



Sanitary 2-way bellows control valve

- Media separation by PTFE bellows
- Hygienic and compact design
- Ideal for demanding control task with smaller flow rates
- All standard port connections up to DN 25 / NPS 1

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

Can be combined with

	Type 8880 Modular vessel pressure control system	►
	Type 2080 Pneumatically operated 2/2-way valve with bellows	►
	Type 2103 2/2-way diaphragm valve with pneumatic stainless steel actuator (Type ELEMENT) for decentralised automation	►
	Type 8098 FLOWave SAW flowmeter	►
	Type 8036 Inline flowmeter with paddle wheel, ELEMENT design	►

Type description

The bellows control valve Type 2380 is a high-performance, pneumatically operated process valve featuring a single-acting actuator with top mounted positioner. A PTFE bellows guarantees complete separation between the medium and actuator, enhancing durability and reliability. Engineered for both hygienic and aggressive conditions, this valve boasts excellent cleanability. When paired with the proven Type 869x positioners and the integrated control cone with linear characteristics it masters demanding control tasks. The space-saving actuators, designed with low internal volume, ensure impressively response times. Alternatively, this valve principle can be used in customised block solutions such as pressure control systems Type 8880.

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1. General technical data

Product properties	
Dimensions	Further information can be found in chapter "6. Dimensions" on page 7.
Material	
Type of construction	Hygienic bellows globe control valve with process controller or positioner
Regulator design	Positioner or process controller depending on the positioner Type 869X used
Nominal diameter (port connection)	DN 8...25, NPS ¼...1
Incoming flow	Depending on the product variant
Safety position in case of power failure	Closed (control function A), open (control function B)
Welded and clamp connections	Internally electrically polished: Ra ≤ 0.38 µm (ASME BPE SF4/DIN HE4)
Performance data	
Operating pressure	- 0.99 bar(g)...6 bar(g)
Control pressure	5.5 bar(g)...7 bar(g)
Seat leakage (DIN EN 60534 - 4)	Class VI
K _{vs} values	0.05 m³/h...6.2 m³/h
Operating characteristic	Linear
Theoretical rangeability	20:1
Electrical data	
Depending on the positioner Type 869X used	
Medium data	
Process medium	Gases and fluids (ultra-pure, sterile, dirty, aggressive, abrasive or also highly viscous), steam (for sterilisation) (see resistance chart ►)
Medium temperature	0 °C...+ 80 °C Steam sterilisation + 134 °C für 60 min at ambient temperature max. + 40 °C, Steam sterilisation + 150 °C für 30 min at ambient temperature max. + 35 °C
Control medium	Air or neutral gases (DIN ISO 8573 - 1: dust quality class 7, water quality class 3, oil quality class X)
Process/Port connection & communication	
Port connection	
Welded connection	ASME BPE / DIN 11866 series C DIN 11850 - 2 / DIN 11866 series A DIN EN ISO 1127 / ISO 4200 / DIN 11866 series B
Clamp connection	ASME BPE DIN 32676 series A (pipe DIN 11850 2) DIN 32676 series B (pipe ISO 4200)
Electrical connections	Depending on the Type 869X used
Pilot air ports	Thread G ¼
Approvals and conformities	
Further information can be found in chapter "2. Approvals and conformities" on page 4.	
Environment and installation	
Installation position	See "8. Product installation" on page 11
Ambient temperature	- 10...+ 55 °C
Degree of protection	IP65/67 according to EN 60529

2. Approvals and conformities

2.1. 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 versions can be supplied with the below mentioned approvals or conformities.

2.2. 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

2.3. 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.

