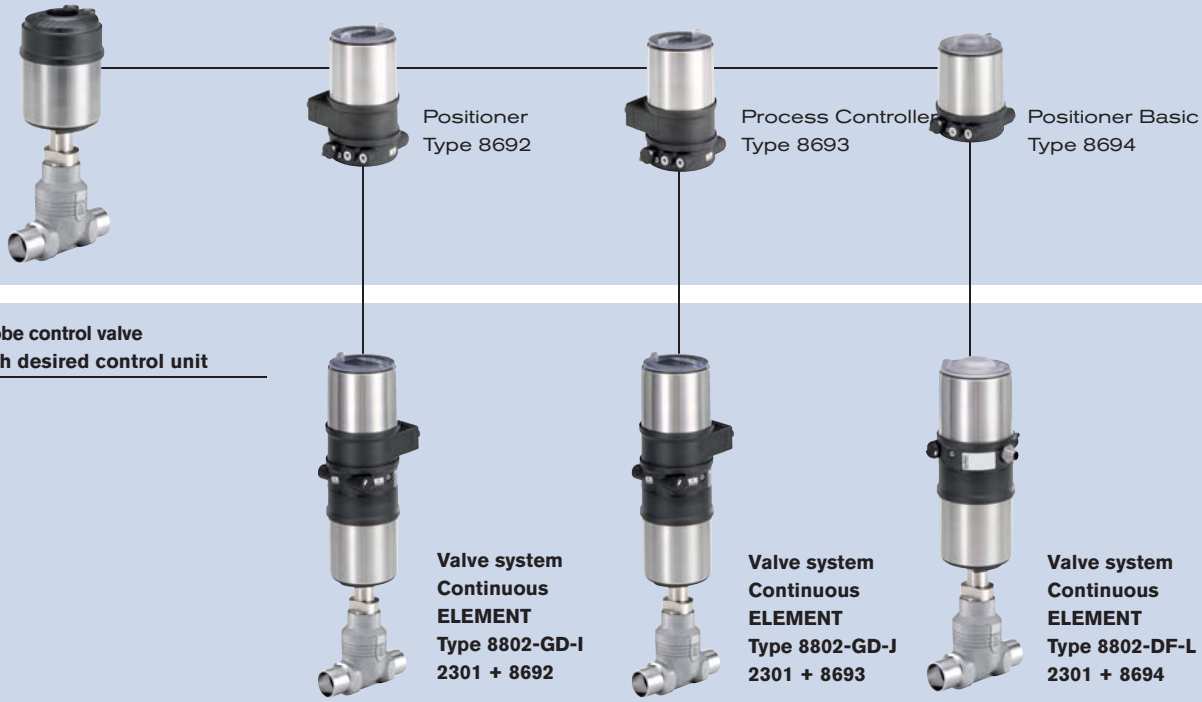
You order two components and receive a complete assembled and certified valve.

go to page

Ordering the valve system Continuous ELEMENT Type 8802-GD

Globe control valve Type 2301

Positioner



Globe control valve with desired control unit

Valve system Continuous ELEMENT Type 8802-GD-I 2301 + 8692

Valve system Continuous ELEMENT Type 8802-GD-J 2301 + 8693

Valve system Continuous ELEMENT Type 8802-DF-L 2301 + 8694

Click on the orange box "More info." below... you will come to our website for the resp. product where you can download the datasheet.

Positioner TopControl Type 8692 More info.

Process Controller TopControl Type 8693 More info.

