



## Digital electropneumatic Process Controller SideControl

- Compact and robust design
- Easy Start-up using TUNE-Function of the Positioner and Process controller
- Integrated diagnostic functions for valve monitoring
- Dynamic positioning system with no air consumption in controlled state
- EtherNet/IP, PROFINET, Modbus TCP, PROFIBUS DP-V1, DeviceNet or Bürkert system bus (büS)

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

### Can be combined with

	<b>Control valve system</b> Diaphragm linear actuator
	<b>Control valve system</b> Rotary actuator
	<b>Control valve system</b> Rotary actuator with remote positioner
	<b>Control valve system</b> Control valve with remote positioner
	<b>Control valve system</b> Hygienic process control valve with remote positioner

### Type description

The digital process controller Type 8793 is designed to standardization acc. to IEC 60534-6-1 or VDI/VDE 3845 (IEC 60534-6-2) for assembly with linear and rotary actuators. In addition, the remote version can be combined with Bürkert process control valves.

The process controller can be operated by the usual current and voltage standard signals and can also be equipped with the fieldbus interface. The actual process value is directly supplied to the device as 4...20 mA, PT100 or as frequency signal. The process controller calculates the position setpoint for the subordinated positioner through variance comparison.

The parameterization of process controller can be carried out automatically via Tune function. The handling is easily done either on a graphic display with keypad or via Bürkert Communicator.

The process controller is equipped with diagnostic functions to monitor the state of the valve. With the diagnostics, the operating conditions of the control valve can be monitored. This allows planned maintenance and optimizes plant availability.

The pilot valve system can be used equally for single and double acting actuators. It is characterized by a defined safety feature in case of failure of the electrical or pneumatic power and possesses an enormous air capacity range with pressure supply up to 7 bar.

## Table of contents

<b>1. General technical data</b>	<b>3</b>
1.1. Process controller SideControl Type 8793 .....	3
1.2. Linear remote position sensor (ELEMENT Type 8798) .....	5
1.3. Rotative remote position sensor (NAMUR) .....	5
1.4. Position feedback with proximity switches (accessories for retrofitting) .....	6
<b>2. Dimensions</b>	<b>7</b>
2.1. NAMUR version .....	7
2.2. Remote version.....	9
2.3. ATEX/IECEx version.....	10
2.4. Remote position sensor version .....	10
2.5. Mounting on control valve acc. to NAMUR .....	11
<b>3. Device/Process connections</b>	<b>12</b>
3.1. Electrical connections.....	12
Multipole connection .....	12
PROFIBUS DP Connection.....	16
EtherNet/IP-, PROFINET-, Modbus TCP-Connection.....	17
Bürkert system bus (büS) connection.....	18
<b>4. Performance specifications</b>	<b>20</b>
4.1. Signal flow diagram .....	20
Process control loop .....	20
Position control loop .....	20
Additional software options of the process controller SideControl Type 8793 (extract).....	20
4.2. Interface diagram .....	21
Analogue version without fieldbus interface .....	21
Version with fieldbus interface .....	21
<b>5. Product installation</b>	<b>22</b>
5.1. Mounting options.....	22
NAMUR version .....	22
Remote version.....	23
Position feedback with proximity switches.....	24
5.2. Combination possibilities with pneumatic process valves .....	24
<b>6. Ordering information</b>	<b>25</b>
6.1. Bürkert eShop – Easy ordering and quick delivery.....	25
6.2. Bürkert product filter.....	25
6.3. Ordering chart.....	26
Process controller SideControl Type 8793 NAMUR version.....	26
Process controller SideControl Type 8793 remote version.....	27
Remote position sensor for remote version of SideControl Type 8793 .....	27
6.4. Ordering chart Accessories .....	28
Standard accessories .....	28
Accessories for NAMUR SideControl .....	28
Accessories for Remote SideControl.....	28

## 1. General technical data

### 1.1. Process controller SideControl Type 8793

<b>Product features</b>	
Dimensions	Detailed information can be found in chapter “ <a href="#">2. Dimensions</a> ” on page 7.
Material	
Housing	Aluminium plastic-coated
Seals	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 or DeviceNet)
Commissioning	
Initialization positioner/process controller	Automatic by P.TUNE function (self-optimization of PID parameters)
Status display	
Optical position indicator (mechanical)	Integrated (for NAMUR version)
Communication	
Fieldbus	EtherNet/IP, PROFINET, Modbus TCP, PROFIBUS DP-V1, DeviceNet
Digital	Bürkert system bus (büS) - based on CANopen
Position sensor	
Integrated position sensor (NAMUR)	Conductive plastic rotary potentiometer
External remote position sensor	Linear or rotative
Measuring range for rotary actuators	
PROFIBUS, DeviceNet	Rotation angle: 30°...150°
EtherNet/IP, PROFINET, Modbus TCP and büS	Rotation angle: 30°...180°
Stroke range for linear actuators	3...130 mm, depending on the lever of the attachment kit
Electrical data	
Operating voltage	24 V DC ± 10 %
Residual ripple	Max. 10 % (for DC)
Protection class	III acc. to DIN EN 61140
Power consumption	< 5 W
Input /Output	
Digital input	1 binary input, 0...5 V = log “0”, 10...30 V = log “1”
Digital output	2 binary output (optional), galvanically isolated
Current limitation	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 kΩ
Actual value signal	
Setting 4...20 mA	70 Ω Input resistance/resolution 12 bit
Frequency setting	20 kΩ Input resistance, 0...1000 Hz/1 % o.R. input frequency range, Input signal >300 mV <sub>ss</sub> sine, rectangle, triangle
Setting Pt 100	Measuring range -20...+220 °C, resolution <0.1 °C
Electrical connection	
Multipole version	Screw terminals: M8, M12 acc. to device version (see connection description)
Cable gland version	2x M20×1.5 (cable Ø6...12 mm) on screw terminals (0.14...1.5 mm <sup>2</sup> )
Remote version	1x M12×1.5 (cable Ø3...6.5 mm)

### Pneumatic data

<b>Control medium</b>	Neutral gases, air, quality class acc. to ISO 8573-1
Dust content	Class 7 (<40 µm particle size)
Particle density	Class 5 (<10 mg/m³)
Pressure dew point	Class 3 (<-20 °C)
Oil content	Class X (<25 mg/ m³)

<b>Air supply filter</b>	Exchangeable
Mesh size	~0.1 mm
Supply pressure	1.4...7 bar <sup>1,2)</sup>
Pilot air ports	Threaded port G 1/4

### Positioning system (control function and air capacity)

#### Universal air capacity

Single and double acting	50 l <sub>N</sub> /min (at 1.4 bar <sup>2)</sup> ) for aeration and ventilation 150 l <sub>N</sub> /min (at 6 bar <sup>2)</sup> ) for aeration and ventilation $Q_{Nn}=100 \text{ l}_N/\text{min}$
--------------------------	--

#### Low air capacity

Single acting	$Q_{Nn}=7 \text{ l}_N/\text{min}$ ( $Q_{Nn}$ acc. to definition at pressure drop from 7 to 6 bar absolute)
---------------	--

### Approvals and certificates

Conformity	EMC directive 2014/30/EU
UL	CAN/CSA-C22 2 no. 139 UL 429
CSA	Class 3221 82-VALVES - actuator - Cert. acc. to US Standards Class 3221 02-VALVES - actuator
ATEX	II 3G Ex ec ic IIC T4 Gc II 3D Ex tc IIIC T135 °C Dc Certificate: BVS 16 ATEX E 118 X
IECEx	Ex ec ic IIC T4 Gc Ex tc IIIC T135 °C Dc Certificate: IECEx BVS 16.0091 X

### Environment and installation

#### Installation and mechanical data

Mounting variants	NAMUR acc. to IEC 60534-6-1 resp. VDI/VDE 3845 (IEC 60534-6-2), remote
Installation position	As required, display above or sideways
Valve actuator (type, size)	Rotary and linear actuators acc. to NAMUR, ELEMENT Type 2301, 2300 (Actuator size Ø70/90/130 mm) and CLASSIC (Actuator size Ø175/225 mm) in combination with remote version
Adapter kits	Detailed information can be found in chapter " <a href="#">6.4. Ordering chart Accessories</a> " <a href="#">on page 28</a>

#### Operating conditions

##### Ambient temperature (max.)

With ATEX/IECEx approval	0...+60 °C
Without Ex approval	-10...+60 °C
Degree of protection	IP65/IP67 acc. to EN 60529, 4X acc. to NEMA 250 Standard
Operating altitude	Up to 2000 m above sea level

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

2.) Pressure specifications: Overpressure with respect 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 ± 10 %
Protection class	III acc. to DIN EN 61140
Power consumption	<0.3 W

### Electrical connection

Cable gland (cable length)	1x M16×1.5 (Cable Ø5...10 mm) on screw terminals (0.14...1.5 mm <sup>2</sup> )
Connection cable	10 m