2.4. Explosion protection

Approval	Description
 	Device can be assembled from Ex-approved individual devices. As a category 2 device, the valve actuator is suitable for zone 1/21 and zone 2/22 (optional). 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 18.0007 X Ex h IIC T4...T2 Gb Ex h IIIC T135 °C...T300 °C Db The positioners or process controllers type 869X used are suitable for zone 2/22 as category 3 devices (optional)

2.5. 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) in accordance with the manufacturer's declaration.
USP	United States Pharmacopeial Convention (USP) The bellows of advanced PTFE are tested according to USP Class VI.
	EC Regulation 1935/2004 of the European Parliament and of the Council (valid for the variable code PL01, PL02) All wetted materials comply with EC Regulation 1935/2004/EC in accordance with the manufacturer's declaration.

3. Product versions

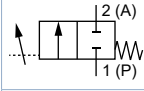
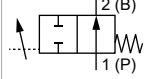
3.1. Bellows control valve compact actuator

Type 2380-LA	Product properties	
	Nominal diameter (port connection)	DN 8...20, NPS 1/4...3/4
	Actuator size	A (Ø 28 mm)
	Recommended inflow	With closing direction (above seat)

3.2. Bellows control valve ELEMENT actuator

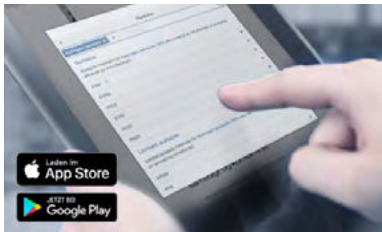
Type 2380-LB	Product properties	
	Nominal diameter (port connection)	DN 20...25, NPS 3/4...1
	Actuator size	70 mm (M)
	Recommended inflow	Against closing direction (under seat)

4. Control functions

Control function	Description
	Control function A (CF A) Pneumatically operated 2/2-way control valve Normally closed by spring force
	Control function B (CF B) Pneumatically operated 2/2-way control valve Normally opened by spring force

5. Materials

5.1. Bürkert resistApp

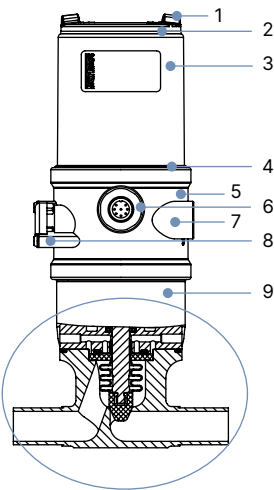


Bürkert resistApp – Chemical resistance chart

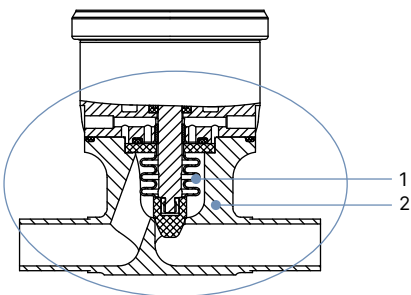
You want to ensure the reliability and durability of the materials in your individual application case? Verify your combination of media and materials on our website or in our resistApp.

[Start chemical resistance check](#)

5.2. Material specifications



No.	Element	Material
1	Cover	Polycarbonate
2	Seals	EPDM
3	Housing	Stainless steel
4	Seals	EPDM
5	Basic positioner housing	PPS
6	Push-in connector M12	Stainless steel
7	Threaded connection	Stainless steel
8	All screws in positioner	Stainless steel
9	Compact acuator ELEMENT actuator	Stainless steel PPS with stainless steel cover



No.	Element	Material
1	Bellows	Advanced PTFE
2	Valve body	Stainless steel 1.4435 BN2

Recommended flow direction
→ Compact actuator
← ELEMENT actuator

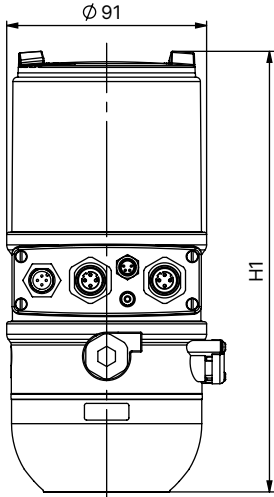
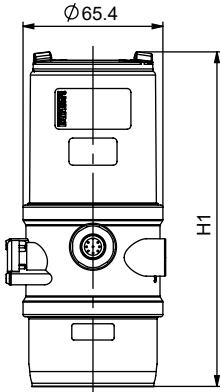
6. Dimensions

