



Digital electropneumatic positioner SideControl

- Compact and robust design
- Easy to start up using Tune function
- Integrated diagnostic functions for valve monitoring
- Dynamic actuating system with no air consumption in controlled state
- EtherNet/IP, PROFINET, Modbus TCP, PROFIBUS DP-V1 or Bürkert system bus (büS)

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

Can be combined with

| | |
|-------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------|
|  | Type 8805 ▶ Ball valve / Butterfly valve with pneumatic rotary actuator |
|  | Type 2051 ▶ Pneumatic rotary actuator |
|  | Type 8798 ▶ Remote sensor for pneumatically actuated process valves |
|  | Type 2301 ▶ Pneumatically operated 2-way Globe Control Valve |
|  | Type 2300 ▶ Pneumatically operated 2-way angle seat control valve ELEMENT |
|  | Type 2103 ▶ 2/2-way diaphragm valve with pneumatic stainless steel actuator (Type ELEMENT) for decentralised automation |

Type description

The robust and compact positioner is designed with standardisation acc. to IEC 60534-6-1 or VDI/VDE 3845 (IEC 60534-6-2) for assembly onto linear and rotary actuators. In addition, the variant with remote position sensor can be combined with Bürkert process control valves for closed-loop control. The digital electropneumatic positioner, SideControl, can be operated with all standard current and voltage standard signals and can also optionally be equipped with the fieldbus interface. The positioner is equipped with additional diagnostic functions to monitor the valve. Valve diagnostic messages via status signals are issued in accordance with NE107 (NAMUR) and recorded as historical entries. The diagnostics can be used to monitor the operating conditions of the control valve which makes maintenance decisions predictable and optimises the availability of the plants as required. Operation occurs via the external operating and display module consisting of a graphic display with backlight. For the user, this results in very simple and clear operation, which is identical to the Bürkert ELEMENT 8692/8693 positioners and process controllers. The pneumatic actuating system can be used equally for single-acting and double-acting actuators. It features a defined safety response in the event of failure of the electrical or pneumatic power supply and has an enormous air capacity range with pressure supply up to 7 bar.



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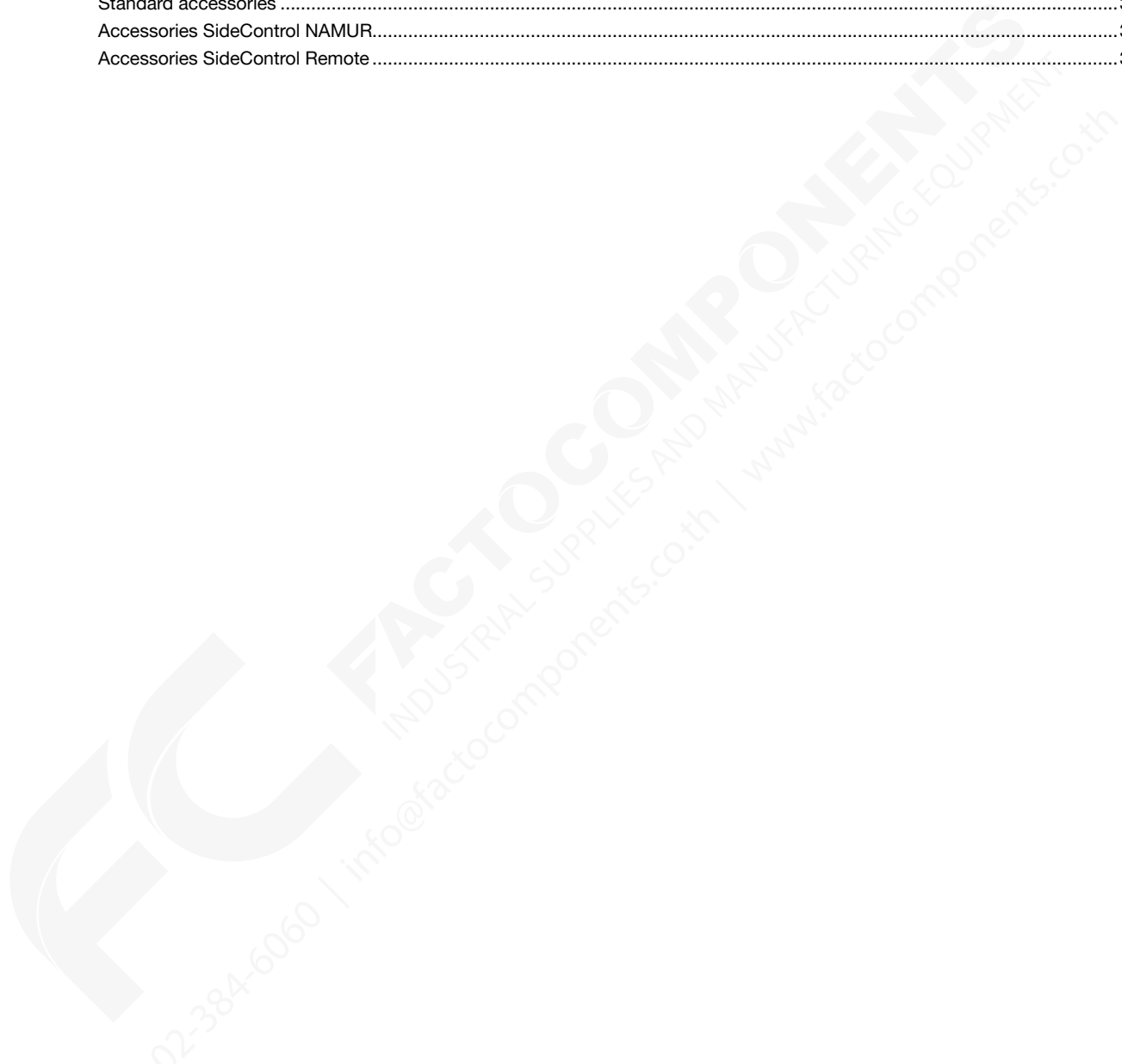
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7. Ordering information

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1. General technical data

1.1. Positioner SideControl Type 8792

| Product properties | |
|----------------------------------------------|------------------------------------------------------------------------------------------------------|
| Dimensions | Further information can be found in chapter "3. Dimensions" on page 10. |
| Material | |
| Housing | Aluminium, plastic-coated |
| Seal | EPDM, NBR, FKM |
| Operation | |
| Display | Graphic display with backlight and intuitive menu navigation |
| Operating keys | Membrane keypad with 4 keys |
| Service interface | Connected to PC via USB connection |
| Configuration tool | Bürkert Communicator PACTware (only for device versions with PROFIBUS) |
| Commissioning | |
| Initialisation positioner | Automatic by X.TUNE function (automatic adjustment of the positioner) |
| Status display | |
| Optical position indicator (mechanical) | Integrated (for NAMUR Version) |
| Communication | |
| Fieldbus | EtherNet/IP, PROFINET, Modbus TCP, PROFIBUS DP-V1 |
| Digital | Bürkert system bus (bÜS) (based on CANopen) |
| Performance data | |
| Position sensor | |
| Integrated position sensor (NAMUR) | Conductive plastic rotary potentiometer |
| External remote position sensor | Linear or rotative |
| Measuring range for rotary actuator | |
| PROFIBUS | Rotation angle: 30°...150° |
| EtherNet/IP, PROFINET, Modbus TCP and bÜS | Rotation angle: 30°...180° |
| Stroke range for linear actuator | 3...130 mm, depending on the lever of the attachment kit |
| Electrical data | |
| Operating voltage | 24 V DC \pm 10 % |
| Residual ripple | Max. 10 % |
| Power consumption | <5 W |
| Protection class | III according to DIN EN 61140 |
| Input /Output | |
| Digital input | 1 digital input, galvanically isolated, 0...5 V = log "0", 10...30 V = log "1" |
| Digital output | 2 digital output (optional), galvanically isolated |
| Current limitation pro digital output | 100 mA, output will be synchronised when overloaded |
| Analogue output | 1 output (optional) 0/4...20 mA, 0...5/10 V |
| Input data setpoint and actual value | |
| Setpoint signal | |
| Setpoint setting | 0/4...20 mA 0...5/10 V |
| Input resistance | 0/4...20 mA: 70 Ω 0...5/10 V: 20 k Ω |
| Electrical connection | |
| Multipole version | Screw terminals: M8, M12 according to device version (see connection description) |
| Cable gland version | 2x M20 \times 1.5 (cable \varnothing 6...12 mm) on screw terminals (0.14...1.5 mm ²) |
| Remote version | 1x M12 \times 1.5 (cable \varnothing 3...6.5 mm) |

| Pneumatic data | |
|-----------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Control medium | Neutral gases, air, quality class according to ISO 8573-1 |
| Dust content | Class 7 (<40 µm particle size) |
| Particle density | Class 5 (<10 mg/m ³) |
| Pressure dew point | Class 3 (<-20 °C) |
| Oil content | Class X (<25 mg/ m ³) |
| Air supply filter | Exchangeable |
| Mesh size | ~0.1 mm |
| Supply pressure | 1.4...7 bar ^{1,2)} |
| Pilot air port | Threaded port G ¼ |
| Positioning system | |
| Universal air capacity | |
| Single and double acting | 50 l _N /min (at 1.4 bar ²⁾) for aeration and ventilation 150 l _N /min (at 6 bar ²⁾) for aeration and ventilation Q _{Nn} = 100 l _N /min |
| Low air capacity | |
| Single acting | Q _{Nn} = 7 l _N /min (Q _{Nn} according to definition at pressure drop from 7 to 6 bar abs) |
| Approvals and conformities | |
| Explosion protection | |
| Ignition protection class | II 3D Ex tc IIIC T135 °C Dc II 3G Ex ec IIC T4 Gc |
| ATEX | BVS 16 ATEX E 118 X II 3G Ex ec ic IIC T4 Gc II 3D Ex tc IIIC T135 °C Dc |
| IECEX | IECEX BVS 16.0091 X Ex ec ic IIC T4 Gc Ex tc IIIC T135 °C Dc |
| Further information can be found in chapter "2.4. Explosion protection" on page 8. | |
| North America (USA/Canada) | |
| CSA for Canada and the USA | UL 429 (Electrically operated valves) CSA C22.2 No. 139 (Electrically operated valves) Further information can be found in chapter "2.5. North America (USA/Canada)" on page 8. |
| Others | |
| China Compulsory Certification (CCC) | The products with Ex approval are suitable for import and use for hazardous applications in China. Further information can be found in chapter "2.6. Others" on page 9. |
| Further information can be found in chapter "2. Approvals and conformities" on page 8. | |
| Environment and installation | |
| Operating conditions | |
| Ambient temperature | |
| With ATEX-/IECEX approval | 0...+60 °C |
| Without Ex approval | -10...+60 °C |
| Degree of protection | IP65/IP67 according to EN 60529, 4X according to NEMA 250 Standard |
| Operating altitude | Up to 2000 m above sea level |
| Installation and mechanical data | |
| Mounting variant | NAMUR according to IEC 60534-6-1 resp. VDI/VDE 3845 (IEC 60534-6-2), remote |
| Installation position | As required, display above or laterally |
| Valve actuator (type, size) | Rotary and linear actuators according to NAMUR, ELEMENT Type 2301, 2300 (actuator size Ø 70/90/130/225 mm) and CLASSIC (actuator size Ø175/225 mm) in combination with remote version |
| Adapter kit | Further information can be found in chapter "7.4. Ordering chart accessories" on page 30 |

