

# Digital electropneumatic Positioner for the integrated mounting on process control valves

8698

## Basic version for actuator sizes Ø 50 mm

- Digital smart positioner
- Automatic teach function
- Contact-free position sensor
- Compact stainless steel design
- Analogue feedback (option)
- Internal control air routing



Compact positioner for integrated mounting on pneumatically operated process valves. Remote setpoint adjustment via a 4-20 mA signal. Pilot valve system without intrinsic compressed air consumption during steady state. A contact-free continuous sensor measures the position of the valve spindle.

Simple installation through automatic tune function and setting through DIP-switch:

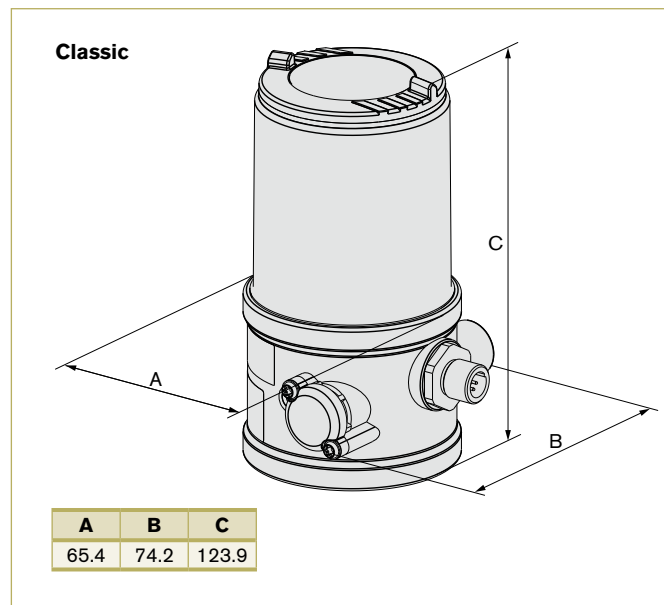
- Close tight function,
- Characteristic curves selection
- Reversal of effective direction
- Switching manual /automatic operation
- Binary input

Additional parametrisation options are possible through DTM devices. A software interface can be used for, amongst others, linearisation of the operation characteristics by using free programmable fixed points. The valve position indication is shown through LED components. As an option an analogue position feedback can be integrated.

### Technical data

<b>Material</b>	
Body	PPS, stainless steel
Cover	PC
Sealing	EPDM
<b>Power supply</b>	24V DC +/-10%
<b>Residual ripple</b>	10%
<b>Setpoint setting</b>	4-20 mA (default setting) / 0-20 mA
<b>Output resistance</b>	180 Ω
<b>Control medium</b>	neutral gases, air DIN ISO 8573-1
Dust concentration	Class 5 (< 40 µm particle size)
Particle density	Class 5 (< 10 mg/m <sup>3</sup> )
Pressure condensation point	Class 3 (< -20 °C)
Oil concentration	Class 5 (< 25 mg/ m <sup>3</sup> )
<b>Ambient temperature</b>	0 °C to +55 °C
<b>Pilot air ports</b>	Push-in connectors (external Ø 6 mm or 1/4") or Threaded ports G 1/8"
<b>Supply pressure</b>	0-7 bar <sup>1)</sup>
<b>Actuator system</b>	for single-acting actuators
Actuator series 23XX/2103	Actuator Ø 50 mm
<b>Position detection module</b>	Contact-free, wear-free
<b>Stroke range valve spindle</b>	3-32 mm
<b>Installation</b>	as required, preferably with actuator in upright position
<b>Type of protection</b>	IP65/67 acc. to EN 60529 (NEMA 4x in preparation)
<b>Power consumption</b>	< 3.5 W

