

## **GEMÜ 1436 cPos**

*Intelligent positioner and integrated process controller*



### **Features**

- Digital inputs (option) for variable function control for automation
- Fieldbus interfaces, e.g. Profibus DP, Profinet and DeviceNet (option)
- No air consumption when idle
- Simple mounting to various actuators
- Access rights via different user levels
- High flow rate

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### **Description**

The GEMÜ 1436 cPos digital electro-pneumatic positioner has an optional integrated process controller to control pneumatically operated process valves with single acting or double acting linear or quarter turn actuators. When using the optional process controller, the signals from the sensors (e.g. flow, level, pressure, temperature) are detected and the media adjusted according to the specified set value. GEMÜ 1436 cPos has a robust aluminium housing with protected operating keys and an LCD display which allows the product to be individually adapted to complex control tasks. With additional equipment, the positioner can be used directly in fieldbus environments.

### **Technical specifications**

- **Ambient temperature:** 0 to 60 °C
  - **Operating pressure :** 1.5 to 7 bar
  - **Mode of action:** Double acting | Single acting
  - **Flow rate:** 100 NI/min | 172 NI/min | 84 NI/min
  - **Measuring range:** Max. 30 mm, linear | Max. 50 mm, linear | Max. 75 mm, linear | Max. 90°, radial
  - **Supply voltage:** 24 V DC
  - **Electrical connection types:** M12 connector
  - **Conformity:** EAC
- Technical data depends on the respective configuration



## Product line



**GEMÜ 1434**  
μPos

**GEMÜ 1436 eco**  
cPos

**GEMÜ 1435**  
ePos

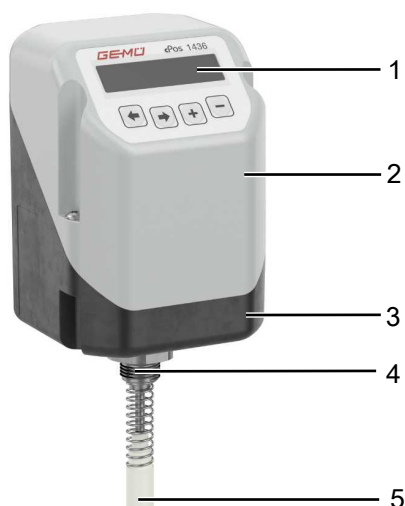
**GEMÜ 1436**  
cPos

**GEMÜ 1441**  
cPos-X

### Controller type

Positioner	●	●	●	-	●
Positioners and process controllers	-	-	-	●	-
<b>Ambient temperature</b>	0 to 60 °C	0 to 60 °C	-20 to 60 °C	0 to 60 °C	-10 to 60 °C
<b>Supply voltage</b>					
24 V DC	●	●	●	●	-
Via set value signal	-	-	-	-	●
<b>Flow rate</b>	15 NI/min	100 NI/min 84 NI/min	50 NI/min 90 NI/min	100 NI/min 172 NI/min 84 NI/min	115 NI/min
<b>Measuring range</b>					
Max. 30 mm, linear	●	●	●	●	-
Max. 50 mm, linear	-	●	●	●	-
Max. 75 mm, linear	-	●	●	●	●
Max. 90°, radial	-	●	●	●	●
<b>Electrical connection type</b>					
M12 cable gland	-	-	●	-	-
M12 connector	●	●	●	●	-
M16 cable gland	-	-	-	-	●
M12 plug	-	-	-	-	●
<b>Programmable outputs</b>					
No	●	●	-	-	-
Yes	-	-	●	●	●
<b>Input option</b>					
No	●	●	-	-	●
Yes	-	-	●	●	-
<b>Conformity</b>					
ATEX	-	-	-	-	●
EAC	●	●	●	●	-
FCC	-	-	-	-	●
IECEX	-	-	-	-	●
UL listed	-	●	-	-	-

## Product description



Item	Name	Materials
1	Operating and display elements, membrane keypad	Polyester film with acrylic glass
2	Housing cover	PSU
3	Housing base	PP 30
4	Mounting kit, valve specific	Materials, parts valve specific

## Functions

- Positioner and process controller combined and synchronized with each other
- Automatic or manual optimizing initialization
- Multiple point calibration for optimized valve control
- Diagnostics, alarm messages
- Operation possible when controller is active
- 4 parameter sets can be saved and reloaded
- 3 user levels (access authorization)
- Operating hours counter, event list (for details see operating instructions)
- Digital inputs (option) for variable function control for automation
- Alphanumeric display, 2 lines with 16 digits each, with background light
- Parameterization on the device through context-sensitive menu selection and help texts (optionally PC-supported via web browser)

## GEMÜ CONEXO

The interaction of valve components that are equipped with RFID chips and an associated IT infrastructure actively increase process reliability.



Thanks to serialization, every valve and every relevant valve component such as the body, actuator or diaphragm, and even automation components, can be clearly traced and read using the CONEXO pen RFID reader. The CONEXO app, which can be installed on mobile devices, not only facilitates and improves the "installation qualification" process, but also makes the maintenance process much more transparent and easier to document. The app actively guides the maintenance technician through the maintenance schedule and directly provides him with all the information assigned to the valve, such as test reports, testing documentation and maintenance histories. The CONEXO portal acts as a central element, helping to collect, manage and process all data.

