

# Digital electropneumatic positioner



8792 Positioner SideControl

- Compact and robust design
- Easy startup using tune function
- No internal air consumption in steady condition
- Profibus DPV1 or DeviceNet (optional)
- Assembly acc. to IEC 534-6/VDI VDE 3845 or Remote



The robust and compact positioner is designed to standardisation acc. to IEC 534-6 or VDI/VDE 3845 for assembly with linear and rotary actuators. In addition, the remote version with the displacement position sensor can be combined with Bürkert process control valves. The digital electropneumatic positioner SideControl can be operated with the usual current and voltage standard signals and can also be equipped with the Fieldbus interface PROBUS DPV1. Additionally to the digital graphic display the valve opening is signalled by a mechanical indicator element.

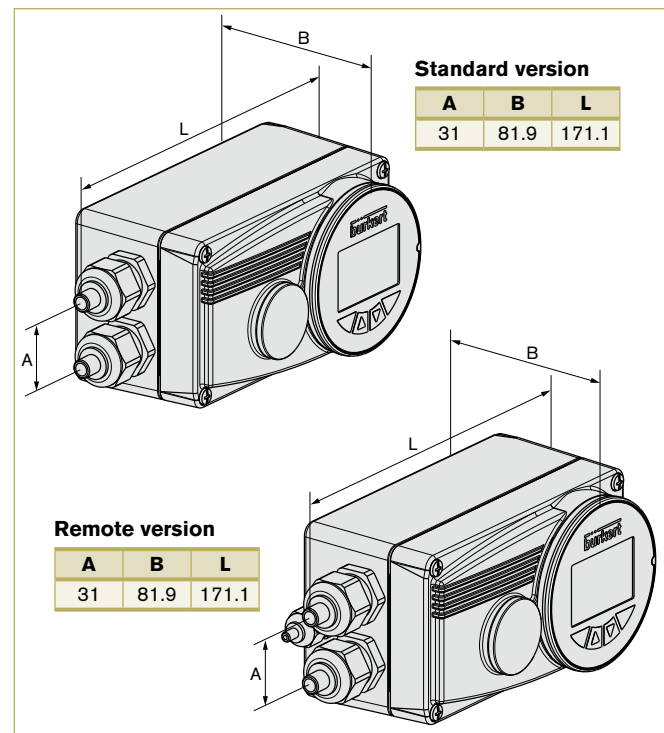
## Technical Data

<b>Material</b>	
Body	Aluminium plastic-coated
Seal	EPDM, NBR, FKM
<b>Operating voltages</b>	24 VDC +/- 10%
<b>Residual ripple</b>	max. 10%
<b>Setpoint setting</b>	0/4 to 20 mA and 0 to 5/10 V
<b>Input resistance</b>	0/4 to 20 mA: 180 Ω 0 to 5/10 mA: 19 k Ω
<b>Analogue feedback</b>	4-20 mA, 0-20 mA 0-10 V, 0-5 V
<b>Binary input</b>	galvanically isolated, 0-5 V = log "0", 10-30 V = log "1"
<b>Binary output</b>	2 Outputs (optional), galvanically separated
Current limit	100 mA, Output will be synchronised when overloaded
<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 to +60°C
<b>Pilot air ports</b>	Threaded ports G 1/4"
<b>Supply pressure</b>	1.4 to 7 bar <sup>1)</sup>
<b>Air supply filter</b>	Exchangeable (aperture size ~0.1 mm)
<b>Actuator system</b>	single and double-acting to 150 l <sub>N</sub> /min. 95 l <sub>N</sub> /min (with 1.4 bar <sup>2)</sup> ) for aeration and ventilation 150 l <sub>N</sub> /min (with 6 bar <sup>2)</sup> ) for aeration and ventilation (Q <sub>in</sub> = 100 l <sub>N</sub> /min (acc. to the definition with decrease in pressure from 7 to 6 bar absolute))
<b>Position detection module</b>	Potentiometer, max. angle 180°
<b>Stroke range valve spindle</b>	min. 30° on the rotary shaft, depending on lever
<b>Installation</b>	as required, display above or sideways

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

<sup>2)</sup> Pressure specifications: Overpressure with respect to atmospheric pressure

