



Pneumatically operated 2/2-way globe valve CLASSIC

- Compact
- Long service life
- Robust actuators with modular accessory program
- Stainless steel housing with flange, thread and weld end connection



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

Can be combined with



Type 8640

Modular valve island for pneumatics



Type 8644

AirLINE SP electropneumatic automation system



Type 8697

Pneumatic control unit for decentralised automation of process valves ELEMENT



Type 7012

Direct-acting 3/2-way plunger valve



Type 6014

Plunger valve 3/2-way direct-acting



Type 8840

Modular process valve cluster – distributor and collector

Type description

The externally piloted globe valve consists of a pneumatically operated piston actuator and a 2/2-way valve body. The actuator is made of PA or, for special operating conditions, PPS. The reliable self-adjusting packing gland provides high sealing integrity. These maintenance-free and robust valves can be retro-fitted with a comprehensive range of accessories for position indication, stroke limitation or manual override.

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1. General technical data

Product properties	
Dimensions	Further information can be found in chapter "6. Dimensions" on page 11.
Material	Further information can be found in chapter "5. Materials" on page 9.
Design	Globe valve
Nominal diameter (port connection)	DN 10...DN 100, NPS 3/8...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), flow to close (above seat)
Performance data	
Operating pressure	0...25 bar(g), vacuum...-0.9 bar(g) (option) (see "7.1. Fluidic data" on page 15)
Nominal pressure	PN 25 (DIN EN 1333), Class 150 (DIN EN 1759)
Pilot pressure	2...10 bar(g) (see "7.1. Fluidic data" on page 15)
Seat leakage	Leakage rate A (DIN EN 12266 - 1), seat seal PTFE and PEEK, test medium air
K _v value	4.7...165 m³/h (see "7.1. Fluidic data" on page 15)
Medium data	
Medium	Steam, water, neutral gases, alcohols, oils, fuels, hydraulic fluids, salt solutions, alkalis, organic solvents, oxygen and fuel gases of families I, II and III in accordance with the Gas Appliances Regulation (EU) 2016/426
Medium temperature	-40 °C...+230 °C (see "7.2. Operating limits" on page 19)
Viscosity	Max. 600 mm²/s
Control medium	Air, neutral gases
Product connections	
Port connection	
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 / DIN 11866 series B DIN 11850 - 2 / DIN 11866 series A ASME BPE / DIN 11866 series C SMS 3008
Clamp connection	DIN 32676 series B (pipe: ISO 4200) DIN 32676 series A (pipe: DIN 11850 - 2) ASME BPE
Pilot air port	
Actuator size Ø 40 (C)	Thread G 1/8
Actuator size Ø 50 (D)...225 (L)	Thread G 1/4
Approvals and conformities	
Further information can be found in chapter "4. Approvals and conformities" on page 7.	
Material certificate	2.2, 3.1
Environment and installation	
Environmental factors	Protect the device from electromagnetic interference, UV radiation and, when used outdoors, from weather conditions.
Ambient temperature	-10 °C...+140 °C (see "2. Product variants" on page 5)
Degree of protection	IP67
Installation position	As required, preferably with actuator in upright position

2. Product variants

2.1. Stainless steel body with PA actuator



Performance data

Maximum pilot pressure

Actuator size 40 (C), 50 (D), 63 (E), 80 (F) 10 bar(g)

Actuator size 100 (G), 125 (H) 7 bar(g)

Actuator size 175 (K), 225 (L) 6 bar(g)

Medium data

Medium temperature - 10 °C...+ 185 °C (see "7.2. Operating limits" on page 19)

Environment and installation

Ambient temperature

Actuator size 40 (C)...125 (H) - 10 °C...+ 60 °C

Actuator size 175 (K), 225 (L) - 10 °C...+ 50 °C

(see "7.2. Operating limits" on page 19)

2.2. Stainless steel body with PPS actuator



Performance data

Maximum pilot pressure

Actuator size 40 (C), 50 (D), 63 (E), 80 (F), 10 bar(g)

Actuator size 100 (G), 125 (H) 7 bar(g)

Medium data

Medium temperature - 40 °C...+ 230 °C

(see "7.2. Operating limits" on page 19)

Environment and installation

Ambient temperature + 5 °C...+ 140 °C (continuous operation...+ 130 °C)

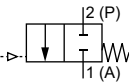
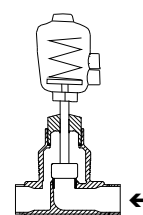
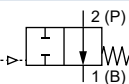
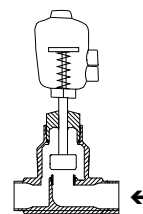
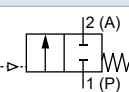
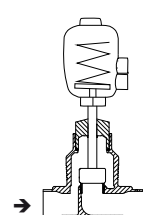
(see "7.2. Operating limits" on page 19)

3. Control functions

**WARNING**

Risk of damage due to bursting pipes and bursting equipment when the flow is above the seat.
In the case of liquid mediums, water hammer can occur causing pipes and the device to burst.

Do not use valves with flow above the seat for liquid mediums.

Symbol	Description	
Flow direction below seat for liquids, steam and gases		
	Control function A (CF A) Pneumatically operated 2/2-way on/off valve Flow direction below seat Normally closed by spring force	
	Control function B (CF B) Pneumatically operated 2/2-way on/off valve Flow direction below seat Normally opened by spring force	
Flow direction above seat for steam and gases		
	Control function A (CF A) Pneumatically operated 2/2-way on/off valve Flow direction above seat Normally closed by spring force	

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4. Approvals and conformities

4.1. General notes

- The approvals and conformities listed below must be stated when making enquiries. This is the only way to ensure that the product complies with all required specifications.
- Not all available variants can be supplied with the below mentioned approvals or conformities.

4.2. Conformity

In accordance with the Declaration of Conformity, the product is compliant with the EU Directives. This includes the following directives:

- Pressure Equipment Directive 2014/68/EU
- Machinery Directive 2006/42/EC

4.3. Standards

The applied standards which are used to demonstrate compliance with the EU Directives are listed in the EU-Type Examination Certificate and/or the EU Declaration of Conformity.

4.4. Explosion protection

Approval	Description																
 	Optional: Explosion protection (valid for the variable code PX51) As a category 2 device suitable for zone 1/21 and zone 2/22. ATEX: EPS 18 ATEX 2 008 X II 2G Ex h IIC T4...T2 Gb II 2D Ex h IIIC T135 °C...T300 °C Db IECEx: IECEx EPS 18.0007X Ex h IIC T4...T2 Gb Ex h IIIC T135 °C...T300 °C Db <table><tr><td>Temperature class</td><td>T2</td><td>T3</td><td>T4</td></tr><tr><td>Maximum surface temperature</td><td>+ 300 °C</td><td>+ 200 °C</td><td>+ 135 °C</td></tr><tr><td>Ambient temperature</td><td>- 40 °C...+ 130 °C</td><td>- 40 °C...+ 130 °C</td><td>- 40 °C...+ 100 °C</td></tr><tr><td>Maximum medium temperature</td><td>+ 285 °C</td><td>+ 185 °C</td><td>+ 125 °C</td></tr></table> Note: The ambient and medium temperature range may be limited by non-ex-relevant specifications. Observe the Operating Instructions.	Temperature class	T2	T3	T4	Maximum surface temperature	+ 300 °C	+ 200 °C	+ 135 °C	Ambient temperature	- 40 °C...+ 130 °C	- 40 °C...+ 130 °C	- 40 °C...+ 100 °C	Maximum medium temperature	+ 285 °C	+ 185 °C	+ 125 °C
Temperature class	T2	T3	T4														
Maximum surface temperature	+ 300 °C	+ 200 °C	+ 135 °C														
Ambient temperature	- 40 °C...+ 130 °C	- 40 °C...+ 130 °C	- 40 °C...+ 100 °C														
Maximum medium temperature	+ 285 °C	+ 185 °C	+ 125 °C														

4.5. Drinking water

Conformity	Description
	Suitable for use in drinking water applications The materials comply with the assessment principles (UBA) for materials in contact with drinking water (TrinkwasserV). Stainless steel body PF39: Suitable for products with medium temperature up to 85 °C (hot water)

4.6. Foods and beverages/Hygiene

Conformity	Description
FDA	FDA – Code of Federal Regulations (valid for the variable code PL02 , PL03) All wetted materials are compliant with the Code of Federal Regulations published by the FDA (Food and Drug Administration, USA) according to the manufacturer's declaration.
	EC Regulation 1935/2004 of the European Parliament and of the Council (valid for the variable code PL01, PL02) All wetted materials are compliant with EC Regulation 1935/2004/EC according to the manufacturer's declaration.
	China food GB Standards of the People's Republic of China (valid for the variable code PL10) All wetted materials are compliant with the requirement of China food GB Standards according to the manufacturer's declaration.