1.) Supply pressure has to be 0.5...1 bar above the minimum required pilot pressure for the valve actuator.

2.) Pressure data: overpressure to atmospheric pressure

1.2. Linear remote position sensor (ELEMENT Type 8798)

Note:

When mounting the remote positioner away from the actuator, the length of the pneumatic control lines influences the dynamics and accuracy of the position control loop. The length of the control air lines should therefore be as short as possible.

| Product properties | |
|-----------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Actual position signal | Digital (RS485) |
| Detection range of the sensor | 3...45 mm (stroke range of valve spindle) |
| Electrical data | |
| Operating voltage | 24 V DC \pm 10 % |
| Protection class | III according to DIN EN 61140 |
| Power consumption | <0.3 W |
| Electrical connection | |
| Cable gland (cable length) | 1x M16 \times 1.5 (cable \varnothing 5...10 mm) on screw terminals (0.14...1.5 mm ²) |
| Connection cable | 10 m |
| Approvals and conformities | |
| Protection class | IP65 and IP67 according to EN 60529, 4X according to NEMA 250 standard |
| Explosion protection | |
| Ignition protection class | II 3G Ex ec IIC T4 Gc II 3D Ex tc IIIC T135 °C Dc |
| Further information can be found in chapter "2. Approvals and conformities" on page 8. | |
| North America (USA/Canada) | |
| UL Recognized for the USA and Canada | cULus certificate: 238179 Further information can be found in chapter "2.5. North America (USA/Canada)" on page 8. |
| Others | |
| China Compulsory Certification (CCC) | The products with Ex approval are suitable for import and use for hazardous applications in China. Further information can be found in chapter "2.6. Others" on page 9. |
| Further information can be found in chapter "2. Approvals and conformities" on page 8. | |
| Environment and installation | |
| Ambient temperature | -25...+80 °C |

1.3. Rotative remote position sensor (NAMUR)

Note:

When mounting the remote positioner away from the actuator, the length of the pneumatic control lines influences the dynamics and accuracy of the position control loop. The length of the control air lines should therefore be as short as possible.

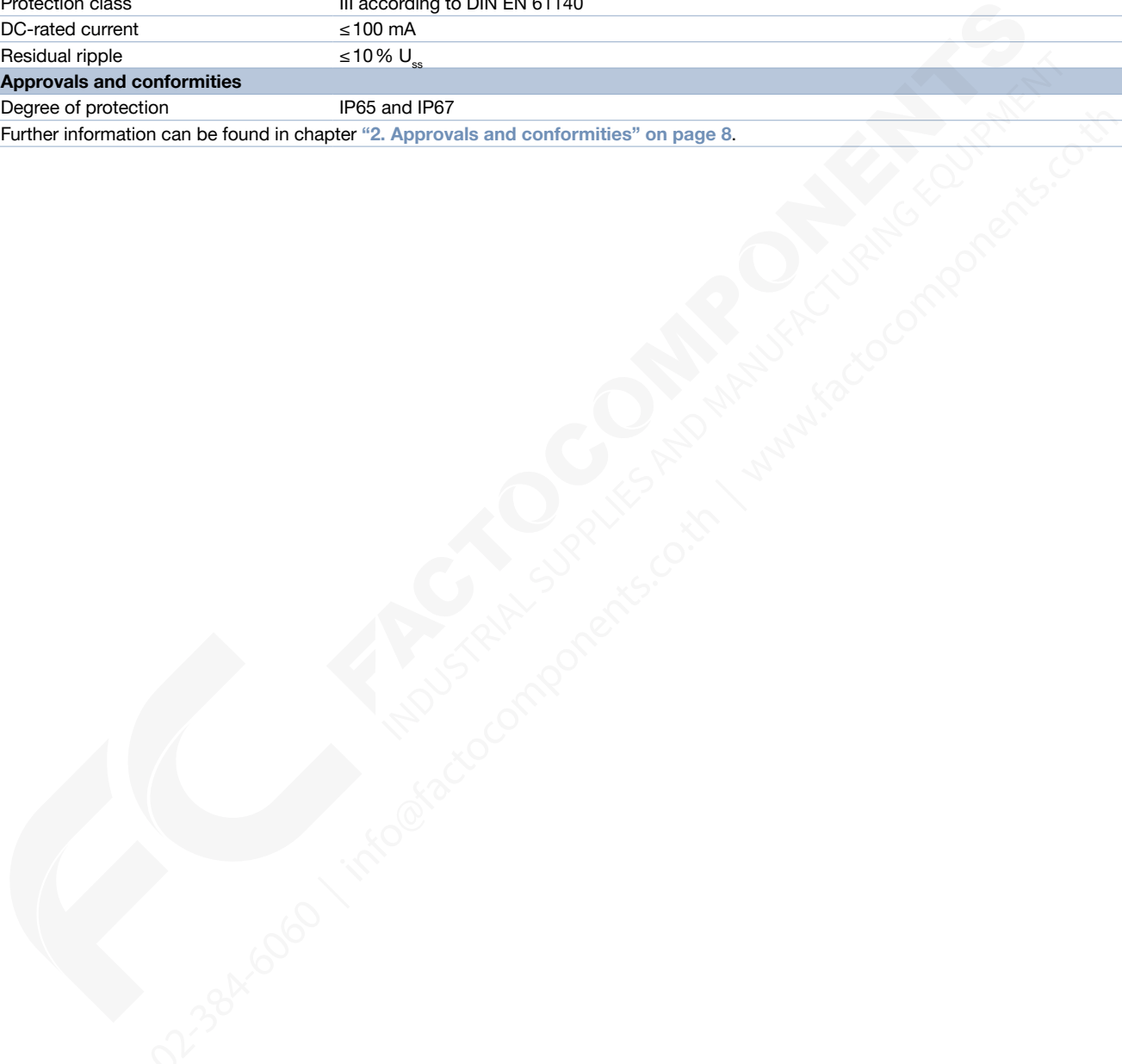
| Product properties | |
|-----------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------|
| Stroke range when mounted to linear actuator | 3...130 mm, depending on the lever of the attachment kit |
| Actual position signal | Digital (RS485) |
| Measuring range | Rotation angle 30°...180° |
| Electrical data | |
| Operating voltage | 10...30 V DC |
| Protection class | III according to DIN EN 61140 |
| Power consumption | <0.8 W |
| Electrical connection | 2 m round cable (shielded) |
| Approvals and conformities | |
| Protection class | IP65 according to EN 60529 |
| North America (USA/Canada) | |
| UL Recognized for the USA and Canada | cULus certificate: E226909 Further information can be found in chapter "2.5. North America (USA/Canada)" on page 8. |
| Further information can be found in chapter "2. Approvals and conformities" on page 8. | |
| Environment and installation | |
| Ambient temperature | -25...+80 °C |

1.4. Position feedback with proximity switches (accessories for retrofitting)

Note:

The feedback unit possesses 2 proximity switches that can be adjusted independently of each other via switch flags.

| Product properties | |
|-----------------------------------------------------------------------------------------------|------------------------------------|
| Output function | 3-wire, normally open contact, PNP |
| Electrical data | |
| Electrical connection | M12, 4-pin |
| Operating voltage | 10...30 V DC |
| Protection class | III according to DIN EN 61140 |
| DC-rated current | ≤ 100 mA |
| Residual ripple | ≤ 10 % U _{ss} |
| Approvals and conformities | |
| Degree of protection | IP65 and IP67 |
| Further information can be found in chapter "2. Approvals and conformities" on page 8. | |



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.

