

## Intelligent positioner

### Construction

The GEMÜ 1436 cPos® eco is a digital electro-pneumatic positioner for process valve control. Designed for simple, safe and quick use with valves with strokes < 75 mm or 90° travel range. The positioner, travel sensor, switching valves and status LEDs are integrated in a solid compact housing. Pneumatic and electrical connections are in one mounting direction to save space and enable easy access.

### Features

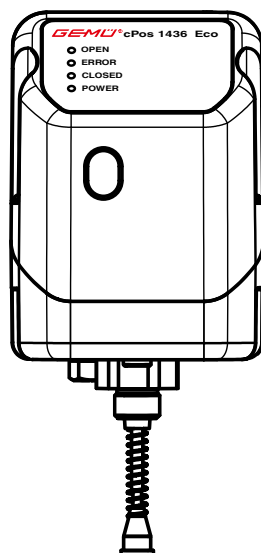
- Simple use and operation
- Direct or remote positioner mounting to the process valve
- Can be used for single acting linear or quarter turn actuators
- Optimized initialisation and valve control

### Advantages

- No air consumption when idle
- Simple mounting to various valve actuators



Front view



## Technical data

### General information

Protection class to EN 60529	IP 65
Weight	600 g
Dimensions L x W x H	see pages 7 and 8
Installation position	Optional

#### Directives

Low Voltage Directive	2014/35/EU
EMC Directive	2014/30/EU

#### Standards

Interference emission	DIN EN 61000-6-3 (09/2011)
	EN 61000-6-3 : 2007 + A1 2011
	IEC 61000-6-3 + A1 2012
Interference resistance	DIN EN 61326-6-1 (industry) (10/2006)
	DIN EN 61000-6-2 (03/2006)
	EN 61000-6-2 : 2005
	IEC 61000-6-2 : 2005
	DIN EN 61326-6-1 (industry) (7/2013)

Class	B
Group	1

### Operating conditions

Ambient temperature	0 ... +60 °C
Storage temperature	0 ... +60 °C
Control medium	Quality classes to DIN ISO 8573-1
Dust content	Class 7 (max. particle size 40 µm) (max. particle density 5 mg/m <sup>3</sup> )
Pressure dew point	Class 4 (max. pressure dew point 3 °C)
Oil concentration	Class 4 (max. oil concentration 5 mg/m <sup>3</sup> )
Air supply	1.5 to 7 bar
Air consumption	0 l/min (when idle)
Air output:	150 l/min

### Electrical data

#### Power supply

Power supply	$U_V = 24 \text{ V DC } +10\%/-5\%$
Power consumption	for flow rate code 01 $I_{typ} = 100 \text{ mA } (@ 24 \text{ V DC})$

#### Input signals

##### Analogue inputs

Set values	4...20 mA
Input resistance	50 Ω

##### Initialisation input (digital)

Voltage	24 V DC
Level "Logical 1"	$14 \text{ V DC } \leq U_H \leq 30 \text{ V DC}$
Level "Logical 0"	$0 \text{ V DC } \leq U_L \leq 8 \text{ V DC}$
Input current	$I_{typ} = 1.3 \text{ mA } (\text{at } 24 \text{ V DC})$

##### Analogue output

Actual value output	4 - 20 mA
Load resistor	max. 600 Ω

##### Electrical connection

Power supply and signal connections	1 x M12 plug (A-coded) (Installation: Observe operating instructions)
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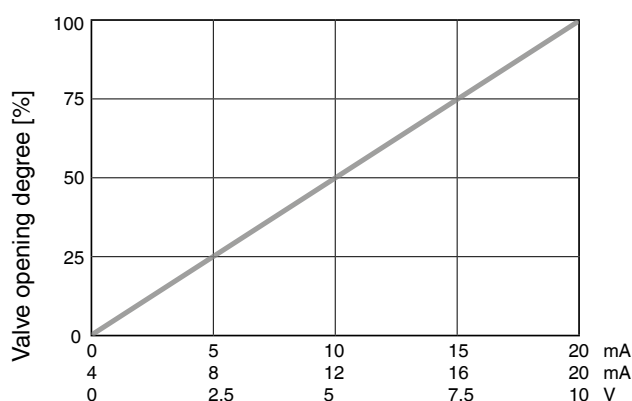
##### Positioner data

System deviation	$\leq 1\%$
Initialisation	Automatic via 24 V DC signal
Close tight function	CLOSED: $W \leq 0.5\%$ ; OPEN: $W \geq 99.5\%$

##### Display elements

Status display	4 LEDs
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### Control diagram



During initialisation the GEMÜ 1436 cPos® eco positioner automatically detects the control function of the valve: Normally open (NO) or Normally closed (NC)  
For all valves the Closed position is at 4 mA.

### Travel sensor integrated in directly mounted version

#### Linear design

Stroke	0 - 30 / 0 - 50 / 0 - 75 mm
Resistance R	3 / 5 / 5 kΩ
Minimum stroke	$\geq 1 \text{ mm}$

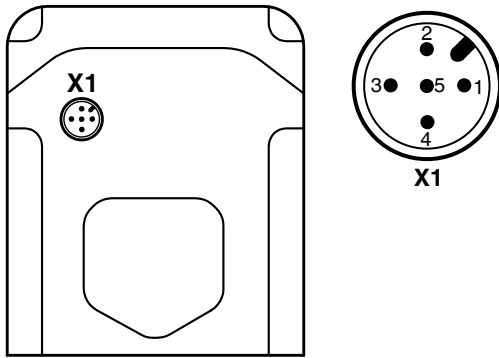
#### Quarter turn design

Angle of rotation	0 - 93°
Resistance R	3 kΩ

### Materials

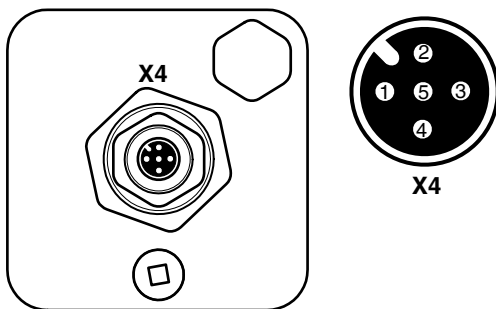
Housing cover	PSU
Housing base	PP30

## Electrical connection



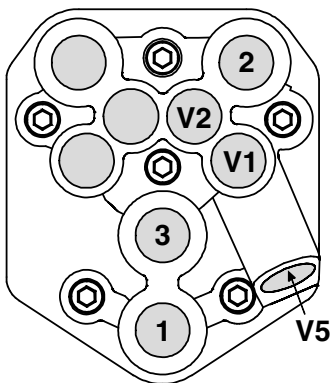
Connection	Pin	Signal name
X1 A-coded M12 plug	1	Uv, 24 V DC supply voltage
	2	I+, 4...20 mA set value input
	3	Uv, I-, GND
	4	I+, 4...20 mA position feedback
	5	Uv, initialisation 24 V DC, starting the initialisation via impulse signal

## Version with external travel sensor (code S01)



Connection	Pin	Signal name
X4 A-coded M12 socket	1	UP+, output potentiometer supply voltage (+)
	2	UP, input potentiometer wiper voltage
	3	UP-, output potentiometer supply voltage (-)
	4	n. c.
	5	n. c.