4.7. Others

DNV GL classification

Approval	Description
	DNV GL classification – Ships, offshore units, and high speed and light craft The products are accepted for installation on all vessels classed by DNV GL.

Oxygen

Conformity	Description
	Optional: Suitability for oxygen (valid for the variable code NL02) The products are suitable for use with gaseous oxygen, according to the manufacturer's declaration.

Fuel gases

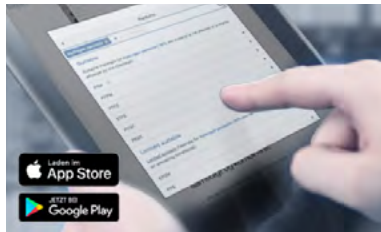
Conformity	Description
	Fuel gases (valid for the variable code PO19, PO20) The products comply with: • Regulation (EU) 2016/426 – Appliances burning gaseous fuels and • DVGW DIN EN 161 (Automatic shut-off valves for gas burners and gas appliances) and • DIN EN 16678, Class A or Class D (Safety and control devices for gas burners and gas burning appliances – Automatic shut-off valves for operating pressure of above 500 kPa up to and including 6 300 kPa)

TA Luft

Conformity	Description
TA Luft	Technical instruction on air quality control (valid for the variable code PM01)

5. Materials

5.1. Bürkert resistApp



Bürkert resistApp – Chemical resistance chart

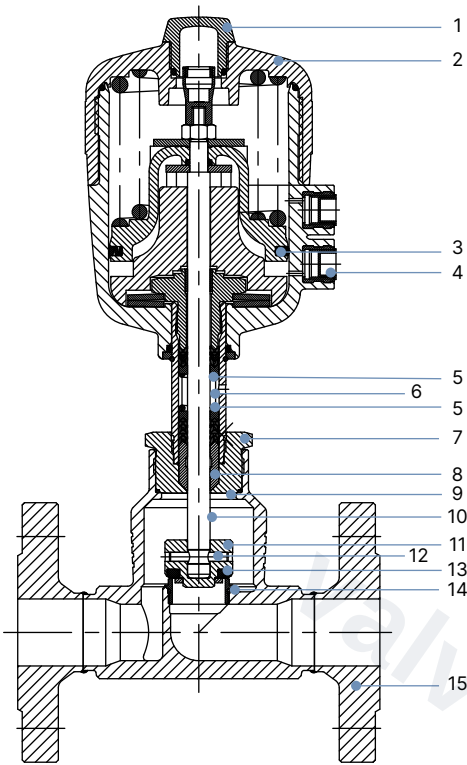
You want to ensure the reliability and durability of the materials in your individual application case? Verify your combination of media and materials on our website or in our resistApp.

[Start chemical resistance check](#)

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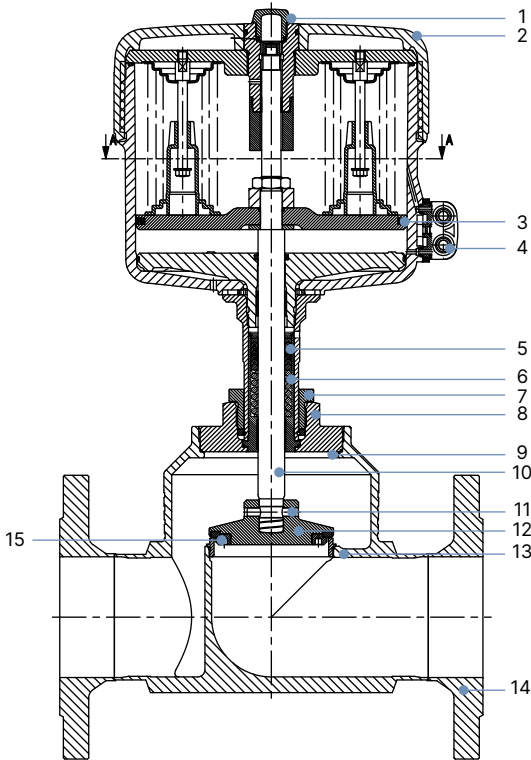
5.2. Material specifications

Actuator size 40...125 mm



No.	Element	Material	
		Stainless steel body with PA actuator	Stainless steel body with PPS actuator
1	Transparent cover	PC	PSU
2	Actuator	PA	PPS
3	Piston seal	NBR	FKM
4	Pilot air ports	Stainless steel 1.4305	
5	Spindle seal	PTFE V-Rings (filled), with spring compensation	
6	Spring	Stainless steel 1.4310	
7	Pipe	Stainless steel 1.4401 or 316L	
8	Wiper	PTFE (filled), PEEK for actuator size 100 mm(G) and 125 mm(H)	
9	Body seal	Graphite, PTFE (option)	
10	Spindle	Stainless steel 1.4401 or 1.4404	
11	Swivel plate	Stainless steel 1.4401 or 1.4404	
12	Pin	Stainless steel 1.4401	
13	Seat seal	PTFE, PEEK (option), NBR (option), FKM (option)	
14	Valve seat with O-Ring	Stainless steel 1.4571, EPDM	
15	Valve body	Stainless steel CF3M	

Actuator size 175 and 225 mm

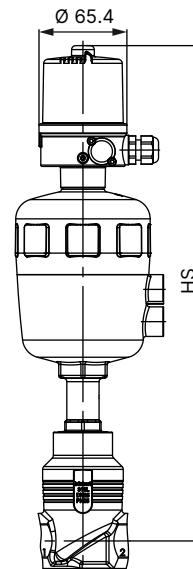
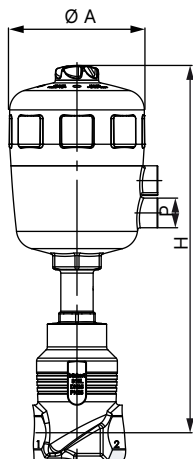


No.	Element	Stainless steel body with PA actuator
1	Transparent cover	PC
2	Actuator	PA
3	Piston seal	NBR
4	Pilot air ports	Stainless steel 1.4305
5	Spindle seal	PTFE V-Rings (filled), with spring compensation
6	Spring	Stainless steel 1.4568
7	Screw	Stainless steel 1.4305
8	Nipple	Stainless steel 1.4404
9	Body seal	Graphite, PTFE (option)
10	Spindle	Stainless steel 1.4401
11	Pin	Stainless steel 1.4401
12	Swivel plate	Stainless steel 1.4401
13	Seat seal	PTFE, PEEK (option), NBR (option), FKM (option)
14	Valve seat with O-ring	Stainless steel 1.4571, EPDM
15	Valve body	Stainless steel CF3M

