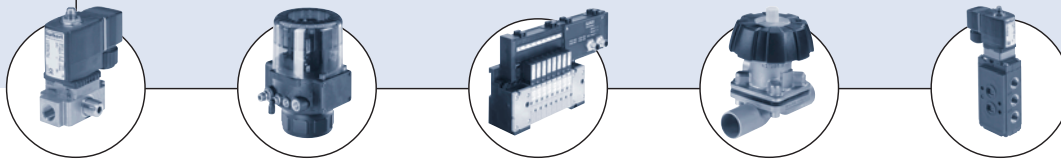


## 2/2-way Diaphragm Valve, stainless steel body, pneumatically operated, DN 8-100



- Cold-formed pipe valve body, several variants available
- Flow-optimised
- Zero dead volume
- Self-draining
- Variety of applications up to +130°C

Type 2031 GP can be combined with...



**Type 6012/6014 P**

Pilot valve

**Type 8631**

TopControl  
ON/OFF

**Type 8640/8644**

Valve block

**Type 3233**

Manually-  
operated valve

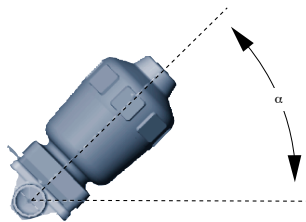
**Type 6519**

**NAMUR**  
Solenoid valve

Pilot controlled diaphragm valve with pneumatically operated piston actuator and valve body from cold-formed stainless steel pipe. As standard, actuator from PA, with PPS available on request.

**Installation for self-draining operation**

$\alpha = 15$  up to  $30^\circ$  plus  $3$  to  $5^\circ$  inclination to the pipe axis



Technical data	
<b>Orifice</b>	DN 8 - 100
<b>Body material</b>	Stainless steel 1.4404
<b>Actuator material</b>	PA polyamide (PPS on request)
<b>Control media inserts</b>	Stainless steel
<b>Seal material</b>	EPDM, PTFE/EPDM
<b>Media</b>	Neutral gases and liquids, high purity, sterile, aggressive or abrasive fluids
<b>Viscosity</b>	Up to viscous
<b>Surface finish</b> (average surface finish) Glass beaded	$Ra \leq 1.6 \mu m$
<b>Media temperature</b>	-10 to +130°C Briefly up to +150°C for steam sterilisation
<b>Ambient temperature</b> PA actuator	-10 to +60°C (actuator size $\geq 175$ mm -10 to +50°C)
<b>Port connections</b> Weld end acc. to  Flange acc. to Threaded ports	<ul style="list-style-type: none"> <li>▪ EN ISO 1127/ISO 4200</li> <li>▪ DIN 11850 series 2</li> <li>▪ DIN EN 1092-1</li> </ul>
<b>Control medium</b>	Neutral gases, air
<b>Installation</b>	As required, preferably with actuator in upright position

Kvs values

Flange acc. DIN EN 1092-1, weld end acc. EN ISO 1127/ISO 4200 and threaded port

Orifice [mm]	Kv-value water [m³/h]	Actuator size Ø [mm]	Pilot pressure (bar)			Max. operating pressure for seal material [bar]		Weight [kg] Flange acc. DIN EN 1092-1	Weld end acc. EN ISO 1127/ISO 4200 and threaded port
			min.	max. with actuator		EPDM	PTFE/EPDM		
				PPS	PA				
8	1.0	C-40	5.0	7	10	10	10	–	0.5
15	6.5	D-50	5.0	7	10	8.5	5	2.1	0.7
	7.0	E-63	5.0	7	10	10	10	2.3	0.9
20	12.0	E-63	5.5	7	10	10	5	3.0	1.2
	13.0	F-80	5.0	7	10	10	10	3.5	1.8
25	18.0	E-63	5.0	7	10	3	–	3.5	1.4
	21.0	F-80	5.5	7	10	10	7.5	4.3	2.2
32	33.0	G-100	5.5	7	10	10	8	6.8	3.7
		G-100 <sup>1)</sup>	3.0	7	10	3.5	–	6.8	3.7
40	45.0	G-100	5.5	7	10	6.5	6	7.4	4.0
		G-100 <sup>1)</sup>	2.5	7	10	1.5	–	7.4	4.0
50	56.0	H-125	5.5	7	10	10	10	9.9	6.5
		G-100	5.5	7	10	4.5	2.5	9.2	4.5
65	110.0	H-125	5.5	–	7	7	4.5	11.6	7.0
		K-175	4.5	–	6	10	8	14.5	8.5
80	165.0	K-175	5.0	–	6	5	4.5	20.5	14.5
		L-225	5.0	–	6	10	10	23.5	16.0
100	265.0	L-225	5.0	–	6	10	10	30.0	22.5
						8	4	33.5	24.5