## Pneumatic connection



Connection	DIN ISO 1219-1	Designation	Size
P	1	Air supply connection	G1/8
R	3	Venting connection with silencer	G1/8
V1	V1	Supply air throttle for A1 (connector 2)	-
V2	V2	Exhaust air throttle for A1 (connector 2)	-
V5	V5	Check valve	-
A1	2	Working connection for process valve (Control function 1 and 2)	G1/8

## Fail safe function

No.	Error	Outlet A1
1	Power supply failure	vented
2	Compressed air supply failure	Single acting

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

## Order data for direct mounting

### Note

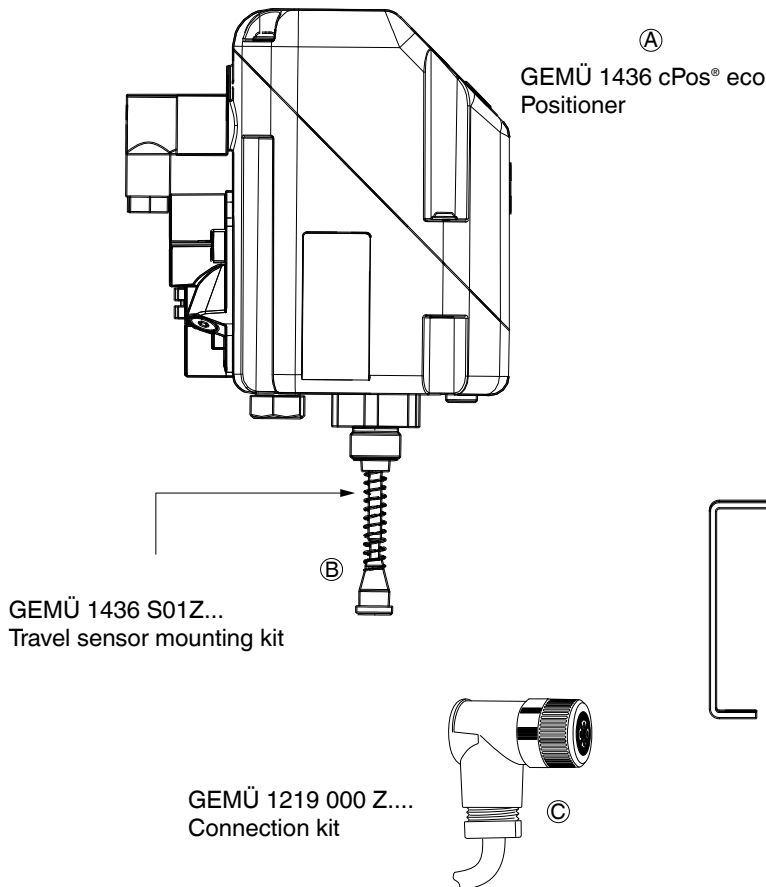
The GEMÜ 1436 cPos® positioner can be directly or remotely mounted to linear or quarter turn actuators

### Direct mounting

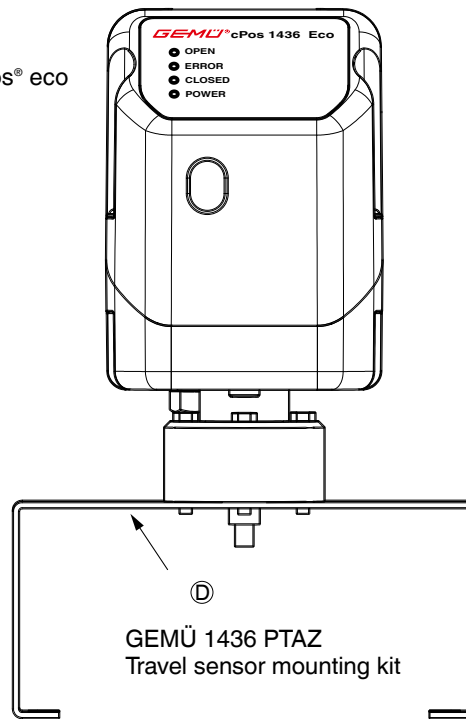
For direct mounting the following components are required which must be ordered separately:

Linear actuators		Quarter turn actuators	
Positioner GEMÜ 1436... ECON... 030/050/075 See order data - Positioner (direct mounting)	(A)	Positioner GEMÜ 1436... ECON... 090 See order data - Positioner (direct mounting)	(A)
Mounting kit GEMÜ 1436 S01 Z... See order data - Mounting kit for linear actuators	(B)	Mounting kit GEMÜ 1436 PTAZ... See order data - Mounting kit for quarter turn actuators	(D)
Connection kit GEMÜ 1219 000 Z... See order data - Connection kit	(C)	Connection kit GEMÜ 1219 000 Z... See order data - Connection kit	(C)

Direct mounting  
to linear actuator



Direct mounting  
to quarter turn actuator



**(A) Order data - Positioner GEMÜ 1436 for direct mounting**

Fieldbus	Code
Without	000

Option	Code
Without	00

Accessory	Code
Accessory	Z

Flow rate	Code
Q = 150 l/min	01
Q = 200 l/min	02

Action	Code
Single acting	1

Travel length	Code
Potentiometer, 30 mm length (for linear actuators)	030
Potentiometer, 50 mm length (for linear actuators)	050
Potentiometer, 75 mm length (for linear actuators)	075
Rotary potentiometer, 90° (for quarter turn actuators)	090

Device version	Code
Positioner Economy	ECON

**Note:**  
The required travel length depends on the max. stroke of the process valve and must be selected according to the mounting kits listed.