6. Dimensions

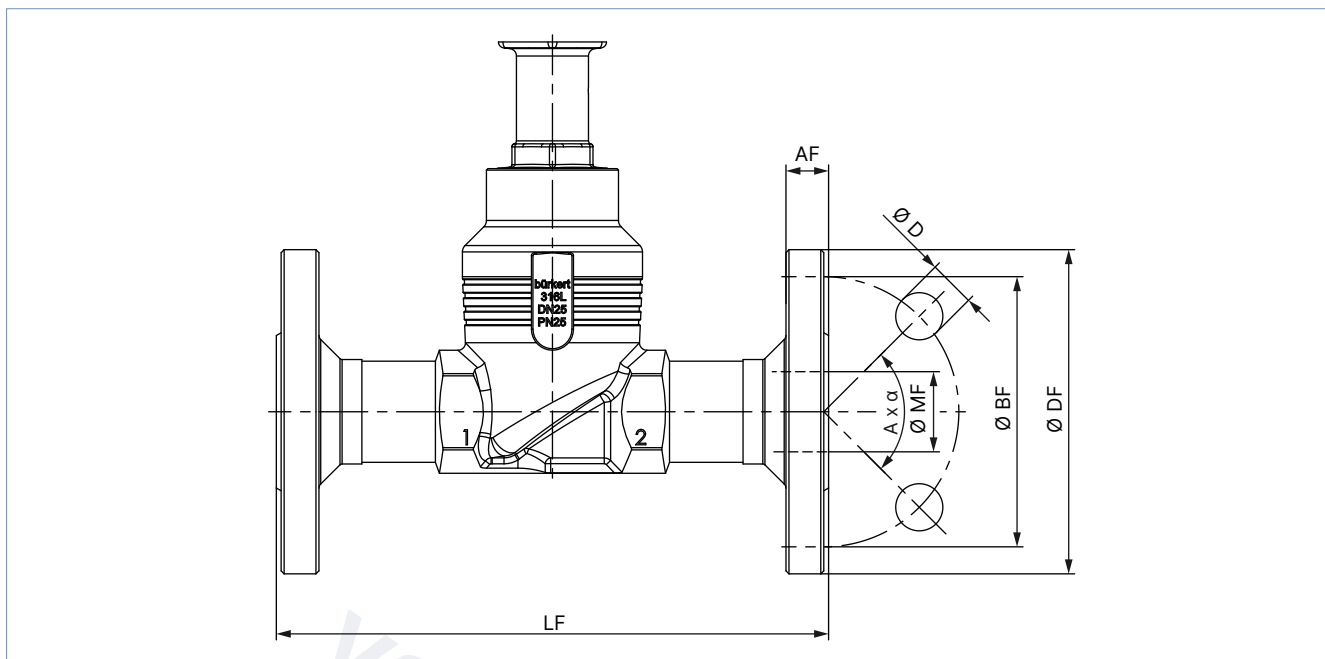
6.1. Actuator

Globe valve Type 2012 and valve system on/off CLASSIC Type 8801-GA



Nominal diameter (port connection)		Actuator size Ø	Ø A	H	P	HS
DN	NPS	[mm]	[mm]	[mm]	[inch]	[mm]
10	3/8	40 (C)	53	185	G 1/8	281
		50 (D)	64	211	G 1/4	307
		63 (E)	80	253	G 1/4	349
15	1/2	40 (C)	53	185	G 1/8	281
		50 (D)	64	211	G 1/4	307
		63 (E)	80	253	G 1/4	349
20	3/4	40 (C)	53	187	G 1/8	283
		50 (D)	64	214	G 1/4	310
		63 (E)	80	248	G 1/4	344
		80 (F)	101	270	G 1/4	366
25	1	50 (D)	64	220	G 1/4	316
		63 (E)	80	251	G 1/4	347
		80 (F)	101	273	G 1/4	369
32	1 1/4	63 (E)	80	272	G 1/4	368
		80 (F)	101	294	G 1/4	390
		125 (H)	157	390	G 1/4	483
40	1 1/2	80 (F)	101	299	G 1/4	395
		125 (H)	157	395	G 1/4	488
50	2	80 (F)	101	309	G 1/4	405
		100 (G)	127	371	G 1/4	464
		125 (H)	157	400	G 1/4	493
65	2 1/2	125 (H)	157	429	G 1/4	522
		175 (K)	211	491	G 1/4	590
		225 (L)	261	486	G 1/4	585
80	3	125 (H)	157	438	G 1/4	531
		175 (K)	211	498	G 1/4	597
		225 (L)	261	494	G 1/4	593
100	4	125 (H)	157	449	G 1/4	542
		175 (K)	211	508	G 1/4	607
		225 (L)	261	504	G 1/4	603

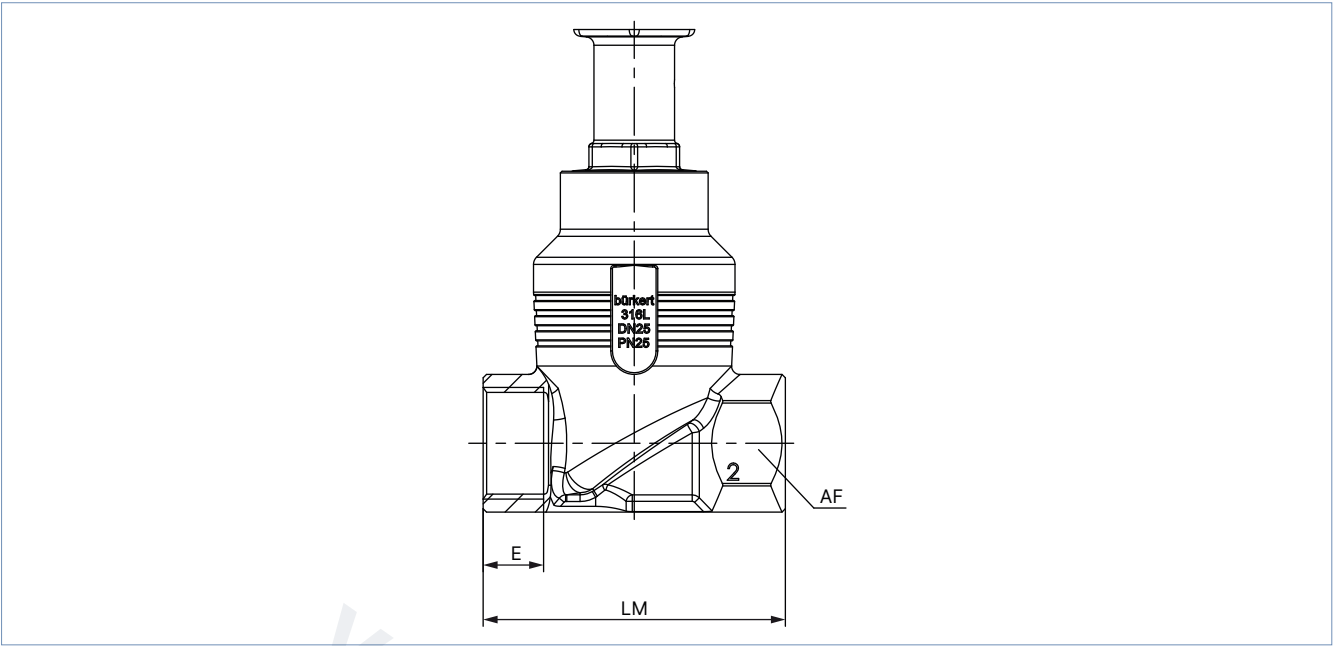
6.2. Body with flange connection



Nominal diameter (port connection)	DIN EN 1092 PN 25 FTF 1 according to DIN EN 558 - 1							JIS 10K FTF 10 according 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 × 90°	13.6	—	—	—	—	—	—	—
15	95	130	65	16	14	4 × 90°	18.1	95	108	70	12	15	4 × 90°	18.1
20	105	150	75	18	14	4 × 90°	23.7	100	117	75	14	15	4 × 90°	23.7
25	115	160	85	18	14	4 × 90°	29.7	125	127	90	14	19	4 × 90°	29.7
32	140	180	100	18	18	4 × 90°	38.4	135	140	100	16	19	4 × 90°	38.4
40	150	200	110	18	18	4 × 90°	44.3	140	165	105	16	19	4 × 90°	44.3
50	165	230	125	20	18	4 × 90°	56.3	155	203	120	16	19	4 × 90°	56.3
65	185	290	145	22	18	8 × 45°	66.0	175	216	140	18	19	4 × 90°	71.5
80	200	310	160	24	18	8 × 45°	81.0	185	241	150	18	19	8 × 45°	84.3
100	235	350	190	24	22	8 × 45°	100.0	210	292	175	18	19	8 × 45°	109.1

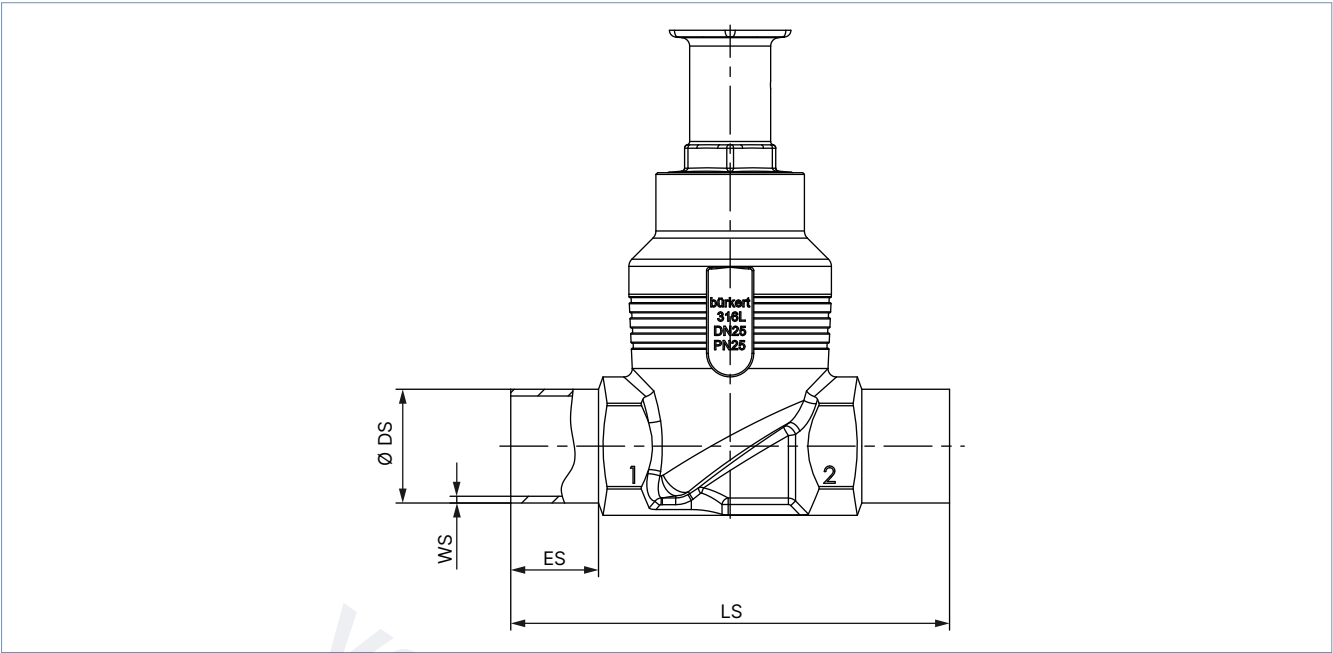
Nominal diameter (port connection)	ANSI B 16.5 Class 150 FTF 37 according to DIN EN 558 - 2						
NPS	Ø DF	LF	Ø BF	AF	Ø D	A x α	Ø MF
½	89	184	60.5	11.2	15.7	4 × 90°	15.7
¾	99	184	69.9	12.7	15.7	4 × 90°	20.8
1	108	184	79.2	14.2	15.7	4 × 90°	26.7
1½	127	222	98.6	17.5	15.7	4 × 90°	40.9
2	152	254	120.7	19.1	19.1	4 × 90°	52.6
2½	178	276	139.7	22.3	19.1	4 × 90°	62.7
3	190	298	152.5	23.9	19.1	4 × 90°	78.0
4	229	352	190.5	23.9	19.1	8 × 45°	102.4