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

Positioner SideControl Type 8792


| Approval | Description |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|   | <p>Optional: Explosion protection</p> <p>ATEX: BVS 16 ATEX E 118 X II 3G Ex ec ic IIC T4 Gc II 3D Ex tc IIIC T135 °C Dc</p> <p>IECEX: IECEX BVS 16.0091 X Ex ec ic IIC T4 Gc Ex tc IIIC T135 °C Dc</p> |

2.5. North America (USA/Canada)

Positioner SideControl Type 8792

| Approval | Description |
|---------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|  C US | <p>Optional: CSA for Canada and the USA</p> <p>The products are CSA approved for Canada and the USA according to:</p> <ul style="list-style-type: none"> • UL 429 (Electrically operated valves) • CSA C22.2 No. 139 (Electrically operated valves) |

Linear position sensor, remote (ELEMENT Type 8798)

| Approval | Description |
|-------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|  | <p>Optional: UL Listed for the USA and Canada</p> <p>The products are UL Listed for the USA and Canada according to:</p> <ul style="list-style-type: none"> • UL 61010-1 (ELECTRICAL EQUIPMENT FOR MEASUREMENT, CONTROL, AND LABORATORY USE – Part 1: General Requirements) • CAN/CSA-C22.2 No. 61010-1 |

Rotative position sensor, remote (NAMUR Type 8798)


| Approval | Description |
|-------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------|
|  | <p>Optional: UL Listed for the USA and Canada</p> <p>The products are UL Listed for the USA and Canada according to:</p> <p>Certificate no.: E226909</p> |

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2.6. Others

China Compulsory Certification (CCC)

Positioner SideControl Type 8792 and Linear Position Transducer Remote (ELEMENT Type 8798)

| Conformity | Description |
|-----------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|  | <p>Optional: China Compulsory Certification (CCC) The products with Ex approval are suitable for import and use for hazardous applications in China.</p> |

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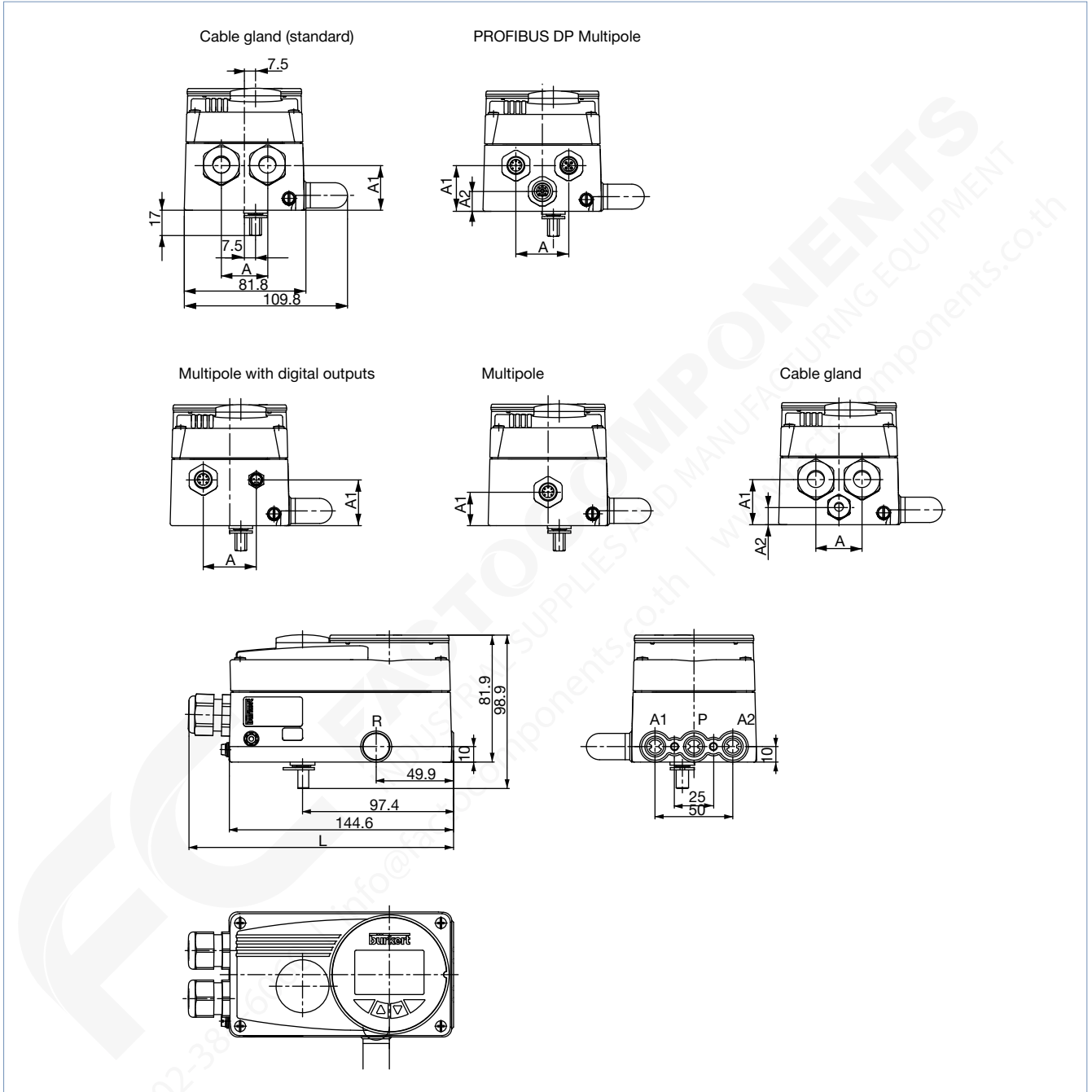


3. Dimensions

3.1. NAMUR version

Note:

Dimensions in mm

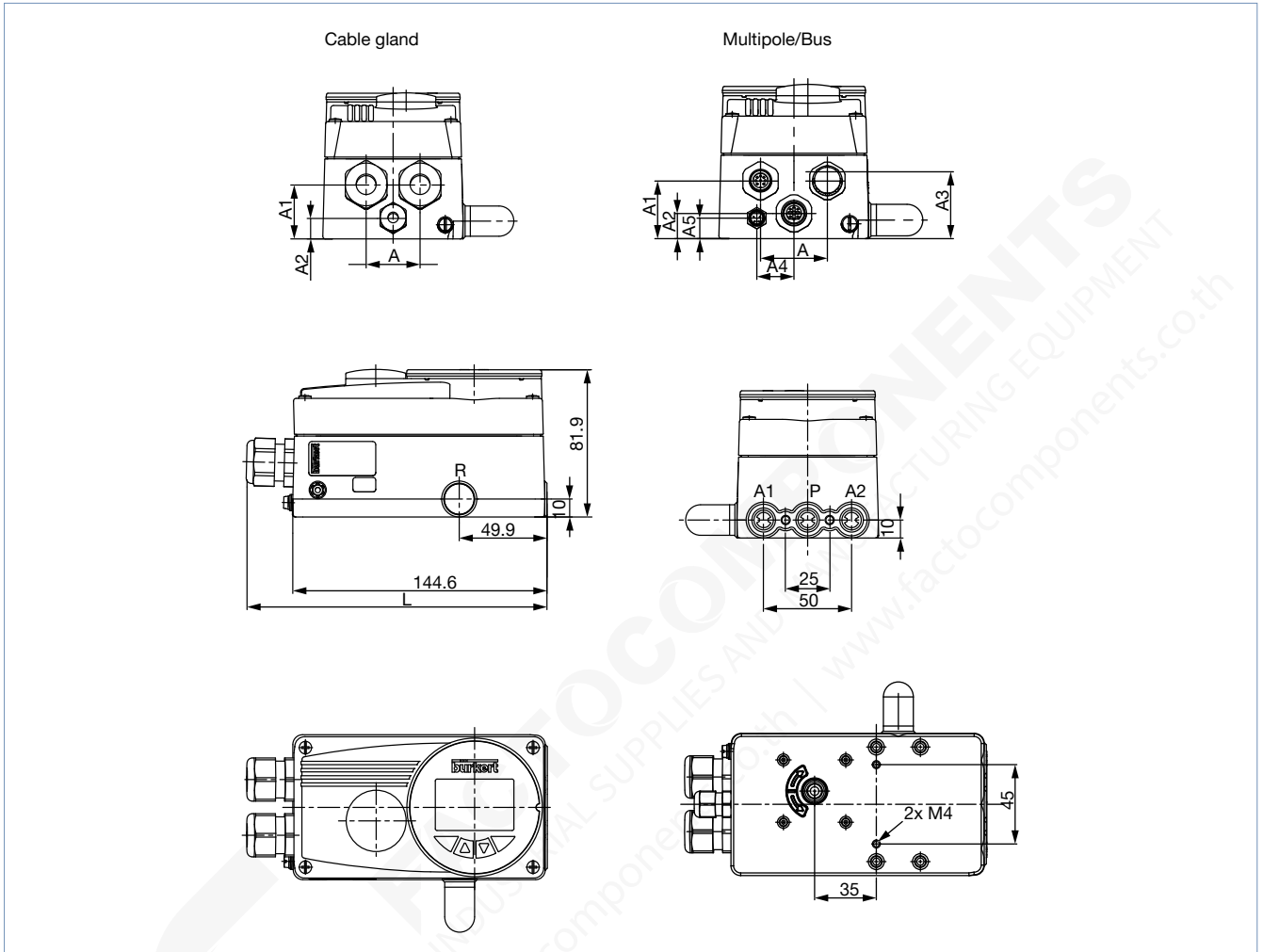


| Description | L | A | A1 | A2 |
|---------------------------|-------|----|------|------|
| Standard | 171.1 | 31 | 30 | - |
| PROFIBUS DP | 157.8 | 36 | 31 | 13.5 |
| Multipole digital outputs | 157.6 | 36 | 31 | - |
| Multipole | 157.4 | - | 22.5 | - |
| Remote | 171.1 | 31 | 30 | 11.5 |

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3.2. Remote version

Note:
Dimensions in mm



| Description | L | A | A1 | A2 | A3 | A4 | A5 |
|----------------------|-------|----|----|------|----|----|----|
| Remote cable gland | 171.1 | 31 | 30 | 11.5 | – | – | – |
| Remote multipole/bus | 157.8 | 36 | 31 | 13.5 | 36 | 20 | 11 |