Order example	1436	000	Z	1	ECON	00	01	030
Type	1436							
Fieldbus (code)		000						
Accessory (code)			Z					
Action (code)				1				
Device version (code)					ECON			
Option (code)						00		
Flow rate (code)							01	
Travel sensor version (code)								030

**Note:** Mounting kit 1436 S01 Z... (plastic spindle, spring, threaded adapter if applicable) depends on the valve type. Please order separately specifying valve type, DN and control function.

## B Order data - Mounting kit GEMÜ 1436S01Z... for linear actuators

Type	DN	Control function	Actuator size	Travel length	Footnote	Order number
312		1	1	030		1436S01Z201503000
312		1	2	050		1436S01Z551705000
314		1	1	030		1436S01Z201503000
314		1	2	030		1436S01Z551803000
410		1,2	0	030		1436S01Z251503000
410		1,2	1	050		1436S01Z252505000
410		1,2	2	050		1436S01Z252505000
415		1,2	0	030		1436S01Z251503000
415		1,2	1	050		1436S01Z252505000
415		1,2	2	050		1436S01Z252505000
512		1	1	030		1436S01Z200303000
512		1	2	050		1436S01Z551705000
514		1	0	030		1436S01Z211503000
514		1	1	030		1436S01Z200303000
514		1	2	050		1436S01Z551705000
514		1	5	050		1436S01Z556005000
520		1	3/1-3/3	050		1436S01Z552505000
520		1	4/1-4/3	075		1436S01Z752607500
520		2	5	050		1436S01Z572505000
520		2	6	075		1436S01Z593707500
530		1	1	030	4)	1436S01Z200103000
530		1	2	030		1436S01Z201503000
530		1	4	050		1436S01Z556005000
530		1	5	050		1436S01Z554805000
530		2	2	030		1436S01Z255303000
530	15-25	1	3	030		1436S01Z203603000
530	32-50	1	3	050		1436S01Z205905000
532		1	0	030		1436S01Z211503000
532		1	1	030		1436S01Z200303000
532		1	2	050		1436S01Z551705000
534		1	0	030		1436S01Z211003000
534		1	1	030		1436S01Z201503000
534		1	2	050		1436S01Z554605000
536		1	3A1-3A3	050		1436S01Z552505000
536		1	4A1-4A3	050		1436S01Z758605000
536		2	3AN	050		1436S01Z572505000
536		2	4AN	050		1436S01Z597105000
550		1	1	030	4)	1436S01Z200103000
550		1	2	030		1436S01Z201503000
550		1	4	050		1436S01Z556005000
550		1	5	050		1436S01Z554805000
550		2	2	030		1436S01Z255303000
550	15-25	1	3	030		1436S01Z203603000
550	32-50	1	3	050		1436S01Z205905000
554		1	0	030		1436S01Z211003000
554		1	1	030		1436S01Z201503000
554		1	2	050		1436S01Z554605000
555	25-32	1	3	030		1436S01Z203603000
565		1	1	030		1436S01Z292403000
566		1	1	030		1436S01Z292403000
580		1	1	030	4)	1436S01Z200103000
580		1	2	030		1436S01Z201503000
580		1	4	050		1436S01Z556005000
580		1	5	050		1436S01Z554805000
580	15-25	1	3	030		1436S01Z203603000
580	32-50	1	3	050		1436S01Z205905000
582		1	0	030		1436S01Z211503000
582		1	1	030		1436S01Z200303000
582		1	2	050		1436S01Z551705000
584		1	0	030		1436S01Z211003000
584		1	1	030		1436S01Z201503000
584		1	2	050		1436S01Z554605000
600	15-25	1	2	030		1436S01Z201503000
600	32-40	1	3	030		1436S01Z201103000
600	50	1	4	030		1436S01Z203003000
620		1	3/1-3/3	050		1436S01Z551305000
620		1	4A1-4A3	075		1436S01Z752607500
620		2	3/F	050		1436S01Z562505000
620		2	4AF	075		1436S01Z593707500
620	15-25	1	0	030		1436S01Z201503000

Type	DN	Control function	Actuator size	Travel length	Footnote	Order number
620	15-40	2	0,1	030		1436S01Z210903000
620	32-40	1	1	030		1436S01Z201103000
620	50	1	2	030		1436S01Z201803000
620	50	2	2	030		1436S01Z211503000
630		1	1	030		1436S01Z211503000
650		1	1,2,3,4	030		1436S01Z292403000
650		1	5,6	050		1436S01Z782505000
650		2	1,2,3,4	030		1436S01Z294403000
650		2	5,6	050		1436S01Z792505000
656	25-40	1		050		1436S01Z551705000
656	50-65	1		050		1436S01Z552505000
656	50-65	2		050		1436S01Z592305000
656	80-100	1		075		1436S01Z752607500
656	80-100	2		075		1436S01Z593707500
687		1	B	030		1436S01Z211503000
687	15-25	1	1	030		1436S01Z201503000
687	15-40	2	1,2	030		1436S01Z210903000
687	32-40	1	2	030		1436S01Z201103000
687	50	1	3	030		1436S01Z201803000
687	50	2	3	030		1436S01Z211503000
687	65-100	1	4,5	050		1436S01Z551305000
687	65-100	2	4,5	050		1436S01Z562505000
695	15-25	1	1	030		1436S01Z201503000
695	15-40	2	1,2	030		1436S01Z210903000
695	32-40	1	2	030		1436S01Z201103000
695	50	1	3	030		1436S01Z201803000
695	50	2	3	030		1436S01Z211503000
710		1,2	0	030		1436S01Z251503000
710		1,2	1	050		1436S01Z252505000
710		1,2	2	050		1436S01Z252505000
710		1,2	3	075		1436S01Z251407500
9415		1	0	030		1436S01Z251503000
9415		1	1	050		1436S01Z252505000
9415		1	2	050		1436S01Z252505000
9415		1	3	075		1436S01Z251407500
R690	15-25	1	E	030		1436S01Z200903000
R690	15-50	2	E,F,H	030		1436S01Z210903000
R690	32	1	F	030		1436S01Z201503000
R690	40-50	1	H	030		1436S01Z201103000
R690	65	1	K	030		1436S01Z201803000
R690	65	2	K	030		1436S01Z211503000
R690	80-100	1	M,N	050		1436S01Z551305000
R690	80-100	2	M,N	050		1436S01Z562505000
SUPM		1	1T1	030		1436S01Z292403000

### Foot note

4) For control applications use positioner with K number 2442

### © Order data - Connection kit GEMÜ 1219

Type	Code
1219 cable socket / cable plug M12	1219

Nominal size	Code
Without	000

Fieldbus	Code
Accessory	Z

Threaded ring material	Code
Nickel-plated brass	00
Stainless steel	02
PA, polyamide	03