### Approvals and certificates

Degree of protection	IP65 and IP67 acc. to EN 60529, 4X acc. to NEMA 250 Standard
Ignition protection	II 3G Ex ec IIC T4 Gc II 3D Ex tc IIIC T135 °C Dc
Conformity	EMC directive 2014/30/EU
Approvals	cULus certificate no. 238179

### 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 actuators	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 acc. to DIN EN 61140
Power consumption	<0.8 W
Electrical connection	2 m round cable (shielded)

### Approvals and certificates

Degree of protection	IP65 acc. to EN 60529
Conformity	EMC directive 2014/30/EU
Approvals	UL (cULus) certificate no. E226909

### Environment and installation

Ambient temperature	-25...+80 °C
---------------------	--------------

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

**Note:**

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

**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 acc. to DIN EN 61140
DC rated current	≤ 100 mA
Residual ripple	≤ 10 % U <sub>ss</sub>

**Approvals and Certificates**

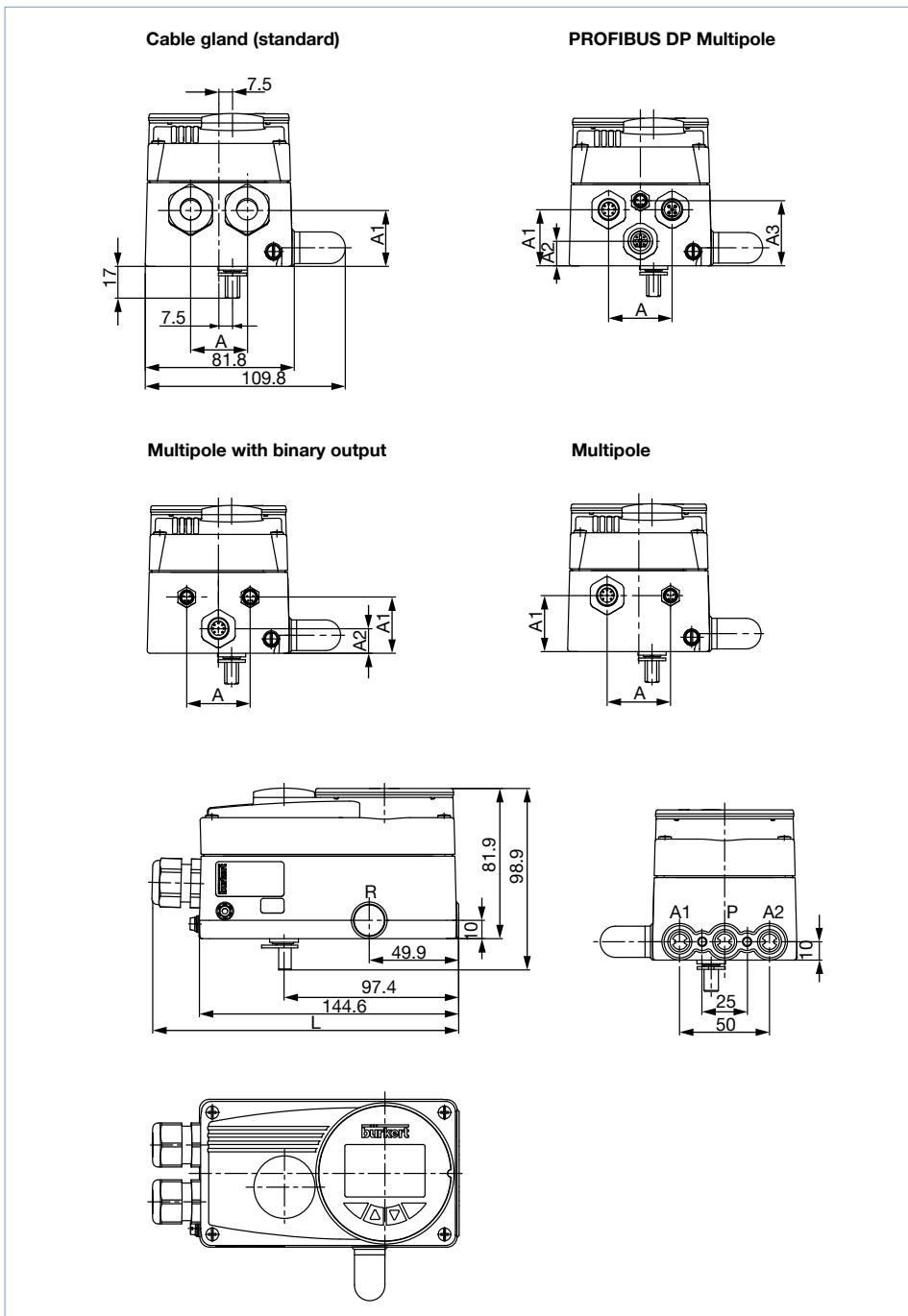
Degree of protection	IP65 and IP67
Conformity	EMC directive 2014/30/EU

## 2. Dimensions

### 2.1. NAMUR version

Note:

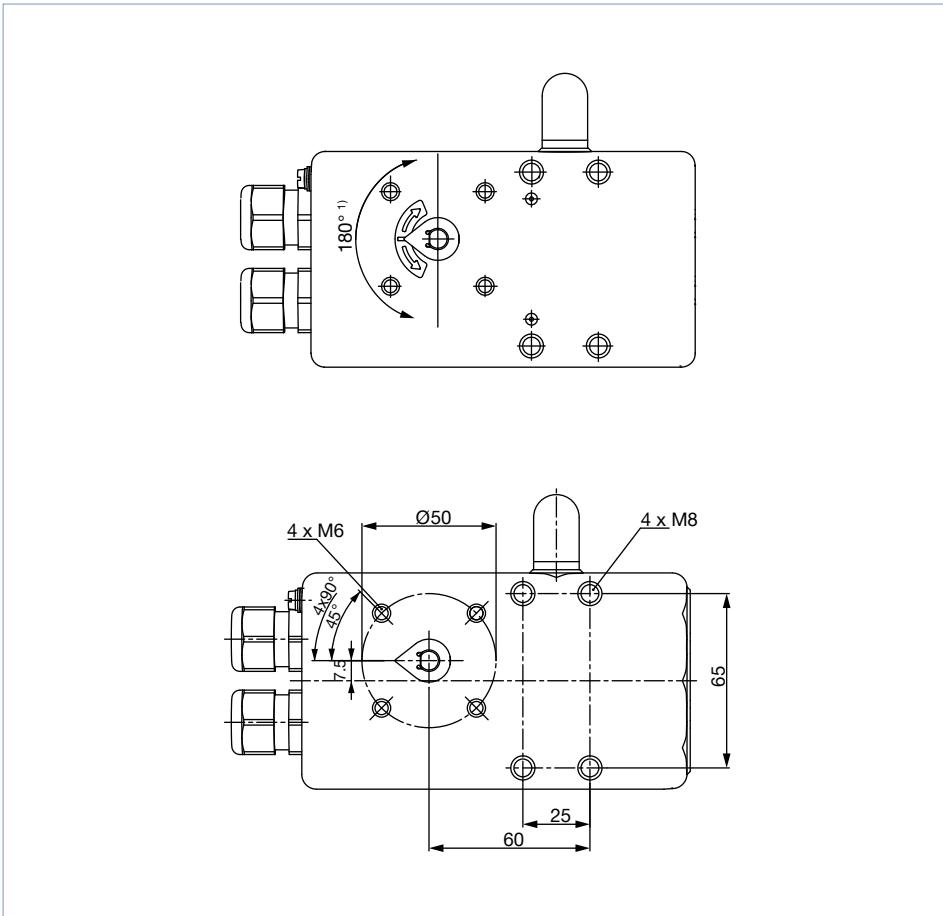
Dimensions in mm



Description	L	A	A1	A2	A3
Standard	171.1	31	30	—	—
PROFIBUS DP	157.8	36	31	13.5	36.1
Multipole binary output	157.6	36	31	13.5	—
Multipole	157.6	36	31	—	—

**Note:**

- The rotation angle of the sensor must be within a range of  $180^\circ$ <sup>1)</sup>.
- With the valve open approx. 50 %, the sensor indicator should be in this position.
- Dimensions in mm