6.3. Body with threaded connection



Nominal diameter (port connection)		G (DIN ISO 228 - 1) NPT (ASME B1.20.1) RC (ISO 7 - 1)				
		E			LM	AF
DN	NPS	G	NPT	RC		
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



Nominal diameter (port connection)	ES	LS	DIN EN ISO 1127 / ISO 4200 / DIN 11866 series B		DIN 11850 - 2 / DIN 11866 series A / DIN EN 10357 series 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 (port connection)	ES	LS	ASME BPE/DIN 11866 series C	
			Ø DS	WS
NPS				
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

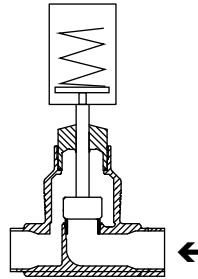
7. Performance specifications

7.1. Fluidic data

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

Note:

- K_v value [m^3/h]: Measured with water at + 20 °C, 1 bar(g) pressure at valve inlet and free outlet
- Pressure data [bar(g)]: Overpressure to atmospheric pressure

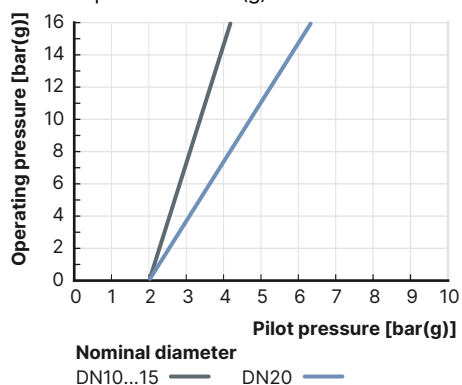


Nominal diameter (port connection)		Actuator size Ø	K _v value water	Pilot pressure min.	Operating pressure max.		
				CF A	CF A		CF B
					PTFE	PEEK	PTFE
DN	NPS	[mm]	[m³/h]	[bar(g)]	[bar(g)]	[bar(g)]	[bar(g)]
10	⅜	40 (C)	4.7	4	15	–	16
		50 (D)	4.7	4.1	16	16	16
		63 (E)	4.7	4.5	25	25	25
15	½	40 (C)	4.7	4	15	–	16
		50 (D)	4.7	4.1	16	16	16
		63 (E)	4.7	4.5	25	25	25
20	¾	40 (C)	8.1	4	6.5	–	16
		50 (D)	8.1	4.1	11	9	16
		63 (E)	8.1	4.5	20	17.5	25
		80 (F)	8.1	5	25	25	–
25	1	63 (E)	13	4.5	11	10	25
		80 (F)	13	5	25	23	25
32	1¼	63 (E)	20	4.5	6	–	25
		80 (F)	20	5	14	12.5	25
		125 (H)	20	4.1	25	22.5	–
40	1½	80 (F)	31	5	9	–	25
		125 (H)	31	4.2	25	–	–
50	2	100 (G)	45	4.4	7.2	–	25 (20 ^{1,)})
		125 (H)	45	5.7	24 (20 ^{1,)})	20	–
65	2½	125 (H)	73	5.7	12	10	23 (15 ^{1,)})
		175 (K)	73	4.5	16 (15 ^{1,)})	–	16 (15 ^{1,)})
		225 (L)	73	4.8	25 (15 ^{1,)})	–	–
80	3	125 (H)	110	5.7	7.5	6.5	14 (12.5 ^{1,)})
		175 (K)	110	4.5	10	–	16 (12.5 ^{1,)})
		225 (L)	110	4.8	25 (12.5 ^{1,)})	–	–
100	4	125 (H)	165	5.7	5	4	9
		175 (K)	155	4.5	7	–	14 (10 ^{1,)})
		225 (L)	155	4.8	16 (10 ^{1,)})	–	–

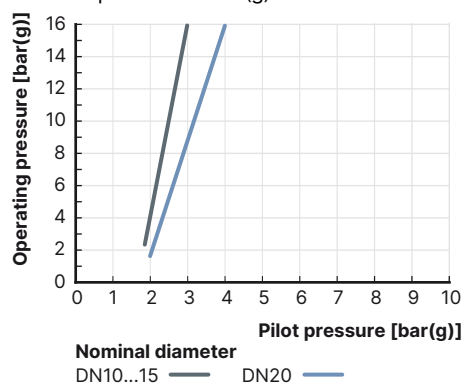
1.) According to pressure equipment directive 2014/68/EU for compressible fluids of group 1 (dangerous gases and vapours according to article 4, paragraph (1), c), i), first indent)

Pilot pressure diagrams with flow direction below seat (control function B)
Actuator size Ø 40 mm (C)

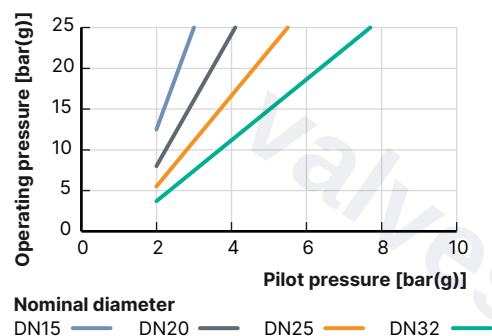
Maximum control pressure 10 bar(g)


Actuator size Ø 50 mm (D)

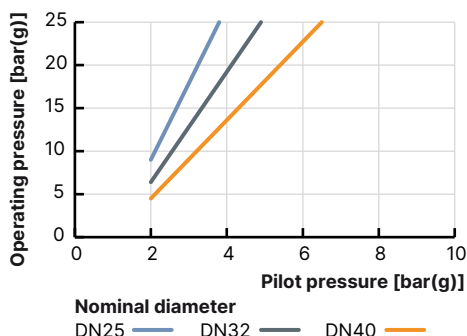
Maximum control pressure 10 bar(g)


Actuator size Ø 63 mm (E)

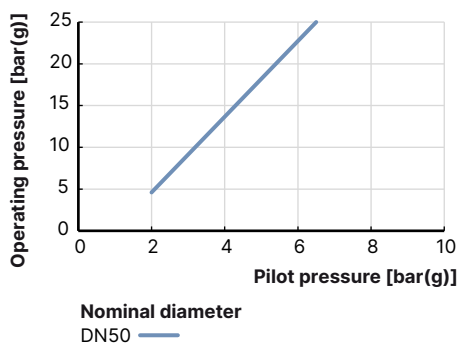
Maximum control pressure 10 bar(g)


Actuator size Ø 80 mm (F)

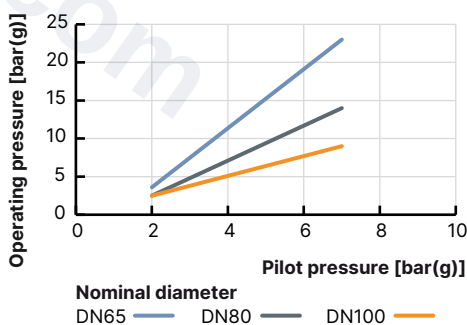
Maximum control pressure 10 bar(g)


Actuator size Ø 100 mm (G)

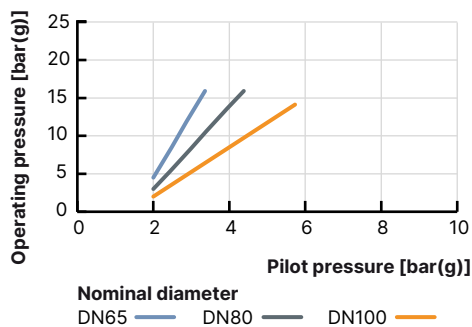
Maximum control pressure 7 bar(g)


Actuator size Ø 125 mm (H)

Maximum control pressure 7 bar(g)


Actuator size Ø 175 mm (K)

Maximum control pressure 6 bar(g)



Overview of fluidic data with flow above seat (for gases and steam)

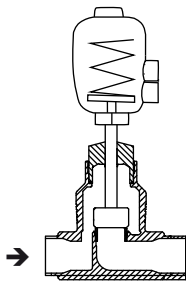
Note:

- K_v value [m³/h]: Measured with water at + 20 °C, 1 bar(g) pressure at valve inlet and free outlet
- Pressure data [bar(g)]: Overpressure to atmospheric pressure
- Valves with flow direction above the seat are only partially suitable for liquid mediums. There is a risk of a pressure surge.