PROFIBUS DeviceNet™

The new generation of integrated positioners/process controllers for combination with actuators from the process valve series Type 23xx/2103 is specially designed for the requirements of hygienic process environments. The easy handling and the selection of additional software functions are done either on a big graphic display with backlight and keypad or via a PC interface. A contact-free analog position sensor registers the valve position without deterioration. Single-acting or double-acting actuators are controlled via the integral positioner system. With Type 8693, the process controller function is superimposed on the position control loop. Profibus DPV1 and DeviceNet communication interfaces are available as options.
Main customer benefits:

- Compact design of the valve system with integrated positioner/process controller meets the demands for plant washdown environments through the selection of materials, external seals and integrated control air supply to the actuator
- Extremely simple commissioning and operation thanks to the backlighting of the graphics display and proven multilingual software structure
- Automatic parameterisation of the positioner and process controller using the TUNE functions
- Field bus communication via Profibus DPV1 or DeviceNet
- Air intake filter enhances the process valve system availability
- Simple and reliable actuator adaption

Positioner TopControl Basic Type 8694 More info.

AS-i

The new generation of integrated positioners for combination with actuators from the process valve series Type 23xx/2103 is specially designed for the requirements of hygienic process environments. The operation and selection of the software functions close tight function, inversion of the operating direction of the setpoint signal, characteristic curves selection and switching manual/automatic operation are effected via push-buttons and DIP switches or via the PC interface. The position setpoint is set using the standard signal 4 - 20 mA. In addition, the enable can be controlled via the binary input and an optional position feedback can be integrated.
The positioner, Type 8694, registers the valve position without deterioration through a contact-free analogue position sensor. Single-acting or double-acting actuators are controlled via the integral positioner system. An AS-Interface communication interface is available as an option.
Main customer benefits:

- Compact design of the valve system with integrated positioner meets the demands for plant washdown environments through the selection of materials, external seals and integrated control air supply to the actuator
- Automatic parameterisation of the positioner using the Process TUNE function
- Field bus communication via optional AS-Interface
- Air intake filter enhances the process valve system availability
- Simple and reliable actuator adaption allowing additional actuators of the process valve series, Type 20xx or actuators from other manufacturers to be used

DTS 1000179873 EN Version: D Status: RL (released | freigegeben | validé) printed: 19.01.2015

Ordering information for valve system Continuous ELEMENT Type 8802-GD, continued

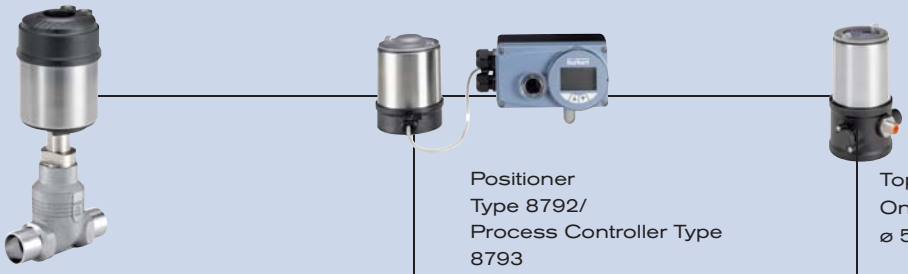
A **valve system Continuous ELEMENT Type 8802-GD** consists of a **globe control valve Type 2301** and a digital electropneumatic Positioner **Type 8692**, a digital electropneumatic Process Controller **Type 8693,** a digital electropneumatic Positioner Basic **Type 8694** (previous page), an electropneumatic Positioner **Type 8792/8793** (for valve actuator sizes ø 70/90/130) mm or a digital electropneumatic Positioner **Type 8696 (**for valve actuator size ø 50 mm) (see below and separate datasheets). For the configuration of further valve systems please use the "Request for quotation" on p. 15 go to page

You order two components and receive a complete assembled and certified valve.

Ordering the valve system Continuous ELEMENT Type 8802-GD

Globe control valve Type 2301

Positioner



Positioner
Type 8792/
Process Controller Type
8793

TopControl Basic Type 8696
Only for actuator size
ø 50 mm

Globe control valve with desired control unit

Valve system Continuous ELEMENT Type 8802-GD-P 2301 + 8792 / Type 8802-GD-Q 2301 + 8793

Valve system Continuous ELEMENT Type 8802-GD-M 2301 + 8696

When you click on the orange box "More info." below, you will come to our website for the resp. product where you can download the datasheet.