1) With reduced spring force; preferred at lower media pressures

Weld end acc. DIN 11850 series 2

Orifice [mm]	Kv-value water [m³/h]	Actuator size Ø [mm]	Pilot pressure (bar)			Max. operating pressure for seal material [bar]		Weight [kg] Weld end acc. DIN 11850 S2
			min.	max. with actuator		EPDM	PTFE/EPDM	
				PPS	PA			
10	1.0	C-40	5.0	7	10	10	10	0.5
15	4.0	D-50	5.0	7	10	9	9	0.7
		E-63	5.0	7	10	10	10	0.9
20	4.0	D-50	5.0	7	10	9	9	1.2
		E-63	5.0	7	10	10	10	1.8
25	12.5	E-63	5.0	7	10	10	8	1.4
		F-80	5.5	7	10	10	10	2.2
32	17.0	E-63	5.0	7	10	3	–	3.7
		F-80	5.5	7	10	10	8	3.7
40	24.5	G-100	5.5	7	10	10	8	4.0
		H-125	5.5	7	7	10	10	7.0
50	35.0	G-100	5.5	7	10	8	8	4.5
		H-125	5.5	7	7	10	10	7.0
65	110.0	H-125	5.5	–	7	7	4.5	8.5
		K-175	4.5	–	6	10	8	14.5
80	165.0	K-175	5.0	–	6	5	4.5	16.0
		L-225	5.0	–	6	10	10	22.5
100	265.0	L-225	5.0	–	6	10	10	30.0
						8	4	24.5

Remark:

For low operating pressures we recommend reduced spring versions.

Flow rate: Kv-value water (m³/h)

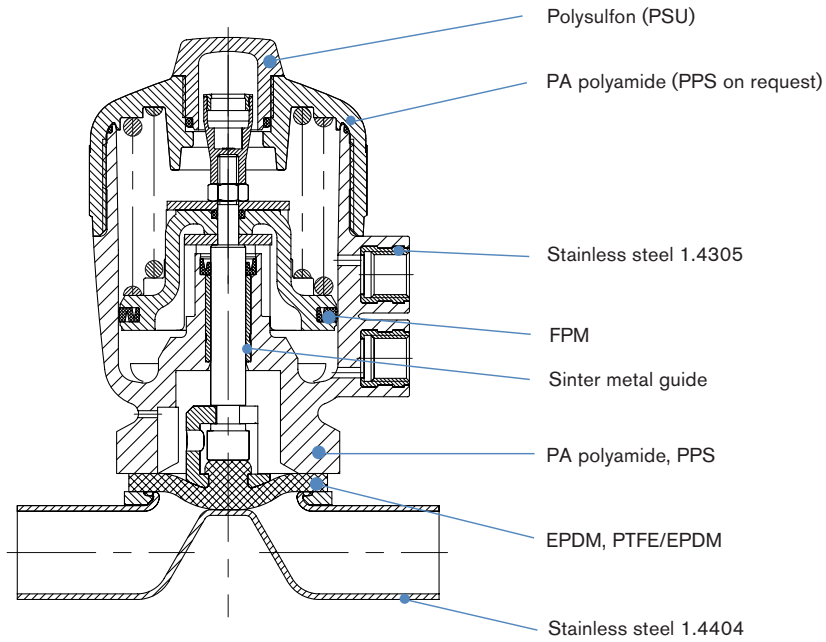
Measured at +20°C, 1 bar pressure at valve inlet and free outlet.