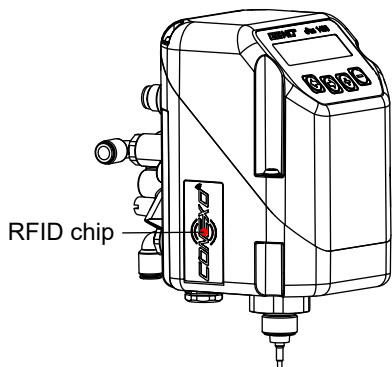
**For further information on GEMÜ CONEXO please visit:**

[www.gemu-group.com/conexo](http://www.gemu-group.com/conexo)

### Ordering

GEMÜ Conexo must be ordered separately with the ordering option "CONEXO".

### Installing the RFID chip



## Availability

Action	Flow rate		
	150 l/min	200 l/min	300 l/min (Booster)
Single acting	X	X	X
Double acting	X	X	-

Option code <sup>1)</sup>	Fieldbus			
	Without	DeviceNet	Profibus DP	Profinet
<b>00</b>	X	X	X	X
<b>01</b>	X	-	-	-

1) **Option**

Code 00: Without

Code 01: 2 additional digital inputs 24 V DC

## Order data

The order data provide an overview of standard configurations.

Please check the availability before ordering. Other configurations available on request.

Note: Pneumatic connecting components (union and compressed air tube) for the connection between the process valve and positioner are included with each positioner.

Note: A valve specific mounting kit is required for assembly. For designing the mounting kit, the valve type, nominal size, control function and actuator size must be stated.

## Order codes

1 Type	Code
Positioner, electro-pneumatic cPos	1436

2 Fieldbus	Code
Without	000
DeviceNet	DN
Profibus DP	DP
Profinet	PN

3 Accessory	Code
Accessory	Z

4 Action	Code
Single acting	1
Double acting	3

5 Device version	Code
Positioner	SA01
Positioner and process controller	PA01

6 Option	Code
Without	00
2 additional digital inputs 24 V DC	01

7 Flow rate	Code
150 l/min	01
200 l/min	02
300 l/min (Booster)	03

8 Travel sensor length	Code
Potentiometer, 30 mm length	030
Potentiometer, 50 mm length	050
Potentiometer, 75 mm length	075
Potentiometer, 90° travel	090
Remote potentiometer, M12 connector	S01

9 Type of design	Code
Standard	
Dead zone presetting 2%	2442
Dead zone presetting 5%	2443
Inversed direction, for quarter turn valves control function NO (2)	6960

10 CONEXO	Code
Without	
Integrated RFID chip for electronic identification and traceability	C

## Order example

Ordering option	Code	Description
1 Type	1436	Positioner, electro-pneumatic cPos
2 Fieldbus	000	Without
3 Accessory	Z	Accessory
4 Action	1	Single acting
5 Device version	SA01	Positioner
6 Option	00	Without
7 Flow rate	01	150 l/min
8 Travel sensor length	030	Potentiometer, 30 mm length
9 Type of design		Standard
10 CONEXO		Without

## Technical data

### Medium

<b>Working medium:</b>	Compressed air and inert gases
<b>Dust content:</b>	≤ 10 mg/m <sup>3</sup> /particle size ≤ 40 µm (class 7)
<b>Pressure dew point:</b>	Class 4, max. pressure dew point +3 °C
<b>Oil content:</b>	Class 4, max. oil concentration 5 mg/m <sup>3</sup> Quality classes to DIN ISO 8573-1

### Temperature

<b>Ambient temperature:</b>	0 – 60 °C 0 – 50 °C (Profinet Code PN)
<b>Storage temperature:</b>	0 – 60 °C

### Product compliance

<b>EMC Directive:</b>	2014/30/EU
	Technical standards used:
Interference emission:	DIN EN 61000-6-4 (09/2011) DIN EN 61326-1(industry) (01/2006)
Interference resistance:	DIN EN 61000-6-2 (03/2006) DIN EN 61326-1(industry) (10/2006)

### Pressure

<b>Operating pressure:</b>	1.5 – 7 bar The applied pressure must not exceed the maximum control pressure of the process valve.
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### Flow rate:

Flow rate (code)	Specification I / min <sup>1)</sup>	Specification NI / min <sup>2)</sup>
Code 01	150 l/min	84 NI/min
Code 02	200 l/min	100 NI/min
Code 03 (Booster)	300 l/min	172 NI/min
1) Reference condition: 6 → 0 bar at 25 °C		
2) Reference condition: 6 → 5 bar at 25 °C		

<b>Air consumption:</b>	0 NI/min (when idle)
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### Mechanical data

<b>Installation position:</b>	Optional
<b>Protection class:</b>	IP 65 acc. to EN 60529
<b>Weight:</b>	600 g

**Travel sensor:** Integrated for direct mounting

	Linear design			Quarter turn design
<b>Detection range:</b>	0–30 mm	0 - 50 mm	0 - 75 mm	Angle of rotation 0 - 93°
<b>Operating range:</b>	0–30 mm	0 - 50 mm	0 - 75 mm	Angle of rotation 0 - 93°
<b>Minimum travel sensor change:</b>	≥ 3 % (only relevant for initialization)			
<b>Resistance R:</b>	3 kΩ	5 kΩ	5 kΩ	3 kΩ
<b>Correlation - Travel sensor<sup>1)</sup> spindle/valve position</b>	Retracted (top) ± 100 % (valve open)			90° ± 100 % (valve open)
	Extended (bottom) ± 0 % (valve closed)			0° ± 0 % (valve closed)

1) Type of design code 6960: Inversed mode of action compared with description (Travel sensor signal inversed). For valves with inverted correlation.