Positioner SideControl Type 8792 More info.

Process Controller SideControl Type 8793 More info.

Type 8792/8793 is a digital electro-pneumatic positioner with an optional, integrated process controller (8793) for precise control requirements. The compact design with integrated position encoder and LCD display was developed for demanding applications of the process industry. A Profibus DPV1 communication interface is available as an option.
Main customer benefits are:

- Time saving algorithms for temperature, flow and pressure PID parameters through ProcessTUNE function.
- Quick and simple menu driven parameterization through keyboard or Profibus DPV1 PA
- Adaption acc. to IEC534-6 and VDI/VDE 3845 for lift and swivel drives or as a Remote version together with Bürkert process valves
- Rugged anodised aluminium housing

TopControl Basic Type 8696 Mehr Infos

The new generation of integrated positioners for combination with small actuators from the process valve series Type 23xx/2103 is specially designed for the requirements of hygienic process environments. The operation and selection of the software functions close tight function, inversion of the operating direction of the setpoint signal, characteristic curves selection and switching manual/automatic operation are effected via push-buttons and DIP switches or via the PC interface. The position setpoint is set using the standard signal 4 - 20 mA. In addition, the enable can be controlled via the binary input and an optional position feedback can be integrated. The positioner, Type 8696, , registers the valve end position without deterioration through a contact-free analogue position sensor. Single-acting actuators are controlled via the integral positioner system.
Main customer benefits:

- Compact design of the valve system with integrated positioner meets the demands for plant washdown environments through the selection of materials, external seals and integrated control air supply to the actuator
- Automatic parameterisation of the positioner using the TUNE function
- Simple and reliable actuator adaption

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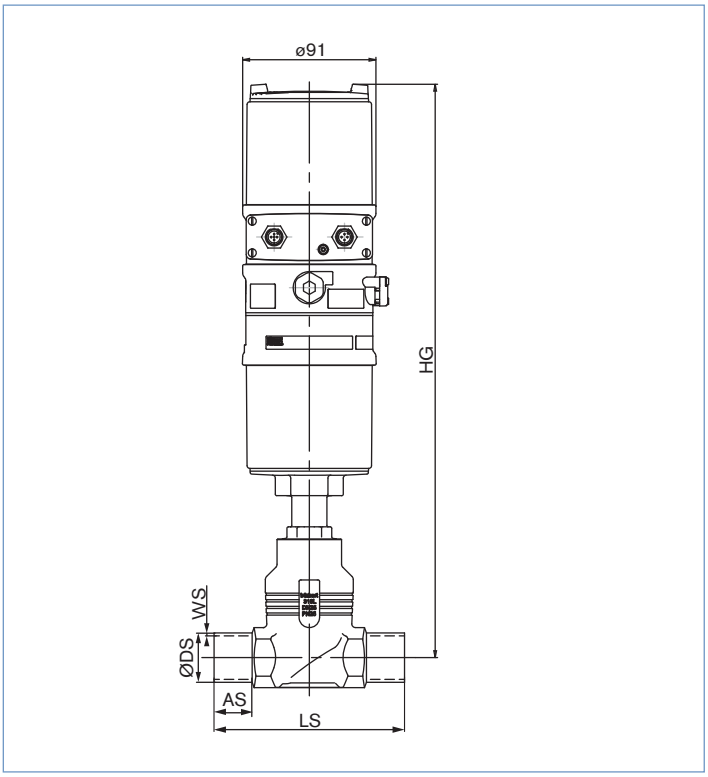
Dimensions for valve system Continuous ELEMENT Type 8802-GD [mm]

Dimensions valve system Continuous Type 8802-GD-I with positioner TopControl Type 8692 or 8802-GD-J with process controller TopControl Type 8693 [mm]



