GEMÜ 4232

Travel sensor for linear actuators

Features

- ATEX version available as an option
- Easy fitting to GEMÜ linear actuators
- Compact, solid housing
- Durable
- Can be retrofitted to GEMÜ valves or third-party actuators
- Technically advanced and proven construction

Description

The GEMÜ 4232 travel sensor is intended for the attachment to valves with linear actuators and is used to determine the valve position. It is used as a travel sensor for the GEMÜ 1434 µPos, GEMÜ 1435 ePos and GEMÜ 1436 cPos intelligent positioners, which can be connected using either the open cable ends or an M12 cable connector (depending on the design and/or selection of the controller).

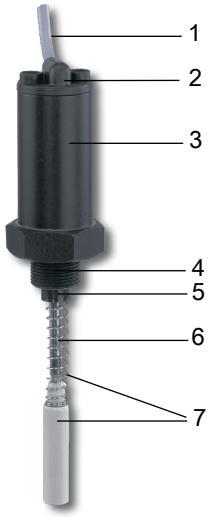
Technical specifications

- Ambient temperature: -10 to 80 °C
- Stroke: 0 to 75 mm
- Protection class*: IP 40. IP 65

* depending on version and/or operating parameters

further information
webcode: GW-4232

Product desription



Item	Name	Materials
1	Cable	LIYY
2	Cover	depending on version PP 30% glass reinforced, PVDF or PP
3	Housing	depending on version anodised aluminium, PVDF or PP
4	Threaded piece	depending on version anodised aluminium (SS for ATEX version) PVDF or PP
5	Bushing with internal lip ring	Bushing PP, lip ring PUR
6	Spindle	1.4104
7	Mounting kit	Material depending on version (valve specific)

Availability

	Code	Special version ATEX (Code X)
Housing material [1)]	**05**	-
	14	X
	20	-
Cable connection [2)]	**0000**	X
	4001	-

1) **Housing material**
Code 05: PP, polypropylene
Code 14: 3.3206, AlMgSi 0.5 F22 black anodised
Code 20: PVDF, polyvinylidenefluoride

2) **Cable connection**
Code 0000: Open wires with multicore cable ends
Code 4001: M12 cable plug A-coded, straight, 5-pin, plastic

Order data

The order data provide an overview of standard configurations.

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

The travel length depends on the necessary mounting kit.

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
Travel sensor for linear actuators	4232

2 Fieldbus	Code
Without	000

3 Accessory	Code
Accessory	Z

4 Housing material	Code
PP, polypropylene	05
3.3206, AlMgSi 0.5 F22 black anodised	14
PVDF, polyvinylidenefluoride	20

5 Travel length	Code
Potentiometer, 30 mm length	030
Potentiometer, 50 mm length	050

5 Travel length	Code
Potentiometer, 75 mm length	075

6 Cable length	Code
2 m cable, 3-pin	02M0
5 m cable, 3-pin	05M0
10 m cable, 3-pin	10M0
20 m cable, 3-pin	20M0

7 Cable connection	Code
Open wires with multicore cable ends	0000
M12 cable plug A-coded, straight, 5-pin, plastic	4001

8 Special version	Code
Without	
ATEX version	X

Order example

Order option	Code	Description
1 Type	4232	Travel sensor for linear actuators
2 Fieldbus	000	Without
3 Accessory	Z	Accessory
4 Housing material	14	3.3206, AlMgSi 0.5 F22 black anodised
5 Travel length	030	Potentiometer, 30 mm length
6 Cable length	05M0	5 m cable, 3-pin
7 Cable connection	0000	Open wires with multicore cable ends
8 Special specification		Without

Technical data

Temperature

Storage temperature: -10 to 80 °C

Product compliance

Explosion protection: Special version X order code

ATEX marking: Gas: Ex II 2G c IIC T6 X

Dust: Ex II 2D c IIIC T80 °C X

Operation in potentially explosive areas only in conjunction with a safety barrier complying with ATEX which is designed for operating passive resistor elements or potentiometers and for which separate operating instructions apply.
Maximum supply voltage Uv ≤ 12 V DC

The potential equalisation connection's maximum permissible resistance limit value is defined as R ≤ 100 Ω.
The potential equalisation connection must be checked for correct connection and compliance with the resistance limit value in the plant-specific maintenance cycle.