### Acoustic data

**Noise emission:** > 80 dB (A)

### Electrical data

#### Power supply

**Supply voltage:** 24 V DC (-5/+10%)

**Power consumption:**

	Order variant			
	Without fieldbus (code 000)	Profinet fieldbus (code PN)	Profibus fieldbus (code DP)	DeviceNet fieldbus (code DN)
Single acting:	≤ 4.5 W	≤ 8.6 W	≤ 5.2 W	≤ 4.5 W
Double acting / Booster:	≤ 6.2 W	≤ 10.7 W	≤ 7.1 W	≤ 6.4 W
plus in each case:	max. 24 W for active digital outputs with max. on-load current			

**Reverse battery protection:** Yes

**Duty cycle:** Continuous duty

**Electrical protection class:** III

### Analogue inputs

**Set value / actual value:**

- Set value and actual value input are galvanically isolated from the supply voltage
- Set value and actual value input are **not** galvanically isolated from the actual value output
- Set value and actual value input are **not** galvanically isolated from each other

**Set value input:** 0/4 - 20 mA (adjustable)

**Process actual value input:** 0/4 - 20 mA (adjustable)  
Only for device version code PA01



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<b>Input type:</b>	passive
<b>Input resistance:</b>	120 $\Omega$ (+ approx. 0.7 V voltage drop due to reverse battery protection)
<b>Accuracy/linearity:</b>	$\leq \pm 0.3\%$ of full flow
<b>Temperature drift:</b>	$\leq \pm 0.3\%$ of full flow
<b>Resolution:</b>	12 bit
<b>Reverse battery protection:</b>	Yes
<b>Overload proof:</b>	Yes (up to $\pm 24$ V DC)

### **Analogue output**

<b>Actual value output:</b>	4–20 mA
<b>Output type:</b>	Active
<b>Load resistor:</b>	Max. 600 $\Omega$
<b>Accuracy:</b>	$\leq \pm 1\%$ of full flow
<b>Temperature drift:</b>	$\leq \pm 0.5\%$ of full flow
<b>Resolution:</b>	12 bit
<b>Short-circuit proof:</b>	Yes
<b>Overload proof:</b>	Yes (up to $\pm 24$ V DC)

### **Digital input**

**Note:** The additional digital inputs 1 / 2 must be ordered via the ordering option "Option". In the fieldbus versions, the function of the digital inputs can be used as standard via the bus communication.

<b>Inputs:</b>	1 / 2
<b>Function:</b>	selectable via software (DigIn1; DigIn2; DigInW; DigInX) (reference: GND X1:3)
<b>Input voltage:</b>	24 V DC
<b>Input current:</b>	2.5 mA DC at 24 V DC
<b>High level:</b>	>14 V DC
<b>Low level:</b>	< 8 V DC

### **Digital output**

<b>Switching outputs:</b>	K1 / K2
<b>Function:</b>	Can be selected using software
<b>Switching voltage:</b>	Supply voltage
<b>On-load current:</b>	max. 0.5 A

Technical data

<b>Drop voltage:</b>	Max. 2.5 V DC at 0.5 A
<b>Type of contact:</b>	PNP
<b>Pull-Down resistance:</b>	120 kΩ
<b>Short-circuit proof:</b>	Yes
<b>Overload proof:</b>	Yes (up to ± 24 V DC)

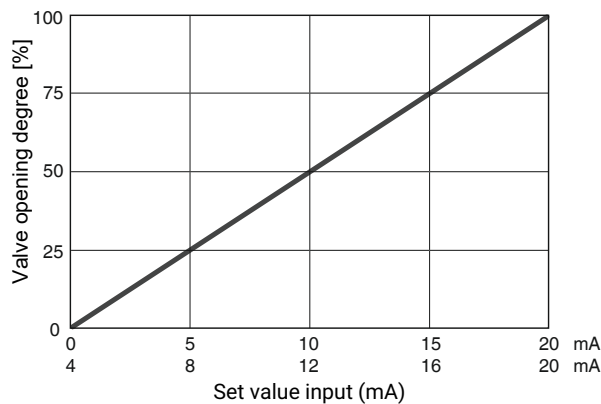
**Travel sensor input (for travel length code S01 – remote potentiometer)**

<b>Note:</b>	Travel sensor input galvanically isolated from supply voltage, not galvanically isolated from the set value/actual value inputs and actual value output.
<b>Input voltage range:</b>	0 to U <sub>P+</sub>
<b>Supply voltage UP+:</b>	Typically 10 V DC
<b>Resistance range of remote potentiometers:</b>	1 to 10 kΩ
<b>Input resistance:</b>	620 kΩ
<b>Accuracy/linearity:</b>	≤ ±0.3% of full flow
<b>Temperature drift:</b>	≤ ±0.3% of full flow
<b>Resolution:</b>	12 bit
<b>Short-circuit proof:</b>	Yes
<b>Overload proof:</b>	Yes (up to ± 24 V DC)

**Positioner data**

**Note:** The following diagram is valid for valves with a standard assignment of the spindle position to the valve position.  
(See section "Mechanical data, correlation between travel sensor spindle/valve position")

**Control diagram:** Default setting / The control characteristic is adjustable.



During initialization, the 1436 cPos positioner automatically detects the control function of the valve and adjusts itself by default so that the valve is closed when the signal is 0/4 mA.\*

The assignment can be changed subsequently by means of parameters.