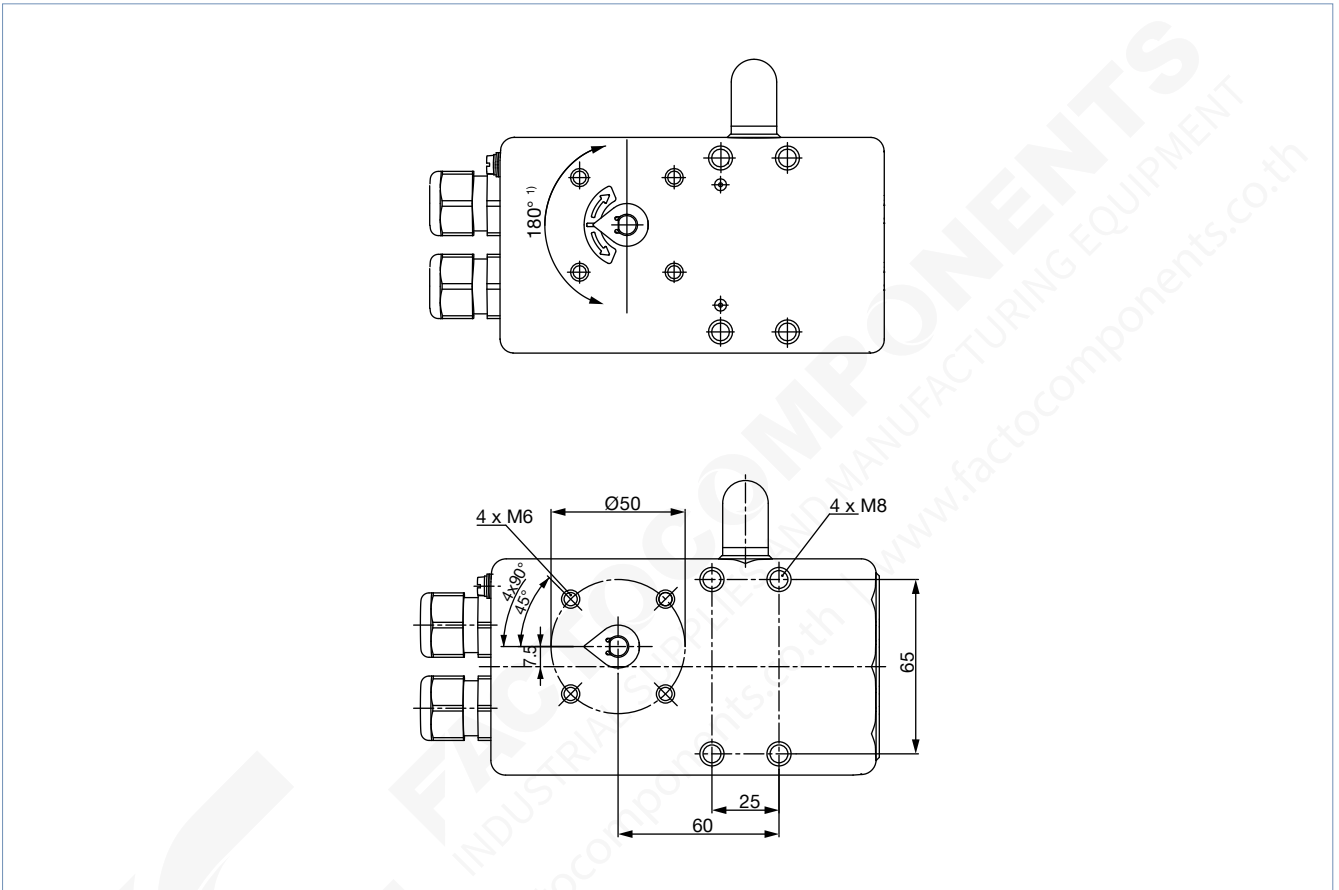
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3.3. Mounting specification of NAMUR/Remote Version

Note:

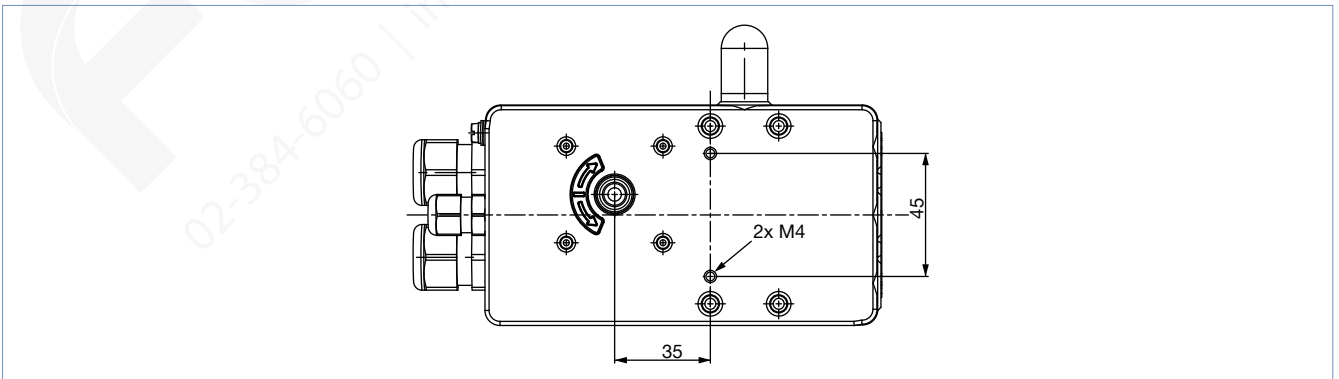
- Dimensions in mm
- The rotary motion of the sensor shaft must be within a range of max. 180°. ^{1.)}
- The sensor shaft must be in this position at approx. 50 % valve opening.

NAMUR version



1.) Max. 180° are possible for the EtherNet/IP, PROFINET, Modbus TCP and bÜS variants, max. 150° for the other variants.

Remote version

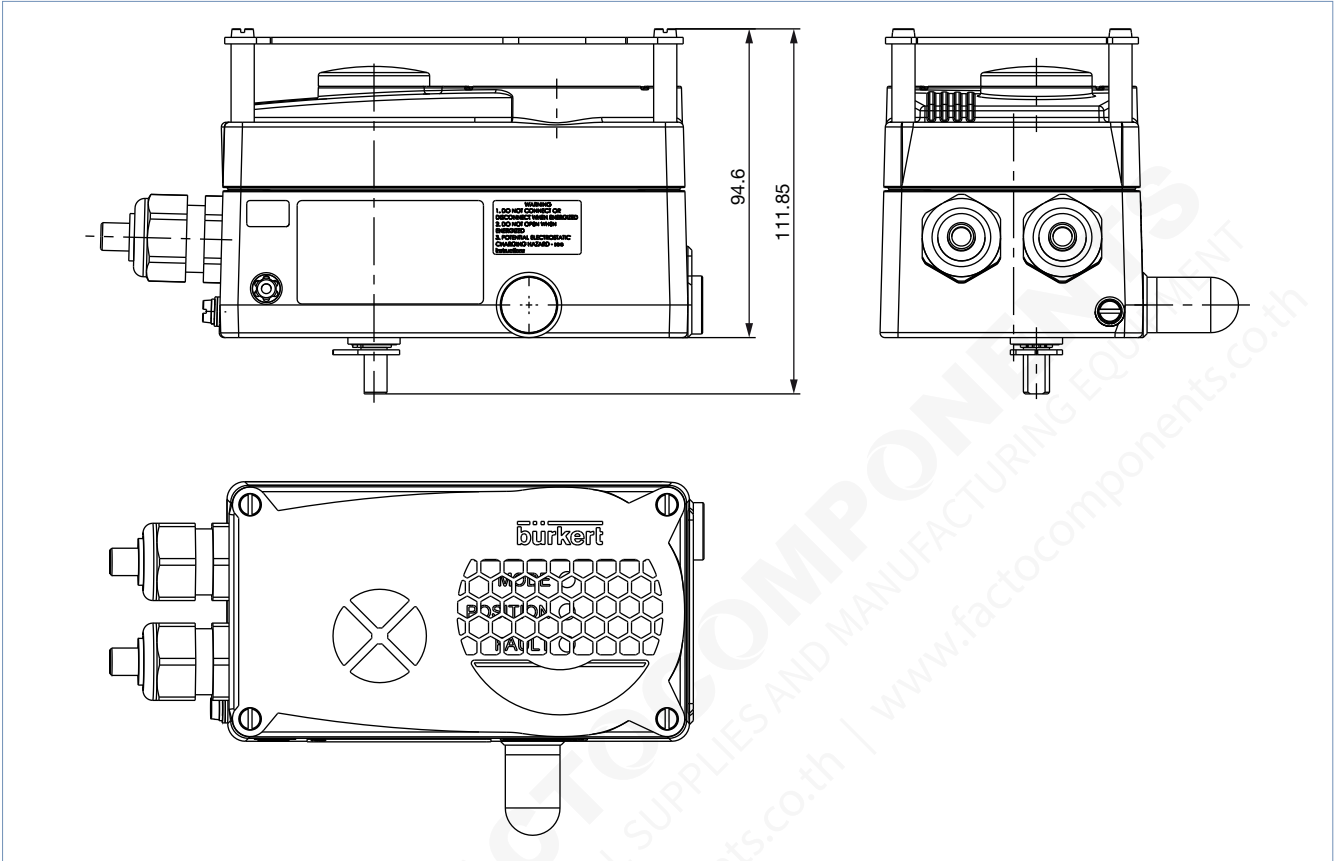


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3.4. ATEX/IECEX version

Note:

Dimensions in mm

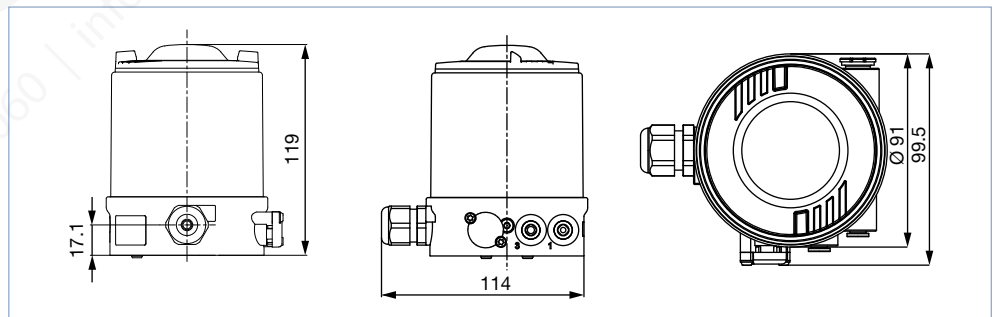


3.5. Remote position sensor version

Note:

Dimensions in mm

Linear position sensor **Type 8798** ▶ for valve position detection of Bürkert ELEMENT valves and hygienic process valves for the remote SideControl positioner.

