



Pneumatically operated 2 way Globe Control Valve

- Excellent control characteristics
- High cycle life and maintenance-free operation
- Flow optimised body in stainless steel
- Several K_{vs} value per port size due to removable valve seats
- Control units can be mounted directly without external tubing

Product variants described in the data sheet may differ from the product presentation and description.

Can be combined with

	Type 8692 Digital electropneumatic Positioner for the integrated mounting on process control valves
	Type 8694 Digital electropneumatic positioner for the integrated mounting on process control valves
	Type 8693 Digital electropneumatic process controller for the integrated mounting on process control valves
	Type 8792 Digital electropneumatic Positioner SideControl
	Type 8791 Digital electropneumatic Positioner SideControl
	Type 8793 Digital electropneumatic Process Controller SideControl
	Type 8802 ELEMENT continuous control valve systems - overview

Type description

In line with Burkert's philosophy the construction of the type 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 exchangeable V-seals. Each globe valve body can be fitted with up 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 or PEEK seal for tight shut-off. Leakage class III, IV or VI are 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.

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1. General technical data

Product properties	
Dimensions	Detailed information can be found in chapter “ 6. Dimensions ” on page 7.
Material	Detailed information can be found in chapter “ 5. Materials ” on page 5.
Design	Globe control valve
Nominal diameter	DN10...DN100, NPS ½...NPS 4
Safety setting in case of power failure	Normally closed (control function A), normally open (control function B)
Flow direction	Flow to open (below seat)
Performance data	
Operating pressure	0 bar(g) ... 25 bar(g), vacuum version up to -0.9 bar(g) (Option) see “ 7.1. Fluidic data ” on page 13
Nominal pressure	PN25 (DIN EN 1333), Class 150 (DIN EN 1759)
Seat leakage acc. to DIN EN 60534-4:2006	Leakage class III and IV for stainless steel Leakage class VI for PTFE and PEEK (see “ 7.1. Fluidic data ” on page 13)
K _v value	0.1 m ³ /h...140 m ³ /h, see “ 7.1. Fluidic data ” on page 13
Operating characteristic	Linear or equal percentage
Theoretical rangeability	Up to 50:1
Medium data	
Medium	Steam, water, neutral gases, alcohol, oils, fuels, hydraulic fluids, salt solution, alkali solutions, organic solvents, for fuel gases of category I, II and III acc. to Gas Appliances Regulation (EU) 2016/426 and oxygen
Medium temperature	-40 °C...230 °C, see “ 7.2. Operating limits ” on page 16
Viscosity	Max. 600 mm ² /s
Control medium	Air, neutral gases
Process/Port connection & communication	
Port connection ²⁾	
Flange connection	DIN EN 1092-1 ANSI B 16.5 JIS 10K
Threaded connection	G (DIN ISO 228-1) NPT (ASME B1.20.1) Rc (ISO 7-1)
Welded connection	DIN EN ISO 1127 / ISO 4200 / DIN11866 B DIN 11850 2 / DIN 11866 A ASME BPE / DIN 11866 C SMS 3008
Clamp connection	DIN 32676 B (pipe ISO 4200) DIN 32676 A (pipe DIN 11850 2) ASME BPE
Approvals and certificates	
Conformity	Food contact 1935/2004(EG), FDA Drinking water Pressure Equipment Directive Gas Appliances Regulation Machinery Directive
Approvals	Explosion proof ATEX / IECEx
Material certificate	2.2, 3.1
Environment and installation	
Degree of protection	IP65/67
Installation position	As required, preferably with actuator upright

2. Product versions

2.1. 2301 ELEMENT

Product properties	
Nominal diameter	DN10...100
Actuator size	50 mm (D), 70 mm (M), 90 mm (N), 130 mm (P)
Performance data	
Maximum pilot pressure	5.6...7 bar(g)
Medium data	
Medium temperature	-40 °C...230 °C, see "7.2. Operating limits" on page 16
Environment and installation	
Ambient temperature	-10...80 °C (for positioner or process controller Type 8791/8792/8793) -10...55 °C (for positioner or process controller Type 8692/8693/8694) See "Operating limits for ambient and medium temperature" on page 17

2.2. 2712 CLASSIC

Product properties	
Nominal diameter	DN65...100
Actuator size	225 mm (L)
Performance data	
Maximum pilot pressure	5.0...6.0 bar(g)
Medium data	
Medium temperature	-40 °C...180 °C, see "7.2. Operating limits" on page 16
Environment and installation	
Ambient temperature	-10...50 °C

3. Circuit functions

Control function (CF)	Description
Flow direction below seat for fluids, steam and gases	
	CF: A, pneumatically operated control valve 2/2 way Flow direction below seat Normally closed by spring force
	CF: B, pneumatically operated control valve 2/2 way Flow direction below seat Normally open by spring force

4. Approvals

Approval	Description
	Food produce contact Materials in contact with the medium conform to EC regulation 1935/2004 (standard Type 2301, option Type 2712) Materials in contact with the medium conform to FDA (option)
	Drinking water Suitable for use with drinking water up to 85 °C according to KTW, W270 (option)
	Oxygen Suitable for use with gaseous oxygen for medium temperature up to 60 °C and operating pressure up to 25 bar(g) (option)
	Explosion proof As category 2 device suitable for zone 1/21 and zone 2/22 (option)
	ATEX: II 2G Ex h IIC T4 Gb II 2D Ex h IIIC T135 °C Db IECEx: Ex h IIC T4 Gb Ex h IIIC T135 °C Db
	Fuel gases Approval according to the European Gas Appliances Regulation (EU) 2016/426, DVGW DIN EN 161 and DIN EN 16678, Class D, suitable for medium temperature 0 °C...60 °C, ambient temperature - 10...60 °C and operating pressures 0...25 bar(g) (option)

5. Materials

5.1. Chemical Resistance Chart – Bürkert resistApp



Bürkert resistApp – Chemical Resistance Chart

You want to ensure the reliability and durability of the materials in your individual application case? Verify your combination of media and materials on our website or in our resistApp.

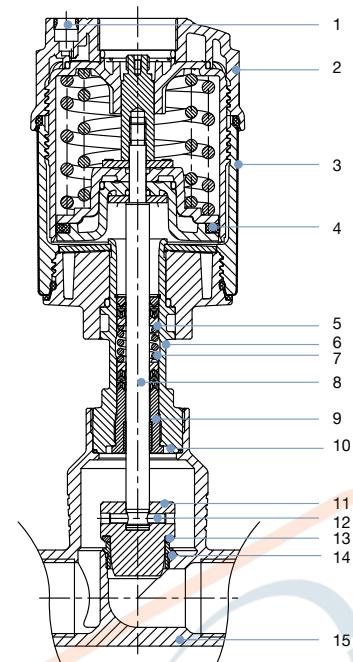
[Start Chemical Resistance Check](#)

5.2. Material specifications

2301 ELEMENT

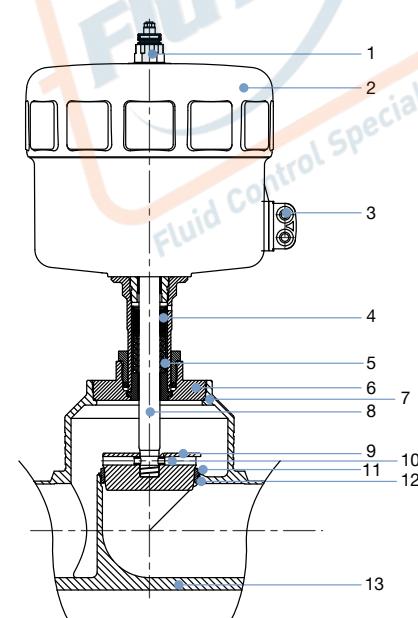
Note:

The Type 2301 globe control valve is supplied with different connection ports (flange, threaded, welded and clamp). These connections are not shown in the picture. They correspond to the material of the valve body.



No.	Element	Material
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	Pipe	Stainless steel 1.4401 (316)
7	Spindle sealing	PTFE V-Rings (filled), with spring compensation
8	Spindle	Stainless steel 1.4401 (316)/1.4404 (316L)
9	Spindle guide	Stainless steel 1.4404 (316L), PTFE filled
10	Body seal	Graphite or PTFE
11	Control cone	Stainless steel 1.4571
12	Spring straight pin	Stainless steel 1.4310
13	Seat seal	Stainless steel 1.4571, PTFE or PEEK
14	Valve seat with O-Ring	Stainless steel 1.4571, EPDM
15	Valve body	Stainless steel 316L / CF3M

2712 CLASSIC



No..	Element	Material
1	Adapter	Stainless steel 1.4305
2	Actuator	PA Polyamide
3	Pilot air ports	Stainless steel 1.4305
4	Spindle sealing	PTFE V-Rings (filled), with spring compensation
5	Spring	Stainless steel 1.4568
6	Nipple	Stainless steel 1.4404
7	Body seal	Graphite or PTFE
8	Spindle	Stainless steel 1.4404
9	Control cone	Stainless steel 1.4571
10	Spring straight pin	Stainless steel 1.4310
11	Seat seal	Stainless steel 1.4571, PTFE or PEEK
12	Valve seat with O-Ring	Stainless steel 1.4571, EPDM
13	Valve body	Stainless steel 316L / CF3M

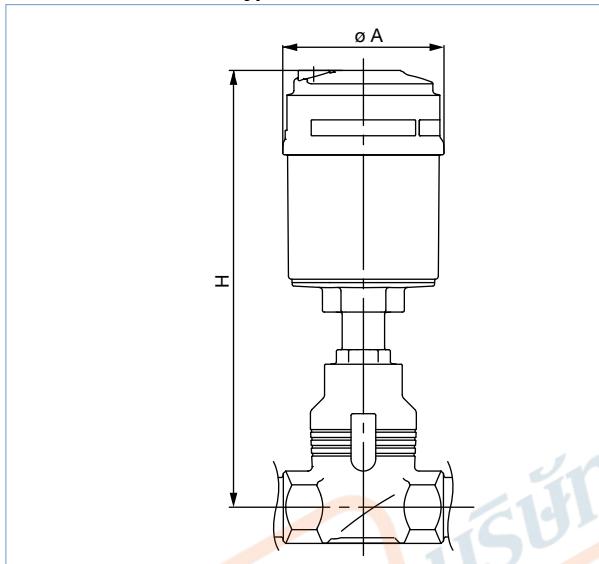
6. Dimensions

6.1. Actuator

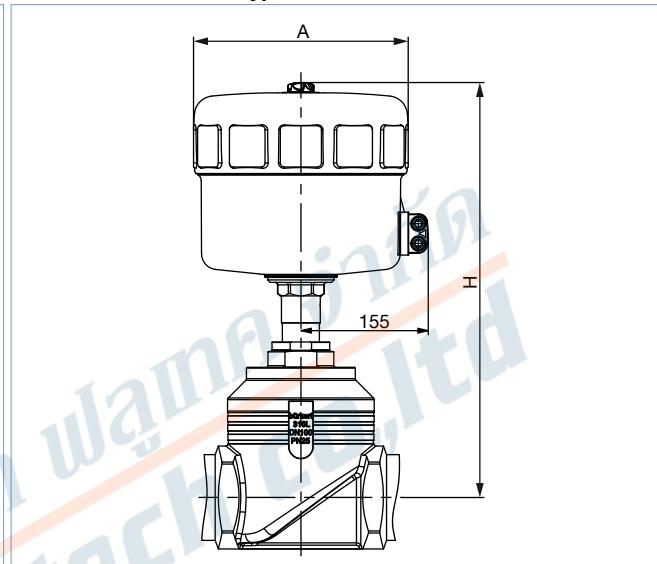
Note:

Dimensions in mm, unless otherwise stated

Continuous ELEMENT Type 2301 valve



Continuous ELEMENT Type 2712 valve



Nominal diameter (pipe)		Actuator size	Ø A	H
DN	NPS			
10	½	50(D)	64.5	226
		70(M)	91	239
15	½	50(D)	64.5	226
		70(M)	91	239
20	¾	50(D)	64.5	232
		70(M)	91	245
25	1	50(D)	64.5	235
		70(M)	91	248
		90(N)	120	301
32	1¼	90(N)	120	329
		130(P)	159	381
40	1½	90(N)	120	334
		130(P)	159	386
50	2	90(N)	120	340
		130(P)	159	392
65	2½	130(P)	159	446
		225(L)	261	474
80	3	130(P)	159	454
		225(L)	261	482
100	4	130(P)	159	464
		225(L)	261	492

Valve system Continuous ELEMENT

Note:

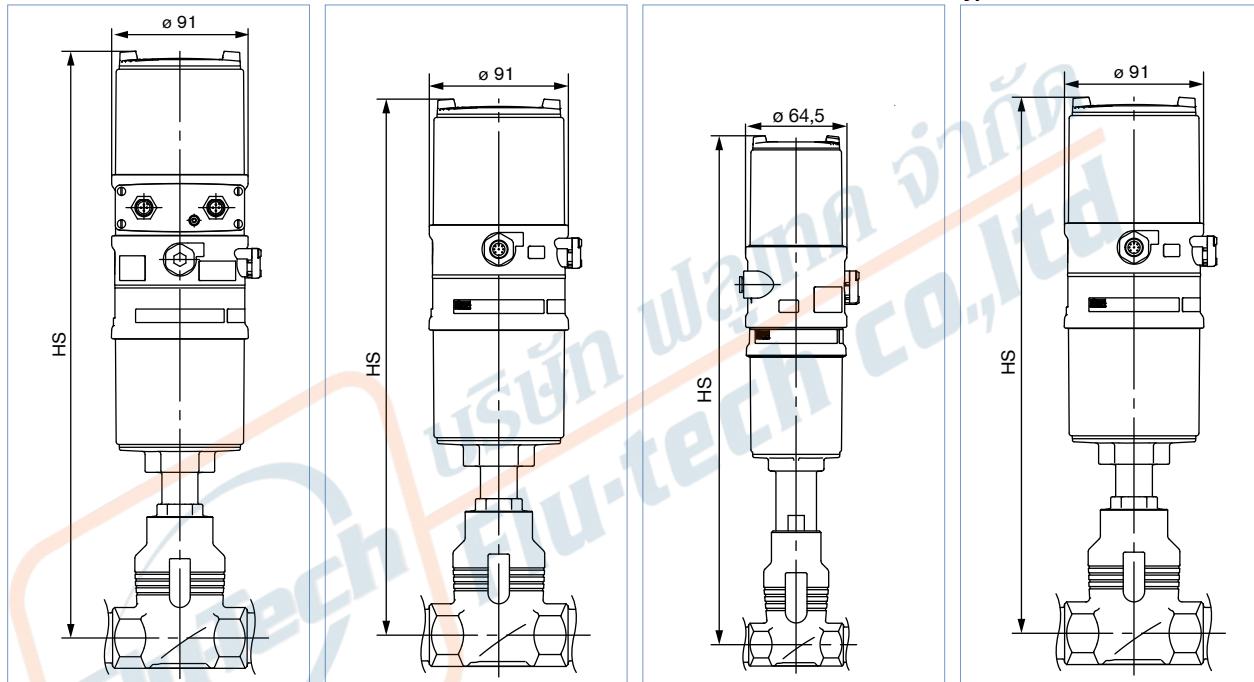
- Dimensions in mm, unless otherwise stated
- Please note actuator size A in table “**6.1. Actuator**” on page 7

With positioner
TopControl, **Type 8692**
or
with process controller
TopControl, **Type 8693**

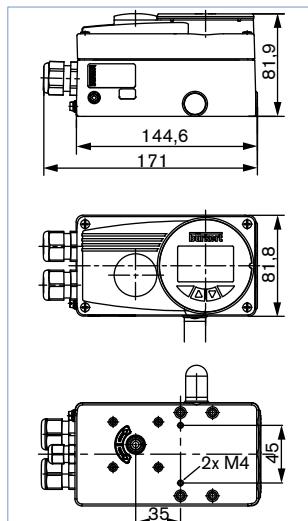
With positioner
TopControl Basic,
Type 8694

With positioner
TopControl Basic,
Type 8696

With remote positioner SideCon-
trol, **Type 8792**
or
with remote process controller
SideControl,
Type 8793



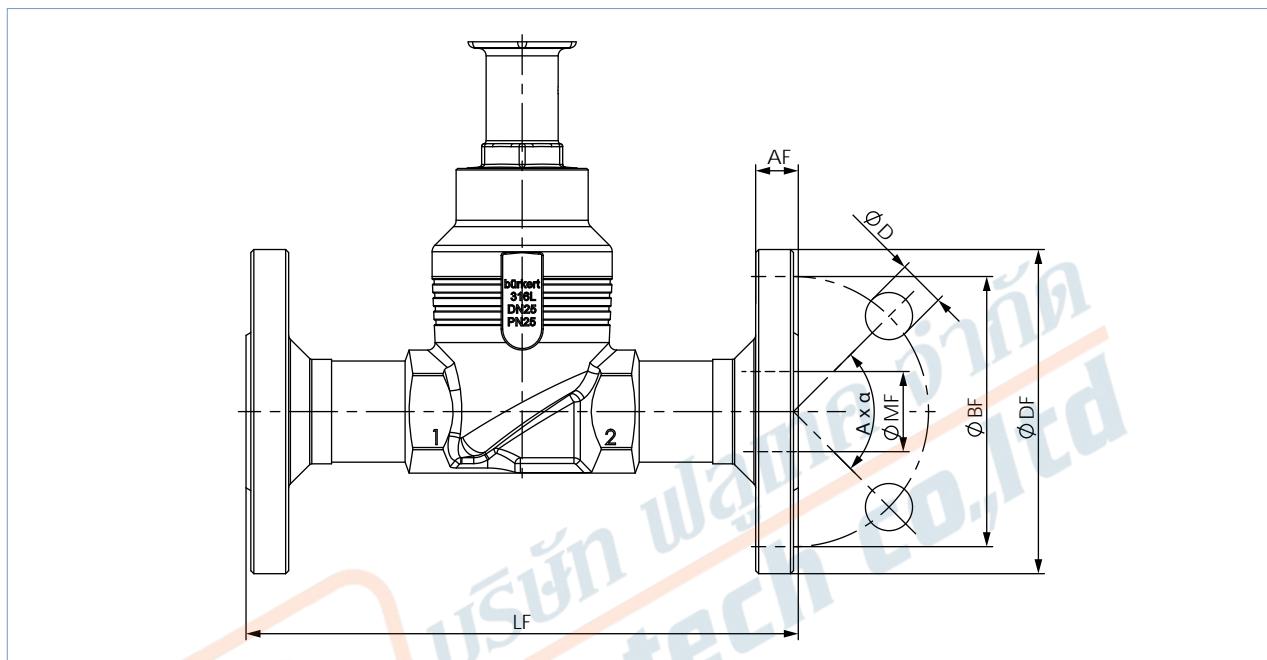
Nominal diameter (pipe)		Actuator size	HS with		
DN	NPS		8692 or 8693	8694 or 8696	8792 or 8793
10	$\frac{3}{8}$	50(D)	—	329	—
		70(M)	383	342	342
15	$\frac{1}{2}$	50(D)	—	329	—
		70(M)	383	342	342
20	$\frac{3}{4}$	50(D)	—	335	—
		70(M)	389	348	348
25	1	50(D)	—	342	—
		70(M)	392	351	351
		90(N)	445	404	404
32	$1\frac{1}{4}$	90(N)	473	432	432
		130(P)	525	484	484
40	$1\frac{1}{2}$	90(N)	478	437	437
		130(P)	530	489	489
50	2	90(N)	484	443	443
		130(P)	536	495	495
65	$2\frac{1}{2}$	130(P)	590	549	549
		225(L)	629	586	586
80	3	130(P)	598	557	557
		225(L)	637	594	594
100	4	130(P)	608	567	567
		225(L)	647	604	604



6.2. Body with flange connection

Note:

Dimensions in mm, unless otherwise stated



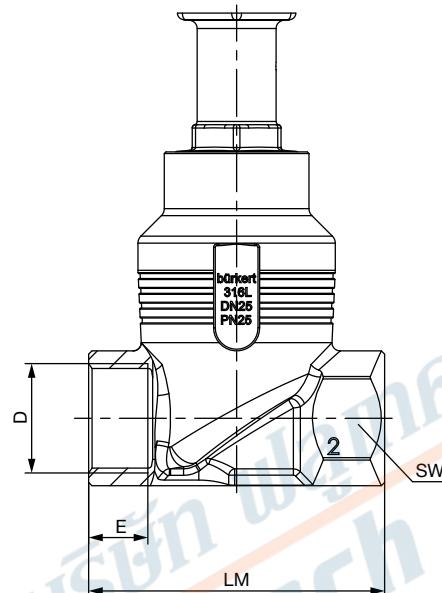
Nominal diameter (pipe)	DIN EN 1092 PN25 FTF 1 acc. to DIN EN 558-1							JIS 10K FTF 10 acc. to DIN EN 558-2							
	DN	Ø DF	LF	Ø BF	AF	Ø D	A x α	Ø MF	Ø DF	LF	Ø BF	AF	Ø D	A x α	Ø MF
10	90	130	60	16	14	4 x 90°	13.6	-	-	-	-	-	-	-	-
15	95	130	65	16	14	4 x 90°	18.1	95	108	70	12	15	4 x 90°	18.1	
20	105	150	75	18	14	4 x 90°	23.7	100	117	75	14	15	4 x 90°	23.7	
25	115	160	85	18	14	4 x 90°	29.7	125	127	90	14	19	4 x 90°	29.7	
32	140	180	100	18	18	4 x 90°	38.4	135	140	100	16	19	4 x 90°	38.4	
40	150	200	110	18	18	4 x 90°	44.3	140	165	105	16	19	4 x 90°	44.3	
50	165	230	125	20	18	4 x 90°	56.3	155	203	120	16	19	4 x 90°	56.3	
65	185	290	145	22	18	8 x 45°	66.0	175	216	140	18	19	4 x 90°	71.5	
80	200	310	160	24	18	8 x 45°	81.0	185	241	150	18	19	8 x 45°	84.3	
100	235	350	190	24	22	8 x 45°	100.0	292	292	175	18	19	8 x 45°	109.1	

Nominal diameter (pipe)	ANSI B 16.5 Class 150 FTF 37 acc. to DIN EN 558-2						
	NPS	Ø DF	LF	Ø BF	AF	Ø D	A x α
1/2	89	184	60.5	11.2	15.7	4 x 90°	15.7
3/4	99	184	69.9	12.7	15.7	4 x 90°	20.8
1	108	184	79.2	14.2	15.7	4 x 90°	26.7
1 1/2	127	222	98.6	17.5	15.7	4 x 90°	40.9
2	152	254	120.7	19.1	19.1	4 x 90°	52.6
2 1/2	178	276	139.7	22.3	19.1	4 x 90°	62.7
3	190	298	152.5	23.9	19.1	4 x 90°	78.0
4	229	352	190.5	23.9	19.1	8 x 45°	102.4

6.3. Body with threaded connection

Note:

Dimensions in mm, unless otherwise stated

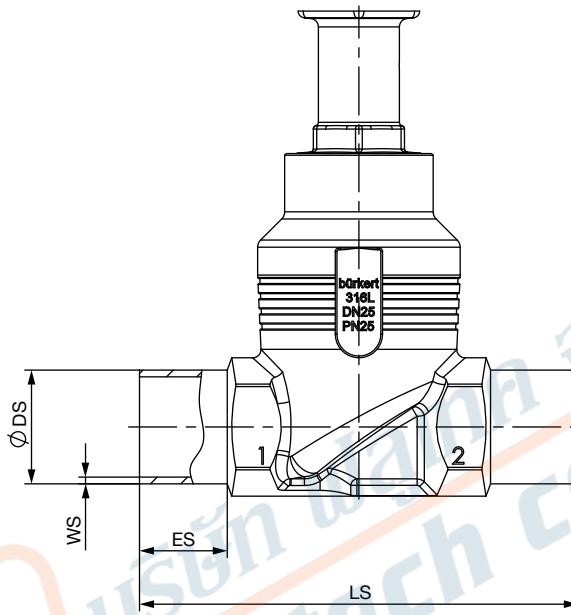


Nominal diameter (pipe)	G, Rc, NPT (EN ISO 228-1, ISO 7/1/DIN EN 10226-2, ASME B 1.20.1)					LM	SW
	D	E	[G]	[NPT]	[Rc]		
DN	NPS						
10	3/8	12	10.3	10.1	65	27	
15	1/2	14	13.7	13.2	65	27	
20	3/4	16	14	14.5	75	34	
25	1	18	16.8	16.8	90	41	
32	1 1/4	20	17.3	19.1	110	50	
40	1 1/2	22	17.3	19.1	120	55	
50	2	24	17.6	23.4	150	70	
65	2 1/2	26	23.7	26.7	185	85	
80	3	28	30.5	29.8	205	100	
100	4	32	33	35.8	240	125	

6.4. Body with welded connection

Note:

Dimensions in mm, unless otherwise stated



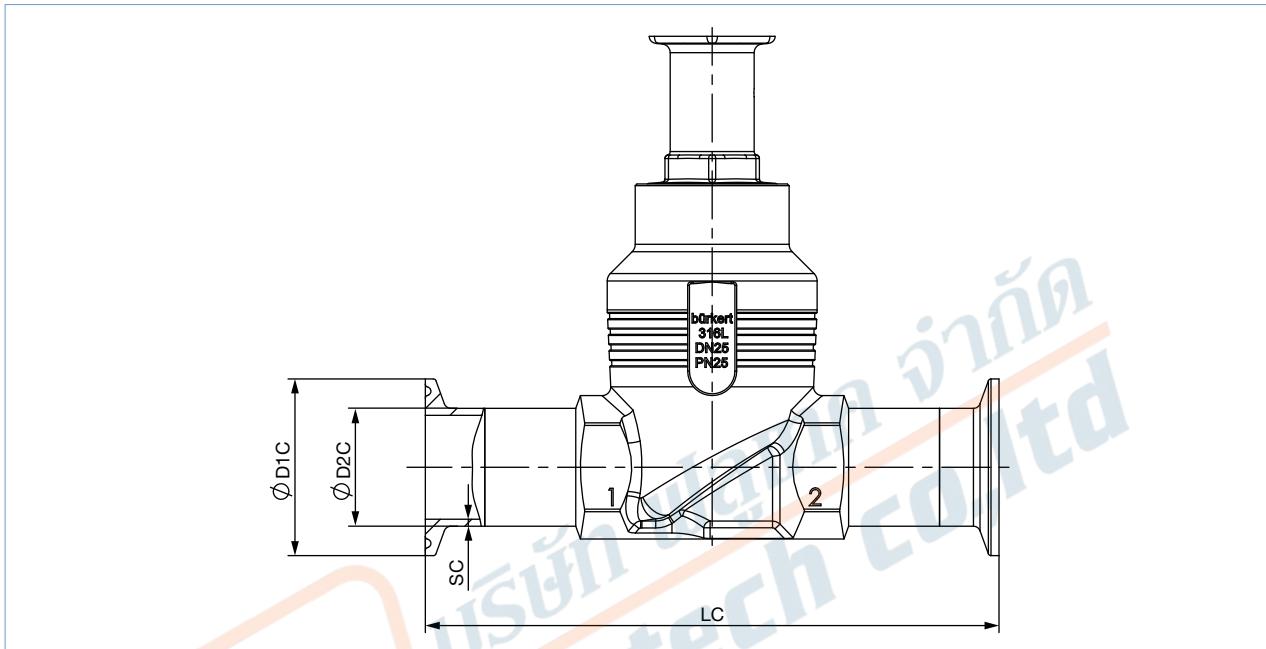
Nominal diameter (pipe)	ES	LS	EN ISO 1127 1/ISO 4200/DIN 11866 B		DIN 11850 2/DIN 11866 A/DIN EN 10357 A	
			Ø DS	WS	Ø DS	WS
10	20	90	17.2	1.6	13	1.5
15	20	90	21.3	1.6	19	1.5
20	20	100	26.9	1.6	23	1.5
25	26	130	33.7	2.0	29	1.5
32	26	140	42.4	2.0	35	1.5
40	26	150	48.3	2.0	41	1.5
50	26	175	60.3	2.0	53	1.5
65	26	210	76.1	2.3	70	2.0
80	26	230	88.9	2.3	85	2.0
100	26	260	114.3	2.6	104	2.0

Nominal diameter (pipe)	ES	LS	ASME BPE/DIN 11866 C	
			Ø DS	WS
1/2	20	90	12.7	1.65
3/4	20	90	19.05	1.65
1	20	100	25.4	1.65
1 1/2	26	140	38.1	1.65
2	26	150	50.8	1.65
2 1/2	26	175	63.5	1.65
3	26	210	76.2	1.65
4	26	260	101.6	2.11

6.5. Body with clamp connection

Note:

Dimensions in mm, unless otherwise stated



Nominal diameter (pipe)	Clamp: DIN 32676 A				Clamp: DIN 32676 B				
	Pipe: DIN 11850 2 DIN 11866 A DIN EN 10357 A	LC	Ø D2C	Ø D1C	SC	LC	Ø D2C	Ø D1C	SC
15	126	19	34	1.5	146	21.3	50.5	1.6	
20	136	23	34	1.5	136	26.9	50.5	1.6	
25	173	29	50.5	1.5	164	33.7	50.5	2.0	
40	193	41	50.5	1.5	193	48.3	64.0	2.0	
50	218	53	64	1.5	218	60.3	77.5	2.0	

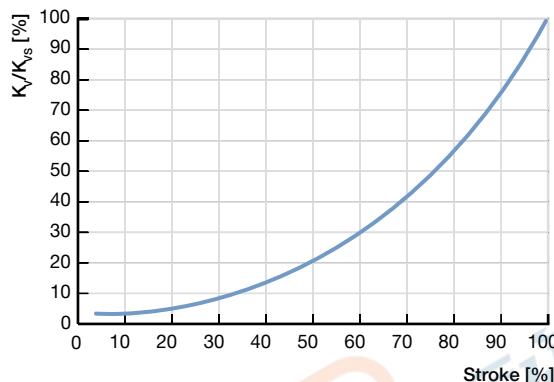
Nominal diameter (pipe)	Clamp: ASME BPE DIN 32676 C				
	Pipe: ASME BPE DIN 11866 C	LC	Ø D2C	Ø D1C	SC
NPS	LC	Ø D2C	Ø D1C	SC	
1/2	122	12.7	25.0	1.65	
3/4	126	19.05	25.0	1.65	
1	126	25.4	50.5	1.65	
1 1/2	172	38.1	50.5	1.65	
2	182	50.8	64.0	1.65	
2 1/2	231	63.5	77.5	1.65	
3	265	76.2	91.0	1.65	
4	315	101.6	119.0	2.11	

7. Performance specifications

7.1. Fluidic data

Flow characteristics

- Flow characteristic acc. to DIN EN 60534-2-4
- K_{vR} value at 5 % of stroke for DN > 10 mm
 K_{vR} value at 10 % of stroke for DN ≤ 10 mm
- Actuator size 70 offers a better control quality compared to actuator size 50 and is therefore preferred
 $(K_{vR}$ value = smallest K_v value, at which the tilt tolerance according to DIN EN 60534-2-4 is still maintained).



Equal percentage flow curve - detailed values please see below

Overview of fluidic data for flow under seat (for gases, steam and liquids)

Note:

- K_v value [m^3/h]: Measured with water acc. to DIN EN 60534-2-3
- See "7.2. Operating limits" on page 16.

Nominal diameter (pipe)	Seat size	Actuator size Ø	Operating pressure max. CF: A (Seat leakage class)			Characteristic curve (theoretical rangeability)	K_v value at stroke [m^3/h]						K_{vs} value			
			Seat seal													
			Stainless steel	PTFE	PEEK		5 %	10 %	30 %	50 %	70 %	90 %	[m^3/h]			
DN	NPS	[mm]	[bar(g)]	[bar(g)]	[bar(g)]		Linear (10:1)	-	0.003	0.015	0.037	0.065	0.090	0.10		
			50(D) 70(M)	16(IV) 25(IV)	-				-	-	-	-	-	-		
			4	50(D) 70(M)	16(IV) 25(IV)				-	-	-	-	-	-		
			4	50(D) 70(M)	16(IV) 25(IV)				-	-	-	-	-	-		
			6	50(D) 70(M)	16(IV) 25(IV)				-	-	-	-	-	-		
			6	50(D) 70(M)	16(IV) 25(IV)	16(VI)	25(VI)	10(VI)	25(VI)	Equal percentage (50:1)	0.007	0.045	0.16	0.41	1.1	1.25
			8	50(D) 70(M)	16(IV) 25(IV)	16(VI)	25(VI)	10(VI)	25(VI)		0.070	0.12	0.26	0.61	1.5	2.0
			10	50(D) 70(M)	16(IV) 25(IV)	16(VI)	25(VI)	10(VI)	25(VI)		0.11	0.19	0.48	1.0	2.3	2.7