6.1. Combination of controller, actuator and valve body

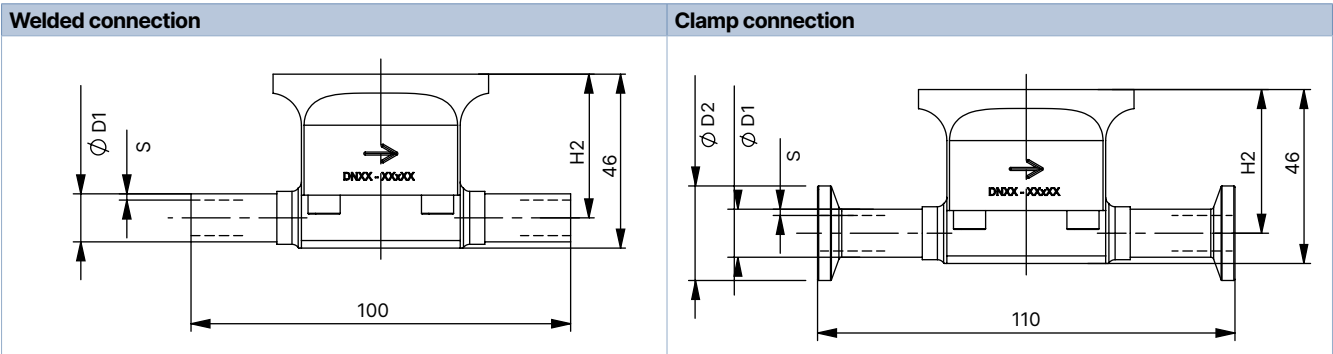
Note:

- For more information see the **Product Enquiry Form “11.3. Bürkert Product Enquiry Form” on page 15.**
- Dimensions in mm