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



## Technical Data continued

<b>Type of protection</b>	IP 65 and IP 67 acc. to EN 60529 (NEMA 4x in preparation)
<b>Power consumption</b>	< 5 W
<b>Electrical connection</b>	Multipole connection M12, 8-pin/4-pin; M8, 4-pin Cable gland 2xM20x1.5 (cable Ø 10 mm) on screw terminals (0.14-1.5 mm <sup>2</sup> ) Remote version 1xM12x1.5 (cable Ø 3 to 6.5 mm)
<b>Bus communication</b>	Profibus DPV1 or DeviceNet
<b>Protection class</b>	3 acc. to VDE 0580
<b>Type of ignition protection</b>	II 3 G nA II B T4 II 3 D tD A22 T135°
<b>Conformity</b>	EMV2004/108/EG
<b>CSA approval information</b>	Product category code Class 3221 82-VALVES - Actuators - Certified to US standards Class 3221 02-VALVES - Actuators
<b>Considered standards</b>	CAN/CSA-C22 2 No. 139, UL 429

## Technical Data continued

### Technical data - Linear Remote Position Sensor (ELEMENT, CLASSIC)

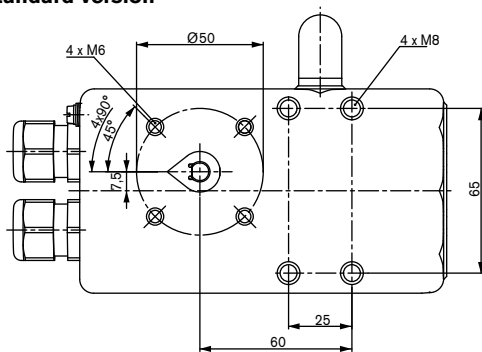
<b>Electrical connection</b>	1xM16x1.5 (cable Ø 5-10 mm) on terminal screws (0.14-1.5 mm <sup>2</sup> )
Connection cable length	10 m
<b>Operating voltage</b>	24V DC ± 10 %
<b>Power consumption</b>	< 0.3 W
<b>Sensor measurement range</b>	3 to 45 mm (Stroke range valve spindle)
<b>Actual position signal</b>	digital (RS485)
<b>Ambient temperature</b>	-25 °C to +80 °C
<b>Protection class</b>	3 acc. to VDE 0580
<b>Type of protection</b>	IP65 and IP67 acc. to EN 60529 (NEMA 4x in preparation)
<b>Type of Ignition protection</b>	II 3D Ex tc IIIC T135 °C Dc II 3G Ex nA IIC T4 Gc
<b>Conformity</b>	EMC directive 2004/108/EC
<b>Approvals</b>	cCSAus

### Technical data - rotative Remote Position Sensor (NAMUR)

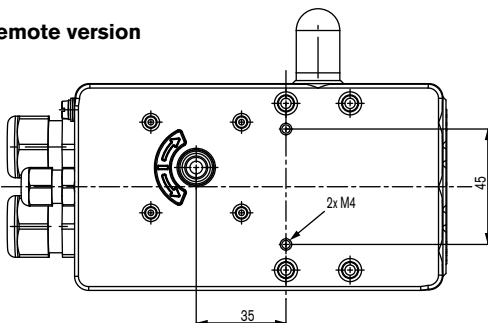
<b>Electrical connection</b>	2 m round cable (shielded)
<b>Operating voltage</b>	10 to 30V DC
<b>Residual ripple</b>	< 0.8W
<b>Sensor measurement range</b>	0° to 360°
<b>Actual position signal</b>	digital (RS485)
<b>Ambient temperature</b>	-25 °C to +80 °C
<b>Protection class</b>	3 acc. to VDE 0580
<b>Type of protection</b>	IP65 acc. to EN 60529
<b>Conformity</b>	EMC directive 2004/108/EC
<b>Approvals</b>	UL (cULus) Certificate no. E226909