Nominal diameter (pipe)		Seat size	Actuator size Ø	Operating pressure max. CF: A (Seat leakage class)			Characteristic curve (theoretical rangeability)	K _v value at stroke [m ³ /h]							K _{vs} value				
				Seat seal				Stainless steel	PTFE	PEEK									
				[mm]	[bar(g)]	[bar(g)]					5 %	10 %	30 %	50 %	70 %	90 %	[m ³ /h]		
15	1/2 ^{1,)}	3	50(D)	16(IV)	-	-	Linear (10:1)	-	0.003	0.015	0.037	0.065	0.090	0.10	0.10	0.10			
			70(M)	25(IV)				-	0.015	0.10	0.19	0.27	0.33	0.35	0.35				
		4	50(D)	16(IV)				-	0.050	0.16	0.27	0.36	0.44	0.50	0.50				
			70(M)	25(IV)				-	0.12	0.48	0.76	0.98	1.1	1.2	1.2				
		4	50(D)	16(IV)				Linear (25:1)	-	0.007	0.045	0.16	0.41	1.1	1.25	1.25			
			70(M)	25(IV)					-	0.080	0.13	0.27	0.63	1.6	2.1				
		6	50(D)	16(IV)					-	0.11	0.19	0.49	1.1	2.5	3.1				
			70(M)	25(IV)					-	0.14	0.17	0.35	0.80	1.8	3.7	4.3			
		6	50(D)	16(IV)	16(VI)	10(VI)		Equal percent-age (50:1)	-	0.11	0.12	0.20	0.52	1.2	2.6	3.2	3.2		
			70(M)	25(IV)	25(VI)	25(VI)			-	0.14	0.17	0.35	0.80	1.8	4.0	5.2			
		8	50(D)	16(IV)	16(VI)	10(VI)			-	0.20	0.25	0.45	1.1	2.4	5.2	7.1			
			70(M)	25(IV)	25(VI)	25(VI)			-	0.14	0.17	0.35	0.80	1.8	4.1	5.3			
		10	50(D)	16(IV)	16(VI)	10(VI)			-	0.20	0.25	0.47	1.1	2.5	5.4	7.2			
			70(M)	25(IV)	25(VI)	25(VI)			-	0.35	0.38	1.0	2.2	5.1	9.4	12.0			
		15	50(D)	16(IV)	16(VI)	10(VI)			-	0.21	0.24	0.45	0.85	1.8	3.8	5.5			
			70(M)	25(IV)	25(VI)	25(VI)			-	0.22	0.25	0.50	1.1	2.5	5.8	8.0			
		20	70(M)	16(IV)	16(VI)	10(VI)			-	0.38	0.45	0.93	1.8	3.7	6.7	8.9			
			90(N)	25(IV)	25(VI)	25(VI)			-	0.40	0.47	1.1	2.5	5.4	10.3	13.0			
		25	70(M)	12(III)	12(VI)	7(VI)			-	0.45	0.58	1.1	2.5	4.9	10.1	13.4			
			90(N)	25(IV)	25(VI)	20(VI)			-	0.48	0.60	1.3	3.1	6.8	14.0	17.8			
		32	90(N)	25(IV)	25(VI)	25(VI)			-	0.38	0.48	0.95	1.9	3.7	7.2	9.4			
			130(P)	25(IV)	25(VI)	25(VI)			-	0.40	0.50	1.1	2.6	5.6	10.7	13.6			
		25	90(N)	25(IV)	25(VI)	20(VI)			-	0.45	0.55	1.1	2.5	5.0	10.8	14.4			
			130(P)	25(IV)	25(VI)	20(VI)			-	0.48	0.60	1.3	3.2	6.9	15.0	20.0			
		32	90(N)	16(IV)	16(VI)	10(VI)			-	0.55	0.67	1.5	3.2	6.5	13.6	17.5			
			130(P)	25(IV)	25(VI)	20(VI)			-	0.60	0.70	1.7	4.0	9.2	18.2	23.8			
		40	90(N)	25(IV)	25(VI)	10(VI)			-	0.45	0.56	1.1	2.5	5.0	11.4	15.3			
			130(P)	25(IV)	25(VI)	25(VI)			-	0.48	0.60	1.3	3.2	6.9	16.0	21.0			
		40	90(N)	16(IV)	16(VI)	10(VI)			-	0.57	0.68	1.5	3.2	6.4	13.8	18.0			
			130(P)	25(IV)	25(VI)	20(VI)			-	0.60	0.70	1.7	4.0	9.2	18.9	24.5			
		50	90(N)	7(III)	7(VI)	-			-	0.85	1.1	2.6	5.4	11.4	21.5	28.0			
			130(P)	25(IV)	25(VI)	20(VI)			-	0.90	1.1	2.9	6.8	15.5	29.5	37.0			
		65	130(P)	25(IV)	25(VI)	20(VI)			-	0.65	0.75	1.8	4.3	10.4	22.0	29.0			
			130(P)	16(IV)	16(VI)	10(VI)			-	1.0	1.2	3.1	6.7	16.0	35.0	45.0			
			225(L)	25(IV)	25(VI)	10(VI)			-	1.6	2.0	5.0	13.5	33.0	56	65			
			225(L)	25(IV)	25(VI)	10(VI)			-	1.1	1.4	3.2	8.0	18.5	46.5	62			

Nominal diameter (pipe)		Seat size	Actuator size Ø	Operating pressure max. CF: A (Seat leakage class)			Characteristic curve (theoretical rangeability)	K _v value at stroke [m ³ /h]						K _{vs} value		
				Seat seal				5 % 10 % 30 % 50 % 70 % 90 % [m ³ /h]								
				Stainless steel	PTFE	PEEK										
DN	NPS	[mm]	[mm]	[bar(g)]	[bar(g)]	[bar(g)]										
80	3 ¹⁾	50	130(P)	25(12,5 ²⁾)(IV)	25(12,5 ²⁾)(VI)	10(VI)	Equal percent-age (50:1)	1.0	1.2	3.4	8.3	19.0	35.0	45.0		
		65	130(P)	16(12,5 ²⁾)(IV)	16(12,5 ²⁾)(VI)	10(VI)		1.6	2.0	5.0	13.0	35.0	61	73		
			225 (L)	25(12,5 ²⁾)(IV)	25(12,5 ²⁾)(VI)	10(VI)		1.4	1.7	3.8	8.2	19.5	50	70		
		80	130(P)	10(III)	10(VI)	-		2.5	3.4	10.7	27.0	58	87	100		
100	4		225 (L)	12,5(IV)	12,5(VI)	7(VI)		2.1	2.6	7.0	16.0	40.0	83	100		
		65	130(P)	16(10 ²⁾)(IV)	16(10 ²⁾)(VI)	10(VI)		1.4	1.8	5.0	15.0	37.0	64	77		
			225 (L)	25(10 ²⁾)(IV)	25(10 ²⁾)(VI)	10(VI)		1.4	1.7	3.8	8.3	20.0	51	75		
		80	130(P)	10(III)	10(VI)	-		2.2	3.1	10.3	30.0	66	97	110		
			225 (L)	12,5(10 ²⁾)(IV)	12,5(10 ²⁾)(VI)	7(VI)		2.1	2.6	7.0	17.0	44.0	89	115		
		100	130(P)	6(III)	6(VI)	-		3.8	5.2	15.0	46.5	90	128	140		
			225 (L)	10(IV)	10(VI)	-		3.2	3.9	9.0	20.5	51	118	140		

1.) Deviation for line connections according to ASME BPE: the next larger nominal connection size is used, e.g. NPS 1 instead of NPS ¾

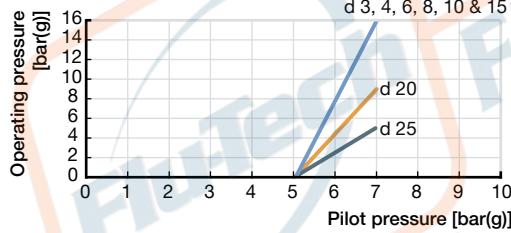
2.) According to the Pressure Equipment Directive 97/23/EC for compressible fluids of group 1 (dangerous gases and vapours according to article 3 point 1.3 letter a, first indent)

Pilot pressure diagram with flow direction below seat (Control function B)

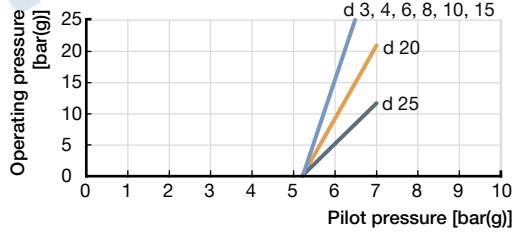
Note:

d = Seat size

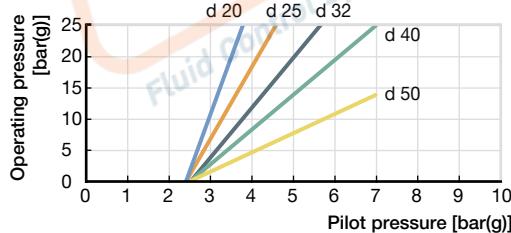
Actuator size Ø: 50 mm



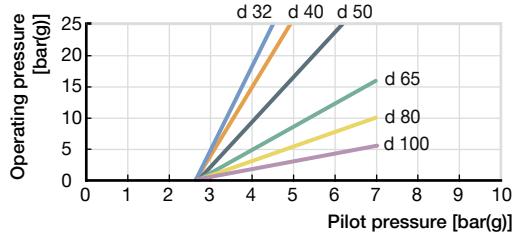
Actuator size Ø: 70 mm



Actuator size Ø: 90 mm



Actuator size Ø: 130 mm



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FLU-TECH CO.,LTD

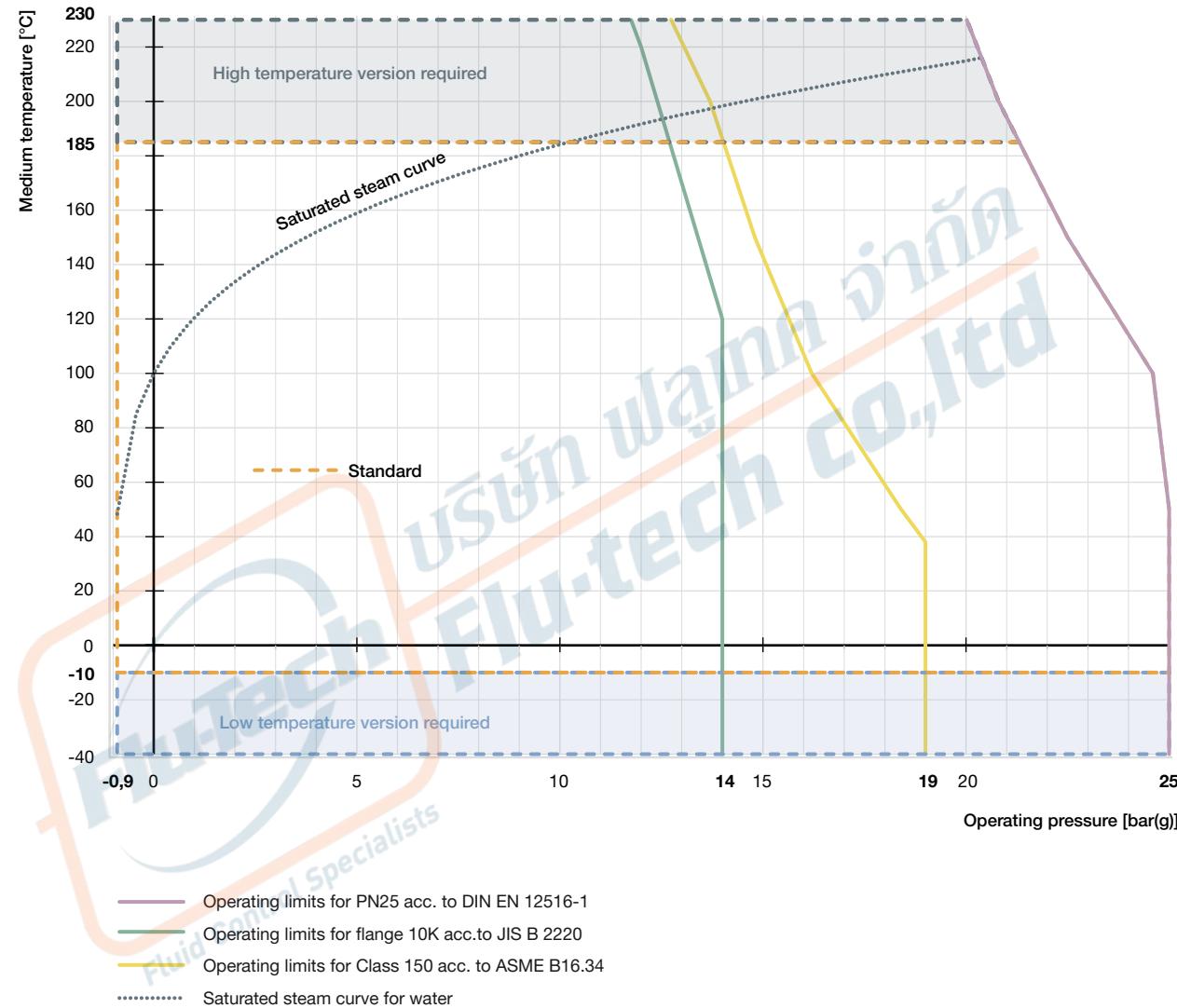
845/3-4 หมู่ 3 ต.เทพารักษ์ ต.เทพารักษ์ อ.เมือง จ.สมุทรปราการ 10270

845/3-4 Thepharak RD., T.Thepharak, A.Muang, Samutprakarn 10270 THAILAND
Tel. 0 2384 6060, Fax 0 2384 5701, Email : sales@flutech.co.th, www.flutech.co.th

7.2. Operating limits

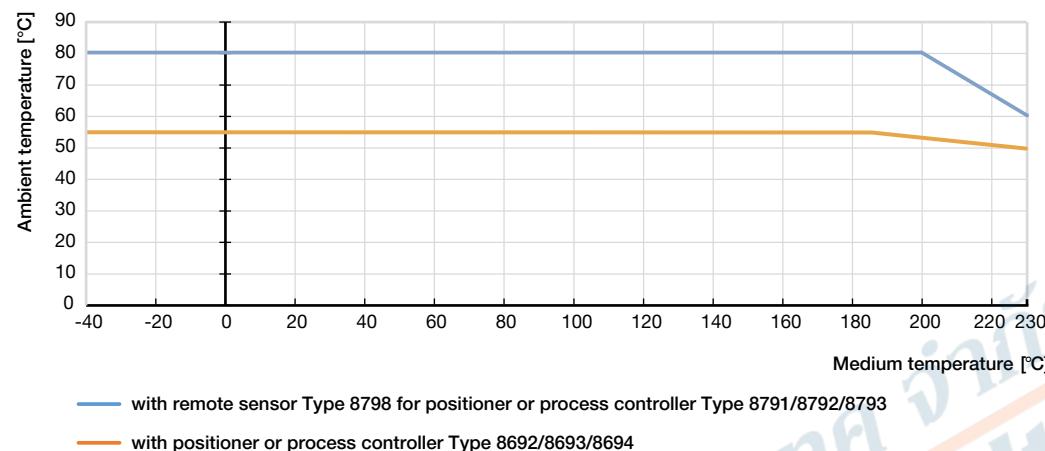
Operating limits for medium temperature and operating pressure

The operating range of Bürkert process valves is in addition to the maximum operating pressures limited by the nominal pressure according to the relevant standard.