### Dimensions [mm] (see datasheet for more details)

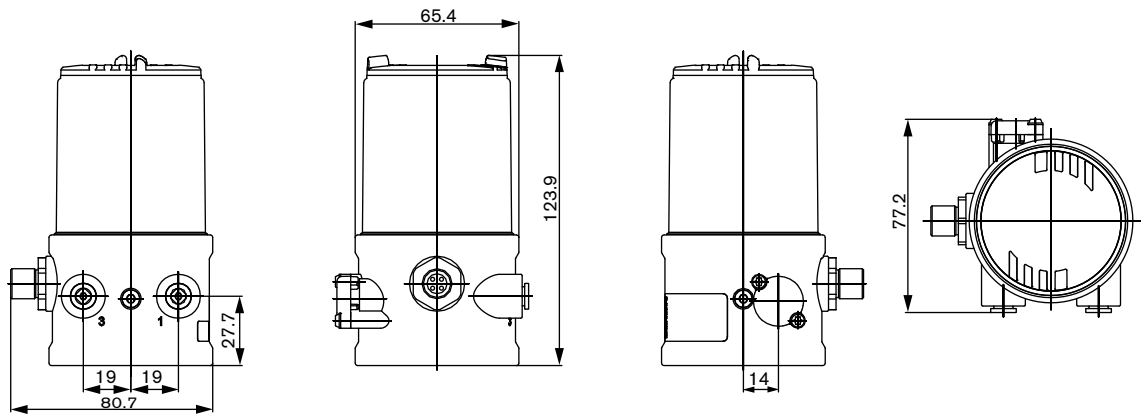


### Technical data (cont.)

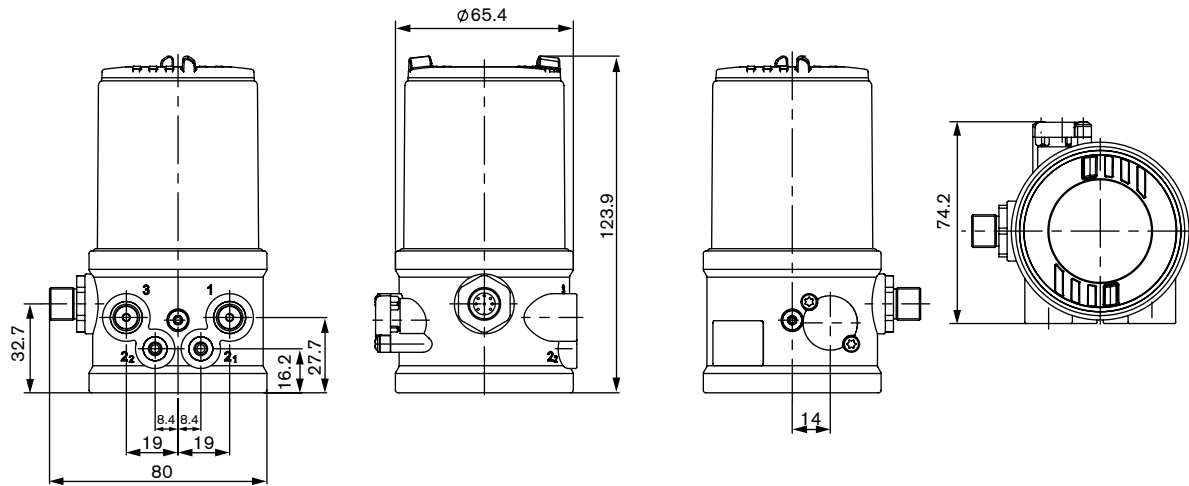
<b>Electrical connection</b>	
Multipole connection	M12 (8-pins), stainless steel
<b>Protection class</b>	3 acc. to VDE 0580
<b>Conformity</b>	CE acc. to EMV2004/108/EG
<b>Options</b>	Analogue position feedback, 4-20 mA

<sup>1)</sup> The supply pressure has to be 0.5-1 bar above the minimum required pilot pressure for the valve actuator.

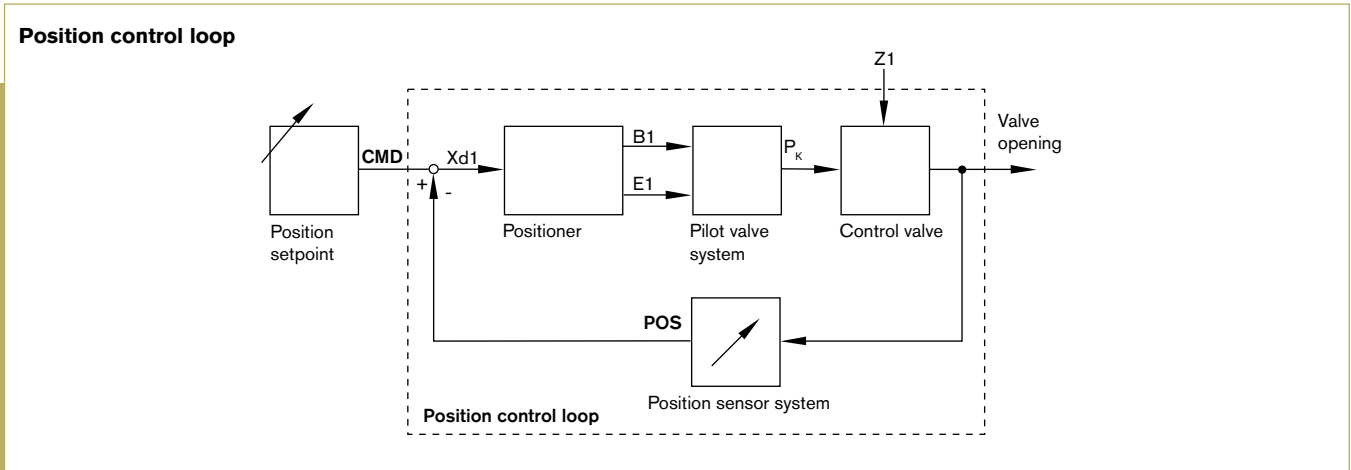
**Mounting on ELEMENT process control valves, Type 27xx (external control air routing)**