Pressure values (bar)

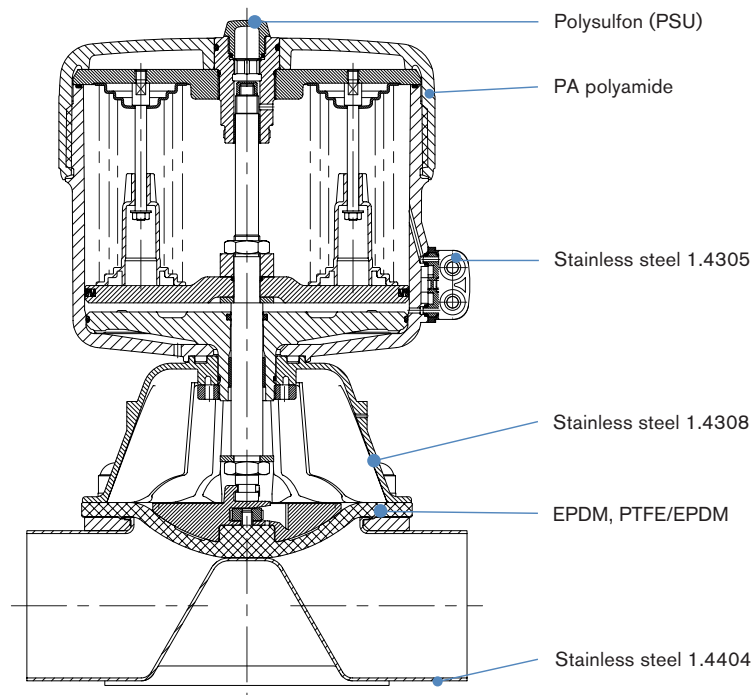
Gauge pressures with respect to the prevailing atmospheric pressure.

Materials

DN 8-50



DN 65-100



DTS 1000049857 EN Version: E Status: RL (released | freigegeben | validé) printed: 12.08.2008

Approvals

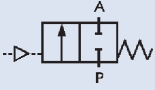
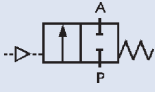
Suitable for foodstuffs



- The composition of the EPDM and PTFE/EPDM diaphragms corresponds to the *Code of Federal Regulations*, published by the *FDA* (Food and Drug Administration, USA).
- The EPDM diaphragms correspond to the *KTW Recommendation* (Plastics in the Drinking Water Sector), A Manufacturer's Declaration will be supplied on request.

Ordering chart for valves (other versions on request)

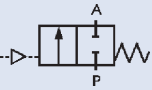
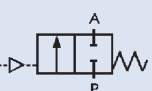
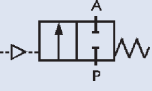
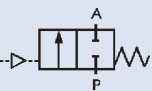
Body with flange connection acc. to DIN EN 1092-1

Control function	Orifice [mm]	Port connection	Kv value water [m³/h]	Actuator size Ø [mm]	Minimum operating pressure [bar]	Max. operating pressure [bar]	Item no. PPS actuator	Item no. PA actuator
<b>Acc. to DIN EN 1092-1, EPDM diaphragm material, surface glass-beaded outside and inside, average roughness 1.6 µm</b>								
 <p><b>A</b> 2/2-way, NC by spring return</p>	15	4 x 90°	6.5	D-50	5.0	8.5	137 101	137 100
	20	4 x 90°	7	E-63	5.0	10	137 103	137 102
			12	E-63	5.5	10	137 107	137 106
	25	4 x 90°	13	F-80	5.0	10	137 109	137 108
			18	E-63	5.0	3.0	137 113	137 112
	32	4 x 90°	21	F-80	5.5	10	137 115	137 114
			33	G-100	5.5	10	137 119	137 118
	40	4 x 90°	33	G-100 <sup>1)</sup>	3.0	3.5	137 121	137 120
			45	G-100	5.5	6.5	137 125	137 124
	50	4 x 90°	45	G-100 <sup>1)</sup>	2.5	1.5	137 129	137 128
			46	H-125	5.5	10	137 127	137 126
	65	8 x 45°	56	G-100	5.5	4.5	137 133	137 132
			70	H-125	5.5	8	137 135	137 134
	80	8 x 45°	110	H-125	5.5	7	–	149 292
115			K-175	4.5	10	–	147 813	
100	8 x 45°	165	K-175	5.0	5	–	147 817	
		165	L-225	5.0	10	–	147 821	
265	L-225	5.0	8	–	147 823			
<b>Acc. to DIN EN 1092-1, PTFE/EPDM diaphragm material, surface glass-beaded outside and inside, average roughness 1.6 µm</b>								
 <p><b>A</b> 2/2-way, NC by spring return</p>	15	4 x 90°	6.5	D-50	5.0	5	143 077	143 076
	20	4 x 90°	7	E-63	5.0	10	137 105	137 104
			12	E-63	5.5	5	143 085	143 084
	25	4 x 90°	13	F-80	5.0	10	137 111	137 110
			21	F-80	5.5	7.5	137 117	137 116
	32	4 x 90°	33	G-100	5.5	8	137 123	137 122
			40	G-100	5.5	6	143 091	143 090
	50	4 x 90°	46	H-125	5.5	10	137 131	137 130
			56	G-100	5.5	2.5	143 095	143 094
	65	8 x 45°	70	H-125	5.5	7	137 137	137 136
			110	H-125	5.5	4.5	–	149 294
	80	8 x 45°	115	K-175	4.5	8	–	147 826
			165	K-175	5.0	4.5	–	147 830
	100	8 x 45°	165	L-225	5.0	10	–	147 834
265			L-225	5.0	4	–	147 835	