\* with double acting actuators dependent on pneumatic actuator

**Positioner**

**System deviation (dead zone):** 1 % default setting  
 ≥ 0.1 % (adjustable)  
 ≤ 2.0 % (preset, K-no. 2442)  
 ≤ 5.0 % (preset, K-no. 2443)

**Parameterization:** adjustable

**Initialization:** automatic or manual

**Close tight function:** option

**Process controller**

Option only for device version code PA01

**Controller type:** Continuous controllers

**PID parameters:** adjustable

**Process actual value input:** 0/4 - 20 mA (adjustable)

**Interfaces**

	RS232	Profibus DP	DeviceNet	Profinet
Function	Parameterization via web browser	Parameterization/process data		
Transmission rates	-	9.6k / 19.2k / 45.45k / 93.75k / 500k / 1.5M / 3M / 6 M / 12 M baud**	125k / 250k / 500k baud	100M baud***

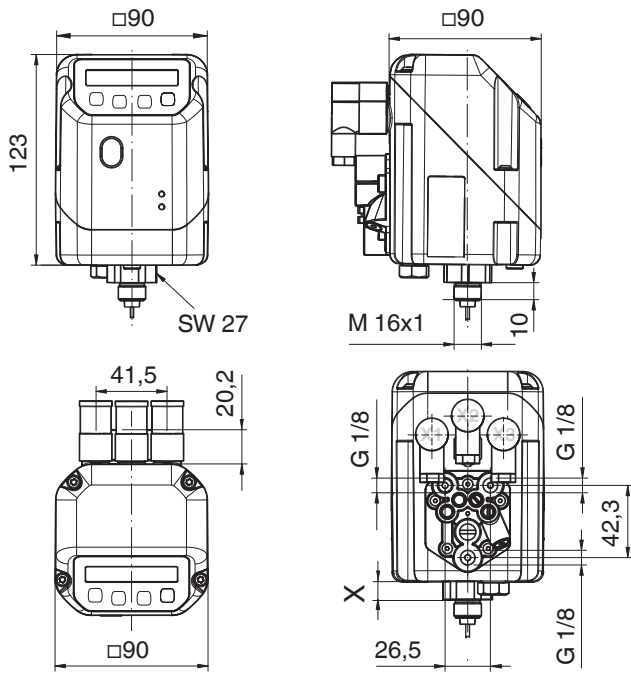
\*\* Auto Baud: The device has an Auto Baud function and therefore automatically adjusts to the bus-side configuration of the transmission rate.

\*\*\* Two switches are connected in series internally between connection X1 and X3.

Communication lead time during operation in line structure (connection X1 and X3) therefore double that of a "standard two-port device".

## Dimensions

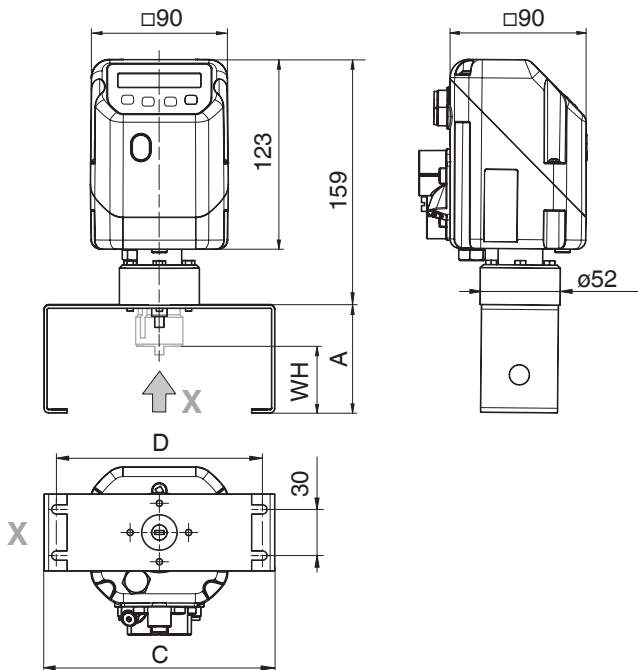
### Positioner dimensions



Travel length Code	X
030	10.3
050	32.5
075	57.5

Dimensions in mm

**Direct mounting to quarter turn actuators**

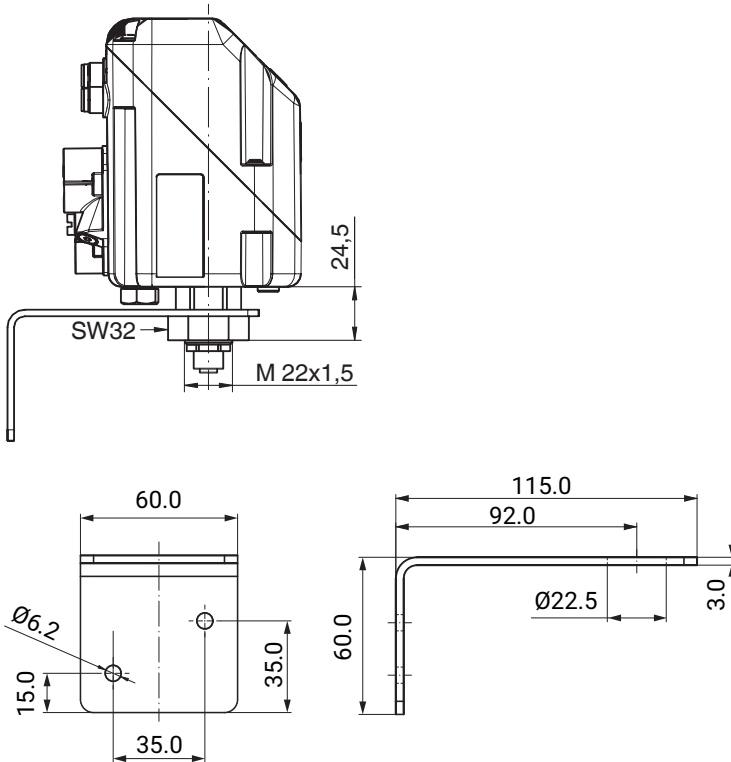


Shaft height WH	Hole spacing D	A	C
20.0	80.0	40.0	100.0
30.0	80.0	50.0	100.0
50.0	130.0	70.0	150.0