Plug type	Code
Cable socket, straight	00DG
Cable socket, angle	00DW

Connection	Code
Without cable, screw terminal	00M0
Fitted with 2 m cable, 5 x 0.34 mm <sup>2</sup> PUR cable	02M0
Fitted with 5 m cable, 5 x 0.34 mm <sup>2</sup> PUR cable	05M0
Fitted with 10 m cable, 5 x 0.34 mm <sup>2</sup> PUR cable	10M0
Fitted with 15 m cable, 5 x 0.34 mm <sup>2</sup> PUR cable	15M0

Plug version	Code
M12, 5-pin	M125

Coding	Code
Coding pin	A

Order example	1219	000	Z	00	00DG	02M0	M125	A
Type (code)	1219							
Nominal size (code)		000						
Accessory (code)			Z					
Threaded ring material (code)				00				
Plug type (code)					00DG			
Connection (code)						02M0		
Plug version (code)							M125	
Coding (code)								A

### © Order data - Mounting kit GEMÜ 1436PTAZ... for quarter turn actuators

Mounting kit	Code
Mounting kit - Quarter turn actuators	PTAZ

Measuring range	Code
Angle of rotation 90°	090

NAMUR size	Code
Hole spacing 80x30, shaft height 20	01
Hole spacing 80x30, shaft height 30	02
Hole spacing 130x30, shaft height 30	03
Hole spacing 130x30, shaft height 50	04

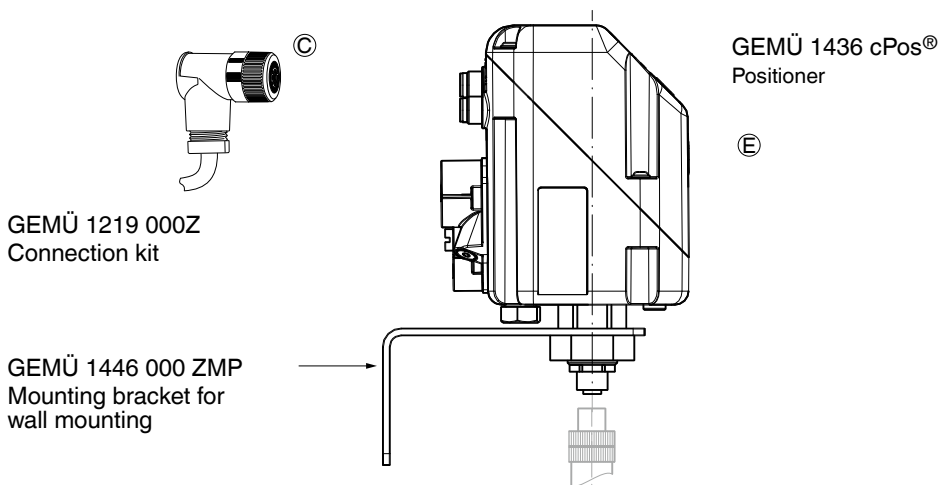
Control air connector	Code
Without	000

Order example	1436	PTAZ	01	090	000
Type	1436				
Mounting kit (code)		PTAZ			
NAMUR size (code)			01		
Measuring range (code)				090	
Control air connector (code)					000

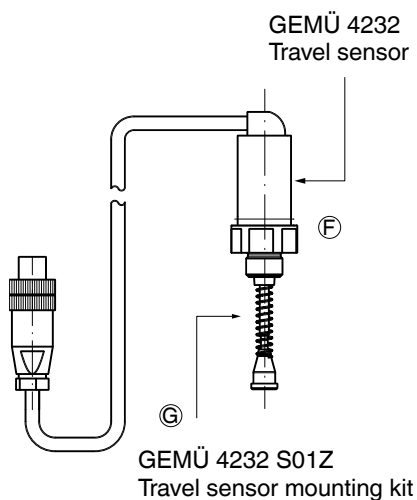
## Order data for remote mounting

For remote mounting the following components are required which must be ordered separately:

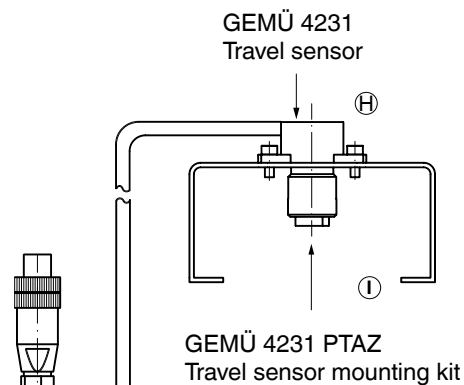
Linear actuators		Quarter turn actuators	
Positioner GEMÜ 1436...S01 See order data - Positioner (remote mounting)	(E)	Positioner GEMÜ 1436...S01 See order data - Positioner (remote mounting)	(E)
Travel sensor GEMÜ 4232...4001 See order data - Travel sensor for linear actuators	(F)	Travel sensor GEMÜ 4231...4001 See order data - Travel sensor for quarter turn actuators	(H)
Travel sensor mounting kit GEMÜ 4232 S01 Z... See order data - Mounting kit for linear actuators	(G)	Travel sensor mounting kit GEMÜ 4231 PTAZ... See order data - Mounting kit for quarter turn actuators	(I)
Mounting bracket for wall mounting GEMÜ 1446 000 ZMP Order code - 1446 000 ZMP	-	Mounting bracket for wall mounting GEMÜ 1446 000 ZMP Order code - 1446 000 ZMP	-
Connection kit GEMÜ 1219 000 Z... See order data - Connection kit	(C)	Connection kit GEMÜ 1219 000 Z... See order data - Connection kit	(C)



### Remote mounting to linear actuator



### Remote mounting to quarter turn actuator





### Ⓔ Order data - Positioner GEMÜ 1436 for remote mounting

Fieldbus	Code
Without	000

Options	Code
Without	00

Action	Code
Single acting	1

Flow rate	Code
Q = 150 l/min	01
Q = 200 l/min	02

Device version	Code
Positioner Economy	ECON

Travel length	Code
For external potentiometer, M 12 connector, 5-pin, A-coded	S01

Order example	1436	000	Z	1	ECON	00	01	S01
Type	1436							
Fieldbus (code)		000						
Accessory			Z					
Action (code)				1				
Device version (code)					ECON			
Options (code)						00		
Flow rate (code)							01	
Travel length (code)								S01

### Ⓕ Order data - Travel sensor GEMÜ 4232 for linear actuators

Housing material	Code
PP coated	05
Aluminium, black anodized	14
PVDF coated (suitable for High Purity)	20

Cable length	Code
Length 2.0 m	02M0
Length 5.0 m	05M0
Others on request	

Travel length	Code
Potentiometer, 30 mm length	030
Potentiometer, 50 mm length	050
Potentiometer, 75 mm length	075

Cable connection	Code
M12 cable plug, straight, 5-pin, plastic, A-coded	4001

**Note:** The required travel length depends on the max. stroke of the process valve and must be selected according to the mounting kits listed.