Operating limits for ambient and medium temperature

ELEMENT Actuator



Operating limits seat seal

Tight sealing required	Leakage class (DIN EN 60534-4)	Medium temperature	Seat seal
No An additional shut-off valve is recommended	III / IV (metal seals) Metal-sealed valves have larger leakages (0.1 % or 0.01 % of the nominal flow rate are permissible). Metallic seals are impervious even under demanding process conditions.	-40...230 °C	Stainless steel
Yes An additional shut-off valve is often unnecessary.	VI (soft seals) By using plastics as sealing material, the control valves can close tightly. Their use is not recommended in cases of increased erosion due to demanding process conditions.	-40...130 °C (recommended for ≤ 130 °C)	PTFE
		-10...230 °C (recommended for > 130 °C)	PEEK

Operating limits for optional versions

High temperature version

By adapting the spindle sealing this version is suitable for applications with steam, neutral gases and other heat transfer mediums up to 230 °C.

Hot water version

For applications with hot water up to 200 °C; a special configuration of the spindle seal increases the lifetime significantly. It is recommended for water temperatures starting at 85 °C.

Drinking water version

Materials in contact with the medium are tested for suitability with drinking water up to 85 °C.

Vacuum version

Without leakage bore, this design is suitable for pressures down to -0.9 bar(g).

Low temperature version

Suitable for minimum medium temperatures down to -40 °C

Version for oxygen

Non-metallic materials in contact with the medium are tested for suitability with oxygen. Suitable for operating pressures up to 25 bar(g) and medium temperatures up to 60 °C.

8. Product accessories

Process controller TopControl	
Type 8693 ▶ Actuator size Ø 70/90/130 mm	<p>Description</p>  <p>The intelligent process controller Type 8693 is designed for integrated mounting on pneumatic actuators from the process control valve series Type 23xx/2103 and especially for the requirements of hygienic process conditions. Using the TUNE-Functions, the process and positioner can be initialized automatically. Easy operation and selection of additional software functions as well as parameterization are carried out via the large graphic display and the membrane keypad. Device configuration and parameterization can also be conveniently carried out by the Bürkert Communicator software tool via a PC interface.</p> <p>Features</p> <ul style="list-style-type: none">• Contactless position sensor• Universal control system for single and double acting actuators• Highly dynamic actuating system without internal control air consumption in the balanced state• Integrated diagnostic functions for valve monitoring• Automatic initialization of the positioner and process controller using the TUNE-Function• Safeguarding in the event of failure of the electrical or pneumatic auxiliary power• PROFIBUS DP-V1, EtherNet/IP, PROFINET, Modbus TCP, Bürkert system bus (büS)• Compact and robust hygienic stainless steel design <p>Customer benefits</p> <ul style="list-style-type: none">• Quick and easy commissioning• Intuitive and simple operation via graphic display with backlight and membrane keyboard• High system availability due to increased drive service life by means of spring chamber ventilation• Guaranteed reliability and predictable maintenance through valve monitoring and diagnostics• Easy maintenance and process monitoring

Positioner TopControl	
Type 8692 ▶ Actuator size Ø 70/90/130 mm	Description
	<p>The intelligent electropneumatic positioner Type 8692 is designed for integrated attachment to pneumatic actuators of the process control valve series Type 23xx/2103 and especially for the requirements of hygienic process conditions. The positioner can be initialized automatically using the TUNE-Function. Easy operation and the selection of the extensive additional software functions as well as parameterization are carried out via the large graphic display and the membrane keypad. The device configuration and parameterization can also be conveniently carried out using the Bürkert Communicator software tool via a PC interface.</p> <p>Features</p> <ul style="list-style-type: none"> • Contactless position sensor • Universal positioning system for single and double-acting actuators • Highly dynamic positioning system without internal control air consumption • Integrated diagnostic functions for valve monitoring • Automatic initialization of the positioner by means of the TUNE-Function • Safeguard in the event of failure of the electrical or pneumatic auxiliary power • PROFIBUS DP-V1, EtherNet/IP, PROFINET, Modbus TCP, Bürkert system bus (büS) • Compact and robust hygienic stainless steel design <p>Customer benefits</p> <ul style="list-style-type: none"> • Quick and easy commissioning • Intuitive and simple operation via graphic display with backlight and touch keypad • Guaranteed reliability and predictable maintenance through valve monitoring and diagnostics • A high degree of system availability due to increased drive service life by means of spring chamber ventilation
Positioner TopControl BASIC	
Type 8694 ▶ Actuator size Ø 70/90/130 mm	 <p>The compact positioner Type 8694/8696 is designed for integrated attachment to pneumatic actuators of the Type 23xx/2103 Process Control Valve series and especially for the requirements of hygienic process conditions. Operation and parameterization are performed via push buttons and DIP switches. The device configuration and parameterization can also be conveniently carried out using the Bürkert Communicator software tool via a PC interface.</p> <p>Features</p> <ul style="list-style-type: none"> • Contactless position sensor • Universal positioning system for single and double-acting actuators • Ultra dynamic positioning system without internal control air consumption • AS-Interface, IO-Link, Bürkert system bus (büS) (only 8694) • Compact and robust hygienic stainless steel design
Type 8696 ▶ Actuator size Ø 50 mm	 <p>Customer benefits</p> <ul style="list-style-type: none"> • Simple and safe commissioning through Teach-In function • Minimum space requirement in the plant pipework for more flexibility in plant design • A high degree of system availability due to increased drive service life by means of spring chamber ventilation

Process controller SideControl Remote	
<p>Type 8793 ▶ with Remote Sensor 8798 ▶ Actuator size Ø 70/90/130 mm</p> 	<p>Description</p> <p>The intelligent digital positioner/process controller Type 8793 is designed for mounting on lift or swivel drives with standardization in accordance with IEC 534-6 or VDI/VDE 3845 and is designed for demanding control tasks. The version with remote position sensor Type 8798 is used to control Burkert process control valves. It is operated via a backlit graphic display. The initialization of process and positioner can be done automatically by means of TUNE-Function. Here the type of controlled system is automatically recognized and the appropriate controller structure with the corresponding optimum parameter set is determined.</p> <p>Features</p> <ul style="list-style-type: none">• Universal control system for single and double acting actuators• Integrated diagnostic functions for valve monitoring• Automatic initialization of the position and process controller by means of TUNE-Function• Ultra dynamic actuating system without internal control air consumption.• Illuminated graphic display with touch screen• PROFIBUS DP-V1, EtherNet/IP, PROFINET, Modbus TCP, Burkert system bus (bÜS)• Compact and robust design• Adaptation acc. to IEC 534-6 or VDI / VDE 3845 for lift and swivel drives or as remote version on Burkert process valves <p>Customer benefits</p> <ul style="list-style-type: none">• Quick and easy commissioning• Intuitive and simple operation via graphic display with backlight and touch keypad.• Guaranteed reliability and scheduled maintenance thanks to valve monitoring and diagnostics.• Easy maintenance and process monitoring• Long service life

Positioner SideControl Remote	
Positioner Type 8792 ► with Remote Sensor Type 8798 ► Actuator size Ø 70/90/130 mm	Description
	<p>The intelligent digital position/process controller Type 8792 is designed for attachment to lift and swivel drives with standardization according to IEC 534-6 or VDI/VDE 3845 for demanding control tasks. The Type 8798 version with remote position sensor is used to control Burkert process control valves. It is operated via a backlit graphic display. The initialization of process and positioner can be done automatically by means of TUNE-Function.</p> <p>Features</p> <ul style="list-style-type: none"> • Illuminated graphic display with touch screen • Universal control system for single and double acting actuators • Ultra dynamic actuating system without internal control air consumption. • Integrated diagnostic functions for valve monitoring • PROFIBUS DP-V1, EtherNet/IP, PROFINET, Modbus TCP, Burkert system bus (büS) • Compact and robust design • Adaptation acc. to IEC 534-6 or VDI / VDE 3845 for lift and swivel drives or as remote version on Burkert process valves <p>Customer benefits</p> <ul style="list-style-type: none"> • Quick and easy commissioning • Intuitive and simple operation via backlit graphic display and touch keypad. • Guaranteed reliability and scheduled maintenance thanks to valve monitoring and diagnostics. • Long service life
Positioner SideControl BASIC Remote	
Positioner Type 8791 ► with Remote Sensor Type 8798 ► Actuator size Ø 70/90/130 mm	Description
	<p>The positioner Type 8791 is designed for mounting on lift or swivel drives with standardization in accordance with IEC 534-6 or VDI/VDE 3845 designed for simple control tasks. The variant with the remote sensor Type 8798 is used to control Burkert process control valves. All operating elements are located inside the housing.</p> <p>Features</p> <ul style="list-style-type: none"> • Simple design • Universal control system for single and double acting actuators • Highly dynamic actuating system without internal control air consumption in the balanced state • Adaptation according to IEC 534-6 or VDI/VDE 3845 for lift and swivel drives or as remote version on Burkert process valves • AS-Interface, IO-Link, Burkert system bus (büS) (only for Positioner Type 8791 BASIC Remote) <p>Customer benefits</p> <ul style="list-style-type: none"> • Simple commissioning • Simple device for simple control tasks • Low energy consumption
Positioner IP20 Type 8791 ► with Remote Sensor Type 8798 ► Actuator size Ø 70/90/130 mm	
	

9. Networking and combination with other Burkert products

The Type 2301 Globe Control Valve can be combined with our extensive range of positioners and process controllers to form the Continuous ELEMENT valve system, Type 8802-GD.