Dimensions in mm

**Remote mounting with mounting bracket**

The product with separately available mounting bracket GEMÜ 1436 000 ZMP

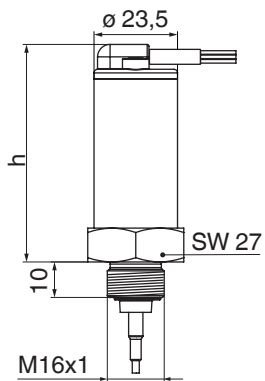


Dimensions in mm

## Accessory dimensions

### GEMÜ 4232 travel sensor

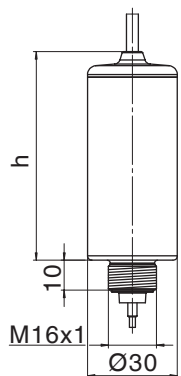
Housing material aluminium



Travel sensor length (code)	h
<b>030</b>	62.2
<b>050</b>	84.2
<b>075</b>	109.2

Dimensions in mm

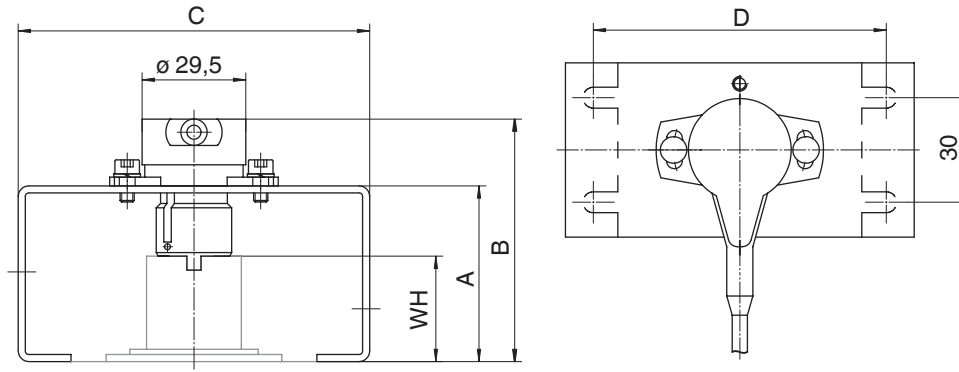
Housing material PVDF or PP



Travel sensor length (code)	h
<b>030</b>	69.6
<b>050</b>	91.6
<b>075</b>	116.6

Dimensions in mm

**GEMÜ 4231 travel sensor with mounting bracket**

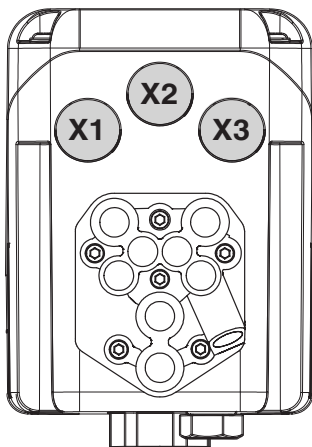


WH Shaft height	D Hole spacing	A	B	C
20.0	80.0	40.0	59.0	100.0
30.0	80.0	50.0	69.0	100.0
50.0	130.0	70.0	89.0	150.0

Dimensions in mm

## **Electrical connection**

Position of the connectors

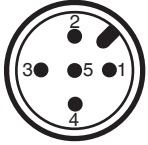




## 24 V

**Note:** Ordering option without fieldbus code 000

### Connection X1



5-pin M12 plug, A-coded

Pin	Signal name
1	$U_v$ , 24 V DC supply voltage
2	Switching output K1, 24 V DC (switches $U_v$ <sup>1)</sup> )
3	GND, (supply voltage, DigIn1+2+W +X; K1+2)
4	Switching output K2, 24 V DC (switches $U_v$ <sup>1)</sup> )
5	Digital input 1 (only for Option code 01)

1) Switching output switches device supply voltage  $U_v$  - drop voltage

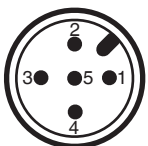
### Connection X2



5-pin M12 plug, B-coded

Pin	Signal name
1	I+, actual value output
2	I-, actual value output
3	RxD, Receive Data, TxD-P
4	TxD, Transmit Data, RS 232
5	GND, RS 232

### Connection X3



5-pin M12 plug, A-coded

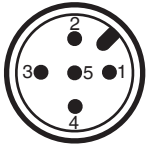
Pin	Signal name
1	W+, set value input
2	W-, set value input / Digital In W (only for Option code 01)
3	X+, process actual value input
4	X-, process actual value input / Digital In X (only for Option code 01)
5	Digital input 2 (only for Option code 01)

working as a  
process controller

## DeviceNet

**Note:** Ordering option Fieldbus code DN

### Connection X1



5-pin M12 plug, A-coded

Pin	Signal name
1	U <sub>v</sub> , 24 V DC supply voltage
2	n. c.
3	GND, (supply voltage)
4	n. c.
5	n. c.

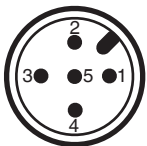
### Connection X2



5-pin M12 plug, B-coded

Pin	Signal name
1	n. c.
2	n. c.
3	n. c.
4	n. c.
5	n. c.