Compact actuator with controller

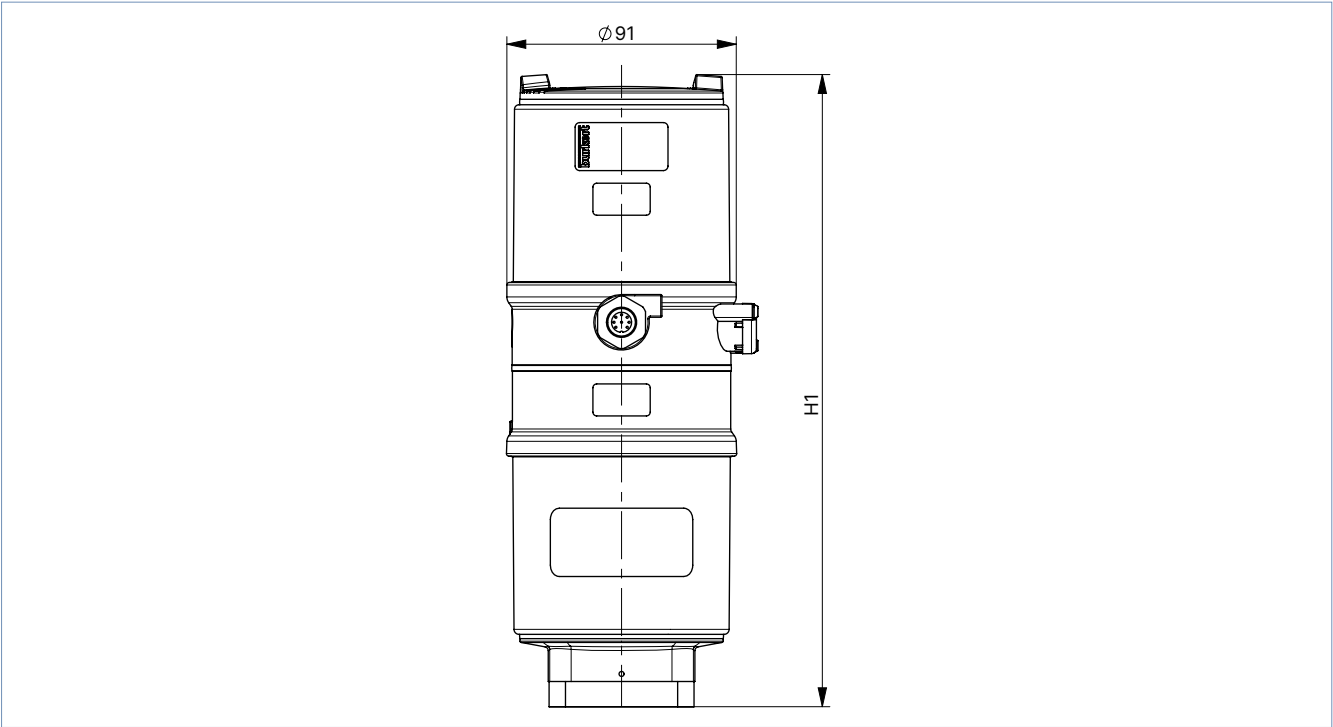
Typ 8692, 8693, 8694	Typ 8696
	
Positioner	H1
Type 8692	201
Type 8693	201
Type 8694	160
Type 8696	156.5

Housing



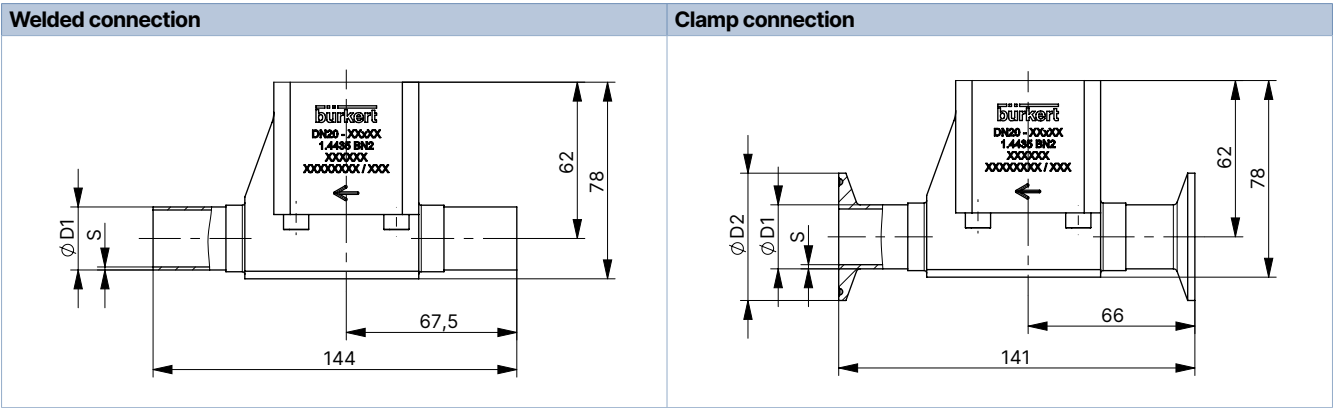
Welded connection				Clamp connection			
Nominal connection size (pipe)	Ø D1	s	A	Ø D1	s	Ø D2	A
ASME BPE / DIN 11866 series C				ASME BPE			
NPS 3⁄8	9.53	0.89	38.0	9.53	0.89	25.0	38.0
NPS 1⁄2	12.7	1.65	38.0	12.7	1.65	25.0	38.0
NPS 3⁄4	19.05	1.65	36.0	19.05	1.65	25.0	36.0
DIN 11850 - 2 / DIN 11866 series A				DIN 32676 series A (pipe DIN 11850 - 2)			
DN 10	13	1.5	38.0	13	1.5	25.0	38.0
DN 15	19	1.5	36.0	19	1.5	34.0	36.0
DIN EN ISO 1127 / ISO 4200 / DIN 11866 series B				DIN EN ISO 1127 / ISO 4200 / DIN 11866 series B			
DN 8	13.5	1.6	38.0	13.5	1.6	25.0	38.0
DN 10	17.2	1.6	36.0	17.2	1.6	25.0	36.0