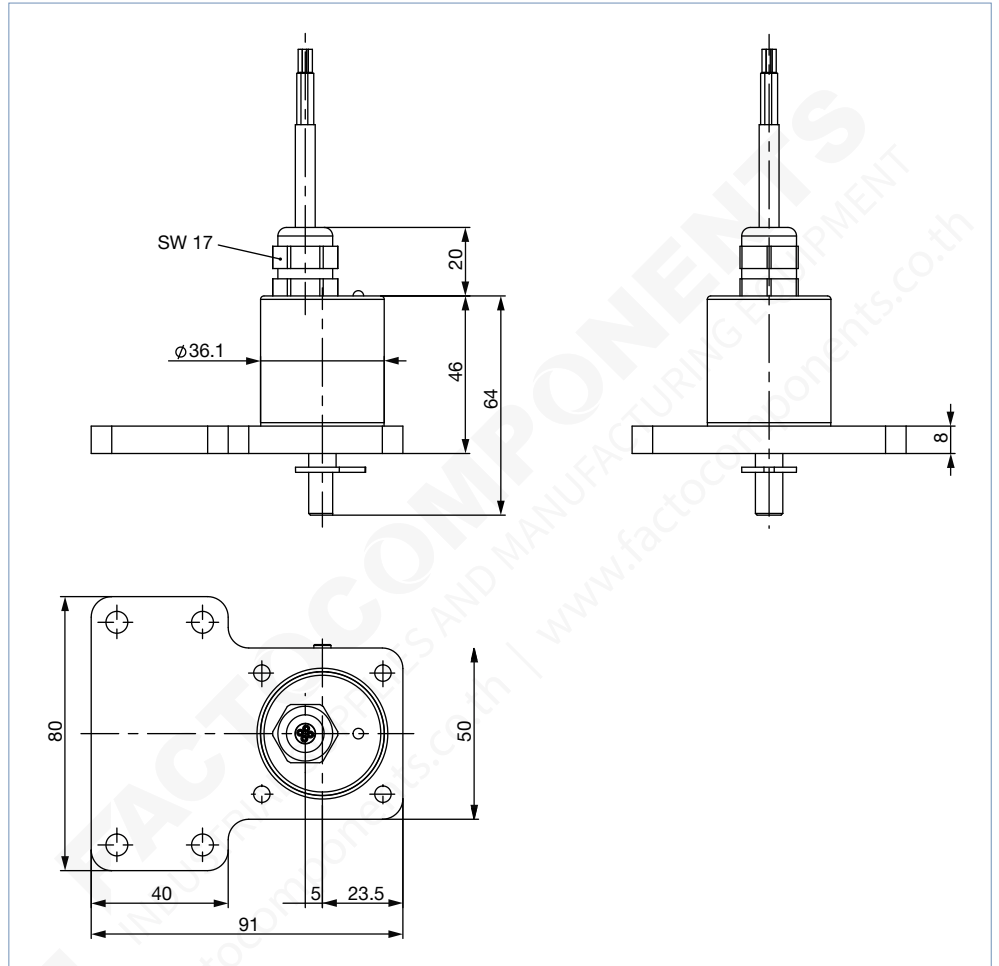


3.6. Mounting on control valve according to NAMUR

Note:

Dimensions in mm

Rotative position sensor to detect rotary motion of rotary actuators according to NAMUR/IEC 60534 - 6 - 1 and VDI/VDE 3845 (IEC 60534 - 6 - 2) for the remote SideControl positioner.



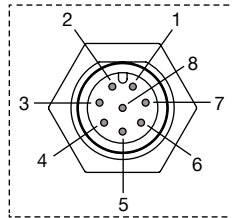
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4. Device/Process connections

4.1. Electrical connections

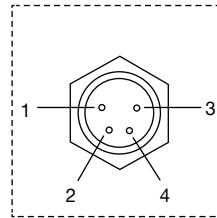
Multipole connection

Operating voltages with diverse signals

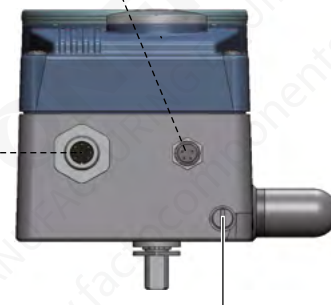


M12 Circular connector, 8-pin

Digital outputs (optional)



M8 socket, 4-pin



Earthing function

M12 circular plug, 8-pin (setpoint)

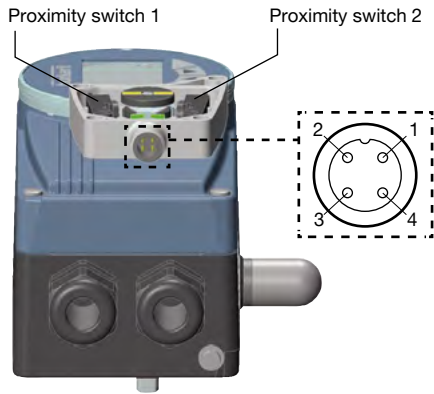
| Pin | Pin assignment | Outer circuitry/Signal level | |
|---------------------------------|----------------------------------------|------------------------------|-----------------------------------------------------------------------|
| 1 | Setpoint + (0/4...20 mA or 0...5/10 V) | 1 | + (0/4...20 mA or 0...5/10 V) Completely galvanically isolated |
| 2 | Setpoint GND | 2 | GND |
| 3 | GND | 3 | 24 V DC ± 10 % Max. residual ripple 10 % |
| 4 | +24 V | 4 | |
| 5 | Digital input + | 5 | + 0...5 V (log "0") 10...30 V (log "1") |
| 6 | Digital input GND | 6 | GND |
| Option analogue feedback | | | |
| 8 | Analogue feedback + | 8 | + (0/4...20 mA or 0...5/10 V) Completely galvanically isolated |
| 7 | Analogue feedback GND | 7 | GND |

M8 socket, 4-pin (only for digital outputs options)

| Pin | Pin assignment | Outer circuitry/Signal level | |
|-----|--------------------|------------------------------|-------------------------------------------------------------------------|
| 1 | Digital output 1 | 1 | 24 V/0 V, NC/NO Relative to operating voltage GND (terminal GND) |
| 2 | Digital output 2 | 2 | 24 V/0 V, NC/NO Relative to operating voltage GND (terminal GND) |
| 3 | Digital output GND | 3 | GND |

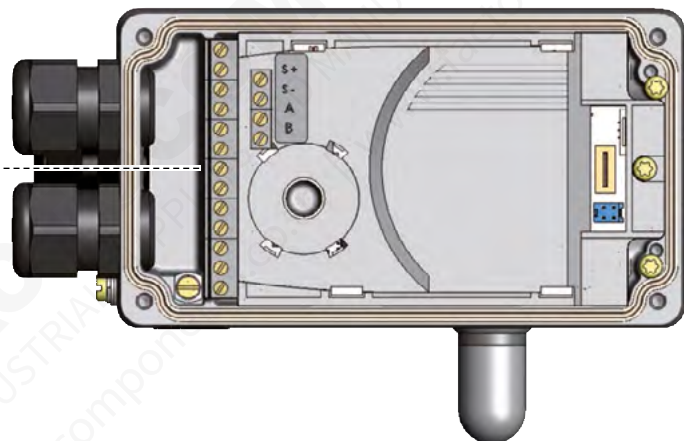
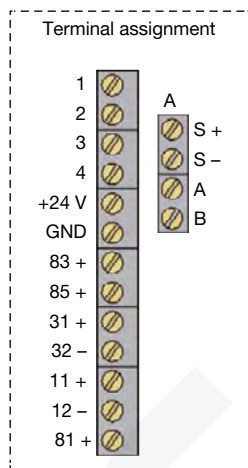
Position feedback with proximity switches

Note:
Accessories for upgrading



| No. | Pin assignment | Outer circuitry/Signal level |
|-----|--------------------------------------------|------------------------------|
| 1 | Supply 10...30 V | +10...30 V 10...30 V |
| 2 | Switching output (NO) proximity switches 1 | +10...30 V Open/10...30 V |
| 3 | GND | GND GND |
| 4 | Switching output (NO) proximity switches 2 | +10...30 V Open/10...30 V |

Screw terminal connection



| Terminal | Pin assignment | External circuitry/signal level |
|----------|-----------------------|-------------------------------------------------------------------------------------------------------|
| 11 + | Setpoint + | 11 + + (0/4...20 mA or 0...5/10 V) Completely galvanically isolated |
| 12 - | Setpoint GND | 12 - GND |
| 81 + | Digital input + | 81 + 0...5 V (log. "0") 10...30 V (log. "1") Relative to operating voltage GND (terminal GND) |
| +24 V | Operating voltage + | +24 V 24 V DC ± 10% |
| GND | Operating voltage GND | GND Maximum residual ripple 10% |

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Analogue feedback option/digital output

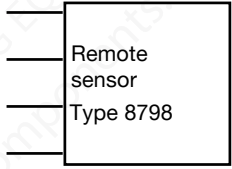
| Terminal | Pin assignment | Outer circuitry/Signal level | | |
|----------|-----------------------|------------------------------|--|---------------------------------------------------------------------|
| 83 + | Digital output 1 | 83 + | | 24 V/0 V, NC/NO Relative to operating voltage GND (terminal GND) |
| 85 + | Digital output 2 | 85 + | | 24 V/0 V, NC/NO Relative to operating voltage GND (terminal GND) |
| 31 + | Analogue feedback + | 31 + | | + (0/4...20 mA or 0...5/10 V) Completely galvanically isolated |
| 32 - | Analogue feedback GND | 32 - | | GND |

Remote version option in conjunction with remote position sensor Type 8798

Note:

For variants without remote version: Terminals A, B, S+ and S- not connected

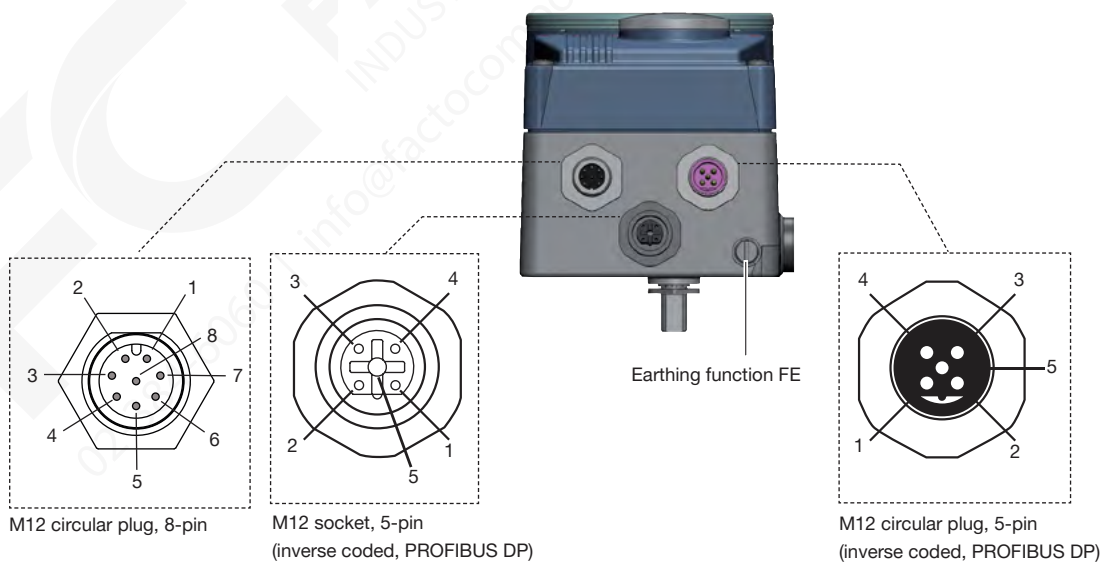
| Terminal | Pin assignment | | Outer circuitry/Signal level | | |
|------------------------|----------------|--------------------------|------------------------------|--|--------|
| Remote position sensor | A | Serial interface, A-line | A | | A-line |
| | B | Serial interface, B-line | B | | B-line |
| | S + | Sensor supply + | S + | | + |
| | S - | Sensor supply - | S - | | - |



Remote position sensor Type 8798

| Terminal | Wire colour for cable type | | Pin assignment | Outer circuitry | | |
|----------|----------------------------|--------|--------------------------|-----------------|--|-----------|
| | 1 | 2 | | | | |
| 1 | White | Black | Sensor supply - | 1 | | 8791 or |
| 2 | Brown | | Sensor supply + | 2 | | 8792/8793 |
| 3 | Yellow | Orange | Serial interface, B-line | 3 | | 8791 or |
| 4 | Green | Red | Serial interface, A-line | 4 | | 8792/8793 |

PROFIBUS DP connection



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Operating voltage, M12 circular plug, 8-pin

| Pin | Pin assignment | Outer circuitry/Signal level | |
|-----|--------------------------------------|------------------------------|------------------------------|
| 1 | Not assigned | | |
| 2 | Not assigned | | |
| 3 | GND | 3 | 24 V DC ± 10 % |
| 4 | + 24 V | 4 | Maximum residual ripple 10 % |
| 5 | Digital input + | | |
| 6 | Digital input - | | |
| 7 | Digital output 1 (relative to pin 3) | | |
| 8 | Digital output 2 (relative to pin 3) | | |

Fieldbus connection, M12 socket/circular plug, 5-pin

| Pin | Pin assignment | Outer circuitry/Signal level |
|-----|----------------|--------------------------------------------------|
| 1 | VP+ 5 | Load resistance supply |
| 2 | RxD/TxD-N | Receive/transmit data -N, A-line |
| 3 | DGND | Information transfer potential (measured to 5 V) |
| 4 | RxD/TxD-P | Receive/transmit data -P, B-line |
| 5 | Shield | Shielding/protective earth |

EtherNet/IP, PROFINET, Modbus TCP connection



M12 fieldbus connection, D-coded

Connection for EtherNet/IP takes place via an M12 screw terminals, 4-pin, D-coded

| Pin | Description |
|-----|-------------|
| 1 | Transmit + |
| 2 | Receive + |
| 3 | Transmit - |
| 4 | Receive - |

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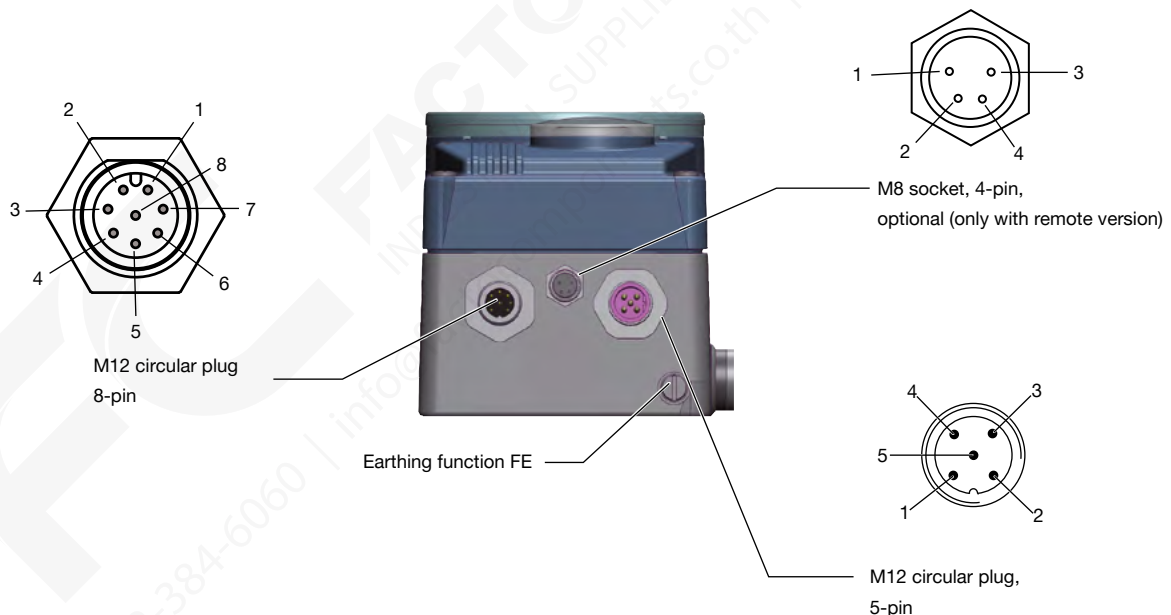
Operating voltage, M12 circular plug, 8-pin

| Pin | Pin assignment | Device side | Outer circuitry/Signal level |
|-------------------------------------------------------------------------------------------------|--------------------------------------|-------------|----------------------------------------------------|
| 1 | Not assigned | | |
| 2 | Not assigned | | |
| Operating voltage | | | |
| 3 | GND | 3 | 24 V DC \pm 10 % Maximum residual ripple 10 % |
| 4 | +24 V | 4 | |
| Input signal of the control centre (e. g. SPS) | | | |
| 5 | Digital input + | 5 | 0...5 V (log. "0") 10...30 V (log. "1") |
| 6 | Digital input - | 6 | GND (identical to pin 3) |
| Output signal of the control centre (e. g. SPS) - (only used with digital output option) | | | |
| 7 | Digital output 1 (relative to pin 3) | 7 | 0...24 V |
| 8 | Digital output 2 (relative to pin 3) | 8 | 0...24 V |

Connection of digital remote position sensor Type 8798, M8 socket, 4-pin (optional)

| Pin | Pin assignment | Device side | Outer circuitry |
|-----|--------------------------|-------------|-----------------|
| 1 | Sensor supply + | S + | + |
| 2 | Sensor supply - | S - | - |
| 3 | Serial interface, A-line | A | A-line |
| 4 | Serial interface, B-line | B | B-line |

Bürkert system bus (büS) connection



Fieldbus connection screw terminals M12 x 1, 5-pin

| Pin | Cable colour | Description |
|-----|---------------|---------------|
| 1 | CAN Shielding | CAN Shielding |
| 2 | Not assigned | |
| 3 | Black | GND/CAN_GND |
| 4 | White | CAN_H |
| 5 | Blue | CAN_L |

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Operating voltage, circular plug M12, 8-pin

| Pin | Pin assignment | Device side | Outer circuitry/Signal level |
|-----------------------------------------------------------------------------------------------|--------------------------------------|-------------|------------------------------------------|
| 1 | Not assigned | | |
| 2 | Not assigned | | |
| Operating voltage | | | |
| 3 | GND | 3 | 24 V DC ± 10 % |
| 4 | +24 V | 4 | Maximum residual ripple 10 % |
| Input signal of the control centre (e. g. SPS) | | | |
| 5 | Digital input + | 5 | 0...5 V (log "0") 10...30 V (log "1") |
| 6 | Digital input - | 6 | GND (identical to pin 3) |
| Output signal of the control centre (e. g. SPS) (only used with digital output option) | | | |
| 7 | Digital output 1 (relative to pin 3) | 7 | 0...24 V |
| 8 | Digital output 2 (relative to pin 3) | 8 | 0...24 V |

Connection of digital remote position sensor Type 8798, M8 socket, 4-pin (optional)

| Pin | Pin assignment | Device side | Outer circuitry |
|-----|--------------------------|-------------|-----------------|
| 1 | Sensor supply + | S + | + |
| 2 | Sensor supply - | S - | - |
| 3 | Serial interface, A-line | A | A-line |
| 4 | Serial interface, B-line | B | B-line |

Wegaufnehmer Remote Typ 8798

Connection of analogue remote position sensor, M8 socket, 4-pin (optional)