 **WARNING**

Risk of damage due to bursting pipes and bursting equipment when the flow is above the seat.
In the case of liquid mediums, water hammer can occur, causing pipes and the device to burst.

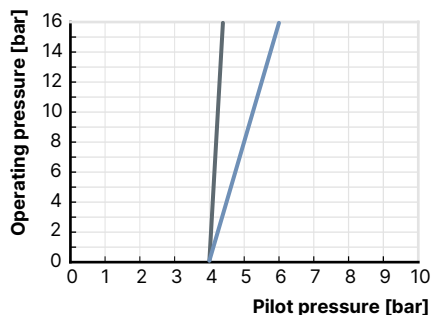
Do not use valves with flow above the seat for liquid mediums.



Nominal diameter (port connection)		Actuator size Ø	K_v value water	Operating pressure max.
				CF A
DN	NPS	[mm]	[m³/h]	PTFE [bar(g)]
10	3/8	40 (C)	3	16
		50 (D)	3	16
15	1/2	40 (C)	4.7	16
		50 (D)	4.7	16
20	3/4	40 (C)	8.1	16
		50 (D)	8.1	16
25	1	50 (D)	12	16
32	1 1/4	63 (E)	20	16
40	1 1/2	80 (F)	31	16
50	2	80 (F)	45	16
65	2 1/2	125 (H)	73	10
80	3	125 (H)	110	10
100	4	125 (H)	165	6

Pilot pressure diagram for flow direction above seat (control function A)
Actuator size Ø 40 mm (C)

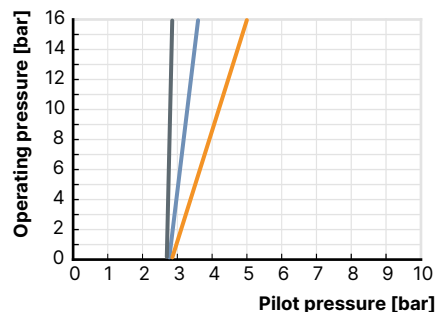
Maximum control pressure 10 bar(g)



Nominal diameter
 DN10...15 —
 DN20 —

Actuator size Ø 50 mm (D)

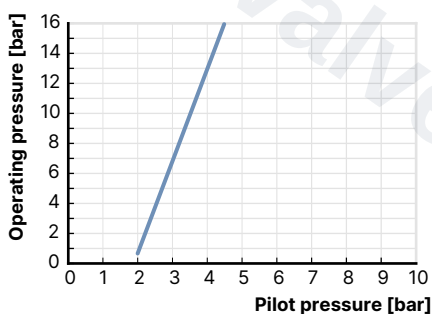
Maximum control pressure 10 bar(g)



Nominal diameter
 DN10...15 —
 DN20 —
 DN25 —

Actuator size Ø 63 mm (E)

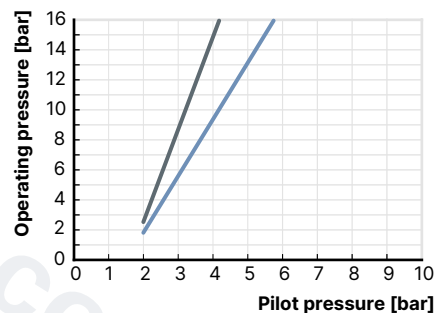
Maximum control pressure 10 bar(g)



Nominal diameter
 DN32 —

Actuator size Ø 80 mm (F)

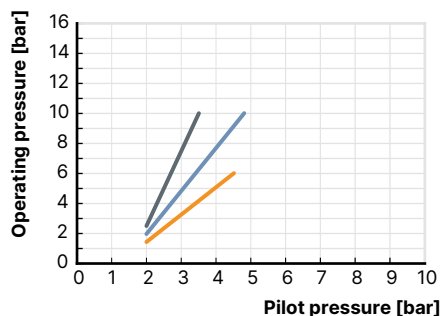
Maximum control pressure 10 bar(g)



Nominal diameter
 DN40 —
 DN50 —

Actuator size Ø 125 mm (H)

Maximum control pressure 7 bar(g)