ELEMENT actuator with controller



Positioner	H1
Type 8692	292
Type 8693	292
Type 8694	251

Housing



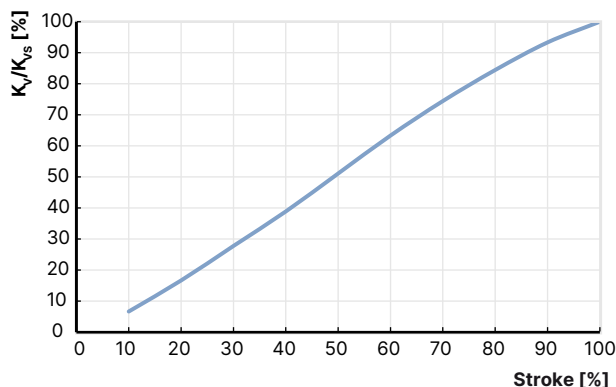
Welded connection			Clamp connection		
Nominal diameter (pipe)	Ø D1	s	Ø D1	s	Ø D2
ASME BPE / DIN 11866 series C			ASME BPE		
NPS 1	25.4	1.65	25.4	1.65	50.5
DIN 11850 - 2 / DIN 11866 series A			DIN 32676 Reihe series A (pipe DIN 11850 - 2)		
DN 25	29	1.5	29	1.5	50.5
DIN EN ISO 1127 / ISO 4200 / DIN 11866 series B			DIN EN ISO 1127 / ISO 4200 / DIN 11866 series B		
DN 20	26.9	1.6	26.9	1.6	50.5

7. Performance specifications

7.1. Fluidic data

Flow characteristics

Linear, theoretical setting ratio (K_{vs}/K_v) 20:1

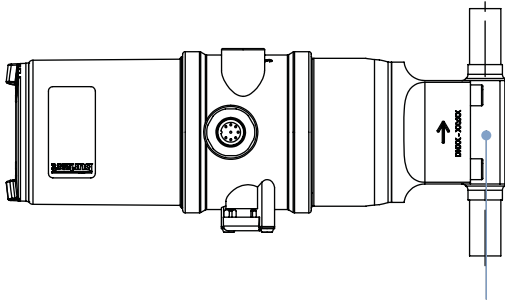
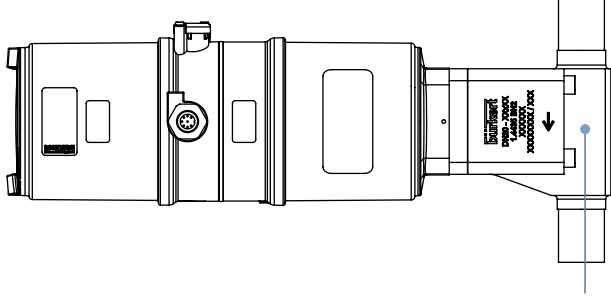


Flow characteristic and K_v value (typical values)