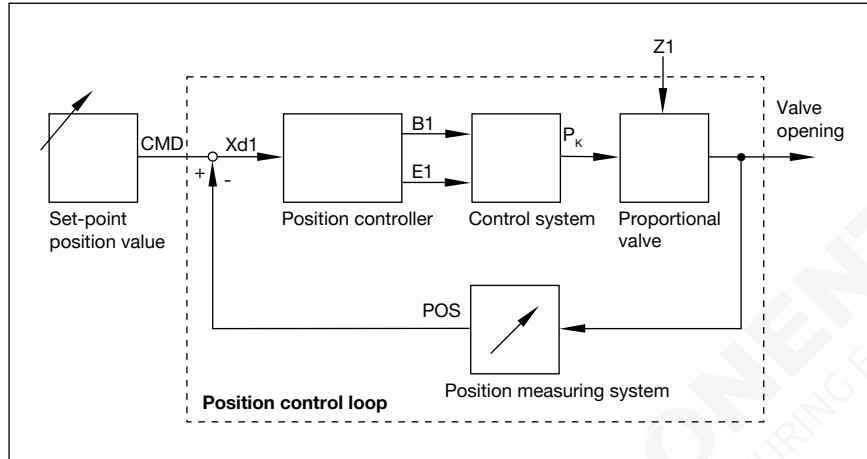
| Pin | Pin assignment | Device side | Outer circuitry |
|-----|-----------------|-------------|-----------------|
| 1 | Potentiometer 1 | | Potentiometer |
| 2 | Wiper 2 | | |
| 3 | Potentiometer 3 | | |
| 4 | Not assigned | | |

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5. Performance specifications

5.1. Signal flow diagram

Position control loop



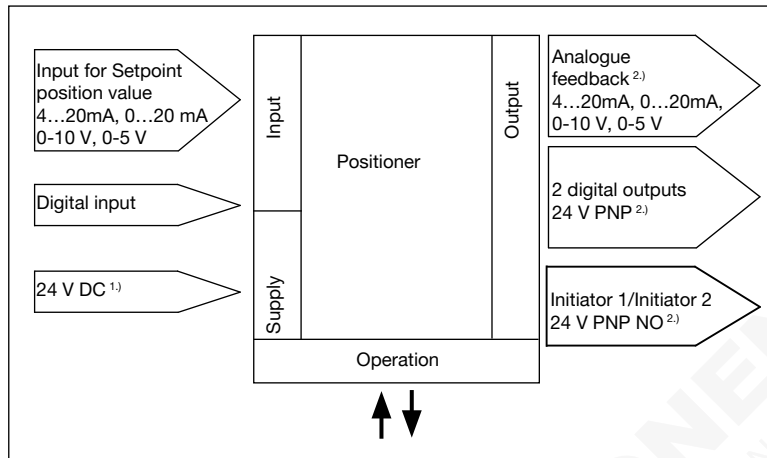
Additional software options of positioner SideControl Type 8792 (extract)

- Automatic commissioning of control system
- Automatic or manual characteristics curves selection
- Setting of seal and maximum stroke threshold respectively
- Parameterisation of positioner
- Limitation of stroke range
- Limitation of manipulating speed
- Setting of moving direction
- Configuration of digital input
- Signal range splitting on several controllers
- Configuration of analogue or 2 digital outputs
- Signal fault detection
- Safety position
- Code protection
- Contrast inversion of display
- Parameterizable diagnostic functions¹⁾/digital output (option)
 - Operating-hours counter
 - Path accumulator
 - Position monitoring
 - Graphical display of dwell time density and movement range
 - Monitoring of mechanical end positions in armature

1.) Further diagnostic functions with detailed description can be found in the **operating Instructions Type 8792** ▶.

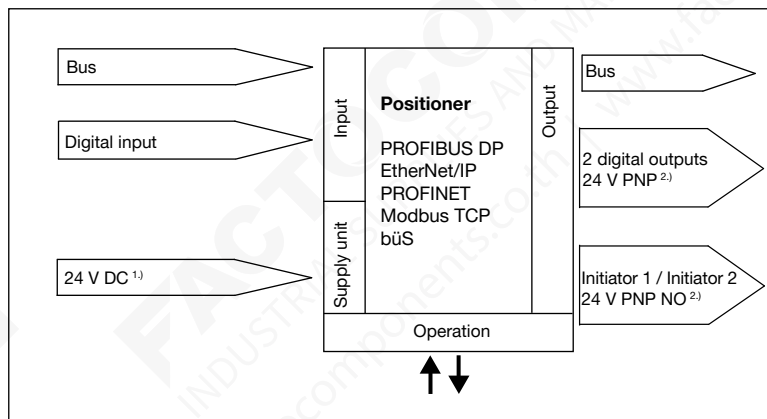
5.2. Interface diagram

Version without fieldbus communication



Version with fieldbus communication

PROFIBUS DP, EtherNet/IP, PROFINET, Modbus TCP and Bürkert system bus (büs)



- 1.) Operating voltage is supplied with a 3-wire unit independent from the setpoint signal.
- 2.) Alternative options

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6. Product installation

6.1. Mounting options

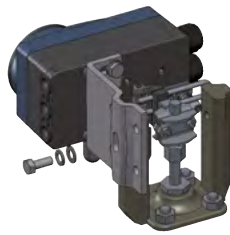
NAMUR version

Note:

Positioner with integrated position sensor, installation according to NAMUR/IEC 60534-6-1 and VDI/VDE 3845 (IEC 60534-6-2)

The NAMUR version of the SideControl positioner is equipped with an integrated position sensor (linear or rotary). It has a standardised interface for direct attachment to linear actuators according to NAMUR/IEC 60534-6-1 and VDI/VDE 3845 (IEC 60534-6-2).

| Linear actuators | Rotary actuators |
|----------------------------------|----------------------------------|
| See operating manual Type 8792 ▶ | See operating manual Type 8792 ▶ |



| Description | Article no. | Description | Article no. |
|--------------|-------------|------------------|-------------|
| Mounting kit | 787215 | Adapter kit | 787338 |
| | | Mounting bracket | 770294 |

| | |
|---------------------------------------------------------------------|-------------------------------------------------------------------------|
| <p>Adapter kit for rotary actuators (Article no. 787338)</p> | <p>Mounting bracket for rotary actuator (Article no. 770294)</p> |
|---------------------------------------------------------------------|-------------------------------------------------------------------------|

| Actuator shaft height [mm] | A [mm] | B [mm] | C [mm] |
|----------------------------|--------|--------|--------|
| 20 | 46.5 | 80 | - |
| 30 | 56.5 | 80 | 130 |
| 50 | 76.5 | - | 130 |

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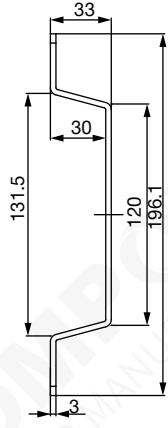
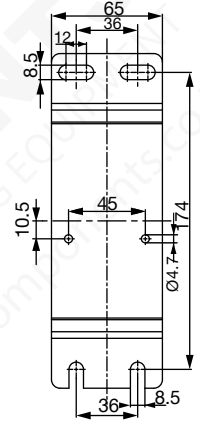
Remote version

Note:

- Dimensions in mm
- 2 mounting options

The SideControl positioner remote version is used to control process control valves in combination with a remote position sensor. The remote position sensor is mounted directly on the valve to detect the valve position. The remote positioner can be mounted on the wall or on a standard rail in a control cabinet.

Wall mounting with accessory bracket

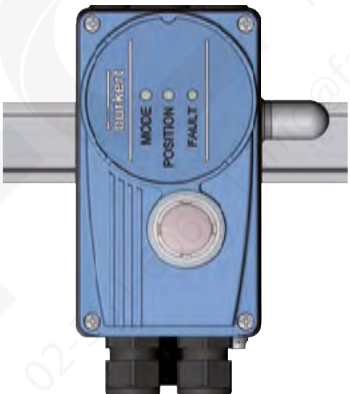
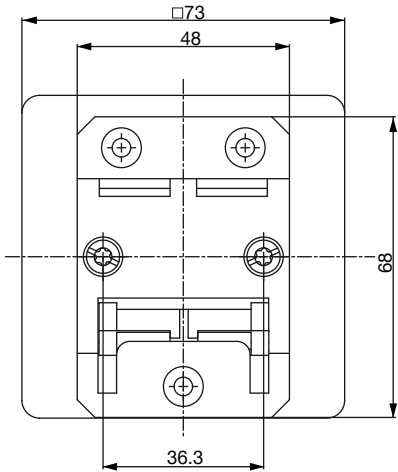
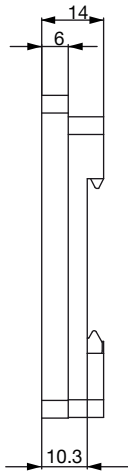





| Description | Article no. |
|---------------------------|-------------|
| Bracket for wall mounting | 675715 |

Mounting on Standard rail

Note:

- Dimensions in mm
- Adapter can be turned by 90° the standard rail.