Order example	4232	000	Z	14	030	05M0	4001
Type	4232						
Fieldbus		000					
Accessory			Z				
Housing material (code)				14			
Travel length (code)					030		
Cable length (code)						05M0	
Cable connection (code)							4001

**Ⓒ Order data - Mounting kit travel sensor GEMÜ 4232S01Z... for linear actuators**

Type	DN	Control function	Actuator size	Travel length	Footnote	Order number
312		1	1	030		4232S01Z201503000
312		1	2	050		4232S01Z551705000
312		2	2	050	2)	4232S01Z575905000
314		1	1	030		4232S01Z201503000
314		1	2	030		4232S01Z551803000
410		1,2	0	030		4232S01Z251503000
410		1,2	1	050		4232S01Z252505000
415		1,2	0	030		4232S01Z251503000
415		1,2	1	050		4232S01Z252505000
512		1	1,4	030		4232S01Z200303000
512		1	2	050		4232S01Z551705000
512		2	1	030	2)	4232S01Z251503000
512		2	2	050	2)	4232S01Z575905000
514		1	0,3	030		4232S01Z211503000
514		1	1,4	030		4232S01Z200303000
514		1	2	050		4232S01Z551705000
514		1	5	050		4232S01Z556005000
514		2	1	030	2)	4232S01Z251503000
514		2	2	050	2)	4232S01Z575905000
514		8	1	030	1)	4232S01Z251503000
520		1	3/1-3/3	050		4232S01Z552505000
520		1	4/1-4-3	075		4232S01Z752607500
520		2	5	050	2)	4232S01Z572505000
520		2	6	075	2)	4232S01Z593707500
530		1	1	030	4)	4232S01Z200103000
530		1	2	030		4232S01Z201503000
530		1	4	050		4232S01Z556005000
530		1	5	050		4232S01Z554805000
530		2	1	030	2)	4232S01Z250303000
530		2	4	050	2)	4232S01Z571705000
530		8	1	030	1)	4232S01Z250303000
530		8	2	030	1)	4232S01Z255303000
530		8	4	050	1)	4232S01Z571705000
530	15-25	1	3	030		4232S01Z203603000
530	32-50	1	3	050		4232S01Z205905000
530	32-50	2	3	050	2)	4232S01Z251705000
530	32-50	8	3	050	1)	4232S01Z251705000
532		1	0,3	030		4232S01Z211503000
532		1	1,4	030		4232S01Z200303000
532		1	2	050		4232S01Z551705000
532		2	1	030	2)	4232S01Z251503000
532		2	2	050	2)	4232S01Z575905000
534		1	0,3	030		4232S01Z211003000
534		1	1,4	030		4232S01Z201503000
534		1	2	050		4232S01Z554605000
534		2	0	030	2)	4232S01Z253603000
534		2	1	030	2)	4232S01Z253803000
534		2	2	050	2)	4232S01Z576205000
534		8	0	030	1)	4232S01Z253603000
534		8	1	030	1)	4232S01Z253803000
534		8	2	050	1)	4232S01Z576205000
536		1	3A1-3A3	050		4232S01Z552505000
536		1	4A1-4A3	050		4232S01Z758605000
536		2	3AN	050	2)	4232S01Z572505000
536		2	4AN	050	2)	4232S01Z597105000
550		1	0	030	3)	4232S01Z093903000
550		1	1	030	4)	4232S01Z200103000
550		1	2	030		4232S01Z201503000
550		1	4	050		4232S01Z556005000
550		1	5	050		4232S01Z554805000
550		2	1	030	2)	4232S01Z250303000
550		2	4	050	2)	4232S01Z571705000
550		8	1	030	1)	4232S01Z250303000
550		8	2	030	1)	4232S01Z255303000
550		8	4	050	1)	4232S01Z571705000
550	15-25	1	3	030		4232S01Z203603000
550	32-50	1	3	050		4232S01Z205905000
550	32-50	2	3	050	2)	4232S01Z251705000
550	32-50	8	3	050	1)	4232S01Z251705000

Type	DN	Control function	Actuator size	Travel length	Footnote	Order number
554		1	0,3	030		4232S01Z211003000
554		1	1,4	030		4232S01Z201503000
554		1	2	050		4232S01Z554605000
554		2	0	030	2)	4232S01Z253603000
554		2	1	030	2)	4232S01Z253803000
554		2	2	050	2)	4232S01Z576205000
554		8	0	030	1)	4232S01Z253603000
554		8	1	030	1)	4232S01Z253803000
554		8	2	050	1)	4232S01Z576205000
555	25-32	1	3	030		4232S01Z203603000
555	40	1	4	030		4232S01Z555303000
555	50-80	1	5	030		4232S01Z558303000
555	8-20	1	2	030		4232S01Z200903000
565		1	1	030		4232S01Z292403000
566		1	1	030		4232S01Z292403000
566		2	1	030	2)	4232S01Z294403000
580		1	1	030	4)	4232S01Z200103000
580		1	2	030		4232S01Z201503000
580		1	4	050		4232S01Z556005000
580		1	5	050		4232S01Z554805000
580		2	1	030	2)	4232S01Z250303000
580		8	1	030	1)	4232S01Z250303000
580		8	2	030	1)	4232S01Z255303000
580	15-25	1	3	030		4232S01Z203603000
580	32-50	1	3	050		4232S01Z205905000
580	32-50	2	3	050	2)	4232S01Z251705000
580	32-50	8	3	050	1)	4232S01Z251705000
582		1	0	030		4232S01Z211503000
582		1	1	030		4232S01Z200303000
582		1	2	050		4232S01Z551705000
582		2	1	030	2)	4232S01Z251503000
582		2	2	050	2)	4232S01Z575905000
584		1	0	030		4232S01Z211003000
584		1	1	030		4232S01Z201503000
584		1	2	050		4232S01Z554605000
584		2	0	030	2)	4232S01Z253603000
584		2	1	030	2)	4232S01Z253803000
584		2	2	050	2)	4232S01Z576205000
584		8	0	030	1)	4232S01Z253603000
584		8	1	030	1)	4232S01Z253803000
584		8	2	050	1)	4232S01Z576205000