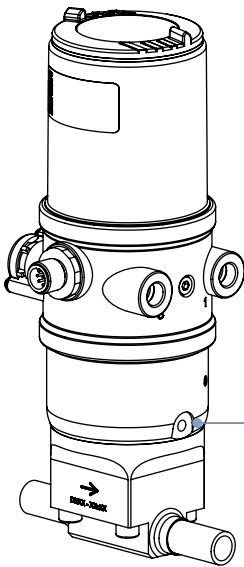
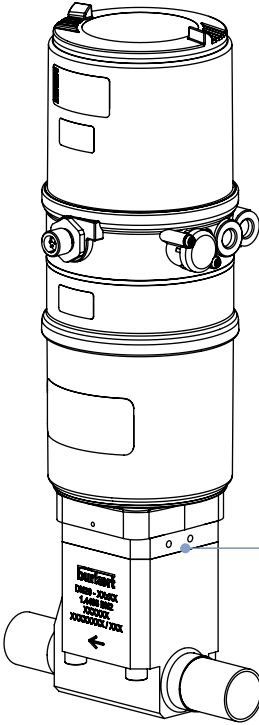
Nominal diameter (pipe)		Actuator size Ø	Seat size	K _v value water at stroke										K _{vs} value			
DN	NPS	mm		5 %	10 %	20 %	30 %	40 %	50 %	60 %	70 %	80 %	90 %	100 %			
[m³/h]																	
ASME BPE / DIN 11866 series C																	
10	⅜	28 (A)	1.5	–	0	0	0.001	0.002	0.007	0.012	0.018	0.028	0.040	0.05			
			3	–	0.010	0.025	0.050	0.075	0.10	0.13	0.15	0.18	0.20	0.22			
			4	–	0.020	0.050	0.090	0.14	0.20	0.25	0.30	0.35	0.40	0.44			
15	½	28 (A)	1.5	–	0	0	0.001	0.002	0.007	0.012	0.018	0.028	0.040	0.05			
			3	–	0.010	0.025	0.050	0.075	0.10	0.13	0.15	0.18	0.20	0.22			
			4	–	0.020	0.050	0.090	0.14	0.20	0.25	0.30	0.35	0.40	0.44			
			6	–	0.060	0.15	0.25	0.35	0.46	0.57	0.67	0.76	0.84	0.9			
			20	¾	28 (A)	8	–	0.10	0.30	0.50	0.65	0.80	0.95	1.1	1.2	1.3	1.4
						10	–	0.15	0.40	0.60	0.80	1.0	1.2	1.4	1.6	1.7	1.8
25	1	70 (M)	15	0.050	0.13	0.35	0.65	1.1	1.5	2.0	2.6	3.3	4.2	5.0			
			20	0.20	0.35	0.70	1.2	1.8	2.4	3.0	3.8	4.7	5.4	6.2			
DIN 11850 - 2 / DIN 11866 series A																	
10	⅜	28 (A)	1.5	–	0	0	0.001	0.002	0.007	0.012	0.018	0.028	0.040	0.05			
			3	–	0.010	0.025	0.050	0.075	0.10	0.13	0.15	0.18	0.20	0.22			
			4	–	0.020	0.050	0.090	0.14	0.20	0.25	0.30	0.35	0.40	0.44			
			6	–	0.060	0.15	0.25	0.35	0.46	0.57	0.67	0.76	0.84	0.9			
			15	½	28 (A)	8	–	0.10	0.30	0.50	0.65	0.80	0.95	1.1	1.2	1.3	1.4
						10	–	0.15	0.40	0.60	0.80	1.0	1.2	1.4	1.6	1.7	1.8
25	1	70 (M)	15	0.050	0.13	0.35	0.65	1.1	1.5	2.0	2.6	3.3	4.2	5.0			
			20	0.20	0.35	0.70	1.2	1.8	2.4	3.0	3.8	4.7	5.4	6.2			
DIN EN ISO 1127 / ISO 4200 / DIN 11866 series B																	
8	¼	28 (A)	6	–	0.060	0.15	0.25	0.35	0.46	0.57	0.67	0.76	0.84	0.9			
10	⅜	28 (A)	8	–	0.10	0.30	0.50	0.65	0.80	0.95	1.1	1.2	1.3	1.4			
			10	–	0.15	0.40	0.60	0.80	1.0	1.2	1.4	1.6	1.7	1.8			
20	¾	70 (M)	15	0.050	0.13	0.35	0.65	1.1	1.5	2.0	2.6	3.3	4.2	5.0			
			20	0.20	0.35	0.70	1.2	1.8	2.4	3.0	3.8	4.7	5.4	6.2			

