

GEMÜ 1241

Electrical position indicator



Features

- Position feedback via 2-wire proximity switch (NAMUR)
- Adjustable switch point tolerances using locking levers
- Can be fitted to GEMÜ valves or third-party actuators
- Explosion protection for zone 1 and 21

Description

The GEMÜ 1241 electrical position indicator is suitable for mounting to pneumatically operated actuators. The position of the valve spindle is reliably electronically detected and fed back via the play-free and non-positive mounting by means of a 2-wire proximity switch (NAMUR). The product has been designed specially for valves with a stroke of 5 to 75 mm.

Technical specifications

- **Ambient temperature:** 0 Up to 60 °C
- **Linear measuring range:** 5 to 75 mm
- **Supply voltages:** 8 V NAMUR
- **Protection class:** IP 67
- **Electrical connection type:** M16 cable gland | M12 plug
- **Switch types:** 2-wire proximity switch (NAMUR)
- **Conformities:** ATEX | IECEx

Technical data depends on the respective configuration



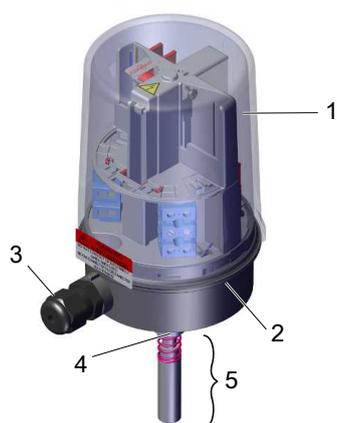
further information
webcode: GW-1241



Product line**GEMÜ 1240****GEMÜ 1241****GEMÜ 1242**

	GEMÜ 1240	GEMÜ 1241	GEMÜ 1242
Linear measuring range	5 to 75 mm	5 to 75 mm	2 to 75 mm
Radial measuring range	-	0 - 90°	0 - 90°
Ambient temperature	0 to 60 °C	0 to 60 °C	0 to 60 °C
Optical position indicators			
High visibility LED	-	-	●
Mechanical	●	●	-
On-site LED	-	-	●
Electrical connection types			
Cable glands	●	●	-
Connectors	●	●	●
Switch types			
Microswitch	●	-	-
2-wire proximity switch (NAMUR)	●	●	-
3-wire proximity switch	●	-	-
Communication modes			
AS-Interface	-	-	●
DeviceNet	-	-	●
IO-Link	-	-	●
None	●	●	-
Supply voltage			
24 V DC	●	-	●
250 V AC	●	-	-
8 V NAMUR	●	●	-
Conformities			
ATEX	-	●	●
CSA	-	-	●
EAC	-	-	●
ETL Listed C US	-	-	●
FMEDA	-	-	●
IECEX	-	●	●
NEC 500	-	-	●

Product description



Item	Name	Materials
1	Housing cover	PC
2	Housing base	PPS
3	Electrical connection	SS, PP
4	Adapter piece	SS
5	Mounting kit, valve-specific	SS, PP
	Seals	EPDM

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

Ordering

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

Installing the RFID chip (1)



Order data

The order data provide an overview of standard configurations.

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

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	6 Electrical connection	Code
Electrical position indicator ATEX	1241	M16 Skintop cable gland	03
2 Fieldbus	Code	7 Option	Code
Without	000	Without	00
3 Accessory	Code	8 Switch	Code
Accessories	Z	Proximity switch, 2-wire, NAMUR P+F, NJ1,5-6,5-15-N-Y180094	N1
4 Housing material	Code	9 Connection diagram	Code
PPS base, PC cover	01	Terminals, NAMUR	N1
5 Device version	Code	M12 plug, 5-pin	N2
Open	A0	10 Travel sensor version	Code
Open/Close	AZ	Potentiometer, 75 mm length	075
Close	Z0	11 Special version	Code
6 Electrical connection	Code	ATEX (2014/34/EU), IECEx	X
M12 plug, 5-pin	01		

Order example

Ordering option	Code	Description
1 Type	1241	Electrical position indicator
2 Fieldbus	000	Without
3 Accessory	Z	Accessories
4 Housing material	01	PPS base, PC cover
5 Device version	A0	Open
6 Electrical connection	03	M16 Skintop cable gland
7 Option	00	Without
8 Switch	N1	Proximity switch, 2-wire, NAMUR P+F, NJ1,5-6,5-15-N-Y180094
9 Connection diagram	N1	Terminals, NAMUR
10 Travel sensor version	075	Potentiometer, 75 mm length
11 Special version	X	ATEX (2014/34/EU), IECEx

Technical data

Temperature

Ambient temperature: 0 – 60 °C

Storage temperature: -10 – 70 °C

Product compliance

EMC Directive: 2014/30/EU

Explosion protection: ATEX (2014/34/EU)
IECEX

ATEX marking: Gas:  II 2G Ex ia IIC T4 Gb
Dust:  II 2D Ex ia IIIC T120°C Db
0 °C ≤ Ta ≤ +60 °C
EC type examination certificate: IBExU21ATEX1097 X
Notified body: IBExU, No. 0637

IECEX marking: Gas: Ex ia IIC T4 Gb
Dust: Ex ia IIIC T120°C Db
Certificate: IECEX IBE 21.0043 X

Mechanical data

Installation position: Optional

Weight: 420 g

Protection class: IP 67

Stroke: 5 – 75 mm

Measuring range radial: 0° to 90°

Electrical data

Electrical connection type: M12 plug, 5-pin (code 01)
M16x1.5 Skintop cable gland for cable dia. 7 to 9 mm, recommended wire cross section 0.75 mm² x 8 cables (code 03)

2-wire proximity switch

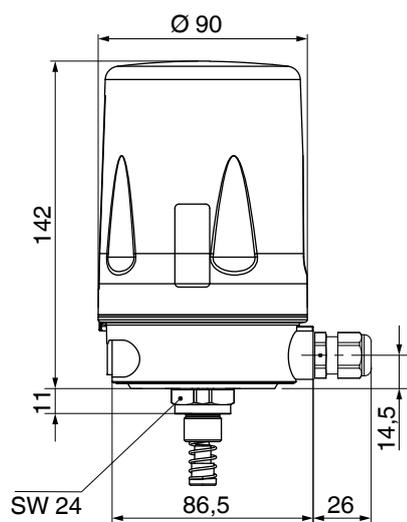
Switch type: 2-wire, NAMUR, switch (code N1)

Supply voltage: 8 V DC

Current consumption: ≤ 0.1 mA (damped)
≥ 3 mA (undamped)

Intrinsically safe characteristic values: Ui = 16 V
Ii = 52 mA
Pi = 169 mW
Li = 50 µH
Ci = 30 nF

Dimensions

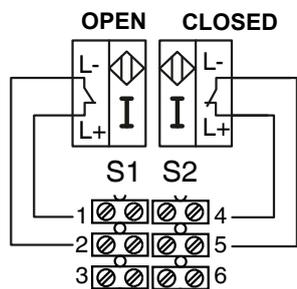


Dimensions in mm

Electrical connection

M16 Skintop cable gland (code 03)

Connection diagram - NAMUR (code N1)



Electrical connection Code 03

M12 plug, 5-pin (code 01)

Connection diagram - NAMUR (code N2)



Pin	Signal name
1	L+, OPEN switch
2	L-, OPEN switch
3	L+, CLOSED switch
4	L-, CLOSED switch
5	n.c. *

*Pin 5 is not connected.



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