**Footnote**

2) For control applications use positioner with K number 2443

4) For control applications use positioner with K number 2442

**Ⓒ Order data - Mounting kit travel sensor GEMÜ 4232S01Z... for linear actuators**

Type	DN	Control function	Actuator size	Travel length	Footnote	Order number
600	15-25	1	2	030		4232S01Z201503000
600	32-40	1	3	030		4232S01Z201103000
600	50	1	4	030		4232S01Z203003000
605		1	0	030		4232S01Z050103000
605		2	0	030	2)	4232S01Z050103000
610		1	1	030		4232S01Z050103000
610		2	1	030	2)	4232S01Z050103000
615		1	1	030		4232S01Z050103000
615		2	1	030	2)	4232S01Z050103000
620		1	3/1-3/3	050		4232S01Z551305000
620		1	4A1-4A3	075		4232S01Z752607500
620		2	3/F	050	2)	4232S01Z562505000
620		2	4AF	075	2)	4232S01Z593707500
620	15-25	1	0	030		4232S01Z201503000
620	15-40	2	0,1	030	2)	4232S01Z210903000
620	32-40	1	1	030		4232S01Z201103000
620	50	1	2	030		4232S01Z201803000
620	50	2	2	030	2)	4232S01Z211503000
625		1	1	030		4232S01Z050103000
625		2	1	030	2)	4232S01Z050103000
630		1	1	030		4232S01Z211503000
650		1	0	030		4232S01Z093903000
650		1	1,2,3,4	030		4232S01Z292403000
650		1	5,6	050		4232S01Z782505000
650		2	OTA	030	2)	4232S01Z093903000
650		2	1,2,3,4	030	2)	4232S01Z294403000
656	25-40	1		050		4232S01Z551705000
656	50-65	1		050		4232S01Z552505000
656	80-100	1		075		4232S01Z752607500
656	80-100	2		075	2)	4232S01Z593707500
658		1	1	030		4232S01Z213803000
687		1	B	030		4232S01Z211503000
687		2	B	030	2)	4232S01Z050103000
687	15-25	1	1	030		4232S01Z201503000
687	15-40	2	1,2	030	2)	4232S01Z210903000
687	32-40	1	2	030		4232S01Z201103000
687	50	1	3	030		4232S01Z201803000
687	50	2	3	030	2)	4232S01Z211503000
687	65-100	1	4,5	050		4232S01Z551305000
687	65-100	2	4,5	050	2)	4232S01Z562505000
688		1	1V1	030		4232S01Z200103000
688		1	2V1	050		4232S01Z575905000
695	15-25	1	1	030		4232S01Z201503000
695	15-40	2	1,2	030	2)	4232S01Z210903000
695	32-40	1	2	030		4232S01Z201103000
695	50	1	3	030		4232S01Z201803000
695	50	2	3	030	2)	4232S01Z211503000
710		1,2	0	030		4232S01Z251503000
710		1,2	1	050		4232S01Z252505000
710		1,2	0	030		4232S01Z251503000
710		1,2	1	050		4232S01Z252505000

Type	DN	Control function	Actuator size	Travel length	Footnote	Order number
9415		1	0	030		4232S01Z251503000
9415		1	1	050		4232S01Z252505000
C50		1,2	1,2	030		4232S01Z028003000
C50		1,2	1,2	030		4232S01Z028003000
C50		1,2	3,4	030		4232S01Z440203000
C50		1,2	3,4	030		4232S01Z440203000
C60		1	1	030		4232S01Z072703000
C60		1	1	030		4232S01Z072703000
C60		1	2,3	030		4232S01Z270203000
C60		1	2,3	030		4232S01Z270203000
C60		2	1	030	2)	4232S01Z072703000
C60		2	1	030	2)	4232S01Z072703000
C60		2	2	030	2)	4232S01Z270203000
C60		2	2	030	2)	4232S01Z270203000
R690	15-25	1	E	030		4232S01Z200903000
R690	15-50	2	E,F,H	030	2)	4232S01Z210903000
R690	32	1	F	030		4232S01Z201503000
R690	40-50	1	H	030		4232S01Z201103000
R690	65	1	K	030		4232S01Z201803000
R690	65	2	K	030	2)	4232S01Z211503000
R690	80-100	1	M,N	050		4232S01Z551305000
R690	80-100	2	M,N	050	2)	4232S01Z562505000
SUPM		1	1T1	030		4232S01Z292403000

**Footnote**

2) For control applications use positioner with K number 2443

4) For control applications use positioner with K number 2442

## Ⓜ Order data - Travel sensor GEMÜ 4231 for quarter turn actuator

Housing material	Code
PAI	XF

Cable length	Code
Length 2.0 m	02M0
Length 5.0 m	05M0
Others on request	

Travel length	Code
Potentiometer, 90°	090

Cable connection	Code
M12 cable plug, straight, 5-pin, plastic, A-coded	4001

Order example	4231	000	Z	XF	090	05M0	4001
Type	4231						
Fieldbus		000					
Accessory			Z				
Housing material (code)				XF			
Travel length (code)					090		
Cable length (code)						05M0	
Cable connection (code)							4001