1) With reduced spring force; preferred at lower media pressures – further versions on request.

Ordering chart for valves (other versions on request)

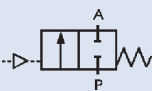
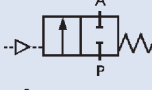
Body with weld end acc. to EN ISO 1127/ISO 4200 and DIN 11850 S2

Control function	Orifice [mm]	Outer size Ø [mm]	Kv value water [m³/h]	Actuator size Ø [mm]	Minimum operating pressure [bar]	Max. operating pressure [bar]	Item no. PPS actuator	Item no. PA actuator	
<b>Acc. to EN ISO 1127/ISO 4200, EPDM diaphragm material, surface glass-beaded outside and inside, average roughness 1.6 µm</b>									
 <p><b>A</b> 2/2-way, NC by spring return</p>	8	13.5	1.0	C-40	5.0	10	135 442	137 094	
	15	21.3	6.5	D-50	5.0	8.5	135 459	141 571	
			7	E-63	5.0	10	134 305	141 572	
	20	26.9	12	E-63	5.5	10	135 481	141 580	
			13	F-80	5.0	10	134 306	141 581	
	25	33.7	18	E-63	5.0	3.0	135 503	141 586	
			21	F-80	5.5	10	134 307	141 587	
	32	42.4	33	G-100	5.5	10	134 308	141 592	
			33	G-100 <sup>1)</sup>	3.0	3.5	135 533	141 593	
	40	48.3	45	G-100	5.5	6.5	135 548	141 599	
			45	G-100 <sup>1)</sup>	2.5	1.5	135 563	141 600	
			46	H-125	5.5	10	134 309	141 601	
	50	60.3	56	G-100	5.5	4.5	135 578	141 610	
			70	H-125	5.5	8	134 310	141 611	
<b>Acc. to EN ISO 1127/ISO 4200, PTFE/EPDM diaphragm material, surface glass-beaded outside and inside, average roughness 1.6 µm</b>									
 <p><b>A</b> 2/2-way, NC by spring return</p>	8	13.5	1.0	C-40	5.0	10	135 446	137 096	
	15	21.3	6.5	D-50	5.0	5	143 055	141 290	
			7	E-63	5.0	10	134 311	141 576	
	20	26.9	12	E-63	5.5	5	143 057	143 056	
			13	F-80	5.0	10	134 312	141 583	
	25	33.7	21	F-80	5.5	7.5	134 313	141 589	
	32	42.4	33	G-100	5.5	8	134 314	141 595	
	40	48.3	45	G-100	5.5	6	143 058	141 652	
			46	H-125	5.5	10	134 315	141 605	
	50	60.3	56	G-100	5.5	2.5	143 059	143 098	
			70	H-125	5.5	7	134 316	141 614	
	<b>Acc. to DIN 11850 S2, EPDM diaphragm material, surface glass-beaded outside and inside, average roughness 1.6 µm</b>								
	 <p><b>A</b> 2/2-way, NC by spring return</p>	10	13.0	1.0	C-40	5.0	10	138 510	138 509
		15	19.0	4	D-50	5.0	9	138 514	141 573
4.5				E-63	5.0	10	138 516	141 574	
20		23.0	4.0	E-63	5.0	10	138 522	138 521	
25		29.0	12.5	E-63	5.0	10	138 526	138 525	
			13.5	F-80	5.5	10	138 528	138 527	
32		35.0	18.0	F-80	5.5	10	138 534	138 533	
40		41.0	24.5	G-100	5.5	10	138 538	138 537	
			24.5	G-100 <sup>1)</sup>	3.0	3.5	138 540	138 539	
50		53.0	35	G-100	5.5	8	138 544	138 543	
			35	G-100 <sup>1)</sup>	2.5	1.5	138 548	138 547	
			37	H-125	5.5	10	138 546	138 545	
65		70.0	110	H-125	5.5	7	-	149 291	
			115	K-175	4.5	10	-	147 812	
80		85.0	165	K-175	5.0	5	-	147 816	
			165	L-225	5.0	10	-	147 820	
100		104.0	265	L-225	5.0	8	-	147 822	
<b>Acc. to DIN 11850 S2, PTFE/EPDM diaphragm material, surface glass-beaded outside and inside, average roughness 1.6 µm</b>									
 <p><b>A</b> 2/2-way, NC by spring return</p>	10	13.0	1.0	C-40	5.0	10	138 512	138 511	
	15	19.0	4	D-50	5.0	9	143 081	143 080	
			4.5	E-63	5.0	10	138 518	141 577	
	20	23.0	4.0	D-50	5.0	9	143 083	143 082	
			4.5	E-63	5.0	10	138 524	138 523	
	25	29.0	12.5	E-63	5.0	8	143 089	143 088	
			13.5	F-80	5.5	10	138 530	138 529	
	32	35.0	18.0	F-80	5.5	8	138 536	138 535	
	40	41.0	24.5	G-100	5.5	8	138 542	138 541	
	50	53.0	35	G-100	5.5	8	143 099	143 060	
			37	H-125	5.5	10	138 550	138 549	
	65	70.0	110	H-125	5.5	4.5	-	149 293	
			115	K-175	4.5	8	-	146 552	
	80	85.0	165	K-175	5.0	4.5	-	147 829	
			165	L-225	5.0	10	-	147 833	
	100	104.0	265	L-225	5.0	4	-	146 560	