ISO 4200, DIN 11850 S2

Port size [mm]	Actuator size [mm]	AS	LS	HG	ISO 4200 ØDS	ISO 4200 WS	DIN 11850 S2 ØDS	DIN 11850 S2 WS
10	70	20	90	383	17.2	1.6	13	1.5
15	70	20	90	383	21.3	1.6	19	1.5
20	70	20	100	389	26.9	1.6	23	1.5
25	70	26	130	392	33.7	2.0	29	1.5
	90	26	130	445	33.7	2.0	29	1.5
32	90	26	140	473	42.4	2.0	35	1.5
	130	26	140	525	42.4	2.0	35	1.5
40	90	26	150	478	48.3	2.0	41	1.5
	130	26	150	530	48.3	2.0	41	1.5
50	90	26	175	484	60.3	2.0	53	1.5
	130	26	175	536	60.3	2.0	53	1.5
65	130	26	210	590	76.1	2.3	70	2
80	130	26	230	598	88.9	2.3	85	2
100	130	26	260	608	114.3	2.6	104	2

BS4825 Part 1, ASME BPE

Port size [inch]	Actuator size [mm]	AS	LS	HG	BS4825 Part1 ØDS	BS4825 Part1 WS	ASME BPE ØDS	ASME BPE WS
1/2”	70	20	90	383	12.7	1.2	12.7	1.65
3/4”	70	20	90	389	19.05	1.2	19.05	1.65
1”	70	20	100	392	25.4	1.6	25.4	1.6
	90	20	100	445	25.4	1.6	25.4	1.6
1 1/2”	90	26	140	473	38.1	1.6	38.1	1.6
	130	26	140	525	38.1	1.6	38.1	1.6
2”	90	26	150	478	50.8	1.6	50.8	1.6
	130	26	150	530	50.8	1.6	50.8	1.6
2 1/2”	90	26	175	484	63.5	1.6	63.5	1.6
	130	26	175	536	63.5	1.6	63.5	1.6

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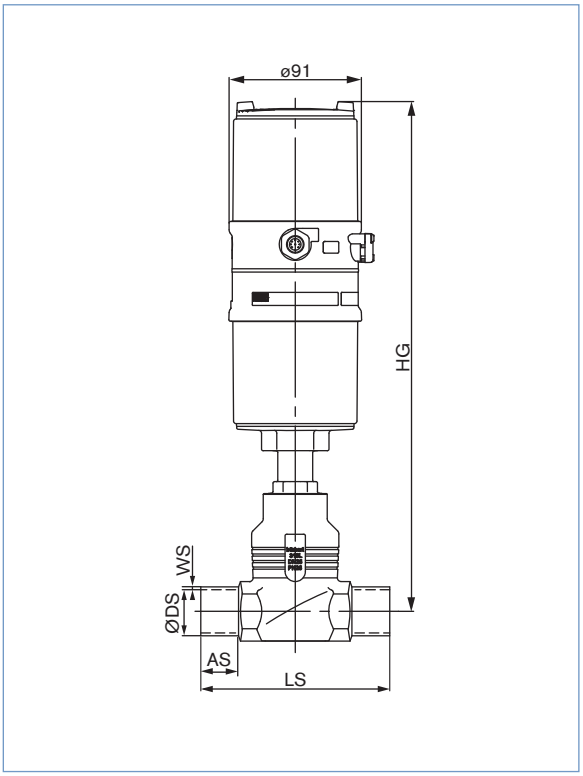
Dimensions for valve system Continuous ELEMENT Type 8802-GD [mm], continued

Dimensions for valve system Continuous ELEMENT Type 8802-GD-L positioner TopControl Basic Type 8694 [mm]