## Ⓜ Order data - Travel sensor mounting kit GEMÜ 4231PTAZ... for quarter turn actuator

Mounting kit	Code
Mounting kit - Quarter turn actuators	PTAZ

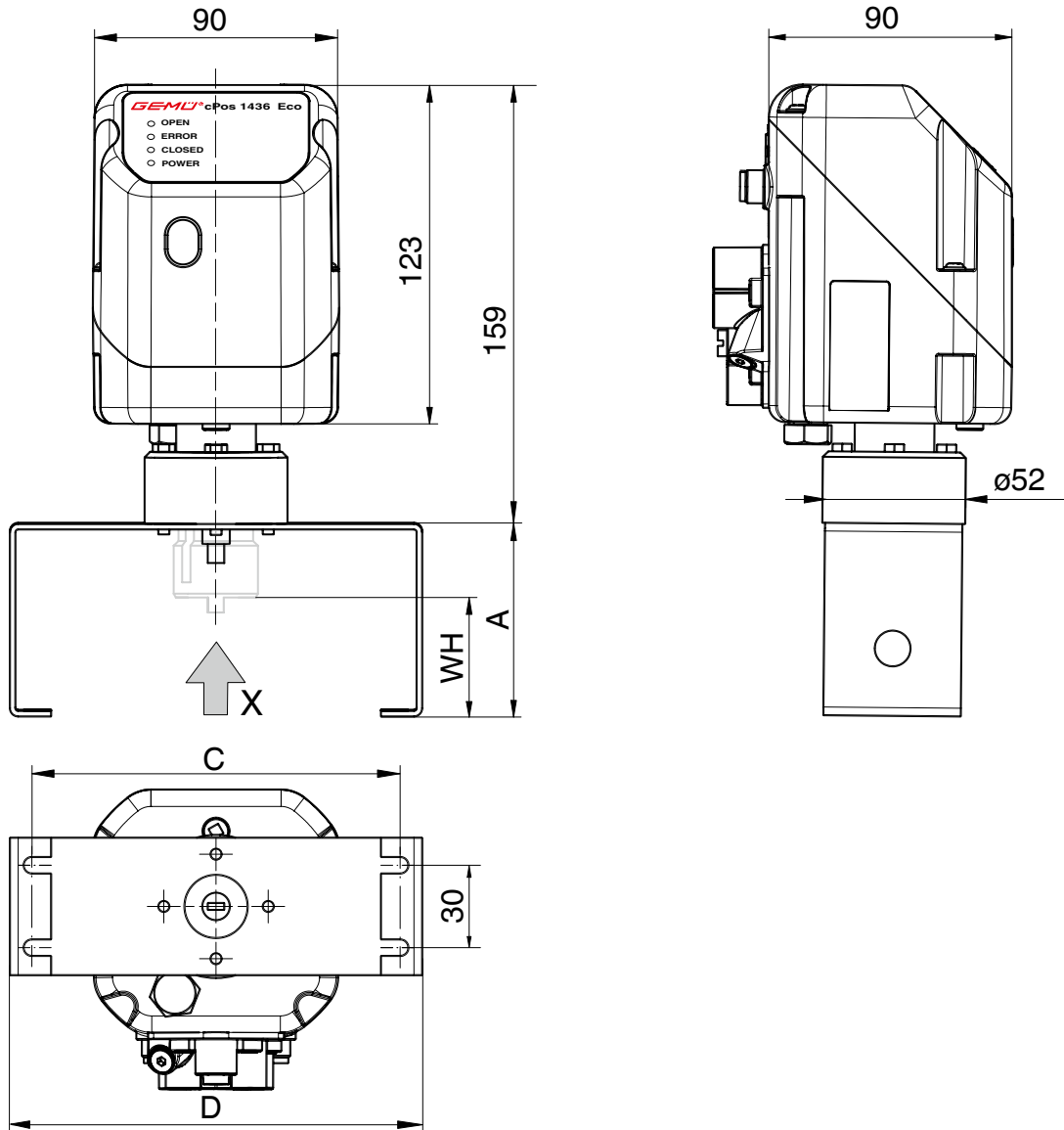
Measuring range	Code
Angle of rotation 90°	090

NAMUR size	Code
Hole spacing 80x30, shaft height 15	00
Hole spacing 80x30, shaft height 20	01
Hole spacing 80x30, shaft height 30	02
Hole spacing 130x30, shaft height 30	03
Hole spacing 130x30, shaft height 50	04

Control air connector	Code
Without	000

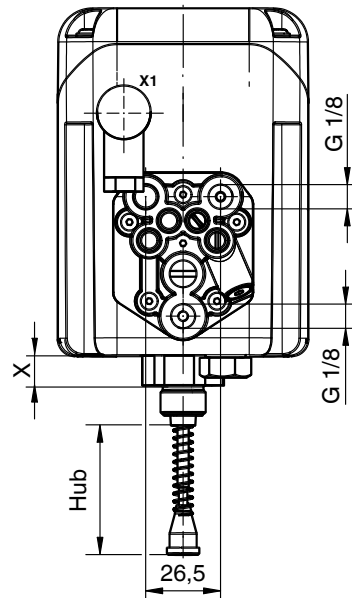
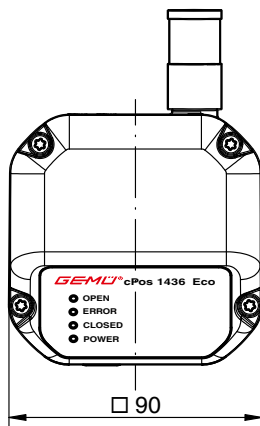
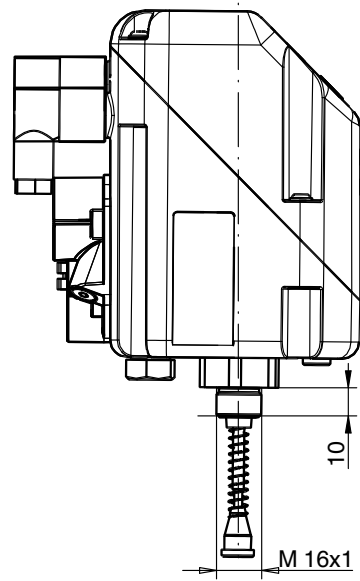
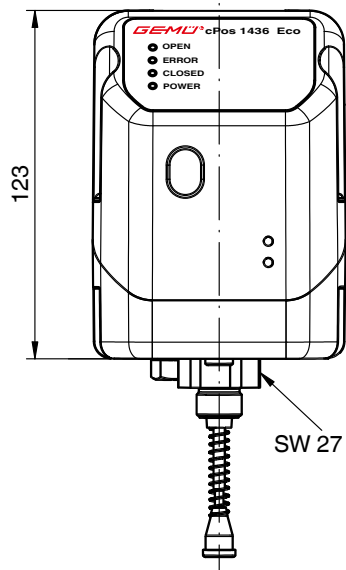
Order example	4231	PTAZ	00	090	000
Type	4231				
Mounting kit (code)		PTAZ			
NAMUR size (code)			00		
Measuring range (code)				090	
Control air connector (code)					000

Dimensions - Positioner for quarter turn actuators [mm]