1) With reduced spring force; preferred at lower media pressures – further versions on request.

Ordering chart for valves (other versions on request)

Body with threaded port

Control function	Orifice [mm]	Port connection	Kv value water [m <sup>3</sup> /h]	Actuator size Ø [mm]	Minimum operating pressure [bar]	Max. operating pressure [bar]	Item no. PPS actuator	Item no. PA actuator
<b>Threaded port, EPDM diaphragm material, surface glass-beaded outside and inside, average roughness 1.6 µm</b>								
 <p><b>A</b> 2/2-way, NC by spring return</p>	8	G 1/4	1.0	C-40	5.0	10	135 443	141 858
	15	G 1/2	6.5	D-50	5.0	8.5	135 461	141 569
	20	G 3/4	7	E-63	5.0	10	135 470	141 570
			12	E-63	5.5	10	135 483	141 578
	13	G 1	F-80	5.0	10	135 491	141 579	
			18	E-63	5.0	3.0	135 505	141 584
	21	G 1 1/4	F-80	5.5	10	135 513	141 585	
			33	G-100	5.5	10	135 527	141 590
	33	G 1 1/2	G-100 <sup>1)</sup>	3.0	3.5	135 535	141 591	
			45	G-100	5.5	6.5	135 550	141 596
	45	G 2	G-100 <sup>1)</sup>	2.5	1.5	135 565	141 597	
			46	H-125	5.5	10	135 557	141 598
56	G 2	G-100	5.5	4.5	135 580	141 607		
		70	H-125	5.5	8	135 587	141 608	
<b>Threaded port, PTFE/EPDM diaphragm material, surface glass-beaded outside and inside, average roughness 1.6 µm</b>								
 <p><b>A</b> 2/2-way, NC by spring return</p>	8	G 1/4	1.0	C-40	5.0	10	135 447	137 097
	15	G 1/2	6.5	D-50	5.0	5	143 079	143 078
	20	G 3/4	7	E-63	5.0	10	135 474	141 575
			12	E-63	5.5	5	143 087	143 086
	13	G 1	F-80	5.0	10	135 493	141 582	
			21	F-80	5.5	7.5	135 516	141 588
	33	G 1 1/4	G-100	5.5	8	135 542	141 594	
			45	G-100	5.5	6	143 093	143 092
	46	G 1 1/2	H-125	5.5	10	135 572	141 604	
			56	G-100	5.5	2.5	143 097	143 096
	70	G 2	H-125	5.5	7	135 594	141 613	