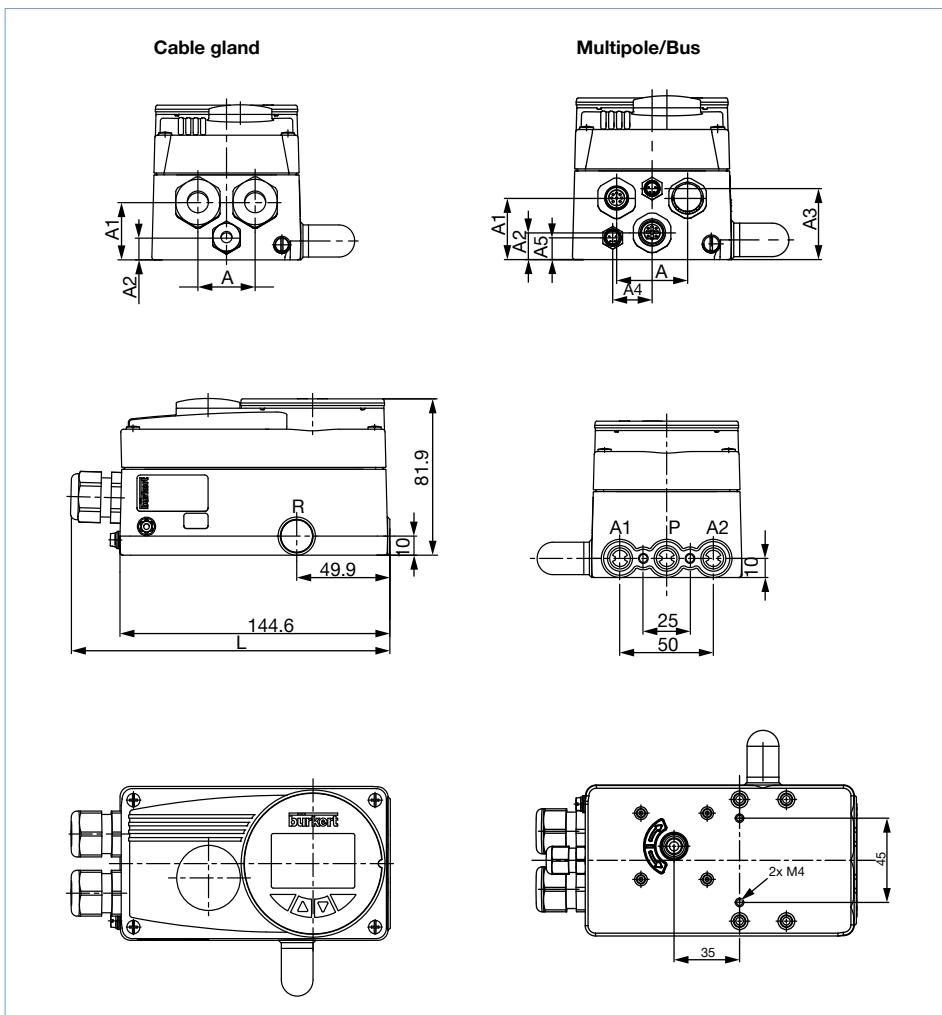


1.) For the EtherNet/IP, PROFINET, Modbus TCP and büS versions a max. of  $180^\circ$  is possible, for the other versions max.  $150^\circ$ .

## 2.2. Remote version

**Note:**

Dimensions in mm

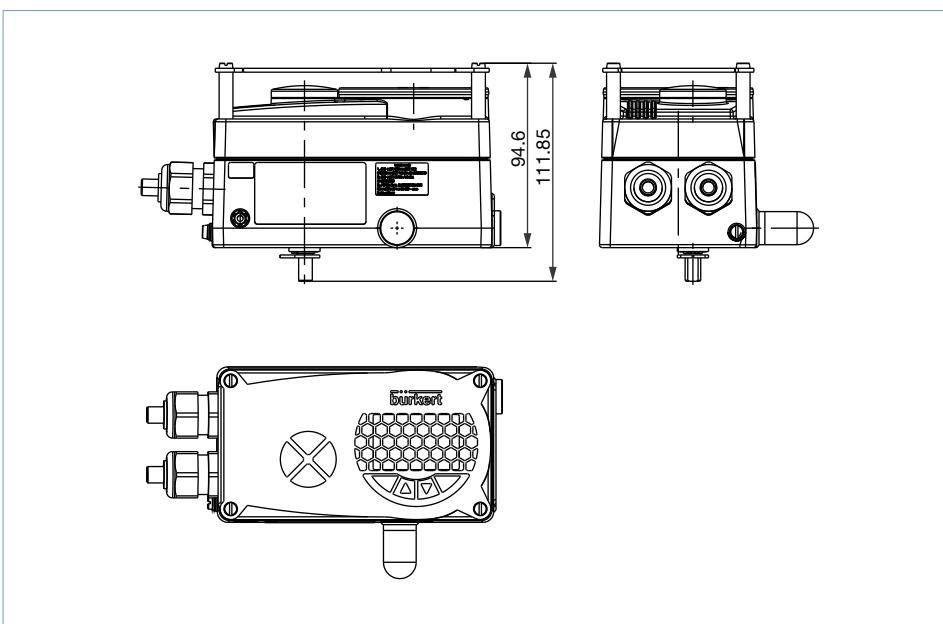


Description	L	A	A1	A2	A3	A4	A5
Remote cable gland	171.1	31	30	11.5	—	—	—
Remote multipole/bus	157.8	36	31	13.5	36	20	11