8. Product installation

8.1. Installation position for self-draining

Compact actuator	ELEMENT actuator
 Arrow pointing upwards	 Arrow pointing downwards

8.2. Relief bore

Compact actuator	ELEMENT actuator
 2 x relief bore M5 (second bore on the other side)	 2 x relief bore

9. Product accessories

Process controller TopControl

Type 8693 ▶



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 positioner and process controller can be initialised automatically. Easy operation and selection of additional software functions as well as parameterisation are carried out via the large graphic display and a touch keypad. Device configuration and parameterisation can also be conveniently carried out by the Bürkert Communicator software via a PC interface.

Features

- 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 initialisation of the positioner and process controller using the TUNE function
- Safeguarding in the event of failure of the electrical or pneumatic auxiliary power
- PROFIBUS DPV1, EtherNet/IP, PROFINET, Modbus TCP, Bürkert system bus (bÜS)
- Compact and robust hygienic stainless steel design

Customer benefits

- Quick and easy commissioning
- Intuitive and simple operation via a graphic display with backlight and touch keypad
- 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 ▶



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 initialised automatically using the TUNE function. Easy operation and the selection of the extensive additional software functions as well as parameterisation are carried out via the large graphic display and the touch keypad. The device configuration and parameterisation can also be conveniently carried out using the Bürkert Communicator software via a PC interface.

Features

- Contactless position sensor
- Universal positioning system for single and double-acting actuators in the balanced state
- Highly dynamic positioning system without internal control air consumption
- Integrated diagnostic functions for valve monitoring
- Automatic initialisation of the positioner by using the TUNE function
- Safeguard in the event of failure of the electrical or pneumatic auxiliary power
- PROFIBUS DPV1, EtherNet/IP, PROFINET, Modbus TCP, Bürkert system bus (bÜS)
- Compact and robust hygienic stainless steel design

Customer benefits

- Quick and easy commissioning
- Intuitive and simple operation via graphic display with backlight and touch keypad
- 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

Positioner TopControl BASIC
Type 8694 ▶


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 parameterisation are performed via push buttons and DIP switches. The device configuration and parameterisation can also be conveniently carried out using the Bürkert Communicator software via a PC interface.

Features

- 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 Type 8694)
- Compact and robust hygienic stainless steel design

Type 8696 ▶
Only compact actuator

Customer benefits

- Simple and safe commissioning using the teach function
- Minimum space requirement in the plant pipework for more flexibility in plant design
- High system availability due to increased drive service life by means of spring chamber ventilation

10. Networking and combination with other Bürkert products

The bellow control valve Type 2380 is a combination of a bellow valve and controller Type 869x.

The following controllers are eligible:

- A digital electropneumatic **basic positioner Type 8696**
- A digital electropneumatic **basic positioner Type 8694**
- A digital electropneumatic **positioner Type 8692**
- A digital electropneumatic **positioner or process controller Type 8693**

Note:

- For the configuration of further valve systems please use the **Product Enquiry Form “11.3. Bürkert Product Enquiry Form” on page 15.**
- The controller is included in Type 2380 and does not need to be ordered separately.

Example:



11. Ordering information

11.1. 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](#)

11.2. Bürkert product filter



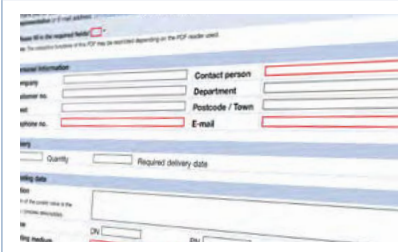
Bürkert product filter – Get quickly to the right product

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](#)

11.3. 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](#)

11.4. Ordering chart accessories

Spare part set

Description	Seat size	Article no.
Each set contains 1x bellows with matching O-rings.	1.5	759879
	3	796530
	4	796531
	6	796532
	8	796533
	10	796534
	15	326232
	20	326234