### Connection X3



5-pin M12 plug, A-coded

Pin	Signal name
1	Shield
2	V+
3	V-
4	Can H
5	Can L

## Profibus

**Note:** Ordering option Fieldbus code DP

Connector housing, connections X1 and X3, are used for shielding and are electrically connected to each other inside the device.

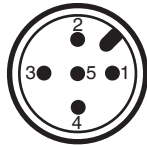
### Connection X1



5-pin M12 plug, B-coded

Pin	Signal name
1	n. c.
2	RxD / TxD-N (PB-)
3	n. c.
4	RxD / TxD-P (PB+)
5	n. c.

### Connection X2



5-pin M12 plug, A-coded

Pin	Signal name
1	U <sub>v</sub> , 24 V DC supply voltage
2	n. c.
3	GND, (supply voltage)
4	n. c.
5	n. c.

### Connection X3



5-pin M12 built-in socket. B-coded

Pin	Signal name
1	BUS-V DC + 5 V DC (PB_5V)
2	RxD / TxD-N (PB-)
3	D GND (PB_GND)
4	RxD / TxD-P (PB+)
5	n. c.

## Profinet

**Note:** Ordering option Fieldbus code PN

Connector housings, connection X1 and X3, are used for shielding and are electrically connected to each other inside the device

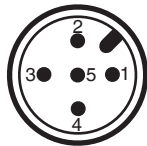
### Connection X1 and X3



4-pin M12 built-in socket, D-coded

Pin	Signal name
1	TD+
2	RD+
3	TD-
4	RD-

### Connection X2



5-pin M12 plug, A-coded

Pin	Signal name
1	Uv, 24 V DC supply voltage
2	n.c.
3	Uv, GND supply voltage
4	n.c.
5	n.c.

### Connection X1 and X3



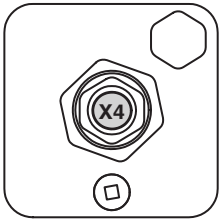
4-pin M12 built-in socket, D-coded

Pin	Signal name
1	TD+
2	RD+
3	TD-
4	RD-

## Version with external actual value potentiometer

**Note:** Ordering option Travel sensor version code S01

Position of the connectors



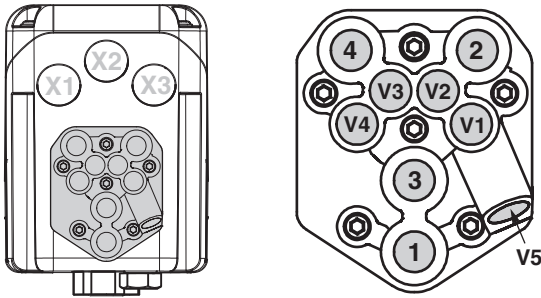
### Connection X4



5-pin M12 built-in socket, A-coded

Pin	Signal name
1	UP+, potentiometer output, supply voltage (+)
2	UP, potentiometer input, wiper voltage
3	UP-, potentiometer output, supply voltage (-)
4	n.c.
5	n.c.

## Pneumatic connection



DIN ISO 1219-1	Designation	Size
1	Air supply connection P	G1/8 <sup>1)</sup>
3	Venting connection R with silencer	G1/8 <sup>1)</sup>
V1	Supply air throttle for A1 (connector 2)	-
V2	Exhaust air throttle for A1 (connector 2)	-
V3	Exhaust air throttle for A2* (connector 4)	-
V4	Supply air throttle for A2* (connector 4)	-
V5	Check valve	-
2	Working connection A1 for process valve (control function 1 and 2)	G1/8 <sup>1)</sup>
4	Working connection A2 for process valve (control function 3) <sup>2)</sup>	G1/8 <sup>1)</sup>

1) As standard, the connection is equipped with a pneumatic screw connection for commercially available pneumatic tubing 6x4 mm.

2) only double acting type (code 3)

Fail safe function		
Error	Working connection A1 (2)	Working connection A2 (4)
Power supply failure	Single acting: vented Double acting: vented	Single acting: - Double acting: pressurized
Compressed air supply failure	Single acting: vented Double acting: vented	Single acting: - Double acting: undefined

This fail safe function is not a substitute for specific plant safety requirements.

Adjustable safety reactions		
Error	Working connection A1 (2)	Working connection A2 (4)
Set value < 4,0 mA (range adjustable from 0...22 mA under I Min W)	Single acting: Function adjustable (Open, Close**, Hold, Safe)  Double acting: Function adjustable (Open, Close**, Hold, Safe)	Single acting: -
Set value > 20 mA (range adjustable from 0...22 mA under I Min W)		Double acting: Function adjustable (Open, Close**, Hold, Safe)
Actual value < 4.0 mA (range adjustable from 0...22 mA under I Min X)*		
Actual value > 20.0 mA (range adjustable from 0...22 mA under I Max X)*		

\* only available for Device version code PA01  
\*\* Close = default setting

## Mounting options

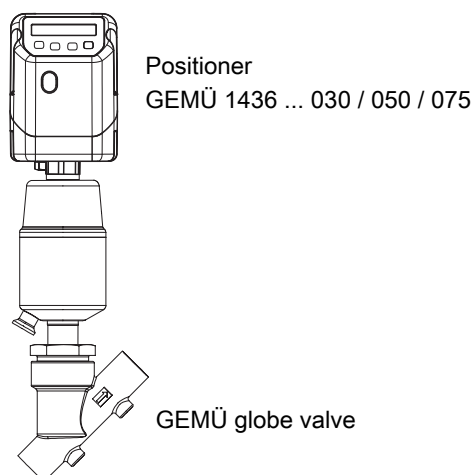
### Mounting the positioner to linear actuators