### 2.3. ATEX/IECEx version

**Note:**

Dimensions in mm

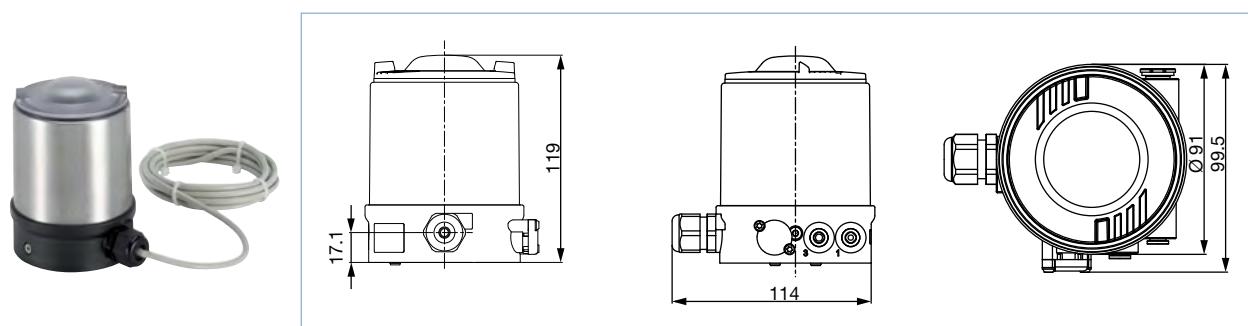


### 2.4. Remote position sensor version

**Note:**

Dimensions in mm

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

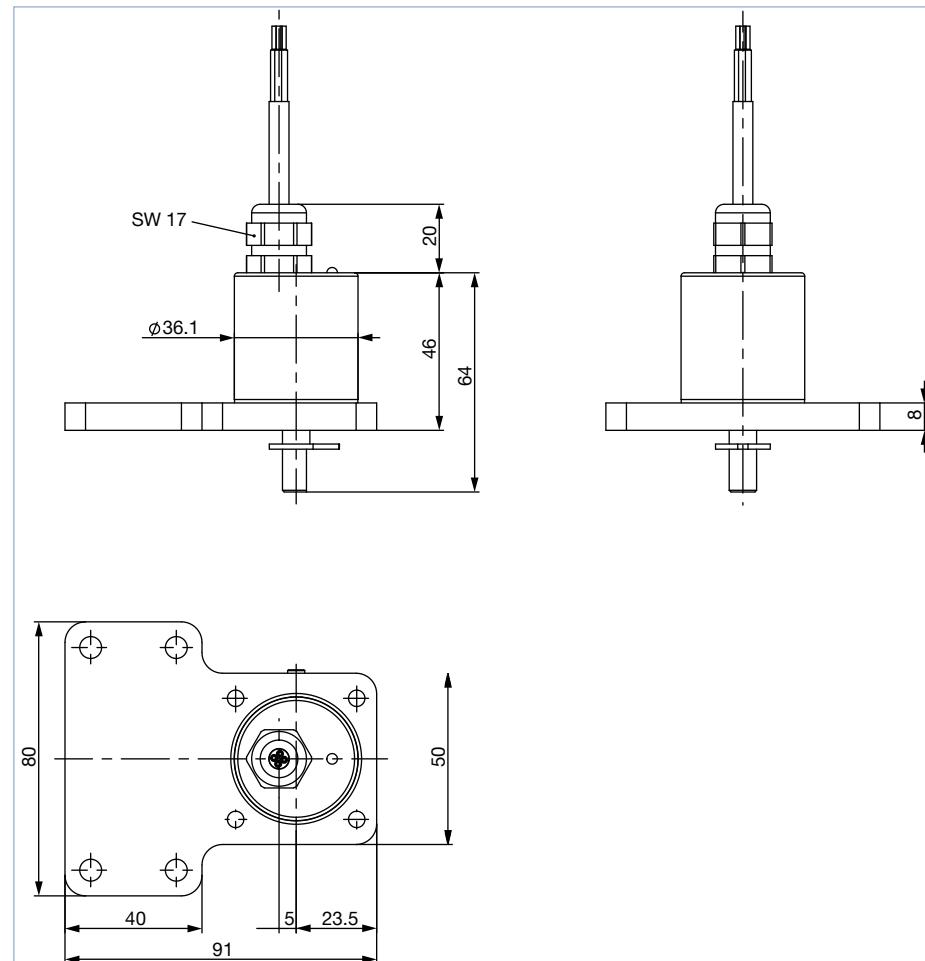


## 2.5. Mounting on control valve acc. to NAMUR

**Note:**

Dimensions in mm

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



### 3. Device/Process connections

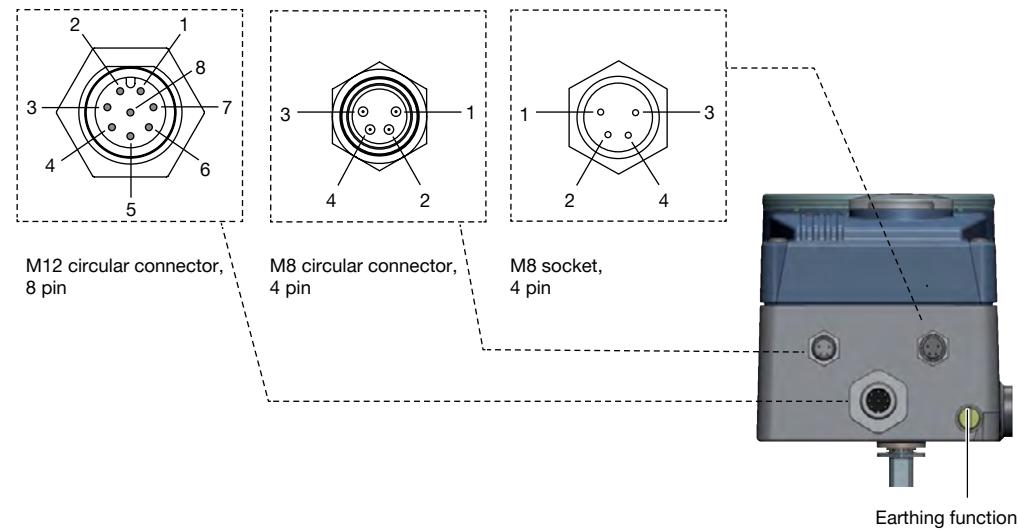
#### 3.1. Electrical connections

##### Multipole connection

Operating voltages  
and diverse signals

Actual process value

Binary output



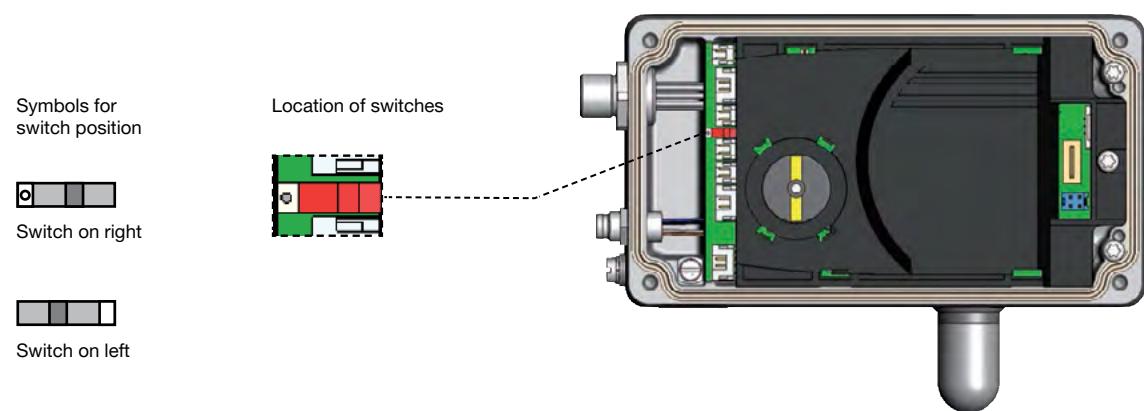
**M12 circular plug, 8 pin (setpoint)**

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%	0...5 V (log. 0) 10...30 V (log. 1)
4	+24 V	4			
5	Binary input +	5		+	
6	Binary input GND	6			
<b>Option analogue feedback</b>					
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 binary outputs options)**

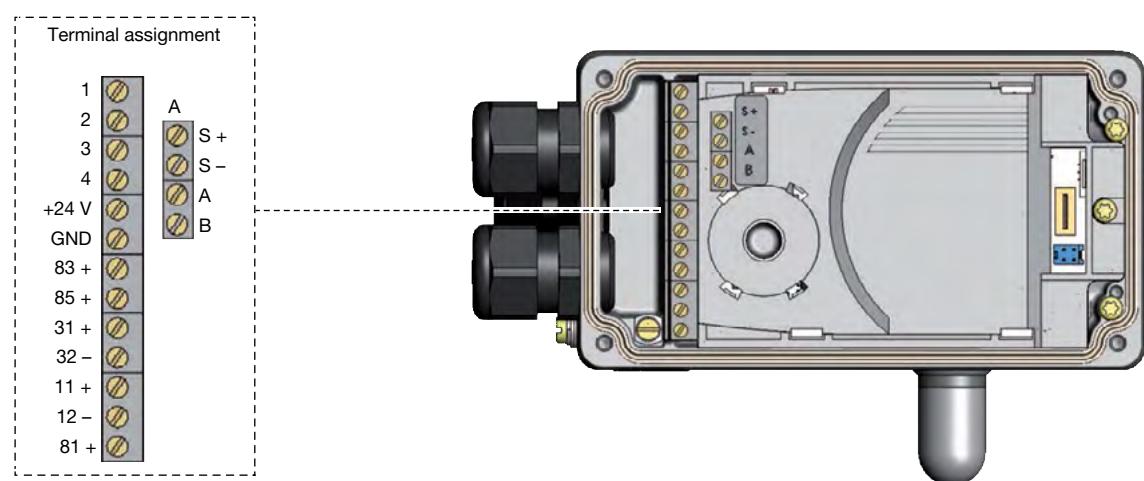
Pin	Pin assignment	Outer circuitry/Signal level			
1	Binary output 1	1		→ 24 V/0 V, NC/NO Relative to operating voltage GND (terminal GND)	
2	Binary output 2	2		→ 24 V/0 V, NC/NO Relative to operating voltage GND (terminal GND)	
3	Binary output GND	3		→ GND	

## Round plug M8, 4 pin (actual process value)



Input type <sup>1.)</sup>	Pin	Pin assignment	DIP switch	Outer circuitry
4...20 mA internally supplied	1	+24 V Transmitter supply	Switch on left	1 →
	2	Output from transmitter		2 → Transmitter
	3	GND identical with GND operating voltage		3 → GND
	4	Bridge acc. to GND (GND via 3-wire Transmitter)		4 →
4...20 mA externally supplied	1	Not assigned	Switch on right	-
	2	Process actual value +		2 → 4...20 mA
	3	Not assigned		-
	4	Process actual value -		4 → GND
Frequency internally supplied	1	+24 V Sensor supply	Switch on left	1 → +24 V
	2	Clock input +		2 → Clock +
	3	Clock input - (GND identical with GND operating voltage)		3 → Clock -
	4	Not assigned		-
Frequency externally supplied	1	Not assigned	Switch on right	-
	2	Clock input +		2 → Clock +
	3	Clock input -		3 → Clock -
	4	Not assigned		-
Pt 100	1	Not assigned	Switch on right	2 → Pt 100
	2	Process actual value 1 (power supply)		3 →
	3	Process actual value 3 (GND)		4 →
	4	Process actual value 2 (compensation)		

1.) Adjustable via Software

**Screw terminal connection**

Terminal	Pin assignment	Outer circuitry/Signal level		
11 +	Setpoint +	11 +	○	+ (0/4...20 mA or 0...5/10 V) Completely galvanically isolated
12 -	Setpoint GND	12 -	○	GND
81 +	Binary 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	○	Max. residual ripple 10 %

**Analogue feedback option/binary outputs**

Terminal	Pin assignment	Outer circuitry/Signal level		
83 +	Binary output 1	83 +	○	24 V/0 V, NC/NO Relative to operating voltage GND (terminal GND)
85 +	Binary 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 analogue feedback