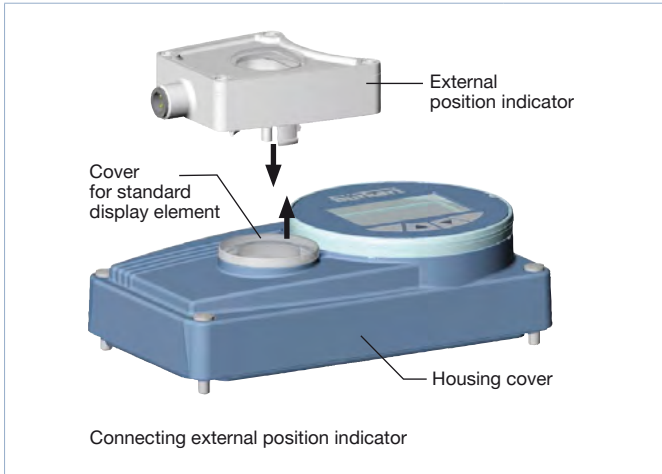
| Description | Article no. |
|-----------------------------------|-------------|
| Holder for standard rail mounting | 675702 |

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Position feedback with proximity switches

Note:

Upgrade feature for SideControl NAMUR



| Description | Article no. |
|-------------------|-------------|
| Position feedback | 677218 |



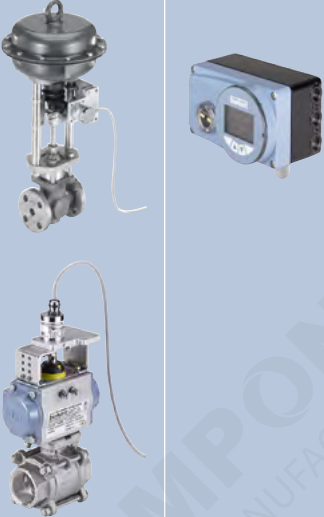

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6.2. Combination possibilities with pneumatic process valves

Note:

Further information can be found in chapter “7.3. Ordering chart” on page 28.

| Positioner SideControl 8792 | 8792 NAMUR | | 8792 Remote | | 8792 Remote | |
|-----------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------|--|----------------------------------------------------------------------------------------------------------------|--|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
|  |  | |  | |  | |
| | <p>Linear actuators IEC 60534 - 6 - 1</p> <p>Rotary actuators VDI/VDE 3845 (IEC 60534 - 6 - 2)</p> | | <p>Linear actuators IEC 60534 - 6 - 1</p> <p>Rotary actuators VDI/VDE 3845 (IEC 60534 - 6 - 2)</p> | | <p>Control valve system</p> | |
| | <p>Type 8805 ▶ Ball valve/Butterfly valve with pneumatic rotary actuator</p> | | <p>Type 8798 ▶ Remote sensor for pneumatically actuated process valves</p> | | <p>Type 2300 ▶ Pneumatically actuated 2-way angle seat control valve ELEMENT + Type 8798 ▶ Remote sensor for pneumatically actuated process valves</p> | |

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7. Ordering information

7.1. Bürkert eShop



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7.2. Bürkert product filter



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7.3. Ordering chart

Positioner SideControl Type 8792 NAMUR version

Note:

- Mounting according to NAMUR IEC 60534 - 6 - 1 resp. VDI/VDE 3845 (IEC 60534 - 6 - 2)
- Further versions are available on request.

| Communication | Electrical connection | Analogue feedback | 2 Digital output | Diagnostics ¹⁾ | cCSAus | ATEX II 3 GD/IECEX CCC ²⁾ | Article no. |
|-------------------------------------------------------------|-----------------------|-------------------|------------------|---------------------------|--------|--------------------------------------|-------------|
| Single and double-acting with universal air capacity | | | | | | | |
| Without fieldbus communication | Cable gland | – | – | – | Yes | – | 317985 ☒ |
| | | – | Yes | Yes | Yes | – | 317987 ☒ |
| | | Yes | Yes | Yes | Yes | – | 317986 ☒ |
| | | Yes | Yes | Yes | – | Yes | 318036 ☒ |
| | Multipole | – | – | – | Yes | – | 317988 ☒ |
| | | – | Yes | Yes | Yes | – | 317990 ☒ |
| Yes | | Yes | Yes | Yes | – | 317989 ☒ | |
| PROFIBUS DP-V1 | Multipole | Via bus | – | – | Yes | – | 206616 ☒ |
| | | Via bus | – | – | – | Yes | 310308 ☒ |
| | | Via bus | Yes | Yes | – | Yes | 310309 ☒ |
| | | Via bus | Yes | Yes | Yes | – | 206617 ☒ |
| EtherNet/IP | Multipole | Via bus | – | Yes | Yes | – | 317932 ☒ |
| | | Via bus | Yes | Yes | Yes | – | 317933 ☒ |
| | | Via bus | – | Yes | – | Yes | 317938 ☒ |
| | | Via bus | Yes | Yes | – | Yes | 317939 ☒ |
| PROFINET | Multipole | Via bus | – | Yes | Yes | – | 317942 ☒ |
| | | Via bus | Yes | Yes | Yes | – | 317943 ☒ |
| | | Via bus | – | Yes | – | Yes | 317948 ☒ |
| | | Via bus | Yes | Yes | – | Yes | 317949 ☒ |
| Modbus TCP | Multipole | Via bus | – | Yes | Yes | – | 317952 ☒ |
| | | Via bus | Yes | Yes | Yes | – | 317953 ☒ |
| | | Via bus | – | Yes | – | Yes | 317958 ☒ |
| | | Via bus | Yes | Yes | – | Yes | 317959 ☒ |
| Bürkert system bus (büS) | Multipole | Via bus | – | Yes | Yes | – | 317962 ☒ |
| | | Via bus | Yes | Yes | Yes | – | 317963 ☒ |
| | | Via bus | – | Yes | – | Yes | 317968 ☒ |
| | | Via bus | Yes | Yes | – | Yes | 317969 ☒ |

1.) See "Additional software options of positioner SideControl Type 8792 (extract)" on page 21

2.) CCC (China Compulsory Certificate) for device versions with Ex approval

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Positioner SideControl Type 8792 remote version

Note:

Further versions are available on request.

| Communication | Electrical connection | Analogue feedback | 2 Digital output | Diagnostics ^{1.)} | cCSAus | ATEX II 3 GD/IECEX CCC ^{2.)} | Article no. |
|--------------------------------------------------------------------------------------------------------------------------------|-----------------------|-------------------|------------------|----------------------------|--------|---------------------------------------|-------------|
| Single-acting with low air capacity for actuator series Type 23xx (Ø70/90 mm) | | | | | | | |
| Without fieldbus communication | Cable gland | Yes | Yes | Yes | Yes | - | 318010 |
| | | - | Yes | Yes | Yes | - | 318011 |
| EtherNet/IP | Multipole | Via bus | Yes | Yes | Yes | - | 317936 |
| PROFINET | | Via bus | Yes | Yes | Yes | - | 317946 |
| Modbus TCP | | Via bus | Yes | Yes | Yes | - | 317956 |
| Bürkert system bus (bùS) | | Via bus | Yes | Yes | Yes | - | 317966 |
| Single and double-acting with universal air capacity for actuator series Type 23xx (Ø130/225 mm) and 27xx (Ø175/225 mm) | | | | | | | |
| Without fieldbus communication | Cable gland | - | - | - | Yes | - | 317991 |
| | | Yes | Yes | Yes | Yes | - | 317992 |
| | | - | Yes | Yes | Yes | - | 317993 |
| | | Yes | Yes | Yes | - | Yes | 318038 |
| EtherNet/IP | Multipole | Via bus | Yes | Yes | Yes | - | 317935 |
| PROFINET | | Via bus | Yes | Yes | Yes | - | 317945 |
| Modbus TCP | | Via bus | Yes | Yes | Yes | - | 317955 |
| Bürkert system bus (bùS) | | Via bus | Yes | Yes | Yes | - | 317965 |

1.) See "Additional software options of positioner SideControl Type 8792 (extract)" on page 21

2.) CCC (China Compulsory Certificate) for device versions with Ex approval

Remote position sensor for remote version of SideControl Type 8792

| Product | Mounting version | Electrical connection | cULus | ATEX II 3 GD/IECEX CCC ^{1.)} | Article no. |
|-----------------------------------|-------------------------|-------------------------------------------------------------|-------|---------------------------------------|-------------|
| Mounting on control valves | | | | | |
| <p>Type 8798 ▶</p> | Control valve Type 23xx | Cable gland - 10 m round cable | Yes | - | 300730 |
| | | Cable gland - 10 m round cable | - | Yes | 20003944 |
| | | Multipole - 10 m round cable | Yes | - | 307956 |
| | Control valve Type 27xx | Cable gland - 10 m round cable | Yes | - | 211535 |
| | | Cable gland - 10 m round cable | - | Yes | 226859 |
| | | Multipole - 10 m round cable | Yes | - | 329888 |
| NAMUR mounting | | | | | |
| | NAMUR (rotative) | Cable gland 2 m round cable (extendable to 10 m maximum) | Yes | - | 211536 |

1.) CCC (China Compulsory Certificate) for device versions with Ex approval











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7.4. Ordering chart accessories

Standard accessories

Note:





The associated communication software can be downloaded under **Type 8792** ▶.

| Description | Article no. |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------|
| M12 circular socket with cable, 8-pin, cable length: 5 m, for input and output signals | 919267  |
| M8 plug, 4-pin for digital outputs, with solder joints | 917131  |
| USB büS interface set 2 (Type 8923) for connection to the Bürkert Communicator software: including büS stick, connection cable to M12 plug, M12 connection cable on micro USB for the büS service interface and Y distributor, cable length: 0.7 m | 772551  |
| büS cable extension, M12, cable length: 1 m | 772404  |
| büS cable extension, M12, cable length: 3 m | 772405  |
| büS cable extension, M12, cable length: 5 m | 772406  |
| büS cable extension, M12, cable length: 10 m | 772407  |
| Silencer G ¼ | 780780  |
| USB interface for serial communication | 227093  |
| Software Bürkert Communicator | Type 8920 ▶ |
| AS-Interface flat cable clamp, M12 outlet, stainless steel outlet | 799646  |

Accessories SideControl NAMUR







Note:

Further information can be found in chapter **“6. Product installation”** on page 23.

| Description | Article no. |
|-------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------|
| VDI/VDE 3845 stainless steel universal assembly bridge (IEC60534 -6 -2) | 770294  |
| Attachment kit for stainless steel rotary actuators according to VDI/VDE 3845 (IEC 60534 -6 -2) | 787338  |
| Attachment kit for linear actuators according to IEC 60534 -6 -1 | 787215  |
| Position feedback with proximity switches (optional upgrade feature) ^{1.)} | 677218  |

1.) External end position feedback for upgrading SideControl NAMUR

Accessories SideControl Remote

| Description | Article no. |
|---------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------|
| Mounting bracket for stainless steel wall mount (spare part), see “6. Product installation” on page 23 | 675715  |
| Standard rail assembly kit aluminium/stainless steel, see “6. Product installation” on page 23 | 675702  |
| Attachment kit for Type 21xx/23xx actuator series, actuator size Ø 70/90/130 mm | 679917  |
| Attachment kit for Type 21xx/23xx actuator series, actuator size Ø 225 mm | 60025906  |
| Adapter kit remote sensor, control valves Type 27xx, actuator size Ø 175/225 mm | 679945  |
| Sensor puck (replacement part) | 682240  |