ISO 4200. DIN 11850 S2

Port size [mm]	Actuator size [mm]	AS	LS	HG	ISO 4200 ØDS	ISO 4200 WS	DIN 11850 S2 ØDS	DIN 11850 S2 WS
10	70	20	90	342	17.2	1.6	13	1.5
15	70	20	90	342	21.3	1.6	19	1.5
20	70	20	100	348	26.9	1.6	23	1.5
25	70	26	130	351	33.7	2.0	29	1.5
	90	26	130	404	33.7	2.0	29	1.5
32	90	26	140	432	42.4	2.0	35	1.5
	130	26	140	484	42.4	2.0	35	1.5
40	90	26	150	437	48.3	2.0	41	1.5
	130	26	150	489	48.3	2.0	41	1.5
50	90	26	175	443	60.3	2.0	53	1.5
	130	26	175	495	60.3	2.0	53	1.5
65	130	26	210	549	76.1	2.3	70	2
80	130	26	230	557	88.9	2.3	85	2
100	130	26	260	567	114.3	2.6	104	2

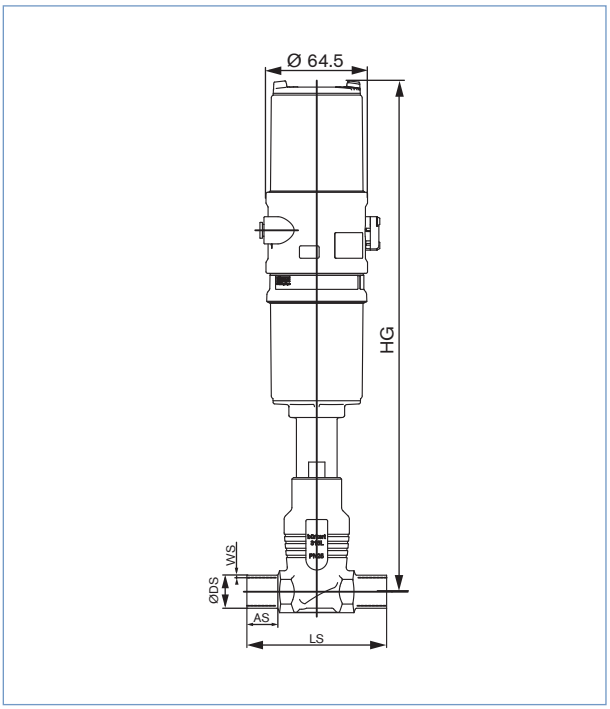
BS4825 Part 1. ASME BPE

Port size [inch]	Actuator size [mm]	AS	LS	HG	BS4825 Part1 ØDS	BS4825 Part1 WS	ASME BPE ØDS	ASME BPE WS
1/2”	70	20	90	342	12.7	1.2	12.7	1.65
3/4”	70	20	90	348	19.05	1.2	19.05	1.65
1”	70	20	100	351	25.4	1.6	25.4	1.6
	90	20	100	445	25.4	1.6	25.4	1.6
1 1/2”	90	26	140	437	38.1	1.6	38.1	1.6
2”	90	26	150	437	50.8	1.6	50.8	1.6
	130	26	150	489	50.8	1.6	50.8	1.6
2 1/2”	90	26	175	443	63.5	1.6	63.5	1.6
	130	26	175	495	63.5	1.6	63.5	1.6

DTS 1000179873 EN Version: D Status: RL (released | freigegeben | validé) printed: 19.01.2015

Dimensions for valve system Continuous ELEMENT Type 8802-GD [mm], continued

Dimensions for valve system Continuous ELEMENT, Type 8802-GD-M with Control Head, Type 8696 [mm]



ISO 4200, DIN 11850 S2

Port size				ISO 4200		DIN 11850 S2	
[mm]	AS	LS	HG	ØDS	WS	ØDS	WS
10	20	90	329	17,2	1,6	13	1,5
15	20	90	329	21,3	1,6	19	1,5
20	20	100	335	26,9	1,6	23	1,5
25	26	130	342	33,7	2,0	29	1,5