**Remote version option in conjunction with remote position sensor Type 8798****Note:**

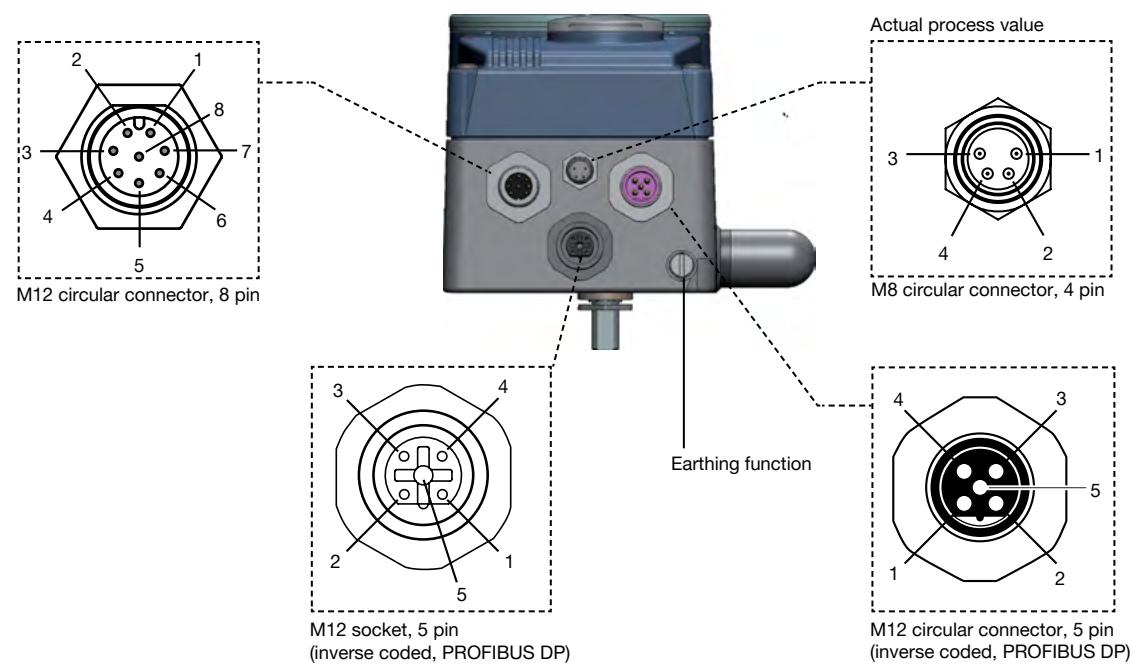
For variants without remote version: Terminals A, B, S+, S- not connected

Terminal	Pin assignment	Outer circuitry/Signal level		
Remote position sensor	A	A	○	A-line
	B	B	○	B-line
	S +	S +	○	+
	S -	S -	○	-
				Remote sensor Type 8798

**Terminal assignments of the process actual value - input (circular plug M8)**

Input type <sup>1.)</sup>	Terminal	Pin assignment			Outer circuitry		
4...20 mA internally supplied	Process actual value	1	+24 V Input Transmitter				
		2	Output from transmitter				
		3	Bridge acc. to GND (GND from 3-conductor transmitter)				
		4	Not assigned				
	GND		GND of operating voltage				
4...20 mA externally supplied	Process actual value	1	Not assigned				
		2	Process actual value +				
		3	Process actual value -				
		4	Not assigned				
Frequency internally supplied	Process actual value	1	+24 V Sensor supply				
		2	Clock input +				
		3	Not assigned				
		4	Clock input -				
	GND		GND of operating voltage				
Frequency externally supplied	Process actual value	1	Not assigned				
		2	Clock input +				
		3	Not assigned				
		4	Clock input -				
Pt 100	Process actual value	1	Not assigned				
		2	Process actual value 1 (power supply)				
		3	Process actual value 3 (GND)				
		4	Process actual value 2 (compensation)				

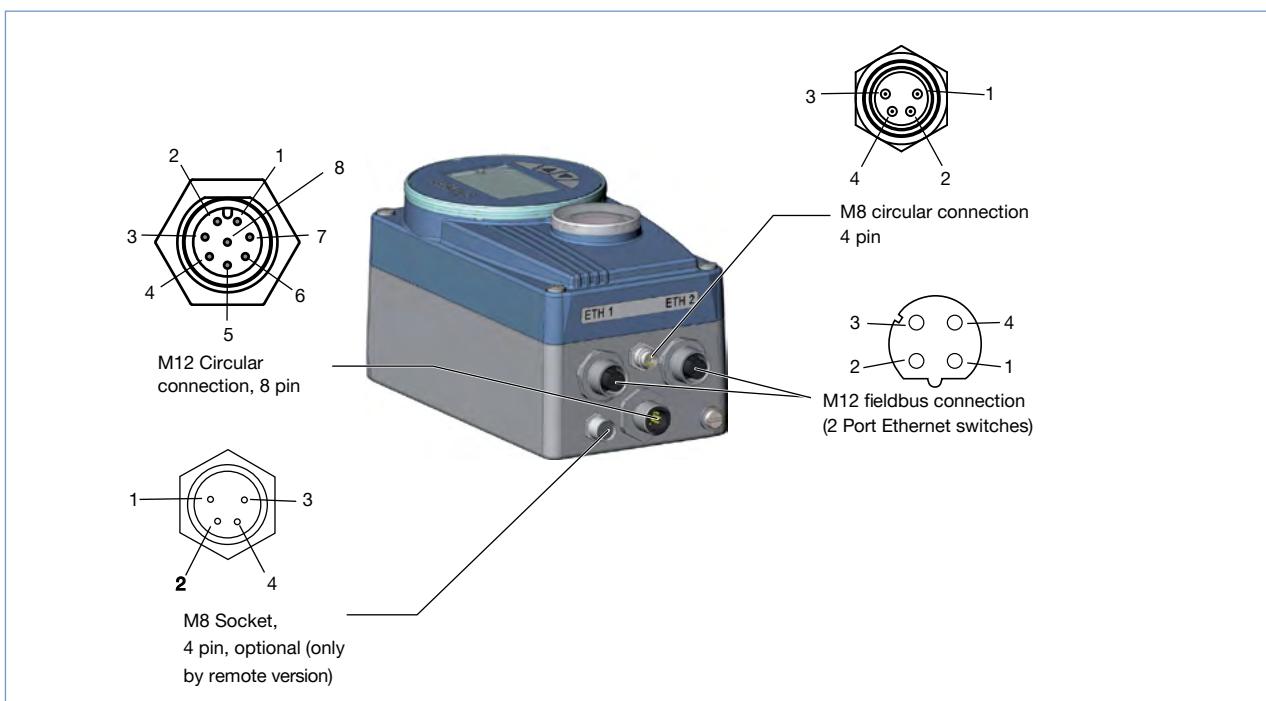
1.) Adjustable via Software

**PROFIBUS DP Connection****Operating voltage - M12 Circular plug, 8 pin**

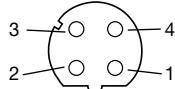
Pin	Pin assignment	Outer circuitry/Signal level		
1	Not assigned			
2	Not assigned			
3	GND	3		24 V DC ±10 %
4	+24 V	4		Max. residual ripple 10 %
5	Binary input +			
6	Binary input -			
7	Binary output 1 (relative to pin 3)			
8	Binary output 2 (relative to pin 3)			

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

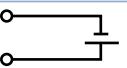
Pin	Pin assignment	Outer circuitry/Signal level	
1	VP+5	Load resistance supply	
2	RxD/TxD-N	Receive/transmit data -N, A-line	
3	DGND	Data transfer potential (Ground to 5 V)	
4	RxD/TxD-P	Receive/transmit data -P, B-line	
5	Shielding	Shielding/protective earth	

**EtherNet/IP-, PROFINET-, Modbus TCP-Connection****M12 fieldbus connection D-coded**

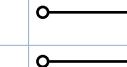
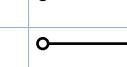
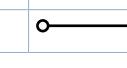
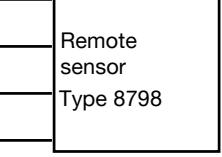
Connection for EtherNet/IP takes place via M12 circular connector , 4 pin, D-coded