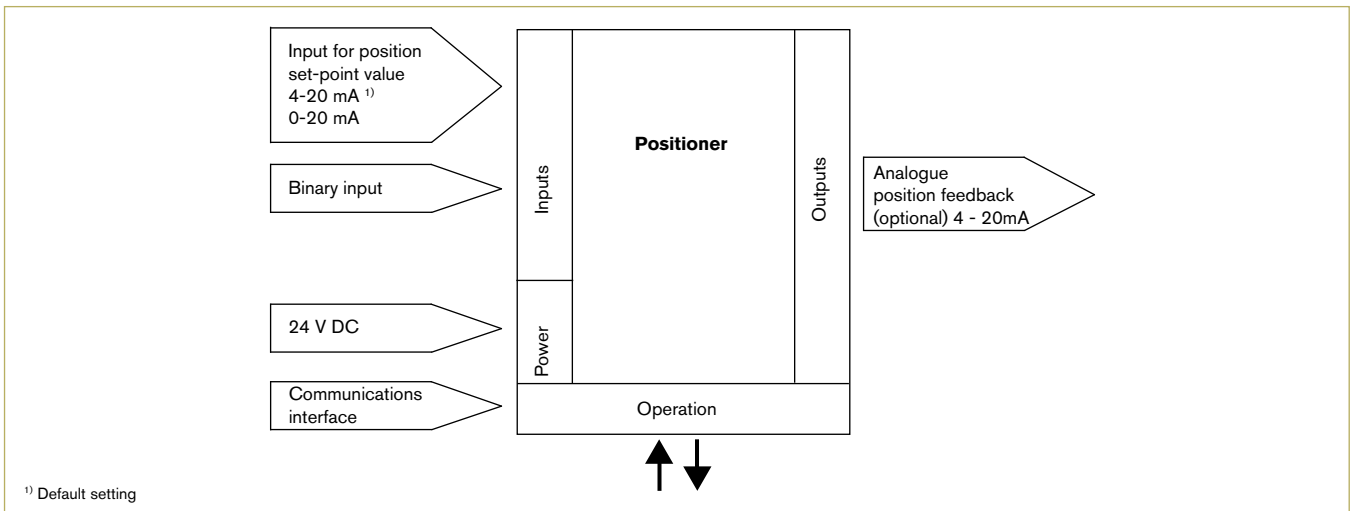
**Mounting on CLASSIC process control valves, Type 27xx (external control air routing)**



Signal flow diagram



Schematic diagram of the TopControl Basic



## Ordering chart

Control function pilot valve system	Electrical connection	Analogue feedback	Item no. Pilot air ports threaded G 1/8"	Item no. Pilot air ports Push-in (Ø 6 mm and 1/4")
<b>Actuator series ELEMENT Types 23xx actuator size Ø 50 mm (internal control air routing)</b>				
Single acting	M12 connector	No	227 448	227 450
		Yes	227 449	227 451
<b>Actuator 3rd party (external control air routing)</b>				
Single acting	M12 connector	No	232 652	-
		Yes	249 013	-

## Accessories

Specifications	Actuator size	Control function	Item no.
Adapter kit Types 23xx / 2103	Ø 50 mm	A (NO), B (NC)	679 918

Specifications	Item no.
M12 socket, 8-pins, 2 m assembled cable	919 061
M12 socket, 8-pins, 5 m assembled cable	919 267
Silencer with G 1/8"	780 779
Silencer with push-in connector 6 mm	902 662
USB interface for serial communication	227 093