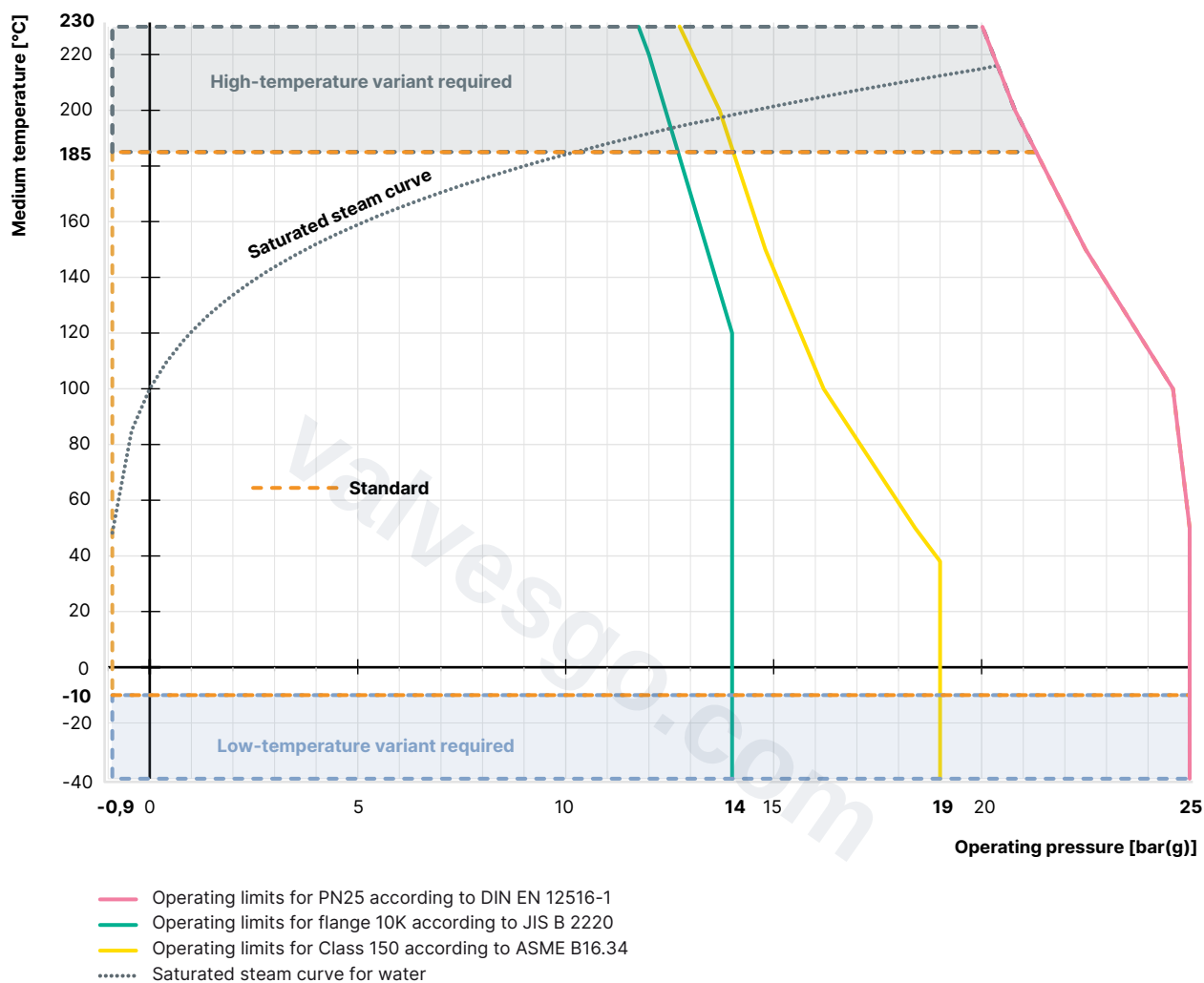


Nominal diameter
 DN65 —
 DN80 —
 DN100 —

7.2. Operating limits

Operating limits for medium temperature and operating pressure

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

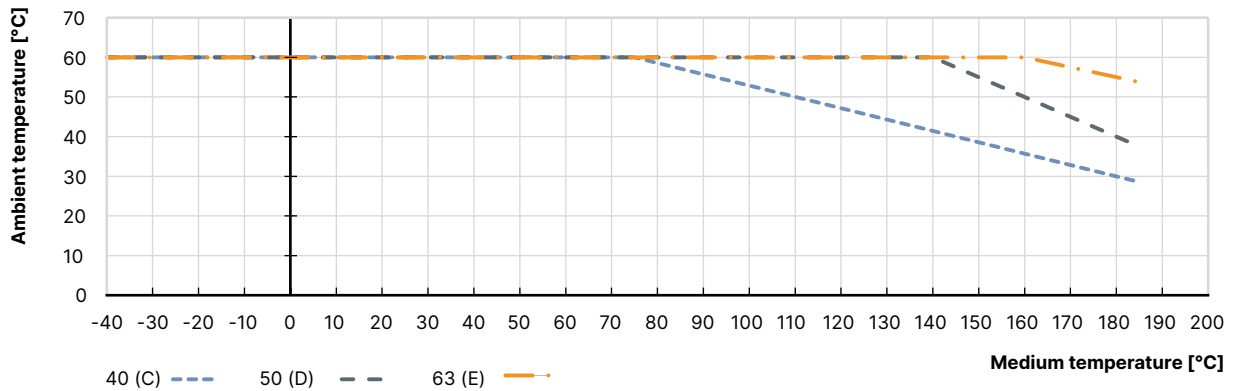


Operating limits for ambient and medium temperature

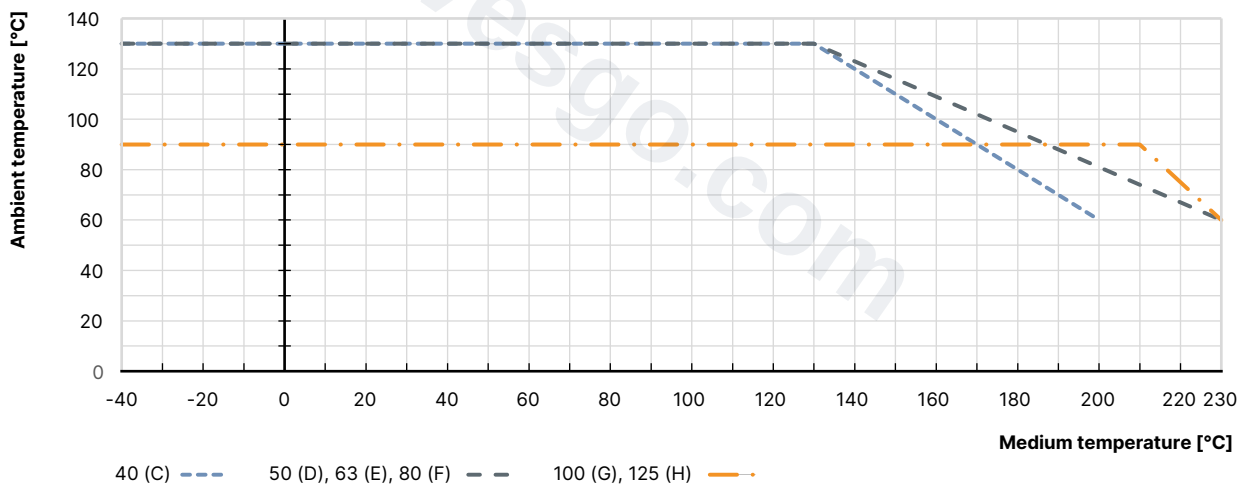
Note:

For size 40, 50 and 63 PA actuators, the combination of maximum medium temperature and maximum ambient temperature is shown in the following diagram:

Classic PA actuator



Classic PPS actuator



Operating limits for optional variants

High-temperature variant

Thanks to an adaption of the packing gland and seat seal in PEEK, this variant is suitable for applications with steam, neutral gases and other heat transfer mediums up to + 230 °C.

Water variant

For applications with water up to + 200 °C, a special configuration of the spindle seal increases service life significantly. It is recommended for water temperatures starting at + 85 °C.

Vacuum variant

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

Low-temperature variant

Suitable for minimum medium temperatures down to - 40 °C

8. Product accessories

Electric position feedback indicator

Type 8697 ▶ Actuator size Ø 40 (C)...125 (H)



The position feedback Type 8697 is designed for integrated mounting on CLASSIC series 20XX process valves, suiting the requirements of hygienic process environments. Mechanical or inductive limit switches register the position of the valve.

Features

- Compact design
- LED position indicator
- Mechanical or inductive limit switches for end position registering
- Easy-to-clean clean chemically resistant housing featuring IP65/IP67, 4X Rating
- Optionally intrinsically safe variant according to IECEx

Customer benefits

- Easy and quick installation
- High level of signal reliability thanks to self-adjusting limit switches
- Minimised space requirement in the plant piping for more flexibility in plant design

Adaptation for proximity switch

Type 2XXX ▶



Various options for the use of inductive proximity switches are available for the CLASSIC series actuators:

- Nipple
- Support bracket, 1-fold
- Support bracket, 2-fold

Plunger valve 3/2-way direct acting

Type 7012 ▶ for Actuator size Ø 40 (C)...63 (E), Type 6014 ▶ for Actuator size Ø 50 (D)...125 (H)



For easy direct mounting to a pneumatic actuator, a banjo connection with banjo bolt is the ideal solution. An optional manual override allows fast commissioning and optimum maintenance.

In conjunction with a cable plug according to DIN EN 175301-803 Form A or B, the valves meet protection class IP65.

Features

- High reliability
- Resistant according to IP65

Customer benefits

Easy and quick installation

Stroke limiter

Type 2XXX ▶



Stroke limitations can be used to limit the minimum and maximum flow rate of the valves.

Different variants are available:

- Maximum stroke limitation
- Maximum and minimum stroke limitation with optical position indicator

9. Networking and combination with other Bürkert products

The **globe valve Type 2012** can be combined with the **feedback positioner Type 8697** to form the **valve system on/off CLASSIC Type 8801-GA**.

Note:

- For the configuration of further valve systems use the **Product Enquiry Form** (see **"10.3. Bürkert Product Enquiry Form"** on page 23).
- You order two components and receive a completely assembled and tested valve.



10. Ordering information

10.1. Bürkert eShop



Bürkert eShop – Easy ordering and quick 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.

[Order online now](#)

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. Bürkert Product Enquiry Form

Note:

Please see our Product Enquiry Form for a full explanation of our specification key.

Bürkert Product Enquiry Form – Your enquiry quickly and compactly

Would you like to make a specific product enquiry based on your technical requirements? Use our Product Enquiry Form for this purpose. There you will find all the relevant information for your Bürkert contact. This will enable us to provide you with the best possible advice.

[Fill out the form now](#)

10.4. Ordering chart flange connection

Valves with flow direction below seat

Control function	Nominal diameter (port connection)	Actuator size Ø	K _v value water	Pilot pressure min.	Operating pressure max.	Article no.	
	DN	[mm]	[m³/h]	[bar(g)]	[bar(g)]	PA actuator	PPS actuator
DIN EN 1092 - 1						Stainless steel body	
A (CF A) see control functions ¹⁾	10	40 (C)	4.7	4.0	15	343814 ₺	344096 ₺
		50 (D)	4.7	4.1	16	343818 ₺	344095 ₺
	15	40 (C)	4.7	4.0	15	343823 ₺	o. r.
		50 (D)	4.7	4.1	16	343829 ₺	343912 ₺
	20	40 (C)	8.1	4.0	6.5	344116 ₺	o. r.
		50 (D)	8.1	4.1	11	343835 ₺	o. r.
		63 (E)	8.1	4.5	20	344117 ₺	344119 ₺
	25	63 (E)	13.0	4.5	11	342307 ₺	343965 ₺
		80 (F)	13.0	5.0	25	343851 ₺	344132 ₺
	32	63 (E)	20.0	4.5	6	343855 ₺	o. r.
		80 (F)	20.0	5.0	14	343859 ₺	344137 ₺
	40	80 (F)	31.0	5.0	9	343864 ₺	o. r.
		125 (H)	31.0	3.2	25	343869 ₺	344163 ₺
	50	100 (G)	45.0	4.4	7.2	346199 ₺	359741 ₺
		125 (H)	45.0	3.2	10	344071 ₺	344178 ₺
	65	125 (H)	73.0	5.7	12	344183 ₺	344185 ₺
		175 (K)	73.0	4.5	16 (15 ^{3.)})	344184 ₺	o. r.
	80	125 (H)	110.0	5.7	7.5	343951 ₺	344190 ₺
		175 (K)	110.0	4.5	10	344188 ₺	o. r.
		225 (L)	110.0	3.3	16 (12.5 ^{3.)})	344189 ₺	o. r.
	100	125 (H)	165.0	5.7	5	344195 ₺	344197 ₺
		175 (K)	155.0	4.5	7.0	344193 ₺	o. r.
		225 (L)	155.0	4.8	16 (10 ^{3.)})	344194 ₺	o. r.

o. r. = on request

1.) Further information can be found in chapter "3. Control functions" on page 6.