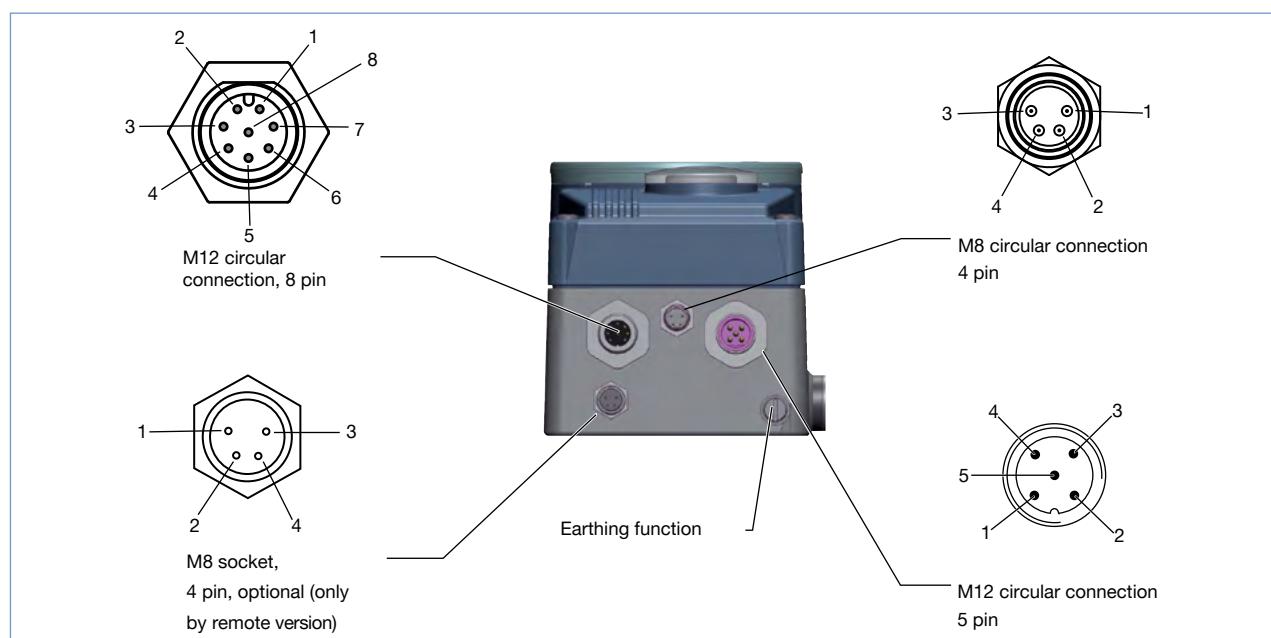
	<b>Pin</b>	<b>Description</b>
	<b>1</b>	Transmit +
	<b>2</b>	Receive +
	<b>3</b>	Transmit -
	<b>4</b>	Receive +

**Operating voltage - M12 circular plug, 8 pin**

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

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

<b>Pin</b>	<b>Pin assignment</b>	<b>Outer circuitry/Signal level</b>			
<b>1</b>	Sensor supply +	S +		+	
<b>2</b>	Sensor supply -	S -		-	
<b>3</b>	Serial interface, A-line	A		A-line	
<b>4</b>	Serial interface; B-line	B		B-line	
					

**Bürkert system bus (büS) connection**

**Fieldbus connection - M12x1 circular plug, 5 pin**

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

**Operating voltage - M12 circular plug, 8 pin**

Pin	Pin assignment	Device side	Outer circuitry/Signal level
1	Not assigned		
2	Not assigned		
<b>Operating voltage</b>			
3	GND	3	○ —   24 V DC ± 10 %
4	+24 V	4	○ —   Max. residual ripple 10 %
<b>Input signal of the control centre (e. g. SPS)</b>			
5	Binary input +	5	○ — +   0...5 V (log. 0) 10...30 V (log. 1)
6	Binary input GND	6	○ —   GND (identical to pin 3)
<b>Output signal of the control centre (e. g. SPS) - (only used with binary output option)</b>			
7	Binary output 1 (relative to pin 3)	7	○ —   0...24 V
8	Binary 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	Outer circuitry/Signal level		
1	Sensor supply +	S +	○ —	+
2	Sensor supply -	S -	○ —	-
3	Serial interface, A-line	A	○ —	A-line
4	Serial interface, B-line	B	○ —	B-line

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

Pin	Pin assignment	On device side	Outer circuitry
1	Potentiometer 1	1	
2	Wiper 2	2	Potentiometer
3	Potentiometer 3	3	
4	Not assigned		

**M8 circular plug, 4 pin - process actual value (for Type 8793)**

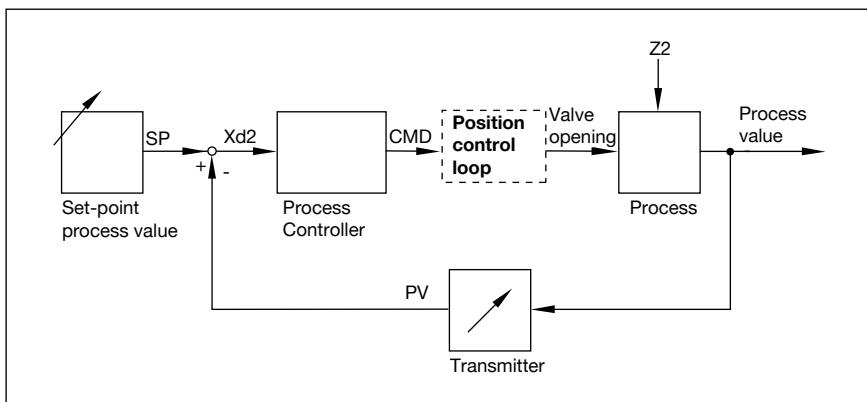
Input type <sup>1.)</sup>	Pin	Pin assignment	DIP switch	Outer circuitry
4...20 mA internally supplied	1	+24 V Transmitter supply		
	2	Output from transmitter		1 → Transmitter
	3	GND identical with GND Operating voltage		
	4	Bridge acc. to GND (GND via 3-wire Transmitter)		4 → GND
4...20 mA externally supplied	1	Not assigned		
	2	Process actual value +		2 → 4...20 mA
	3	Not assigned		
	4	Process actual value -		4 → GND
Frequency internally supplied	1	+24 V Sensor supply		1 → +24 V
	2	Clock input +		2 → Clock +
	3	Clock input - (GND identical with GND Operating voltage)		3 → Clock -
	4	Not assigned		
Frequency externally supplied	1	Not assigned		
	2	Clock input +		2 → Clock +
	3	Clock input -		3 → Clock -
	4	Not assigned		
Pt 100	1	Not assigned		
	2	Process actual value 1 (power supply)		2 → Pt 100
	3	Process actual value 3 (GND)		
	4	Process actual value 2 (compensation)		3 → Pt 100

1.) Adjustable via software

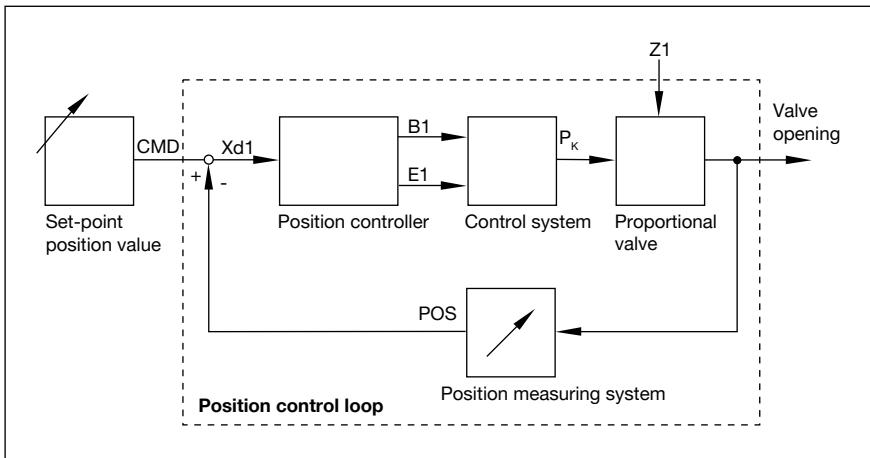
## 4. Performance specifications

### 4.1. Signal flow diagram

#### Process control loop



#### Position control loop



#### Additional software options of the process controller SideControl Type 8793 (extract)

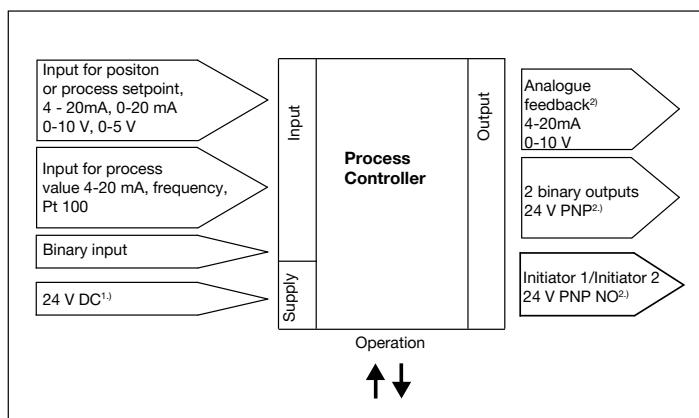
- Automatic start of the control system
- Automatic parameterisation of the process control loop
- Automatic or manual characteristics curves selection
- Setting of the seal and the maximum stroke threshold respectively
- Parameterisation of the positioner
- Manual parameterisation of process controller
- Limitation of the stroke range
- Limitation of the manipulating speed
- Setting of the moving direction
- Configuration of the binary input
- Signal range splitting on several controllers
- Configuration of analogue or 2 binary outputs
- Signal fault detection
- Safety position
- Code protection
- Contrast inversion of the display
- Parameterizable diagnostic functions<sup>1)</sup>/Binary output (option)

- Operating-hours counter
- Path accumulator
- Position monitoring
- Process actual value monitoring
- Graphical display of the dwell time density and movement range
- Monitoring of the mechanical end positions in the armature