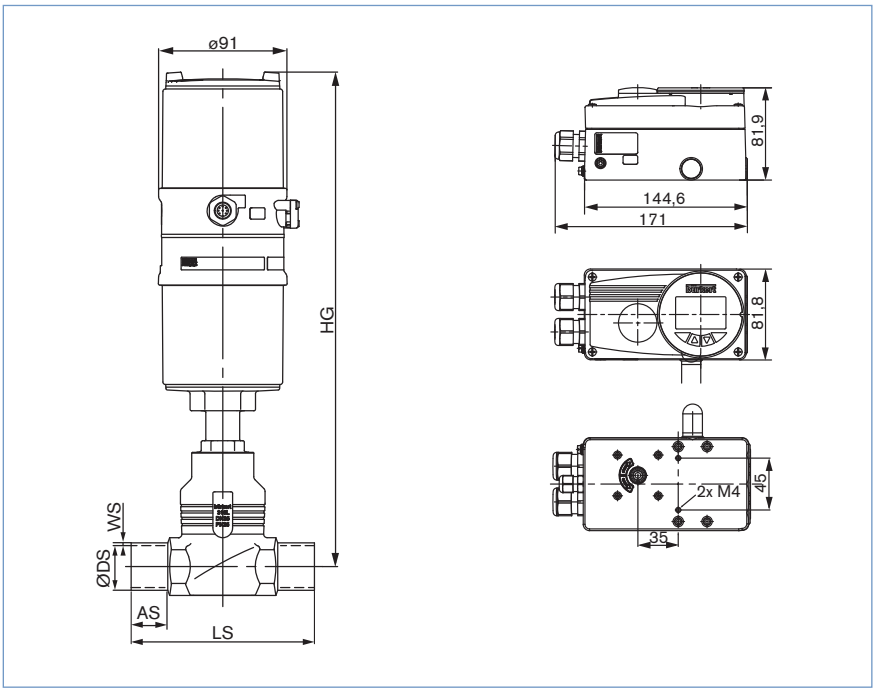
BS4825 Part 1, ASME BPE

Port size				BS4825 Part1		ASME BPE	
[inch]	AS	LS	HG	ØDS	WS	ØDS	WS
1/2”	20	90	329	12,7	1,2	12,7	1,65
3/4”	20	90	335	19,05	1,2	19,05	1,65
1”	20	100	342	25,4	1,6	25,4	1,6

DTS 1000179873 EN Version: D Status: RL (released | freigegeben | validé) printed: 19.01.2015

Dimensions for valve system Continuous ELEMENT Type 8802-GD [mm], continued

Dimensions valve system Continuous ELEMENT 8802-GD-P with Positioner SideControl Remote Type 8792 and Type 8802-GD-Q with Process Controller SideControl Remote Type 8793 [mm]



ISO 4200. DIN 11850 S2

Port size [mm]	Actuator size [mm]	AS	LS	HG	ISO 4200 ØDS	ISO 4200 WS	DIN 11850 S2 ØDS	DIN 11850 S2 WS
10	70	20	90	342	17.2	1.6	13	1.5
15	70	20	90	342	21.3	1.6	19	1.5
20	70	20	100	348	26.9	1.6	23	1.5
25	70	26	130	351	33.7	2.0	29	1.5
	90	26	130	404	33.7	2.0	29	1.5
32	90	26	140	432	42.4	2.0	35	1.5
	130	26	140	484	42.4	2.0	35	1.5
40	90	26	150	437	48.3	2.0	41	1.5
	130	26	150	489	48.3	2.0	41	1.5
50	90	26	175	443	60.3	2.0	53	1.5
	130	26	175	495	60.3	2.0	53	1.5
65	130	26	210	549	76.1	2.3	70	2
80	130	26	230	557	88.9	2.3	85	2
100	130	26	260	567	114.3	2.6	104	2

BS4825 Part 1, ASME BPE

Port size [inch]	Actuator size [mm]	AS	LS	HG	BS4825 Part1 ØDS	BS4825 Part1 WS	ASME BPE ØDS	ASME BPE WS
1/2”	70	20	90	342	12.7	1.2	12.7	1.65
3/4”	70	20	90	348	19.05	1.2	19.05	1.65
1”	70	20	100	351	25.4	1.6	25.4	1.6
1 1/2”	90	26	140	437	38.1	1.6	38.1	1.6
2”	90	26	150	437	50.8	1.6	50.8	1.6
	130	26	150	489	50.8	1.6	50.8	1.6
2 1/2”	90	26	175	443	63.5	1.6	63.5	1.6
	130	26	175	495	63.5	1.6	63.5	1.6

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Note
You can fill out the fields directly in the PDF file before printing out the form.