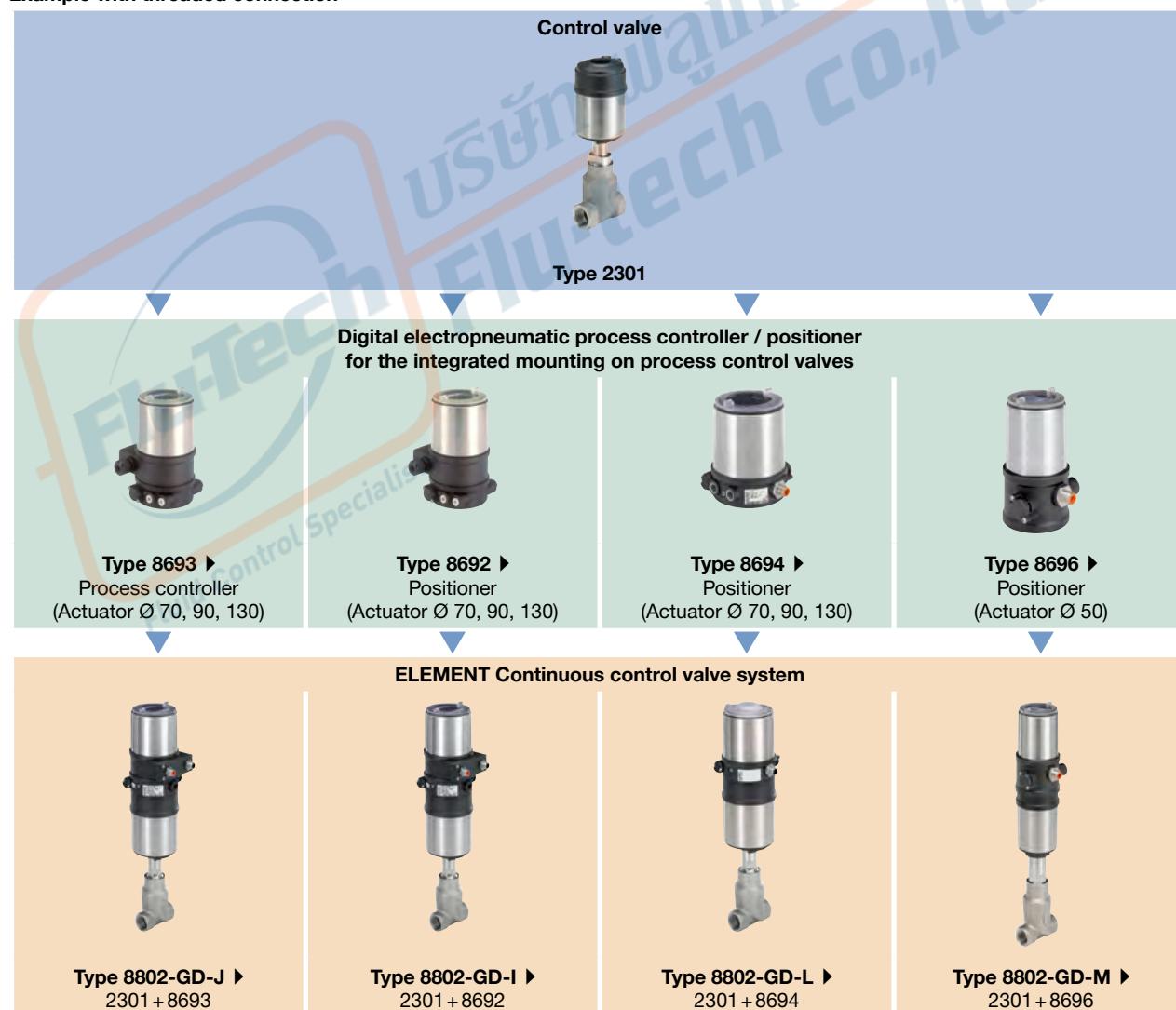
The range of the control unit consists of:

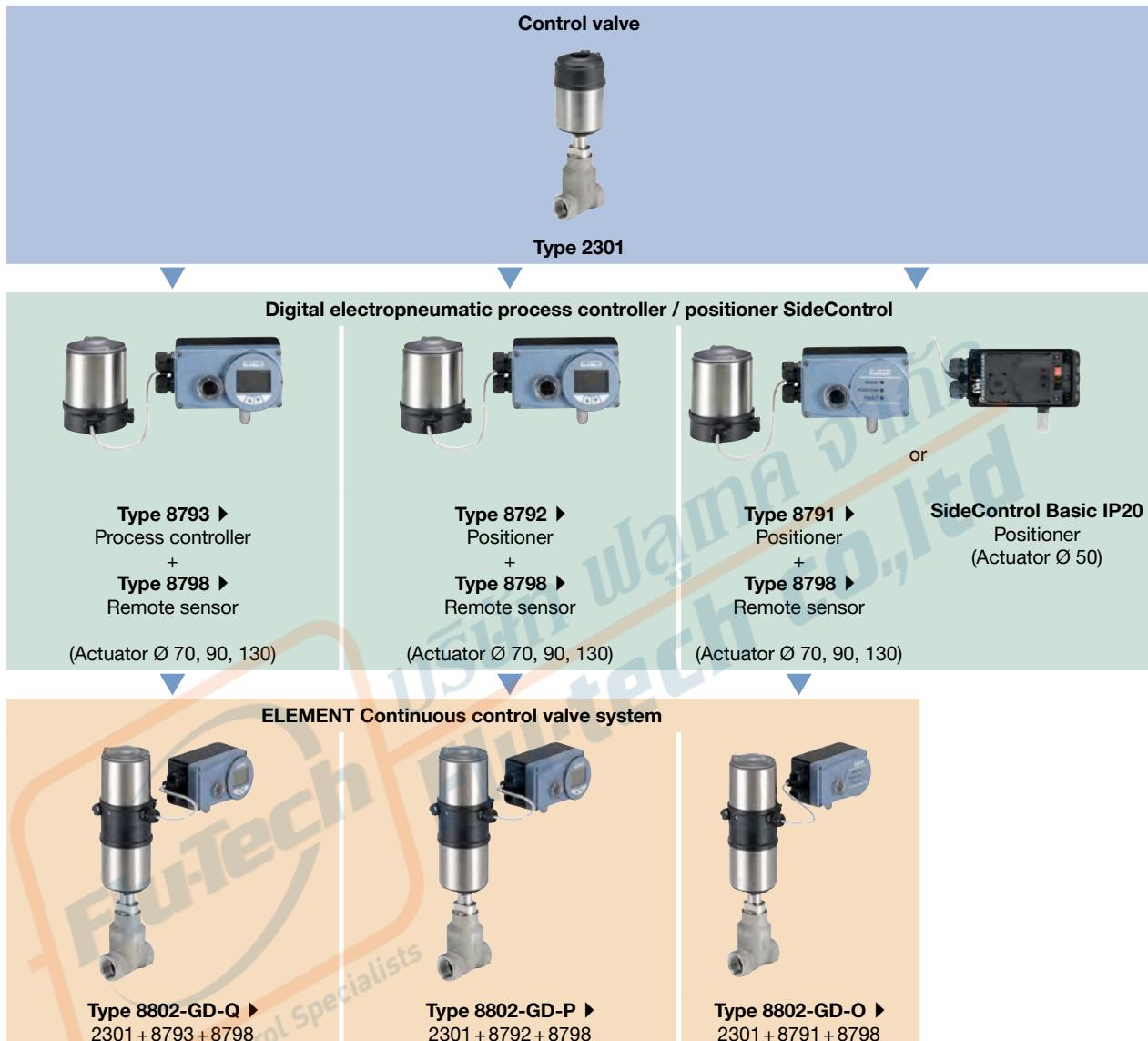
- A digital electropneumatic positioner/process controller **Type 8692/8693** (for valve actuator sizes Ø 70/90/130 mm)
- A digital electropneumatic positioner, basic **Type 8694** (for valve actuator size Ø 70/90/130 mm)
- A digital electropneumatic positioner, basic **Type 8696** (for valve actuator size Ø 50 mm)
- An electropneumatic positioner, SideControl **Type 8792** or an electropneumatic process controller, **Type 8793** (for valve actuator size Ø 70/90/130 mm) and a remote sensor, **Type 8798**
- An electropneumatic positioner, SideControl Basic **Type 8791** (for valve actuator size Ø 70/90/130 mm) and a remote sensor, **Type 8798**

Note:

- For the configuration of further valve systems please use the **product enquiry form** at the end of this data sheet.
- You order two components and receive a completely assembled and tested valve.

Example with threaded connection





10. Ordering information

10.1. Bürkert eShop – Easy ordering and quick delivery



Bürkert eShop – Easy ordering and fast delivery

You want to find your desired Bürkert product or spare part quickly and order directly? Our online shop is available for you 24/7. Sign up and enjoy all the benefits.

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10.2. Bürkert product filter



Bürkert product filter – Get quickly to the right product

You want to select products comfortably based on your technical requirements? Use the Bürkert product filter and find suitable articles for your application quickly and easily.

[Try out our product filter](#)

10.3. Ordering chart flange connection

Valve with flow direction below seat

Nominal diameter (pipe)		Seat size	Actuator size \emptyset [mm]	K_{vs} value [m³/h]	Article no.	
DN	NPS				Seat seal	PTFE
DIN EN 1092-1						
10	¾	3	70(M)	0.1	–	On request
		4	70(M)	0.5	–	215207 ₧
		6	70(M)	1.25	–	215209 ₧
		8	70(M)	2.0	213985 ₧	215212 ₧
		10	70(M)	2.7	213989 ₧	215215 ₧
15	½	3	70(M)	0.1	–	233165 ₧
		4	70(M)	0.5	–	210529 ₧
		6	70(M)	1.25	–	215211 ₧
		8	70(M)	2.1	213987 ₧	215214 ₧
		10	70(M)	3.1	213991 ₧	215217 ₧
		15	70(M)	4.3	204932 ₧	205010 ₧
20	¾	10	70(M)	3.2	210530 ₧	215218 ₧
		15	70(M)	5.2	213993 ₧	214030 ₧
		20	70(M)	7.1	204935 ₧	205012 ₧
25	1	15	70(M)	5.3	213994 ₧	214031 ₧
		20	70(M)	7.2	213995 ₧	214032 ₧
		25	70(M)	12.0	204937 ₧	205014 ₧
		90(N)	12.0	242054 ₧	229421 ₧	
32	1¼	25	90(N)	8.9	213997 ₧	210446 ₧
		32	90(N)	13.0	222634 ₧	222655 ₧
		32	130(P)	13.4	204939 ₧	205016 ₧
		32	130(P)	17.8	223597 ₧	223598 ₧
40	1½	32	90(N)	14.4	213999 ₧	214035 ₧
		32	130(P)	20.2	222636 ₧	222657 ₧
		40	90(N)	17.5	204941 ₧	205018 ₧
		40	130(P)	23.8	219791 ₧	222659 ₧
50	2	40	90(N)	18.0	214001 ₧	214037 ₧
		40	130(P)	24.6	222638 ₧	222660 ₧
		50	90(N)	28.0	204942 ₧	205019 ₧
		50	130(P)	37.0	214003 ₧	214039 ₧
65	2½	50	130(P)	45.0	214005 ₧	214040 ₧
		65	130(P)	65.0	217772 ₧	219618 ₧
80	3	65	130(P)	73.0	239545 ₧	239581 ₧
		80	130(P)	100.0	239540 ₧	239576 ₧
100	4	80	130(P)	110.0	239561 ₧	239597 ₧
		100	130(P)	140.0	239556 ₧	331125 ₧



Nominal diameter (pipe)		Seat size	Actuator size \emptyset	K_{vs} value	Article no.	
					[mm]	[m³/h]
JIS 10K						
15	1/2	3	70(M)	0.1	-	On request
		4	70(M)	0.5	-	215226 ฿
		6	70(M)	1.25	-	215227 ฿
		8	70(M)	2.1	215203 ฿	215228 ฿
		10	70(M)	3.1	213913 ฿	213911 ฿
		15	70(M)	4.3	204953 ฿	205030 ฿
20	3/4	10	70(M)	3.2	215204 ฿	215229 ฿
		15	70(M)	5.2	213936 ฿	213933 ฿
		20	70(M)	7.1	204955 ฿	205032 ฿
25	1	15	70(M)	5.3	214020 ฿	214059 ฿
		20	70(M)	7.2	213930 ฿	213914 ฿
		25	70(M)	12.0	204957 ฿	205034 ฿
			90(N)	12.0	242165 ฿	242199 ฿
32	1 1/4	25	90(N)	8.9	213939 ฿	213937 ฿
			130(P)	13.0	222643 ฿	222665 ฿
		32	90(N)	13.4	213177 ฿	213178 ฿
			130(P)	17.8	222645 ฿	222667 ฿
40	1 1/2	32	90(N)	14.4	213932 ฿	213931 ฿
			130(P)	20.2	222647 ฿	222668 ฿
		40	90(N)	17.5	204959 ฿	205037 ฿
			130(P)	23.8	222649 ฿	222670 ฿
50	2	40	90(N)	18.0	213941 ฿	213940 ฿
			130(P)	24.6	222650 ฿	222671 ฿
		50	90(N)	28.0	204960 ฿	205038 ฿
			130(P)	37.0	214023 ฿	214062 ฿
65	2 1/2	50	130(P)	45.0	214024 ฿	214063 ฿
		65	130(P)	65.0	219617 ฿	219620 ฿
80	3	65	130(P)	73.0	239547 ฿	239584 ฿
		80	130(P)	100.0	239542 ฿	239578 ฿
100	4	80	130(P)	110.0	239563 ฿	239599 ฿
		100	130(P)	140.0	239558 ฿	239594 ฿