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

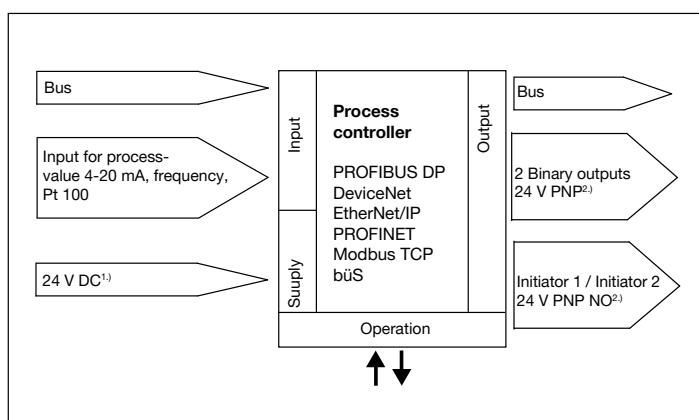
## 4.2. Interface diagram

### Analogue version without fieldbus interface



### Version with fieldbus interface

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



1.) The operating voltage is supplied with a 3-wire unit independent from the setpoint signal

2.) Alternative options

## 5. Product installation

### 5.1. Mounting options

#### NAMUR version

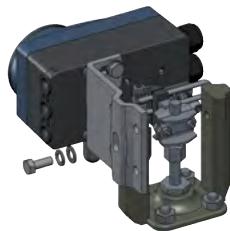
**Note:**

Positioner with integrated position sensor, mounting acc. 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 standardized interface for direct attachment to linear actuators acc. to NAMUR/IEC 60534-6-1 and VDI/VDE 3845 (IEC 60534-6-2).

#### Linear actuators

See [operating manual](#) ▶



Description	Article no.
Adapter kit	787215

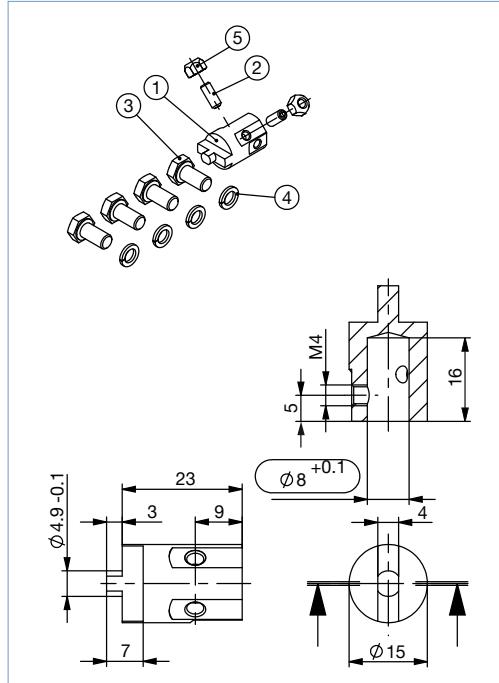
#### Rotary actuators

See [operating manual](#) ▶



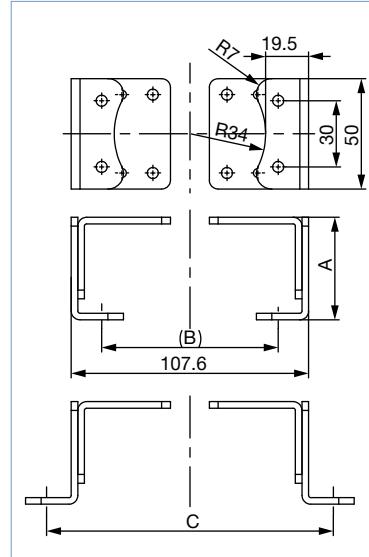
Description	Article no.
Adapter kit	787338
Mounting bridge	770294

#### Adapter kit for linear actuator



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

#### Mounting bridge for rotary actuator



### Remote version

**Note:**

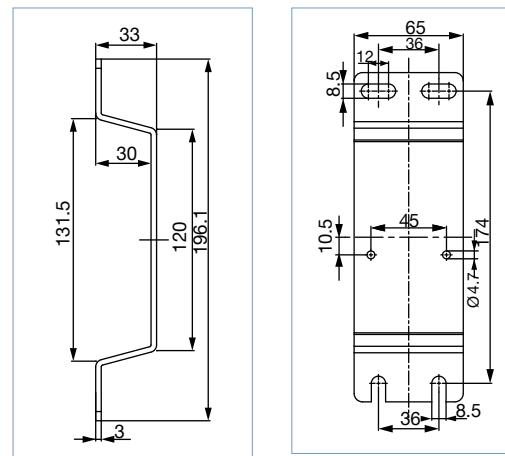
- Dimensions in mm
- 2 mounting options

The remote version of the SideControl positioner 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 DIN rail in a control cabinet.

#### Wall mounting with assembly brackets



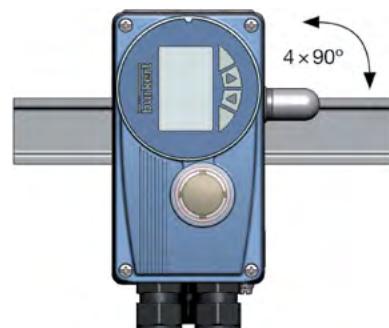
Description	Article no.
Brackets for wall mounting	675715



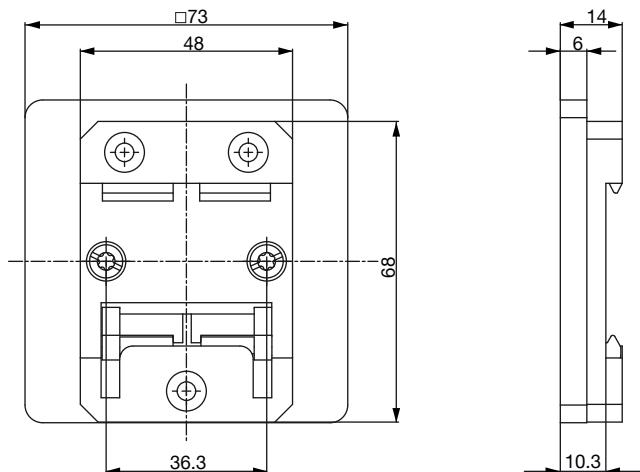
#### Mounting on DIN-rail

**Note:**

- The adapter can be turned by 90° on the DIN rail.
- Dimensions in mm



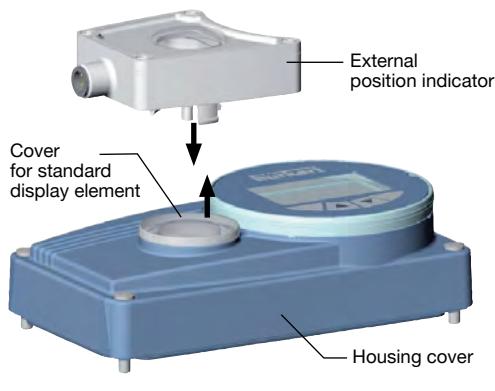
Description	Article no.
Holder for DIN rail mounting	675702



### Position feedback with proximity switches

**Note:**

Upgrade feature for SideControl NAMUR



Connecting external position indicator

Description	Article no.
Position feedback	677218 ☰

## 5.2. Combination possibilities with pneumatic process valves

**Note:**

Detailed ordering information can be found in the chapter “[6.3. Ordering chart](#)” on page 26.

<b>Process controller SideControl 8793</b>  	<b>8793 NAMUR</b>    Linear actuators IEC 60534-6-1  Rotary actuators VDI/VDE 3845 (IEC 60534-6-2)  <b>Type 8805 ▶</b> Ball valve/Butterfly valve with pneumatic rotary actuator	<b>8793 Remote</b>    Linear actuators IEC 60534-6-1  Rotary actuators VDI/VDE 3845 (IEC 60534-6-2)  <b>Type 8798 ▶</b> Remote sensor for pneumatically actuated process valves	<b>8793 Remote</b>    <b>Type 2300 ▶</b> Pneumatically actuated 2-way angle seat control valve ELEMENT + <b>Type 8798 ▶</b> Remote sensor for pneumatically actuated process valves
---	--	--	---

## 6. Ordering information

### 6.1. Burkert eShop – Easy ordering and quick delivery



#### Burkert eShop – Easy ordering and fast delivery

You want to find your desired Burkert 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](#)

### 6.2. Burkert product filter



#### Burkert product filter – Get quickly to the right product

You want to select products comfortably based on your technical requirements? Use the Burkert product filter and find suitable articles for your application quickly and easily.