## Dimensions [mm]

### Standard version



### Remote version

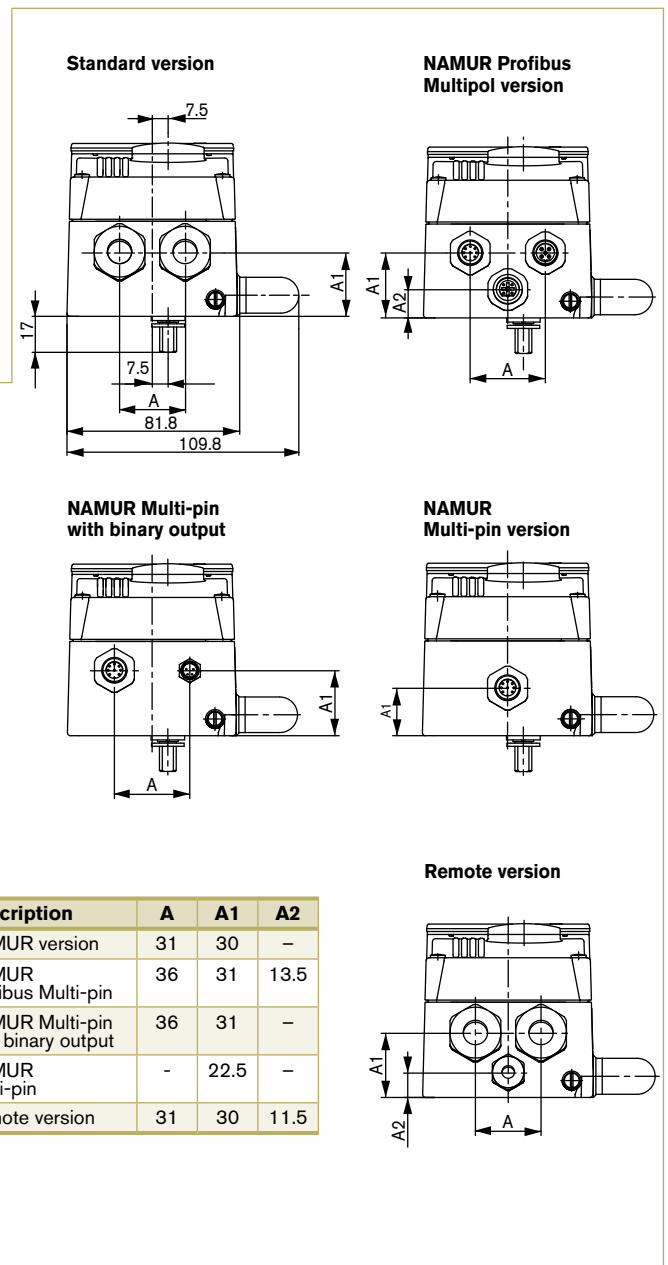


### Technical data - Position feedback with proximity switches (Accessory)

<b>Electrical connection</b>	M12, 4-pin
<b>Output function</b>	3-wire, normally open contact, PNP
<b>Operating voltage</b>	10 to 30 V DC
<b>Residual ripple</b>	≤ 10% U <sub>ss</sub>
<b>DC rated current</b>	≤ 100 mA
<b>Type of protection</b>	IP65 and IP67
<b>Protection class</b>	3 acc. to VDE 0580
<b>Conformity</b>	EMC directive 2004/108/EC
<b>Approvals</b>	cCSAus

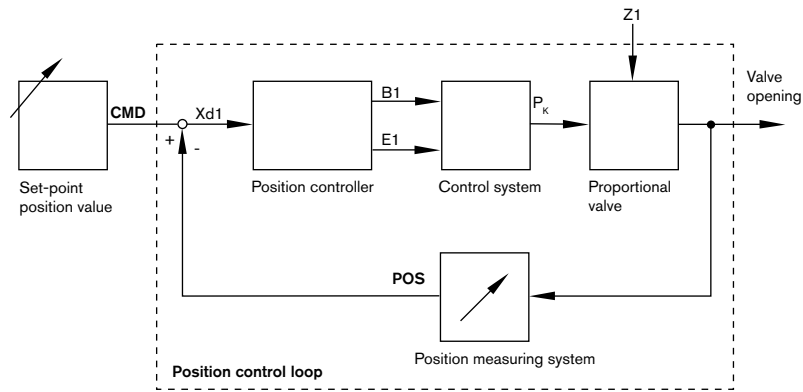
**Note:** The position feedback has two proximity switches which are independently adjustable via switch lugs.