Nominal diameter (pipe)		Seat size	Actuator size Ø	K _{vs} value	Article no.	
					[mm]	[m ³ /h]
ANSI B 16.5						
15	1/2	3	70(M)	0.1	-	On request
		4	70(M)	0.5	-	215219 ₧
		6	70(M)	1.25	-	215220 ₧
		8	70(M)	2.1	215198 ₧	215221 ₧
		10	70(M)	3.1	215199 ₧	215222 ₧
		15	70(M)	4.3	204944 ₧	205021 ₧
20	3/4	10	70(M)	3.2	215200 ₧	215223 ₧
		15	70(M)	5.2	214009 ₧	214046 ₧
		20	70(M)	7.1	204946 ₧	205023 ₧
25	1	15	70(M)	5.3	214010 ₧	214047 ₧
		20	70(M)	7.2	214011 ₧	214048 ₧
		25	70(M)	12.0	204948 ₧	205025 ₧
			90(N)	12.0	464851 ₧	464367 ₧
40	1 1/2	32	90(N)	14.4	215201 ₧	215224 ₧
			130(P)	20.2	463905 ₧	463913 ₧
		40	90(N)	17.5	204950 ₧	205027 ₧
			130(P)	23.8	463907 ₧	463915 ₧
50	2	40	90(N)	18.0	214013 ₧	214050 ₧
			130(P)	24.6	463908 ₧	463916 ₧
		50	90(N)	28.0	204951 ₧	205028 ₧
			130(P)	37.0	214015 ₧	214052 ₧
65	2 1/2	50	130(P)	45.0	239537 ₧	239573 ₧
		65	130(P)	65.0	239535 ₧	239572 ₧
80	3	65	130(P)	73.0	239546 ₧	239582 ₧
		80	130(P)	100.0	239541 ₧	239577 ₧
100	4	80	130(P)	110.0	239562 ₧	239598 ₧
		100	130(P)	140.0	239557 ₧	239593 ₧

Further versions on request

	Approval FDA, ATEX, (EG Gas Appliances Directive 2009/142/EG)		Control function/Circuit function B (normally open: NO)
	Process connection Further housing connections		

10.4. Ordering chart threaded connection

Valve with flow direction below seat

Nominal diameter (pipe)		Seat size	Actuator size Ø	K _{vs} value	Article no.		
[mm]	[inch]				PTFE	Stainless steel	
G thread, EN ISO 228-1							
10	¾	3	70(M)	0.1	–	284168 ₧	
		4	70(M)	0.5	–	215238 ₧	
		6	70(M)	1.25	–	215240 ₧	
		8	70(M)	2.0	215233 ₧	215242 ₧	
		10	70(M)	2.7	215235 ₧	215245 ₧	
15	½	3	70(M)	0.1	–	227784 ₧	
		4	70(M)	0.5	–	208843 ₧	
		6	70(M)	1.25	–	215241 ₧	
		8	70(M)	2.1	212964 ₧	215243 ₧	
		10	70(M)	3.1	215236 ₧	215246 ₧	
		15	70(M)	4.3	206432 ₧	213955 ₧	
20	¾	10	70(M)	3.2	215237 ₧	215247 ₧	
		15	70(M)	5.2	214067 ₧	215248 ₧	
		20	70(M)	7.1	206584 ₧	211239 ₧	
25	1	15	70(M)	5.3	206588 ₧	210460 ₧	
		20	70(M)	7.2	206586 ₧	210721 ₧	
		25	70(M)	12.0	189145 ₧	210485 ₧	
		90(N)	12.0		242203 ₧	242207 ₧	
32	1¼	25	90(N)	8.9	214070 ₧	210407 ₧	
		32	130(P)	13.0	222677 ₧	222687 ₧	
			90(N)	13.4	210097 ₧	210458 ₧	
		32	130(P)	17.8	223599 ₧	223600 ₧	
40	1½		90(N)	14.4	214072 ₧	214084 ₧	
	40	130(P)	20.2	222679 ₧	222689 ₧		
		90(N)	17.5	210098 ₧	207800 ₧		
	40	130(P)	23.8	222681 ₧	222691 ₧		
50		2		90(N)	18.0	214074 ₧	214086 ₧
	40	130(P)	24.6	222682 ₧	222692 ₧		
		90(N)	28.0	210099 ₧	203693 ₧		
	50	130(P)	37.0	214076 ₧	214088 ₧		
65		2½		130(P)	45.0	214077 ₧	214089 ₧
				130(P)	65.0	219621 ₧	219622 ₧

Nominal diameter (pipe)		Seat size	Actuator size Ø	K _{vs} value	Article no.	
					PTFE	Stainless steel
NPT thread, ISO 7/1/DIN EN 10226-2						
10	3/8	3	70(M)	0.1	–	On request
		4	70(M)	0.5	–	220447 ₧
		6	70(M)	1.25	–	220450 ₧
		8	70(M)	2.0	220418 ₧	220453 ₧
		10	70(M)	2.7	220421 ₧	220457 ₧
15	1/2	3	70(M)	0.1	–	466159 ₧
		4	70(M)	0.5	–	220884 ₧
		6	70(M)	1.25	–	220452 ₧
		8	70(M)	2.1	220881 ₧	220455 ₧
		10	70(M)	3.1	220423 ₧	220459 ₧
		15	70(M)	4.3	220882 ₧	220886 ₧
20	3/4	10	70(M)	3.2	220425 ₧	220461 ₧
		15	70(M)	5.2	220427 ₧	220463 ₧
		20	70(M)	7.1	220430 ₧	220466 ₧
25	1	15	70(M)	5.3	220428 ₧	220464 ₧
		20	70(M)	7.2	220431 ₧	220467 ₧
		25	70(M)	12.0	220434 ₧	220470 ₧
		90(N)	12.0	464864 ₧	464867 ₧	
32	1 1/4	25	90(N)	8.9	220435 ₧	220471 ₧
		32	130(P)	13.0	463921 ₧	463931 ₧
		32	90(N)	13.4	220437 ₧	220473 ₧
		32	130(P)	17.8	463956 ₧	463957 ₧
40	1 1/2	32	90(N)	14.4	220438 ₧	463803 ₧
		32	130(P)	20.2	463923 ₧	463933 ₧
		40	90(N)	17.5	220440 ₧	220476 ₧
		40	130(P)	23.8	463925 ₧	463935 ₧
50	2	40	90(N)	18.0	220441 ₧	220477 ₧
		40	130(P)	24.6	463926 ₧	463936 ₧
		50	90(N)	28.0	220443 ₧	220479 ₧
		50	130(P)	37.0	220444 ₧	220480 ₧
65	2 1/2	50	130(P)	45.0	239536 ₧	239620 ₧
		65	130(P)	65.0	239534 ₧	239571 ₧



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845/3-4 Thepharak RD., T.Thepharak, A.Muang, Samutprakarn 10270 THAILAND

Tel. 0 2384 6060, Fax 0 2384 5701, Email : sales@flutech.co.th, www.flutech.co.th

Nominal diameter (pipe)		Seat size	Actuator size Ø	K _{vs} value	Article no.	
					RC (ASME B 1.20.1)	Seat seal
[mm]	[inch]				PTFE	Stainless steel
Rc thread, ASME B 1.20.1						
10	$\frac{3}{8}$	3	70(M)	0.1	–	On request
		4	70(M)	0.5	–	220513 ☰
		6	70(M)	1.25	–	220516 ☰
		8	70(M)	2.0	220484 ☰	220519 ☰
		10	70(M)	2.7	220487 ☰	220523 ☰
15	$\frac{1}{2}$	3	70(M)	0.1	–	233369 ☰
		4	70(M)	0.5	–	220891 ☰
		6	70(M)	1.25	–	220518 ☰
		8	70(M)	2.1	220888 ☰	220521 ☰
		10	70(M)	3.1	220489 ☰	220525 ☰
		15	70(M)	4.3	220889 ☰	220894 ☰
20	$\frac{3}{4}$	10	70(M)	3.2	220491 ☰	220527 ☰
		15	70(M)	5.2	220493 ☰	220529 ☰
		20	70(M)	7.1	220496 ☰	220532 ☰
25	1	15	70(M)	5.3	220494 ☰	220530 ☰
		20	70(M)	7.2	220497 ☰	220533 ☰
		25	70(M)	12.0	220500 ☰	220536 ☰
		90(N)	12.0		242377 ☰	242380 ☰
32	$1\frac{1}{4}$	25	90(N)	8.9	220501 ☰	220537 ☰
		32	130(P)	13.0	222740 ☰	222777 ☰
		32	90(N)	13.4	220503 ☰	220539 ☰
		32	130(P)	17.8	223605 ☰	223606 ☰
40	$1\frac{1}{2}$	32	90(N)	14.4	220504 ☰	220540 ☰
		32	130(P)	20.2	222742 ☰	222763 ☰
		40	90(N)	17.5	220506 ☰	220542 ☰
		40	130(P)	23.8	222765 ☰	222767 ☰
50	2	40	90(N)	18.0	220507 ☰	220543 ☰
		40	130(P)	24.6	222768 ☰	222766 ☰
		50	90(N)	28.0	220509 ☰	220545 ☰
		50	130(P)	37.0	220510 ☰	220546 ☰
65	$2\frac{1}{2}$	50	130(P)	45.0	220511 ☰	220547 ☰
		65	130(P)	65.0	220512 ☰	220548 ☰

Further versions on request

	Approval FDA, ATEX, (EG Gas Appliances Directive 2009/142/EG)		Control function/Circuit function B (normally open: NO)
	Process connection Further housing connections		

10.5. Ordering chart welded connection

Valve with flow direction below seat

Nominal diameter (pipe)	Seat size	Actuator size Ø	K_{vs} value	Connection MW x TW	Article no.	
					[mm]	[inch]
EN ISO 1127 1/ISO 4200/DIN 11866 B						
10	¾	3	70(M)	0.1	17.2 x 1.6	—
		4	70(M)	0.5	17.2 x 1.6	—
		6	70(M)	1.25	17.2 x 1.6	—
		8	70(M)	2.0	17.2 x 1.6	On request
		10	70(M)	2.7	17.2 x 1.6	On request
15	½	3	70(M)	0.1	21.3 x 1.6	—
		4	70(M)	0.5	21.3 x 1.6	—
		6	70(M)	1.25	21.3 x 1.6	—
		8	70(M)	2.1	21.3 x 1.6	212392 ฿
		10	70(M)	3.1	21.3 x 1.6	212393 ฿
		15	70(M)	4.3	21.3 x 1.6	209571 ฿
20	¾	15	70(M)	5.2	26.9 x 1.6	214094 ฿
		20	70(M)	7.1	26.9 x 1.6	214096 ฿
25	1	20	70(M)	7.2	33.7 x 2.0	214097 ฿
		25	70(M)	12.0	33.7 x 2.0	209572 ฿
32	1¼	25	90(N)	8.9	42.4 x 2.0	214101 ฿
		32	90(N)	13.4	42.4 x 2.0	214103 ฿
40	1½	32	90(N)	14.4	48.3 x 2.0	214104 ฿
			130(P)	20.2	48.3 x 2.0	222700 ฿
		40	90(N)	17.5	48.3 x 2.0	209440 ฿
			130(P)	23.8	48.3 x 2.0	222702 ฿
50	2	40	90(N)	18.0	60.3 x 2.0	210756 ฿
			130(P)	24.6	60.3 x 2.0	222703 ฿
		50	90(N)	28.0	60.3 x 2.0	214107 ฿
			130(P)	37.0	60.3 x 2.0	214108 ฿
65	2½	65	130(P)	65.0	76.1 x 2.3	219623 ฿
80	3	80	130(P)	100.0	88.9 x 2.3	239543 ฿
100	4	100	130(P)	140.0	114.3 x 2.6	239559 ฿
						239595 ฿