[Try out our product filter](#)

### 6.3. Ordering chart

#### Process controller SideControl Type 8793 NAMUR version

**Note:**

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

Communication	Electrical connection	Analogue feedback	2 Binary output	Diagnostics <sup>1.)</sup>	cCSAus	ATEX II 3 GD/ IECEx	Article no.
<b>Single and double-acting with universal air capacity</b>							
Without Fieldbus communication	Cable gland	–	–	–	Yes	–	317976 ☰
		–	Yes	Yes	Yes	–	317978 ☰
		Yes	Yes	Yes	Yes	–	317977 ☰
		Yes	Yes	Yes	–	Yes	318040 ☰
		–	Yes	Yes	–	Yes	318041 ☰
	Multipole	–	–	–	Yes	–	317979 ☰
		–	Yes	Yes	Yes	–	317981 ☰
		Yes	Yes	Yes	Yes	–	317980 ☰
PROFIBUS DP-V1	Multipole	Via Bus	–	–	Yes	–	206600 ☰
		Via Bus	Yes	Yes	Yes	–	206601 ☰
DeviceNet	Multipole	Via Bus	–	–	Yes	–	239097 ☰
		Via Bus	Yes	Yes	Yes	–	239098 ☰
EtherNet/IP	Multipole	Via Bus	–	Yes	Yes	–	317930 ☰
		Via Bus	Yes	Yes	Yes	–	317931 ☰
PROFINET	Multipole	Via Bus	–	Yes	Yes	–	317940 ☰
		Via Bus	Yes	Yes	Yes	–	317941 ☰
Modbus TCP	Multipole	Via Bus	–	Yes	Yes	–	317950 ☰
		Via Bus	Yes	Yes	Yes	–	317951 ☰
Bürkert system bus (büS)	Multipole	Via Bus	–	Yes	Yes	–	317960 ☰
		Via Bus	Yes	Yes	Yes	–	317961 ☰

1.) See "Additional software options of the process controller SideControl Type 8793 (extract)" on page 20

**Process controller SideControl Type 8793 remote version**
**Note:**

Further versions on request

Communication	Electrical connection	Analogue feedback	2 Binary output	Diagnostics <sup>1.)</sup>	cCSAus	ATEX II 3 GD/IECEx	Article no.
<b>Single-acting with low air capacity for actuator series Type 23xx (Ø70/90 mm)</b>							
Without Fieldbus communication	Cable gland	–	–	–	Yes	–	318015
		–	Yes	Yes	Yes	–	318013
		Yes	Yes	Yes	Yes	–	318012
EtherNet/IP	Multipole	Via Bus	Yes	Yes	Yes	–	317937
PROFINET		Via Bus	Yes	Yes	Yes	–	317947
Modbus TCP		Via Bus	Yes	Yes	Yes	–	317957
Bürkert system bus (büS)		Via Bus	Yes	Yes	Yes	–	317967
<b>Single and double-acting with universal air capacity for actuator series Type 23xxx (Ø130 mm) and 27xx (Ø175/225 mm)</b>							
Without Fieldbus communication	Cable gland	–	–	–	Yes	–	317982
		Yes	Yes	Yes	Yes	–	317983
		–	Yes	Yes	Yes	–	317984
		Yes	Yes	Yes	–	Yes	318042
EtherNet/IP	Multipole	Via Bus	Yes	Yes	Yes	–	317934
PROFINET		Via Bus	Yes	Yes	Yes	–	317944
Modbus TCP		Via Bus	Yes	Yes	Yes	–	317954
Bürkert system bus (büS)		Via Bus	Yes	Yes	Yes	–	317964

1.) See "Additional software options of the process controller SideControl Type 8793 (extract)" on page 20

**Remote position sensor for remote version of SideControl Type 8793**

Product	Mounting version	Electrical connection	cULus	ATEX II 3 GD/IECEx	Article no.
<b>Mounting on control valves</b>					
 <b>Type 8798 ▶</b>	Control valve Type 23xx	Cable gland - 10 m round cable	Yes	–	212360
		Cable gland - 10 m round cable	–	Yes	226860
	Control valve Type 27xx	Cable gland - 10 m round cable	Yes	–	211535
		Cable gland - 10 m round cable	–	Yes	226859
<b>NAMUR mounting</b>					
	NAMUR (rotative)	Cable gland - 2 m round cable (extendible to 10 m max.)	Yes	–	211536

## 6.4. Ordering chart Accessories

### Standard accessories

**Note:**

The corresponding communication software can be downloaded from [www.buerkert.com](http://www.buerkert.com), see **Type 8793 ▶**.

Description	Article no.
M12 socket, 8 pin with 5 m cable for power supply and input/output signals	919267 Ⓜ
M8 plug, 4 pin for binary outputs, with solder joints	917131 Ⓜ
M8 socket, 4 pin with 5 m cable for process actual value from sensor	264602 Ⓜ
USB büS interface Set (büS-Stick + connection cable with M12 plug + connection cable M12 on micro USB for the büS service interface) to connect with PC-Tool Burkert Communicator (only for device versions with EtherNet/IP, PROFINET, Modbus TCP and Burkert system bus (büS))	772551 Ⓜ
büS cable extension M12, length 1 m	772404 Ⓜ
büS cable extension M12, length 3 m	772405 Ⓜ
büS cable extension M12, length 5 m	772406 Ⓜ
büS cable extension M12, length 10 m	772407 Ⓜ
Silencer G 1/4" (replacement part)	780780 Ⓜ
USB interface for serial communication (only for devices with PROFIBUS or DeviceNet communication)	227093 Ⓜ
Software Burkert Communicator	<a href="#">LINK ▶</a>

### Accessories for NAMUR SideControl

**Note:**

Detailed information can be found in chapter [“5. Product installation” on page 22](#)

Description	Article no.
Mounting bridge VDI/VDE 3845 (IEC 60534 - 6 - 2) VA	770294 Ⓜ
Adapter kit VDI/VDE 3845 (IEC 60534 - 6 - 2) VA	787338 Ⓜ
Adapter kit for linear actuators IEC 60534 - 6 - 1 VA	787215 Ⓜ
Position feedback with proximity switches (optional upgrade feature) <sup>1)</sup>	677218 Ⓜ

1.) External end position feedback for upgrading SideControl NAMUR

### Accessories for Remote SideControl

Description	Article no.
Bracket for wall mounting, stainless steel, see <a href="#">“5. Product installation” on page 22</a>	675715 Ⓜ
DIN rail assembly kit Aluminium/stainless steel, see <a href="#">“5. Product installation” on page 22</a>	675702 Ⓜ
Adapter kit - remote sensor, control valves Type 23xx Actuator size Ø70/90/130 mm	679917 Ⓜ
Adapter kit - remote sensor, control valves Type 27xx Actuator size Ø175/225 mm	679945 Ⓜ
Sensor Puck (replacement part)	682240 Ⓜ

# Bürkert – Close to You

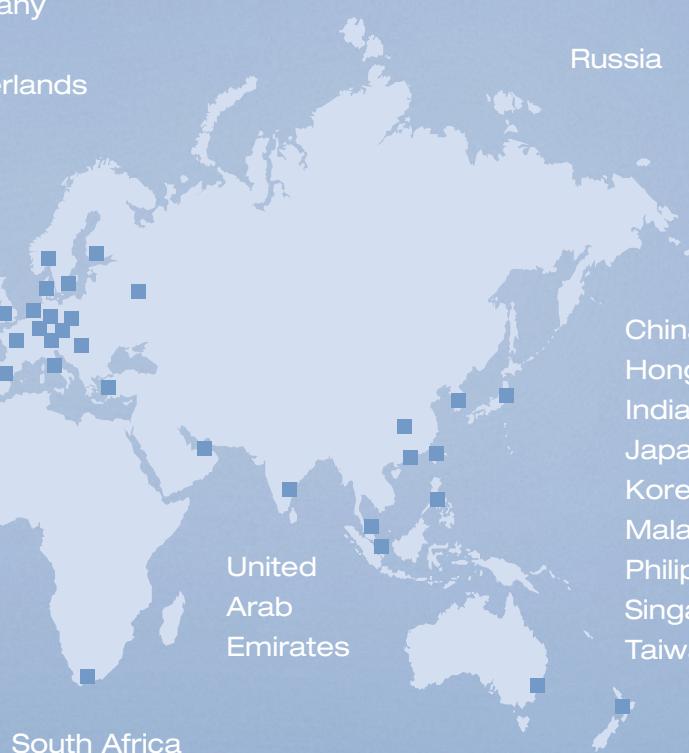
For up-to-date addresses  
please visit us at  
[www.burkert.com](http://www.burkert.com)



Austria  
Belgium  
Czech Republic  
Denmark  
Finland  
France  
Germany  
Italy  
Netherlands

Norway  
Poland  
Spain  
Sweden  
Switzerland  
Turkey  
United Kingdom

Russia



United  
Arab  
Emirates

South Africa

Australia  
New Zealand

China  
Hong Kong  
India  
Japan  
Korea  
Malaysia  
Philippines  
Singapore  
Taiwan