1) With reduced spring force; preferred at lower media pressures – further versions on request.

Ordering chart for accessories

For DN 8-50 accessories

	Voltage	Item no.
<b>3/2-way pilot valve Type 6012 P/6014 P with banjo bolt</b>		
Type 6012 P for actuator Ø 40 and 50 mm	024 V/DC	425 299
Control media inserts G 1/8	230 V/50 Hz	425 304
Type 6012 P for actuator Ø 63 mm	024 V/DC	425 285
Control media inserts G 1/4	230 V/50 Hz	425 290
Type 6014 P for actuator Ø 80 to 125 mm	024 V/DC	424 103
Control media inserts G 1/4	230 V/50 Hz	424 107
<b>Cable plug Type 2506 (Form C) or Type 2508 (Form A) Plug configuration acc. to DIN EN 175301-803 (prev. DIN 43650)</b>		
Form C (for Type 6012 P)	up to 250 V	008 353
Form A (for Type 6014 P)	up to 250 V	008 376

Further versions see datasheets Type 2506 or Type 2508.

For DN 65-100 accessories

	Voltage	Item no.
<b>3/2-way pilot valve Type 6014 P with banjo bolt G 1/4</b>		
Type 6014 for actuator Ø 175 and 225 mm	024 V/DC	786 014
	230 V/50 Hz	786 015
<b>Cable plug Type 2508 (Form A), further versions see Datasheet Type 2508</b>		
Plug configuration acc. to DIN EN 175301-803 Form A (prev. DIN 43650)	up to 250 V	008 376

Options and accessories (on request)

- Control function B (opened by spring action) or I (double-acting actuator)
- Electrical position feedback Type 1060 and 1062
- Magnetic-inductive proximity sensors Type 1071
- Stroke limitation max. and min./max.
- Manual actuator
- NAMUR-Adapter for pilot valves with NAMUR flange
- Mounting key for actuator cover

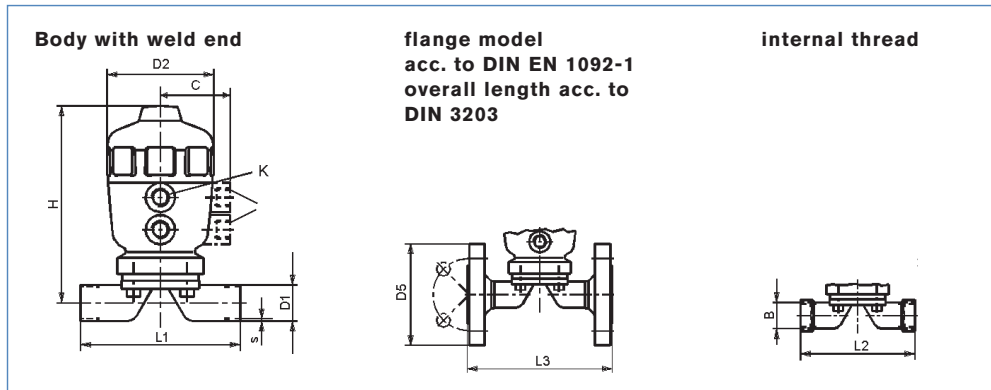
Note:

For design reasons, accessories cannot be supplied for actuator size 40 mm.

Please request the datasheet Accessories 2XXX.