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845/3-4 Thepharak RD., T.Thepharak, A.Muang, Samutprakarn 10270 THAILAND

Tel. 0 2384 6060, Fax 0 2384 5701, Email : sales@flutech.co.th, www.flutech.co.th

Nominal diameter (pipe)		Seat size	Actuator size Ø	K _{vs} value	Connection MW x TW	Article no.	
						[mm]	[inch]
DIN 11850 2 / DIN 11866 A / DIN EN 10357 A							
10	¾	3	70(M)	0.1	13.0 x 1.5	–	250658 ₪
		4	70(M)	0.5	13.0 x 1.5	–	284171 ₪
		6	70(M)	1.25	13.0 x 1.5	–	284177 ₪
		8	70(M)	2.0	13.0 x 1.5	On request	284179 ₪
		10	70(M)	2.7	13.0 x 1.5	257412 ₪	208553 ₪
15	½	3	70(M)	0.1	19.0 x 1.5	–	225130 ₪
		4	70(M)	0.5	19.0 x 1.5	–	215257 ₪
		6	70(M)	1.25	19.0 x 1.5	–	215258 ₪
		8	70(M)	2.1	19.0 x 1.5	215250 ₪	215911 ₪
		10	70(M)	3.1	19.0 x 1.5	215251 ₪	215913 ₪
		15	70(M)	4.3	19.0 x 1.5	215253 ₪	209173 ₪
20	¾	15	70(M)	5.2	23.0 x 1.5	214113 ₪	208555 ₪
		20	70(M)	7.1	23.0 x 1.5	211937 ₪	211953 ₪
25	1	20	70(M)	7.2	29.0 x 1.5	214116 ₪	214154 ₪
		25	70(M)	12.0	29.0 x 1.5	209384 ₪	209089 ₪
32	1¼	25	90(N)	8.9	35.0 x 1.5	214119 ₪	214156 ₪
		32	90(N)	13.4	35.0 x 1.5	211965 ₪	209181 ₪
40	1½	32	90(N)	14.4	41.0 x 1.5	214121 ₪	213487 ₪
			130(P)	20.2	41.0 x 1.5	222711 ₪	222732 ₪
		40	90(N)	17.5	41.0 x 1.5	211967 ₪	209110 ₪
			130(P)	23.8	41.0 x 1.5	222713 ₪	222734 ₪
50	2	40	90(N)	18.0	53.0 x 1.5	214123 ₪	213411 ₪
			130(P)	24.6	53.0 x 1.5	222714 ₪	222735 ₪
		50	90(N)	28.0	53.0 x 1.5	211968 ₪	209185 ₪
			130(P)	37.0	53.0 x 1.5	214125 ₪	214159 ₪
65	2½	65	130(P)	65.0	70.0 x 2.0	219625 ₪	219628 ₪
80	3	80	130(P)	100.0	85.0 x 2.0	239544 ₪	239580 ₪
100	4	100	130(P)	140.0	104.0 x 2.0	239560 ₪	239596 ₪



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845/3-4 Thepharak RD., T.Thepharak, A.Muang, Samutprakarn 10270 THAILAND

Tel. 0 2384 6060, Fax 0 2384 5701, Email : sales@flutech.co.th, www.flutech.co.th

Nominal diameter (pipe)	Seat size	Actuator size Ø	Operating pressure	K _{vs} value	Connection Ø DS x WS	Article no.	
						Seat seal	PTFE (VI) Stainless steel (IV)
ASME BPE/DIN 11866 C							
1/2	3	70(M)	25(IV)	0.10 (lin)	12.7 x 1.65	-	353371 ₧
	4	70(M)	25(IV)	0.50 (lin)	12.7 x 1.65	-	226776 ₧
	6	70(M)	25(IV)	1.2 (lin)	12.7 x 1.65	On request	316765 ₧
	6	70(M)	25(IV)	1.25	12.7 x 1.65	226651 ₧	20001538 ₧
	8	70(M)	25(IV)	2.0	12.7 x 1.65	379940 ₧	216879 ₧
	10	70(M)	25(IV)	2.7	12.7 x 1.65	225463 ₧	313806 ₧
3/4	10	70(M)	25(IV)	3.1	19.05 x 1.65	241143 ₧	On request
	15	70(M)	25(IV)	4.3	19.05 x 1.65	335739 ₧	335741 ₧
1	10	70(M)	25(IV)	3.2	25.4 x 1.65	241633 ₧	242576 ₧
	15	70(M)	25(IV)	5.2	25.4 x 1.65	226329 ₧	242579 ₧
	20	70(M)	16(IV)	7.1	25.4 x 1.65	230405 ₧	216902 ₧
1 1/2	32	90(N)	16(IV)	13.4	38.1 x 1.65	230409 ₧	242587 ₧
		130(P)	25(IV)	17.8	38.1 x 1.65	242557 ₧	242589 ₧
2	40	90(N)	12(IV)	17.5	50.8 x 1.65	211655 ₧	242592 ₧
		130(P)	25(IV)	23.8	50.8 x 1.65	242561 ₧	242593 ₧
2 1/2	50	130(P)	25(20°)(IV)	37.0	63.5 x 1.65	335735 ₧	335737 ₧
3	65	130(P)	16(15°)(IV)	65	76.2 x 1.65	268682 ₧	350667 ₧
4	80	130(P)	10(IV)	110	101.6 x 2.11	298386 ₧	On request
	100	130(P)	6(IV)	140	101.6 x 2.11	275103 ₧	289251 ₧

Further versions on request

	Approval FDA, ATEX, (EG Gas Appliances Directive 2009/142/EG)		Control function/Circuit function B (normally open: NO)
	Process connection Further housing connections		



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Type 2301
Type 2712

burkert

10.6. Ordering chart clamp connection

Valve with flow direction below seat

Nominal diameter (pipe)		Seat size	Actuator size Ø	K _{vs} value	Connection MC x TC, CC	Article no.	
[mm]	[inch]					PTFE	Stainless steel
DIN 32676 A							
15	1/2	15	70(M)	4.3	19 x 1.5, 34	222593	282208
20	3/4	20	70(M)	7.1	23 x 1.5, 34	225647	282209
25	1	25	90(N)	12.0	29 x 1.5, 50.5	222594	282210
32	1 1/4	32	90(N)	13.4	35 x 1.5, 50.5	240415	282211
40	1 1/2	40	130(P)	23.8	41 x 1.5, 50.5	240351	282212
50	2	50	130(P)	37.0	53 x 1.5, 64	282258	282259
DIN 32676 B							
15	1/2	15	70(M)	4.3	21.3 x 1.6, 50.5	273974	282213
20	3/4	20	70(M)	7.1	26.9 x 1.6, 50.5	209438	282214
25	1	25	90(N)	12.0	33.7 x 2.0, 50.5	241115	282215
40	1 1/2	40	130(P)	23.8	48.3 x 2.0, 64.0	209880	284181
50	2	50	130(P)	37.0	60.3 x 2.0, 77.5	282261	282263

Further versions on request

	Approval FDA, ATEX, (EG Gas Appliances Directive 2009/142/EG)		Control function/Circuit function B (normally open: NO)
	Process connection Further housing connections		

Product Enquiry Form

Positioner / process controller TopControl and
SideControl Remote for control valves of the
ELEMENT series

bürkert

Positioner / process controller TopControl for control valves of the ELEMENT series

For actuator size ø70/ø90/ø130 mm

Process Controller TopControl Type 8693 ▶	Positioner TopControl Type 8692 ▶
	<ul style="list-style-type: none"> Intelligent digital positioners and process controllers with integrated PID controller for accurate process control Lighted graphic display with membrane keypad Tune function for automatic start-up Field bus communication Diagnostic functions
Pneumatic function Single-acting	Electrical connection Double-acting Cable gland Without
Digital Communication PROFIBUS DP-V1 PROFINET Modbus TCP	EtherNet/IP Bürkert Systembus (büS) ¹⁾ Without
Analogue feedback 0/4...20 mA	Digital outputs and diagnostics 0/4...20 mA + 2 binary outputs Yes

1.) Based on CANopen

For actuator size ø70/ø90/ø130 mm

Positioner TopControl BASIC Type 8694 ▶	Positioner TopControl BASIC Type 8696 ▶
	<ul style="list-style-type: none"> Status LED and DIP switches Tune-function for automatic start-up Positioning system for single-acting actuators Field bus communication
Pneumatic function Single-acting	Electrical connection Cable gland ¹⁾ Without
Digital Communication AS-Interface ¹⁾ IO-Link	Bürkert Systembus (büS) ²⁾
Without	Approvals ATEX cat. 3GD, IECEEx Without
Analogue feedback Yes	Digital outputs and diagnostics No

1.) Only available for Type 8694. Not available for Type 8696.

2.) Based on CANopen

Product Enquiry Form

Positioner / process controller TopControl and
SideControl Remote for control valves of the
ELEMENT series

bürkert

Positioner / process controller SideControl Remote for control valves of the ELEMENT series

For actuator size ø70/ø90/ø130 mm

Process Controller SideControl Type 8793 ► with Remote sensor Type 8798 ►		Positioner SideControl Type 8792 ► with Remote sensor Type 8798 ►	
	<ul style="list-style-type: none"> Intelligent digital positioners and process controllers with integrated PID controller Lighted graphic display with membrane keypad Tune-function for automatic start-up, linearization and optimization of process characteristics Field bus communication Diagnostic functions 		<ul style="list-style-type: none"> Digital positioner without sensor input Lighted graphic display with membrane keypad Tune function for automatic start-up Field bus communication Diagnostic functions
Pneumatic function		Electrical connection	
Single-acting	Single- and double-acting	Cable gland ¹⁾	
Digital communication		M12 Multipole connection	
PROFIBUS DP-V1	EtherNet/IP	Approvals	
PROFINET	Bürkert Systembus (büS) ²⁾	ATEX cat. 3GD, IECEx	
Modbus TCP	Without	Without	
Analogue feedback		Digital outputs and diagnostics	
0/4...20 mA	0/4...20 mA + 2 binary outputs	Yes	
0/5...10 V	0/5...20 V + 2 binary outputs	No	

1.) With a cable gland the selection of a fieldbus communication PROFIBUS, EtherNet etc. is not possible. Only variants with M12 Multipole are offered as standard for fieldbus communication.

2.) Based on CANopen

For actuator size ø70/ø90/ø130 mm

Positioner SideControl BASIC Type 8791 ► with Remote sensor Type 8798 ►		Positioner SideControl BASIC IP20 Type 8791 ► with Remote sensor Type 8798 ►	
	<ul style="list-style-type: none"> „simple positioner“ Universal positioning system for single and double acting actuators Tune function for automatic start-up Field bus communication 		<ul style="list-style-type: none"> „simple positioner“ Universal positioning system for single and double acting actuators Tune function for automatic start-up Switchgear cabinet assembly
Pneumatic function		Electrical connection	
Single-acting (actuator size Ø70/90)		Cable gland ¹⁾	
Single- and double-acting (actuator size Ø130)		M12 Multipole connection	
Digital communication		Approvals	
AS-Interface ²⁾ :		ATEX cat. 3GD, IECEx ²⁾	
Analogue profile S-7.3.4 (only set point)		Without	
Analogue profile S-7.A.5 (set point and feedback)			
IO-Link	Bürkert Systembus (büS) ³⁾		
IO-Link	Without		
Analogue feedback			
0/4...20 mA	No		

1.) With a cable gland, the selection of a fieldbus communication AS-Interface is not possible. For fieldbus communication, only variants with M12 Multipole are offered as standard.

2.) Only available for Positioner SideControl BASIC Type 8791. Not available for Positioner SideControl BASIC IP20 Type 8791.

3.) Based on CANopen, IO-Link and büS not available for IP20 Type 8791