Note: The ATEX version is only available for ordering option "Special version" code X

Potential equalisation: The travel sensor must be connected to the system's potential equalisation using the pre-assembled grounding kit.

Mechanical data

Protection class: IP 40 in accordance with EN 60529 – housing material anodised aluminium (code 14)
IP 65 in accordance with EN 60529 – housing material PVDF, PP (code 20)

Weight: 110 g (travel length, code 030)
130 g (travel length, code 050)
150 g (travel length, code 075)

Service life: 10 x 10^6 operations

Installation position: Optional

Min. stroke: Dependent on the connected device

Max. stroke:

Travel sensor version		
Code 030	Code 050	Code 075
30 mm	50.2 mm	74.4 mm

Electrical data

Duty cycle: Continuous duty

Electrical connection: Open wires with multicore cable ends (code 0000)
M12 cable plug A-coded, straight, 5-pin, plastic (code 4001)

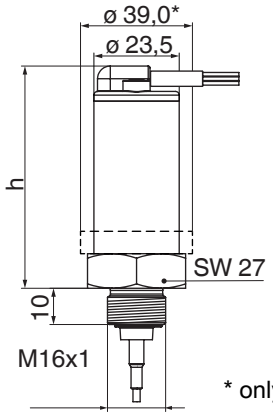
Supply voltage Uv: Standard version: max. 42 V DC
ATEX version: max. 12 V DC (special version code X)
The travel sensor is usually supplied by the connected positioners (GEMÜ 1434, 1435 or 1436).

Travel sensor:

	Travel sensor version		
	Code 030	Code 050	Code 075
Linearity:	± 0.2 %	± 0.25 %	± 0.1 %
Repeatability:	> 10 µm	> 10 µm	> 10 µm
Nominal resistance:	3 kΩ	5 kΩ	5 kΩ

Dimensions

Housing material aluminium

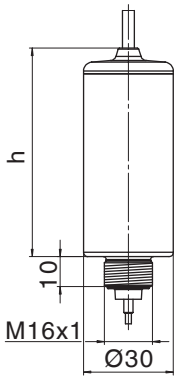


* only ATEX version (special version code X)

Travel length Code	h
030	62.2
050	84.2
075	109.2

Dimensions in mm

Housing material PVDF or PP

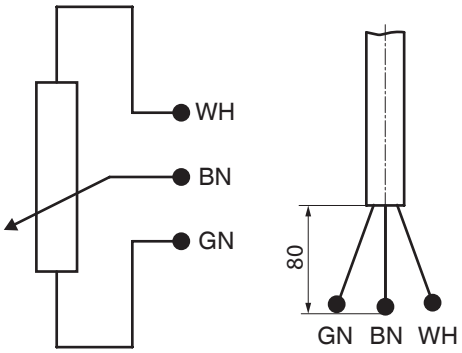


Travel length Code	h
030	69.6
050	91.6
075	116.6

Dimensions in mm

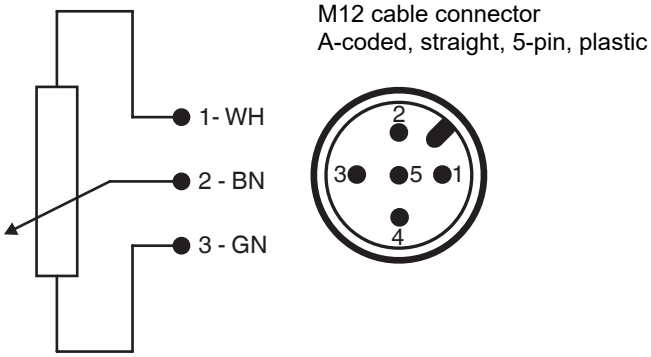
Electrical connection

Design with open wires with multicore cable ends (code 0000)



This design is suitable for connecting to the GEMÜ 1435 positioner (except the GEMÜ 1435 design with M12 cable connector).

Design with M12 cable connector (code 4001)



This design is suitable for connecting to the GEMÜ 1434, 1436 or 1435 positioner with the M12 cable connector design.

GEMÜ Gebr. Müller Apparatebau GmbH & Co. KG
Fritz-Müller-Straße 6-8, 74653 Ingelfingen-Criesbach,
Germany
Tel. +49 (0)7940 123-0 · info@gemue.de
www.gemu-group.com

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