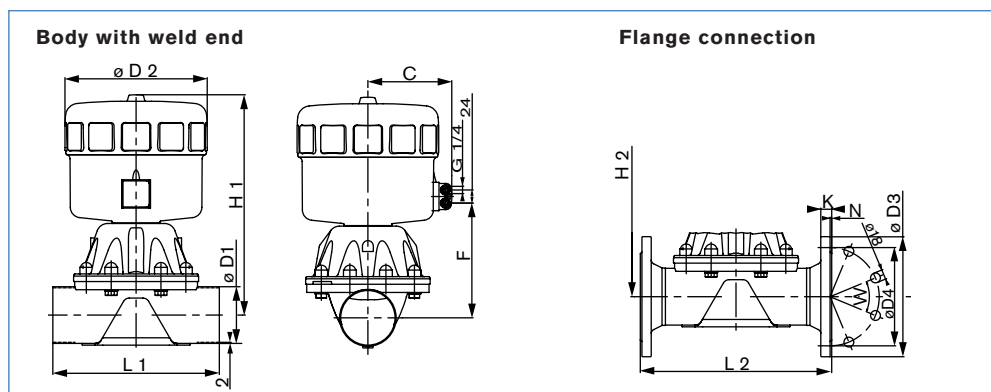
Dimensions [mm]

DN 8-50



DN [mm]	Actuator size Ø	Ø D2	C	H	K	Flange DIN EN 1092-1		Threaded port G-Thread		Weld ends acc. to EN ISO 1127/ISO 4200			DIN 11850 S2		
						Ø D5	L3	B	L2	D1	L1	s	D1	L1	s
8	40	53	34	85	G 1/8	-	-	G 1/4	85	13.5	90	1.6	-	-	-
10	40	53	34	85	G 1/8	-	-	-	-	-	-	-	12.9	90	1.3
15	50	64	39	122	G 1/8	95	130	G 1/2	102	21.3	110	1.6	19	110	1.5
	63	80	52	139	G 1/4	95	130	G 1/2	102	21.3	110	1.6	19	110	1.5
20	50	64	39	124	G 1/8	-	-	-	-	-	-	-	23	119	1.5
	63	80	52	140	G 1/4	-	-	-	-	-	-	-	23	119	1.5
				148	G 1/4	105	150	G 3/4	118	26.9	119	1.6	-	-	-
25	80	101	60	174	G 1/4	105	150	G 3/4	118	26.9	119	1.6	-	-	-
	63	80	52	149	G 1/4	-	-	-	-	-	-	-	29	129	1.5
				157	G 1/4	115	160	G 1	127	33.7	129	2	-	-	-
80	101	60	170	G 1/4	-	-	-	-	-	-	-	29	129	1.5	
32	63	80	52	177	G 1/4	115	160	G 1	127	33.7	129	2	-	-	-
				157	G 1/4	-	-	-	-	-	-	-	-	-	35
	80	101	60	177	G 1/4	-	-	-	-	-	-	-	35	148	1.5
40	100	127	73	230	G 1/4	140	180	G 1 1/4	146	42.4	148	2	-	-	-
	100	127	73	235	G 1/4	150	200	G 1 1/2	159	48.3	161	2	-	-	-
				227	G 1/4	-	-	-	-	-	-	-	-	41	161
125	153	86	274	G 1/4	150	200	G 1 1/2	159	48.3	161	2	-	-	-	
50	100	127	73	237	G 1/4	-	-	-	-	-	-	-	53	192	1.5
				244	G 1/4	165	230	G 2	191	60.3	192	2	-	-	-
	125	153	86	274	G 1/4	-	-	-	-	-	-	-	53	192	1.5
				278	G 1/4	165	230	G2	191	60.3	192	2	-	-	-

DN 65-100



DN [mm]	Actuator size Ø	C	Ø D1	F	DIN 11850 S2			Flange DIN EN 1092-1					
					Ø D2	H1	L1	Ø D3	Ø D4	H2	L2	K	W
65	125	86	158	129	70	290	216	185	145	295	290	18	8 x 45°
	175	130	211	180	70	382	216	185	145	387	290	18	8 x 45°
80	175	130	211	197	85	399	256	200	160	398	310	20	8 x 45°
	225	155	261	198	85	394	256	200	160	393	310	20	8 x 45°
100	225	155	261	210	104	409	305	220	180	410	350	20	8 x 45°

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In case of special application conditions, please consult for advice.

We reserve the right to make technical changes without notice.

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