2.) Further information can be found in chapter "Pilot pressure diagrams with flow direction below seat (control function B)" on page 16.

3.) According to pressure equipment directive 2014/68/EU for compressible fluids of group 1 (dangerous gases and vapours according to article 4, paragraph (1), c), i), first indent)

Further variants on request

	Approval Food processing, drinking water, oxygen, fuel gases, explosion protection		Pressure Other variants for operating pressures up to 25 bar(g) Vacuum variant down to - 0.9 bar(g)
	Material Seal: NBR, FKM, EPDM		Temperature High temperature variant up to + 230 °C Hot water variant up to + 200 °C Low temperature variant down to - 40 °C
	Process connection Clamp connection, threaded connection, welded connection		

Valves with flow direction above seat

Note:

There is a risk of water hammer!

Control function	Nominal diameter (port connection)	Actuator size Ø	K _v value water	Pilot pressure min.	Operating pressure max.	Article no.	
	DN	[mm]	[m³/h]	[bar(g)]	[bar(g)]	PA actuator	PPS actuator
DIN EN 1092 - 1						Stainless steel body	
A (CF A) see control functions ¹⁾	10	40 (C)	4.7	See footnote ²⁾	16	344092 ㉔	o. r.
		50 (D)	4.7		16	343899 ㉔	343911 ㉔
	15	40 (C)	4.7		16	344112 ㉔	o. r.
		50 (D)	4.7		16	343900 ㉔	342699 ㉔
	20	40 (C)	8.1		16	343902 ㉔	o. r.
		50 (D)	8.1		16	343903 ㉔	343913 ㉔
	25	50 (D)	12.0		16	343905 ㉔	343914 ㉔
		63 (E)	20.0		16	344138 ㉔	343916 ㉔
	40	80 (F)	31.0		16	342648 ㉔	344165 ㉔
	50	80 (F)	45.0		16	341405 ㉔	343917 ㉔
	65	125 (H)	73.0		10	343941 ㉔	o. r.
	80	125 (H)	110.0		10	343943 ㉔	o. r.
	100	125 (H)	165.0		6	342703 ㉔	o. r.

o. r. = on request

1.) Further information can be found in chapter "3. Control functions" on page 6.

2.) Further information can be found in chapter "Pilot pressure diagram for flow direction above seat (control function A)" on page 18.

Further variants on request

	Approval Food processing, drinking water, oxygen, fuel gases, explosion protection		Pressure Other variants for operating pressures up to 25 bar(g) Vacuum variant down to -0.9 bar(g)
	Material Seal: NBR, FKM, EPDM		Temperature High temperature variant up to + 230 °C Hot water variant up to + 200 °C Low temperature variant down to - 40 °C
	Process connection Clamp connection, threaded connection, welded connection		

10.5. Ordering chart thread connection

Valves with flow direction below seat

Note:

Other variants are available on request.

Control function	Nominal diameter (port connection)	Threaded connection	Actuator size Ø	K _v value water	Pilot pressure min.	Operating pressure max.	Article no.	
	DN		[mm]	[m³/h]	[bar(g)]	[bar(g)]	PA actuator	PPS actuator
DIN ISO 228-1							Stainless steel body	
A (CF A) see control functions ¹⁾	10	G ⅜	40 (C)	4.7	4.0	15	343815 ㉞	343883 ㉞
			50 (D)	4.7	4.1	16	343819 ㉞	344098 ㉞
	15	G ½	40 (C)	4.7	4.0	15	344100 ㉞	o. r.
			50 (D)	4.7	4.1	16	343901 ㉞	344102 ㉞
	20	G ¾	40 (C)	8.1	4.0	6.5	343833 ㉞	o. r.
			50 (D)	8.1	4.1	11	343836 ㉞	o. r.
			63 (E)	8.1	4.5	20	344121 ㉞	344122 ㉞
	25	G 1	63 (E)	13.0	4.5	11	343846 ㉞	o. r.
			80 (F)	13.0	5.0	25	343852 ㉞	344133 ㉞
	32	G 1¼	63 (E)	20.0	4.5	6	343856 ㉞	o. r.
			80 (F)	20.0	5.0	14	343860 ㉞	o. r.
	40	G 1½	80 (F)	31.0	5.0	9	344172 ㉞	o. r.
			125 (H)	31.0	3.2	16	343870 ㉞	343894 ㉞
	50	G 2	100 (G)	45.0	4.4	7.2	342873 ㉞	o. r.
			125 (H)	45.0	3.2	10	343880 ㉞	343896 ㉞
65	G 2½	125 (H)	65.0	5.7	12	343921 ㉞	344187 ㉞	
		175 (K)	65.0	4.5	16 (15 ²⁾)	344186 ㉞	o. r.	

o. r. = on request

1.) Further information can be found in chapter "3. Control functions" on page 6.

2.) According to pressure equipment directive 2014/68/EU for compressible fluids of group 1 (dangerous gases and vapours according to article 4, paragraph (1), c), i), first indent)

Further variants on request

 Approval Food processing, drinking water, oxygen, fuel gases, explosion protection	 Pressure Other variants for operating pressures up to 25 bar(g) Vacuum variant down to -0.9 bar(g)
	 Material Seal: NBR, FKM, EPDM
 Process connection Clamp connection, threaded connection, flange connection	 Temperature High temperature variant up to + 230 °C Hot water variant up to + 200 °C Low temperature variant down to - 40 °C

Valves with flow direction above seat

Note:

There is a risk of a pressure surge.

Control function	Nominal diameter (port connection)	Threaded connection	Actuator size Ø	K _v value water	Pilot pressure min.	Operating pressure max.	Article no.	
	DN		[mm]	[m³/h]	[bar(g)]	[bar(g)]	PA actuator	PPS actuator
DIN ISO 228-1							Stainless steel body	
A (CF A) see control functions ¹⁾	10	G ⅜	40 (C)	4.7	See footnote ²⁾	16	20020021 ㉔	o. r.
			50 (D)	4.7		16	20020075 ㉔	o. r.
	15	G ½	40 (C)	4.7		16	20020080 ㉔	o. r.
			50 (D)	4.7		16	341406 ㉔	o. r.
	20	G ¾	40 (C)	8.1		16	20020091 ㉔	o. r.
			50 (D)	8.1		16	374604 ㉔	o. r.
	25	G 1	50 (D)	12.0		16	343906 ㉔	343915 ㉔
	32	G ¼	63 (E)	20.0		16	346131 ㉔	o. r.
	40	G 1½	80 (F)	31.0		16	20020097 ㉔	o. r.
	50	G 2	80 (F)	45.0		16	343910 ㉔	o. r.
65	G 2½	125 (H)	65.0	10	20020103 ㉔	o. r.		

o. r. = on request

1.) Further information can be found in chapter "3. Control functions" on page 6.

2.) Further information can be found in chapter "Pilot pressure diagram for flow direction above seat (control function A)" on page 18.

Further variants on request

	Approval Food processing, drinking water, oxygen, fuel gases, explosion protection		Pressure Other variants for operating pressures up to 25 bar(g) Vacuum variant down to -0.9 bar(g)
	Material Seal: NBR, FKM, EPDM		Temperature High temperature variant up to + 230 °C Hot water variant up to + 200 °C Low temperature variant down to - 40 °C
	Process connection Clamp connection, threaded connection, flange connection		

10.6. Ordering chart welded connection

Valves with flow direction below seat

Control function	Nominal diameter (port connection)	Welded connection external Ø x WS	Actuator size Ø	K _v value water	Pilot pressure min.	Operating pressure max.	Article no.	
	DN	[mm]	[mm]	[m³/h]	[bar(g)]	[bar(g)]	PA actuator	PPS actuator
DIN EN ISO 1127 / ISO 4200							Stainless steel body	
A (CF A) see control functions ¹⁾	10	17.2 × 1.6	40 (C)	4.7	4.0	15	343816 ㉔	o. r.
			50 (D)	4.7	4.1	16	343820 ㉔	343884 ㉔
	15	21.3 × 1.6	40 (C)	4.7	4.0	15	343824 ㉔	o. r.
			50 (D)	4.7	4.1	16	343830 ㉔	343886 ㉔
	20	26.9 × 1.6	40 (C)	8.1	4.0	6.5	343834 ㉔	o. r.
			50 (D)	8.1	4.1	11	343837 ㉔	o. r.
			63 (E)	8.1	4.5	20	343843 ㉔	343888 ㉔
	25	33.7 × 2.0	63 (E)	13.0	4.5	11	343847 ㉔	o. r.
			80 (F)	13.0	5.0	25	343853 ㉔	343890 ㉔
	32	42.4 × 2.0	63 (E)	20.0	4.5	6	343857 ㉔	o. r.
			80 (F)	20.0	5.0	14	343861 ㉔	343893 ㉔
	40	48.3 × 2.0	80 (F)	31.0	5.0	9	343865 ㉔	o. r.
			125 (H)	31.0	3.2	16	343871 ㉔	343895 ㉔
	50	60.3 × 2.0	100 (G)	45.0	4.4	7.2	343875 ㉔	o. r.
			125 (H)	45.0	3.2	10	343881 ㉔	343897 ㉔
	65	76.1 × 2.3	125 (H)	73.0	5.7	12	343922 ㉔	343956 ㉔
			175 (K)	73.0	4.5	16 (15 ²⁾)	343827 ㉔	o. r.
	80	88.9 × 2.3	125 (H)	110.0	5.7	7.5	343952 ㉔	343959 ㉔
			175 (K)	110.0	4.5	10	343932 ㉔	o. r.
			225 (L)	110.0	4.8	25 (12.5 ²⁾)	343934 ㉔	o. r.
	100	114.3 × 2.6	125 (H)	165.0	5.7	5	343954 ㉔	343961 ㉔
175 (K)			155.0	4.5	7.0	343937 ㉔	o. r.	
225 (L)			155.0	4.8	16 (10 ²⁾)	343939 ㉔	o. r.	