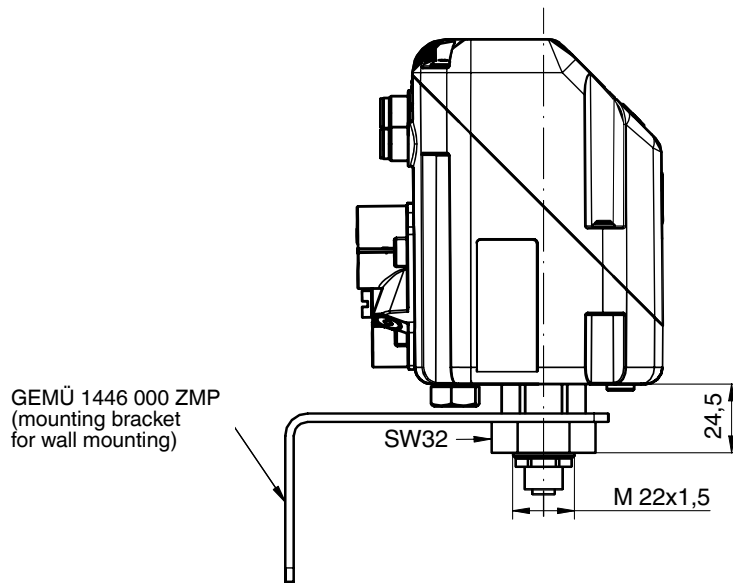
WH Shaft height	D Hole spacing	A	C
20	80	40	100
30	80	50	100
50	130	70	150

Dimensions - Positioner for linear actuators [mm]



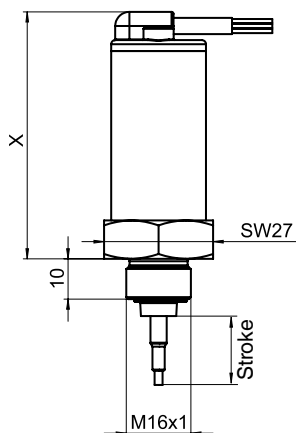
Travel sensor [mm]	
Stroke	X
030	10.3
050	32.5
075	57.3

## Dimensions - Positioner for remote mounting [mm]



## Materials and dimensions - Travel sensor GEMÜ 4232 for linear actuators, remote mounting [mm]

### Material version - Aluminium



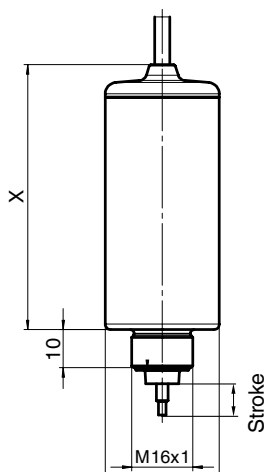
PP 30% glass reinforced

Pre-fitted cable lengths  
for remote mounting: 2m, 5m up to max. 20m

### Travel sensor

Stroke	X
30	62.2
50	84.2
75	109.2

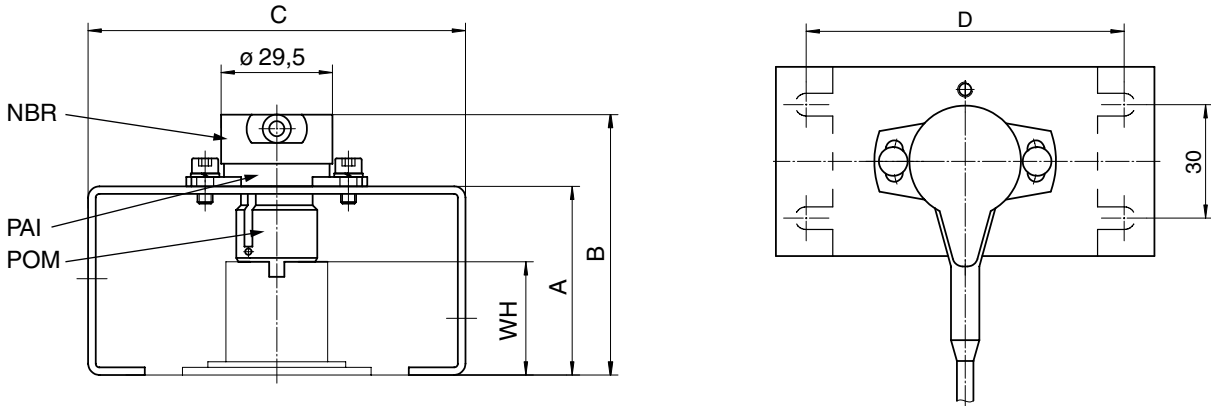
### Material version - PVDF or PP



### Travel sensor

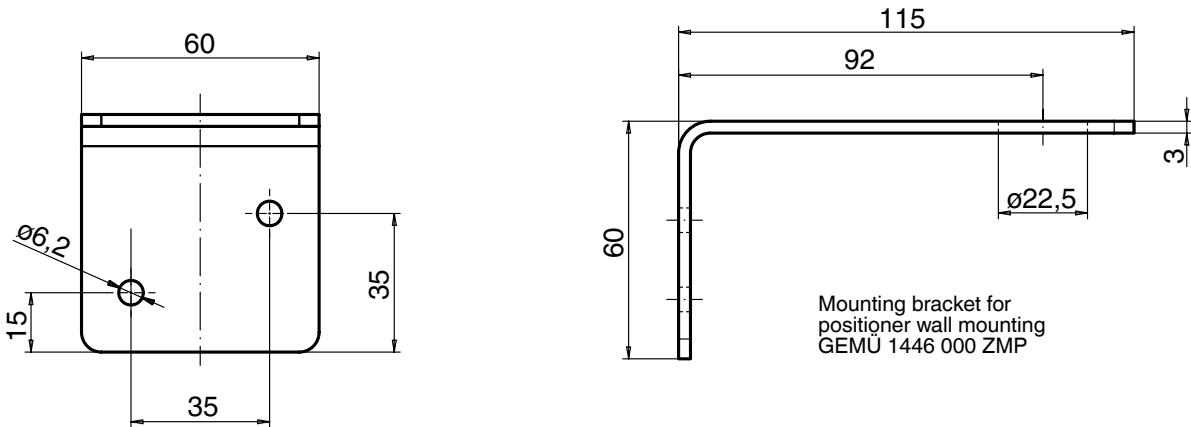
Stroke	X
30	69.6
50	91.6
75	116.6

Materials and dimensions - Rotary travel sensor GEMÜ 4231 incl. bracket, remote mounting [mm]



Shaft height WH	Hole spacing D	A	B	C
20	80	40	59	100
30	80	50	69	100
50	130	70	89	150

Accessories for remote mounting, mounting bracket [mm]



Mounting bracket for positioner wall mounting GEMÜ 1446 000 ZMP

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Should there be any doubts or misunderstandings, the German version of this data sheet is the authoritative document!

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