#### Direct mounting

For direct mounting of the positioner on a valve with linear actuator, you need the following components

- GEMÜ 1436 positioner in travel sensor version code 030, 050 or 075 (dependent on the stroke of the valve used)
- GEMÜ 1436 S01 Z... valve specific mounting kit for mounting the positioner

(At the time of ordering, specify the valve type with nominal size and control function)



#### Remote mounting

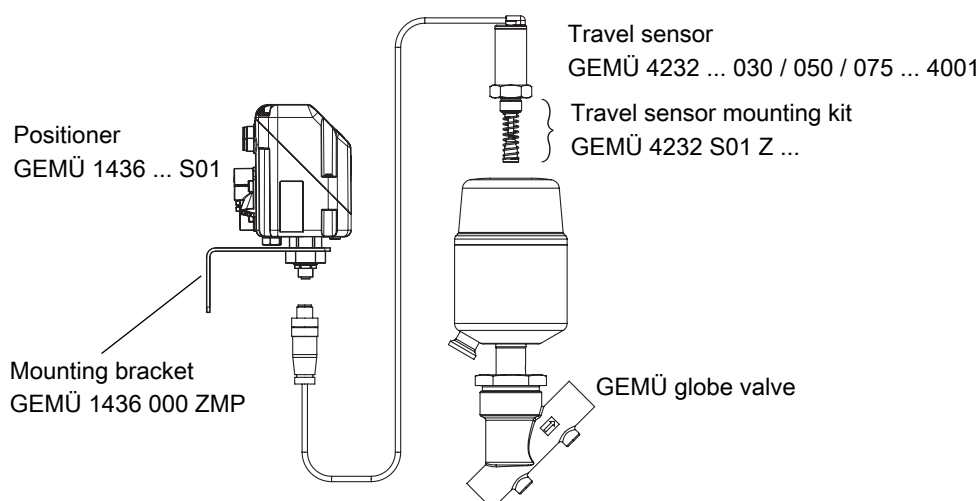
For remote mounting of the positioner on a valve with linear actuator, you need the following components

- GEMÜ 1436 positioner in travel sensor version code S01 (remote potentiometer)
- Travel sensor GEMÜ 4232 ... 030, 050 or 075... 4001

(Travel sensor version dependent on the valve used, cable length dependent on the required distance between the valve and positioner)

- GEMÜ 4232 S01 Z... valve specific mounting kit for mounting the travel sensor
- GEMÜ 1436 000 ZMP mounting bracket (optional) for fixing the positioner

(At the time of ordering, specify the valve type with nominal size and control function and the required distance to the mounting location of the positioner)



By using remote mounting and additional, deviating components, the valve can also be used in potentially explosive areas (provided that this is approved). In this case, the positioner must be installed outside the potentially explosive area and the connection with the travel sensor established via safety barriers.

## Mounting options

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The electrical connection and the installation must be carried out in accordance with the specifications in the operating instructions.

Applicable area (zone) dependent on the type of ignition protection of the valve or travel sensor.

The following deviating, supplementary components are to be used for this type of operation:

- Travel sensor in explosion-protected design GEMÜ 4232 ... 030/050/075 ... 0000 ... X  
Travel sensor version dependent on the valve used, cable length dependent on the distance between the critical (potentially explosive) and safe zone
- Connector between travel sensor and positioner, GEMÜ 1219000Z0300SG00M0M125A, order number: 88208779
- Safety barrier A two-channel, safety barrier P626, order number: 99014203 \*
- Safety barrier B one-channel, safety barrier P630, order number: 99014207 \*

\* Alternative safety barriers with similar characteristics can be used on-site – technical properties available on request



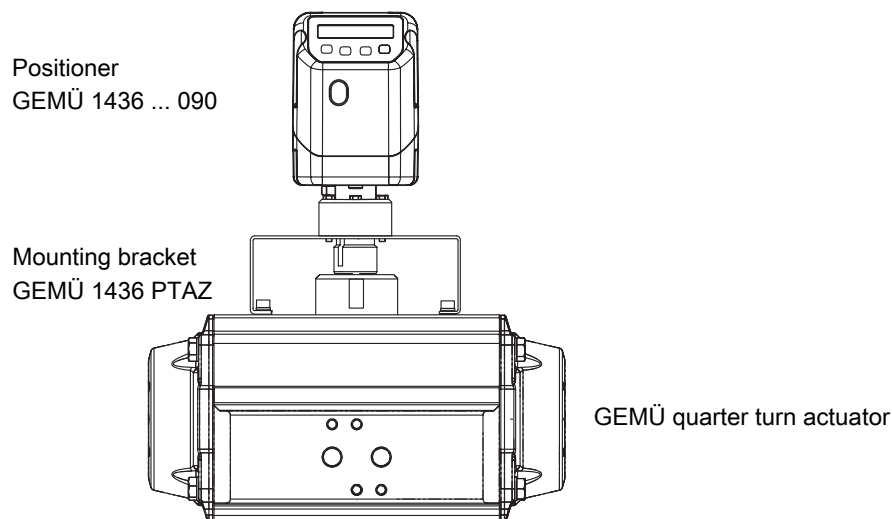
## Mounting the positioner to quarter turn actuators

### Direct mounting

For direct mounting of the positioner on a valve with quarter turn actuator, you need the following components

- Positioner GEMÜ 1436 ... 090
- GEMÜ 1436 PTAZ ... 090 000 valve specific mounting kit for mounting the positioner

(When ordering, specify valve type with actuator flange size)