Control function	Nominal diameter (port connection)	Welded connection external Ø x WS	Actuator size Ø	K _v value water	Pilot pressure min.	Operating pressure max.	Article no.	
	DN	[mm]	[mm]	[m³/h]	[bar(g)]	[bar(g)]	PA actuator	PPS actuator
DIN 11850 - 2							Stainless steel body	
A (CF A) see control functions ¹⁾	10	13 × 1.5	40 (C)	4.7	4.0	15	343817	o. r.
			50 (D)	4.7	4.1	16	343821	343885
	15	19 × 1.5	40 (C)	4.7	4.0	15	343825	o. r.
			50 (D)	4.7	4.1	16	343831	343887
	20	23 × 1.5	40 (C)	8.1	4.0	6.5	o. r.	o. r.
			50 (D)	8.1	4.1	11	343838	o. r.
			63 (E)	8.1	4.5	20	343844	343889
	25	29 × 1.5	63 (E)	13.0	4.5	11	o. r.	o. r.
			80 (F)	13.0	5.0	25	343854	343891
	32	35 × 1.5	63 (E)	20.0	4.5	6	343858	o. r.
			80 (F)	20.0	5.0	14	343862	o. r.
	40	41 × 1.5	80 (F)	31.0	5.0	9	343866	o. r.
			125 (H)	31.0	3.2	16	343872	344087
	50	53 × 1.5	100 (G)	45.0	4.4	7.2	343876	o. r.
			125 (H)	45.0	3.2	10	343882	343898
	65	70.0 × 2.0	125 (H)	73.0	5.7	12	343923	343958
			175 (K)	73.0	4.5	16 (15 ^{2.)})	343928	o. r.
	80	85.0 × 2.0	125 (H)	110.0	5.7	7.5	343953	343960
			175 (K)	110.0	4.5	10	343933	o. r.
			225 (L)	110.0	4.8	25 (12.5 ^{2.)})	343936	o. r.
			125 (H)	165.0	5.7	5	343955	343962
	100	104.0 × 2.0	175 (K)	155.0	4.5	7.0	343938	o. r.
			225 (L)	155.0	4.8	16 (10 ^{2.)})	343940	o. r.

o. r. = on request

1.) Further information can be found in chapter "3. Control functions" on page 6.

2.) According to pressure equipment directive 2014/68/EU for compressible fluids of group 1 (dangerous gases and vapours according to article 4, paragraph (1), c), i), first indent)

Further variants on request

**Approval**

Food processing, drinking water, oxygen, fuel gases, explosion protection

**Material**

Seal: NBR, FKM, EPDM

**Process connection**

Clamp connection, threaded connection, flange connection

**Pressure**Other variants for operating pressures up to 25 bar(g)
Vacuum variant down to -0.9 bar(g)**Temperature**High temperature variant up to + 230 °C
Hot water variant up to + 200 °C
Low temperature variant down to - 40 °C

Valves with flow direction above seat

Note:

Valves with flow direction above the seat are only conditionally suitable for liquid mediums. There is a risk of a pressure surge.

Control function	Nominal diameter (port connection)	Welded connection external Ø x WS	Actuator size Ø	K _v value water	Pilot pressure min.	Operating pressure max.	Article no.	
	DN	[mm]	[mm]	[m³/h]	[bar(g)]	[bar(g)]	PA actuator	PPS actuator
DIN EN ISO 1127 / ISO 4200							Stainless steel body	
A (CF A) see control functions ¹⁾	10	17.2 × 1.6	40 (C)	4.7	See footnote ²⁾	16	342653 𐀀	o. r.
			50 (D)	4.7		16	20020146 𐀀	o. r.
	15	21.3 × 1.6	40 (C)	4.7		16	20020156 𐀀	o. r.
			50 (D)	4.7		16	20020161 𐀀	o. r.
	20	26.9 × 1.6	40 (C)	8.1		16	20020168 𐀀	o. r.
			50 (D)	8.1		16	343904 𐀀	o. r.
	25	33.7 × 2.0	50 (D)	12.0		16	343907 𐀀	o. r.
	32	42.4 × 2.0	63 (E)	20.0		16	20020175 𐀀	o. r.
	40	48.3 × 2.0	80 (F)	31.0		16	346297 𐀀	o. r.
	50	60.3 × 2.0	80 (F)	45.0		16	20020179 𐀀	o. r.
	65	76.1 × 2.3	125 (H)	73.0		10	20020186 𐀀	o. r.
	80	88.9 × 2.3	125 (H)	110.0		10	343945 𐀀	o. r.
100	114.3 × 2.6	125 (H)	165.0	6	343948 𐀀	o. r.		
DIN 11850 - 2								
A (CF A) see control functions ¹⁾	10	13 × 1.5	40 (C)	4.7	See footnote ²⁾	16	20020191 𐀀	o. r.
			50 (D)	4.7		16	20020198 𐀀	o. r.
	15	19 × 1.5	40 (C)	4.7		16	20020202 𐀀	o. r.
			50 (D)	4.7		16	346118 𐀀	o. r.
	20	23 × 1.5	40 (C)	8.1		16	20020211 𐀀	o. r.
			50 (D)	8.1		16	20020216 𐀀	o. r.
	25	29 × 1.5	50 (D)	12.0		16	20011741 𐀀	o. r.
	32	35 × 1.5	63 (E)	20.0		16	20020217 𐀀	o. r.
	40	41 × 1.5	80 (F)	31.0		16	20020218 𐀀	o. r.
	50	53 × 1.5	80 (F)	45.0		16	379466 𐀀	o. r.
	65	70.0 × 2.0	125 (H)	73.0		10	343942 𐀀	o. r.
	80	85.0 × 2.0	125 (H)	110.0		10	343946 𐀀	o. r.
100	104.0 × 2.0	125 (H)	165.0	6	343949 𐀀	o. r.		

o. r. = on request

1.) Further information can be found in chapter "3. Control functions" on page 6.

2.) Further information can be found in chapter "Pilot pressure diagram for flow direction above seat (control function A)" on page 18.

Further variants on request

 Approval Food processing, drinking water, oxygen, fuel gases, explosion protection	 Pressure Other variants for operating pressures up to 25 bar(g) Vacuum variant down to -0.9 bar(g)
 Material Seal: NBR, FKM, EPDM	 Temperature High temperature variant up to + 230 °C Hot water variant up to + 200 °C Low temperature variant down to - 40 °C
 Process connection Clamp connection, threaded connection, flange connection	

10.7. Ordering chart accessories

Accessories for 3/2-way pilot valve with banjo bolts

Note:

- Seal material FKM / NBR
- For complete program see [data sheet Type 7012](#) ▶, [Type 6014](#) ▶, [Type 2507](#) ▶, [Type 2518](#) ▶

Valves for actuator size Ø	Type	Pilot air port	Working port (banjo bolt)	Q _{Nn} value air	Pres- sure range	Electrical coil connec- tion Industry standard	Power con- sump- tion	Article no.			
								Voltage/Frequency		Cable plug	
								024 V/DC	230 V/50	12...24 AC/DC with LED	0...250 AC/DC
[mm]				[l/min]	[bar(g)]		[W]	[V]	[V]	[V]	[V]
40 (C)	7012	Thread G ¼	Thread G ⅝	35	0...10	Type 2507 Form B	5.5	20077598 	20077609 	423849 	423845 
		Push-in con- nector Ø 6 mm						20087641 	20096098 		
50 (D)... 63 (E)		Thread G ¼	Thread G ¼					20077514 	20077519 		
		Push-in con- nector Ø 6 mm						20087628	20092512		
50 (D)... 125 (H)	6014	Thread G ¼	Thread G ¼	120	0...7	Type 2518 Form A	8	334870	389550	314812	314802