Valve system Continuous ELEMENT Type 8802-GD - Request for quotation

Please fill out and send to your nearest Bürkert facility* with your inquiry or order

Company	Contact person
Customer no.	Department
Address	Tel./Fax
Postcode/town	E-Mail

■ = mandatory fields to fill out Quantity Required delivery date

Operating data

Pipeline	DN		PN		
Pipe material					
■ **Process medium**					
■ **Type of medium**	☐ Liquid	☐ Steam	☐ Gas		
	min	standard	max	unit	
■ **Flow rate (Q, Q_N, W)** [1]					
■ **Temperature at valve inlet T1**					
■ **Absolute pressure at valve inlet P1**					
■ **Absolute pressure at valve outlet P2**					
Steam pressure Pv					
Kinematic viscosity (ν)		mm^2/s or cSt			
Dynamic viscosity (η)		mPa.s or cP			
Standard density		Kg/m^3			
Max. sound level accepted		dB (A)			

[1] standard unit: Liquid Q = m^3/h; Steam W = kg/h; Gas Q_N = Nm^3/h

Valve features

Plug seal material	☐ PTFE/Stainless steel	☐ Stainless steel/Stainless steel		
Nominal pressure	PN			
Orifice	DN			
Type of connection	☐ Flanged	☐ Threaded	☐ Welded	☐ Clamp
Standard connection	☐ ISO	☐ DIN	☐ Other	
Control function	☐ NC[1]	☐ NO [1]		

Please specify item no. if known):

[1] NC: normally closed by spring action; NO: normally open by spring action

Comments

* To find your nearest Bürkert facility, click on the orange box → www.burkert.com

Reset

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Valve system Continuous ELEMENT Type 8802-YG - Request for quotation, continued

Control unit features

For actuator sizes 70/90/130 mm

☐ **Positioner TopControl Type 8692** Mehr Infos

☐ **Process Controller TopControl Type 8693** Mehr Infos

Pneumatic function
☐ Single-acting ☐ Double-acting

Communication
☐ Profibus ☐ DeviceNet

Electrical connection
☐ Cable gland ☐ Multipol connection

Feedback
☐ 4-20 mA ☐ 4-20 mA + 2 binary outputs

Initiator
☐ Initiator

Please specify item no. if known:

☐ **Positioner TopControl Basic Type 8694** Mehr Infos

Pneumatic function
☐ Single-acting

Pilot air ports
☐ Push-in connector external ø 6 mm or 1/4"
☐ Thread G 1/8"

Electrical connection
☐ Cable gland
☐ Multipol connection

Feedback
☐ 4-20 mA

Please specify item no. if known:

☐ **Positioner SideControl Remote Type 8792** Mehr Infos

☐ **Process Controller SideControl Remote Typ 8793** Mehr Infos

Power supply 24 VDC

Communication
☐ Without
☐ Profibus DPV1

Feedback
☐ Analogue feedback + 2 binary outputs
☐ 2 binary outputs

Electrical connection
☐ Cable gland ☐ Multipol connection

Please specify item no. if known:

For actuator size 50 mm

☐ **Positioner TopControl Basic Typ 8696** Mehr Infos

Pneumatic function
☐ Single-acting

Pilot air ports
☐ Push-in connector external ø 6 mm or 1/4"
☐ Thread G 1/8"

Feedback
☐ 4-20 mA

Please specify item no. if known:

Reset

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