Using a remote positioner the length of the control air pipes influences the dynamics and attainable accuracy of the position control loop. The length of the control air pipes therefore should be as short as possible.



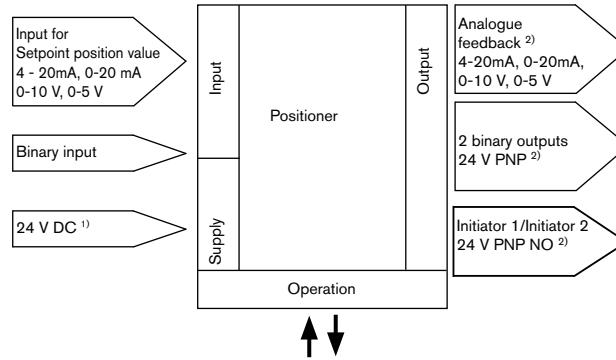
Signal flow plan

**Position control loop**

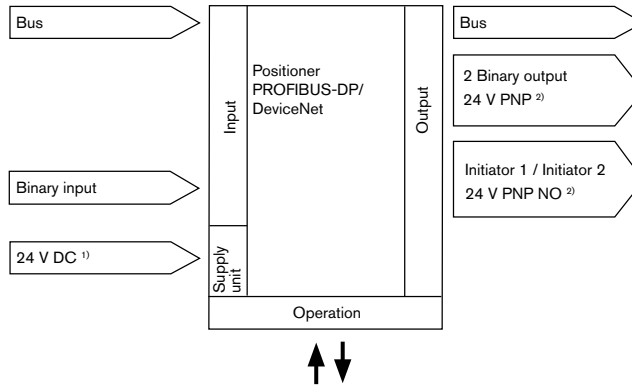


Schematic diagram of SideControl Type 8792

**Without Fieldbus interface**



**With Profibus DP / DeviceNet**



<sup>1)</sup> The operating voltage is supplied with a 3-wire unit independent from the setpoint signal  
<sup>2)</sup> Alternative options

**Note:** For assembly options please see Type 8791

## Ordering Chart

Assembly variations	Communication	Electrical connection	Analogue feedback	2 Binary outputs	Binary input	Control function	Item no.
<b>NAMUR IEC 534-6 VDI / VDE 3845</b>							
	no	Cable gland	no	no	yes	single and double-acting	206 610
			no	yes	yes	single and double-acting	206 612
			yes	yes	yes	single and double-acting	206 611
	Profibus DPV1	Multipole	via Bus	no	yes	single and double-acting	206 616
			via Bus	yes	yes	single and double-acting	206 617
<b>REMOTE MOUNTING</b>							
ELEMENT Actuator Ø 70 mm/90 mm CLASSIC Actuator Ø 80 mm/100 mm	no	Cable gland	no	yes	yes	single-acting	224 871
			yes	yes	yes	single-acting	224 870
ELEMENT Actuator Ø 130 mm CLASSIC Actuator Ø 125/175/225 mm	no		no	no	yes	single and double-acting	206 623
			no	yes	yes	single and double-acting	206 625
			yes	yes	yes	single and double-acting	206 624

8792 Positioner  
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## Accessories

Description	Item no.
Assembly bridge VDI/VDE 3845, Stainless steel	770 294
Adapter kit VDI/VDE 3845, Stainless steel	787 338
Adapter kit linear actuators IEC 534-6, stainless steel	787 215
Silencer G 1/4" (replacement part)	780 780
M12 socket, 8-pin, 2 m cable set	919 061
M8 plug, 4-pin for binary outputs, without cable	917 131
Feedback unit for end positions 2, PNP proximity switches	677 218
<b>Remote version</b>	
Bracket for wall mounting, Stainless steel	675 715
DIN rail assembly kit	675 702
Remote sensor control valves CLASSIC Types 27xx	211 535
Remote sensor control valves ELEMENT Types 23xx	212 360
Adapter kit remote sensor ELEMENT Types 23xx	679 917
<b>Adapter kit remote sensor CLASSIC Types 27xx</b>	
Actuator size Ø 80 mm	679 943
Actuator size Ø 100 mm/Ø 125 mm	679 944
Actuator size Ø 175 mm/Ø 225 mm	679 945