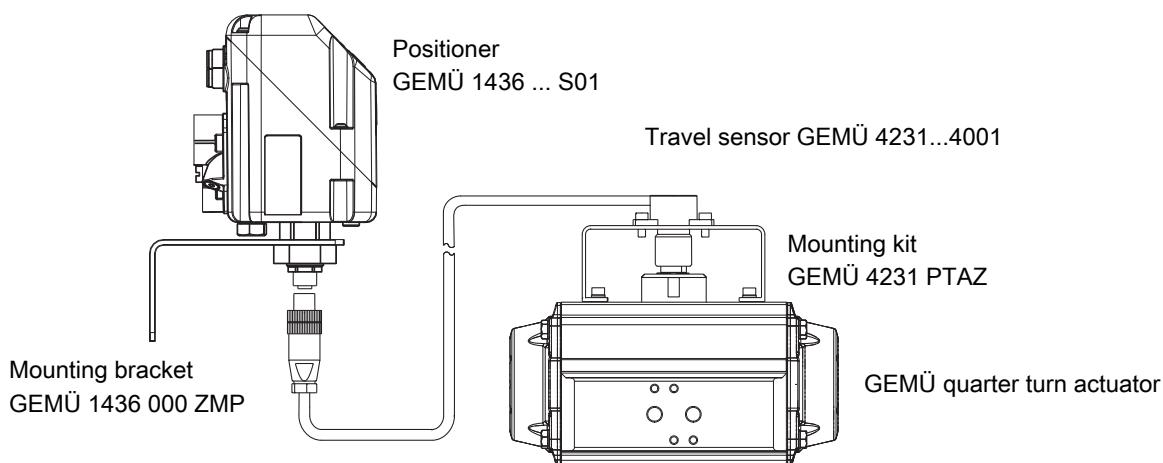


### Remote mounting

For remote mounting of the positioner on a valve with quarter turn actuator, you need the following components

- GEMÜ 1436 positioner in travel sensor version code S01 (remote potentiometer)
- GEMÜ 4231...4001 travel sensor (cable length dependent on the required distance between the valve and positioner)
- 4231PTAZ... 090 000 valve specific mounting kit for mounting the travel sensor
- GEMÜ 1436 000 ZMP mounting bracket (optional) for fixing the positioner

(At the time of ordering, specify the actuator flange size and the required distance to the mounting location of the positioner)



By using remote mounting and additional, deviating components, the valve can also be used in potentially explosive areas (provided that this is approved). In this case, the positioner must be installed outside the potentially explosive area and the connection with the travel sensor established via safety barriers.

The electrical connection and the installation must be carried out in accordance with the specifications in the operating instructions.

Applicable area (zone) dependent on the type of ignition protection of the valve or travel sensor.

The following deviating, supplementary components are to be used for this type of operation:

- GEMÜ 4231 ... 0000 travel sensor  
cable length dependent on the required distance between critical (potentially explosive) and safe zone
- Connector between travel sensor and positioner, GEMÜ 1219000Z0300SG00M0M125A, order number: 88208779
- Safety barrier A two-channel, safety barrier P626, order number: 99014203 \*
- Safety barrier B one-channel, safety barrier P630, order number: 99014207 \*

\* Alternative safety barriers with similar characteristics can be used on-site – technical properties available on request

## Accessories



### GEMÜ 1436 S02 Z

#### Connection kit

The 1436 S02 Z ... connection kit is used to electrically connect the GEMÜ 1436 cPos positioner to a control unit. The kit comprises pre-assembled cable connections with various connector plugs/sockets and suitable cables with selectable lengths or, alternatively, without a cable but with a threaded connection. The connectors for the 3 plugs of the GEMÜ 1436 cPos are included according to the ordering information. Specific connection kits are required for the fieldbus versions Profibus DP (code DP) and Profinet (code PN) (see ordering information).

The versions without fieldbus (code 000) and DeviceNet (code DN) use standard parts.

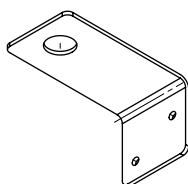
Designation	Connection type X1/X3, A-coded	Connection type X2, B-coded	Order number
1436S02Z00M000M0	X1/X3 angle, without cable	X2 angle, without cable	88249257
1436S02Z00M000Y0	X1/X3 angle, without cable	X2 Y cable and M12 socket without cable	88254410
1436S02ZDPM0DPM0 <sup>2)</sup>	X1/X3 Profibus, angle, without cable	X2 Profibus, angle, without cable	88255343
1436S02Z05M00000	X1/X3, 5 m cable	X2 protective cap	88261515
1436S02Z05M005M0	X1/X3 angle, 5 m cable	X2 angle, 5 m cable	88286587
1436S02Z00M00000	X1/X3 angle, without cable	X2 protective cap	88293897
1436S02ZPNM0PNM0 <sup>3)</sup>	X1/X3 Profinet, angle, without cable	X2 Profinet, angle, without cable	88686865
1436S02ZPN05PN05 <sup>3)</sup>	X1/X3 Profinet, straight, 5 m cable	X2 Profinet, straight, 5 m cable	88686869

<sup>1)</sup> For simultaneous use - actual value output and RS232 interface (eSy.com)

<sup>2)</sup> For fieldbus version Profibus DP (code DP)

<sup>3)</sup> For fieldbus version Profinet (code PN)

Other cable lengths or combinations on request.



### GEMÜ 1436 000 ZMP

#### Mounting bracket for external wall mounting

Mounting bracket for wall mounting

Designation	Order number
1436 000 ZMP	88246672



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