

Electrical Position Indicator with microswitches

Construction

The GEMÜ 1230 electrical position indicator is suitable for linear valves with actuator strokes up to 20 mm (actuating travel). It has a corrosion resistant housing and one or two microswitches. Switching rod and actuating spindle have a positive connection without axial play. The electrical connection is via cable gland.

Features

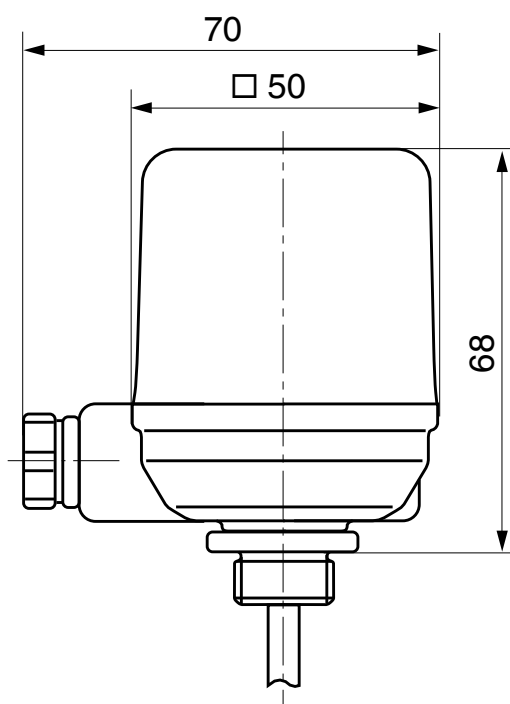
- Both microswitches can be continuously and precisely adjusted, independently of each other, via threaded spindles
- Device can be rotated through 360°
- Customer-specified connectors available as an option
- LEDs showing position indication are optional
- UL approval available as an option

Advantages

- Simple mounting and retrofitting to GEMÜ linear actuators
- Mounting to other makes upon possible
- Compact design in a stable housing
- Protection class IP 65 to EN 60529



Dimensions [mm]



Technical Data

Operating conditions

Setting range of limit switch	2 - 20 mm continuous
Ambient temperature	-20° to +60°C
Protection class	IP 65 EN 60529

Electrical connection

M 16 cable gland	1 x available
Cable diameter	4.5 ... 7 mm
Recommended cross section of wire	0.75 mm ²

Materials

Housing cover	Polysulfone	PSU
Housing base	Polypropylene 30% GF	PP
Bush	1.4305	
Operating spindle	1.4104	

Approvals

UL	UR (recognized)	UL 508
CSA	C22.2	No. 14-M91
For details see www.ul.com		

Switch

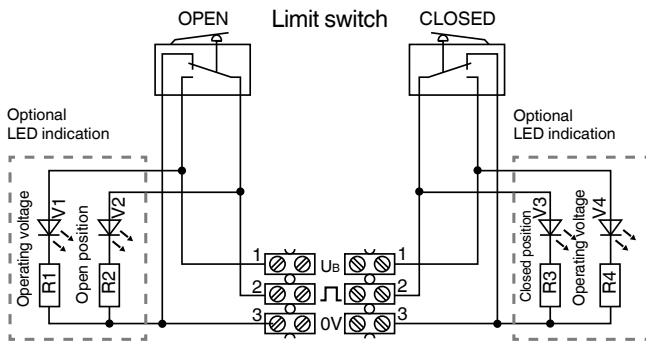
	Standard	UL-Approval	Option with LED
Rated voltage U _B	250V AC	10 - 30V DC	10 - 30V DC
On-load current	4 A (24V DC) 2,5 A (230V AC)	3 A -	4 A (24V DC) -
Intrinsic current consumption	-	-	40mA (24V DC)
Service life	10 x 10 ⁶ cycle duties	10 x 10 ⁶ cycle duties	10 x 10 ⁶ cycle duties
Application category	AC - 15	-	-

Availability table

	Function	Electrical connection	Connection diagram
Standard (without LED display)	OPEN/CLOSED (Code A00)	M16 cable gland (Code 1101)	Code 101, 103
	OPEN (Code A01) CLOSED (Code A02)	M12 plug, 4-pin (Code 1110)	Code 102
With LED display	OPEN/CLOSED - PNP (Code A10)	M16 cable gland (Code 1101)	Code 101
	OPEN - PNP (Code A11) CLOSED - PNP (Code A12)	M12 plug, 4-pin (Code 1110)	Code 110
	OPEN/CLOSED - NPN (Code A20)	M16 cable gland (Code 1101)	Code 103
	OPEN - NPN (Code A21) CLOSED - NPN (Code A22)	M12 plug, 4-pin (Code 1110)	Code 112
UL approval	OPEN/CLOSED - Standard (Code A00) OPEN/CLOSED - PNP with LED display (Code A10)	M16 cable gland (Code 1101)	Code 101

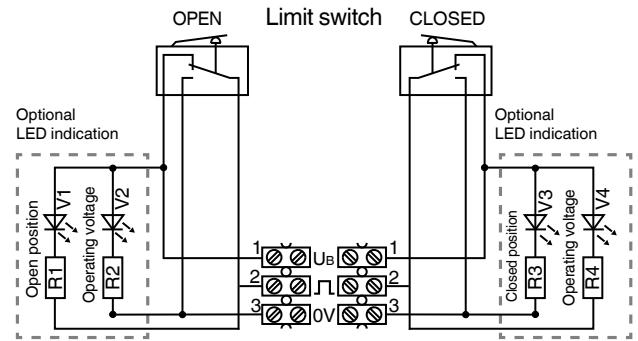
Connection diagrams

PNP with LED display* (Code 101)



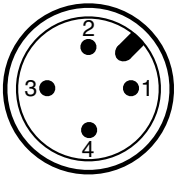
U_B = Operating voltage
 \square = Signal output
 0V = GND, 0V

NPN with LED display* (Code 103)



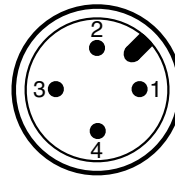
U_B = Operating voltage
 \square = Signal output
 0V = GND, 0V

M12 plug, 4-pin (Code 102)



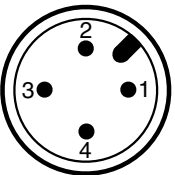
PIN	Standard
1	L1/L+, supply voltage
2	Us, signal end position CLOSED
3	N/L-, supply voltage
4	Us, signal end position OPEN

M12 plug, 4-pin, PNP with LED display* (Code 110)



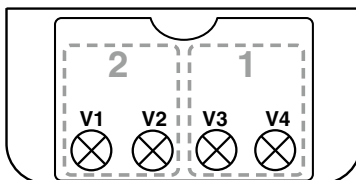
PIN	Standard
1	L+, supply voltage ($U_B = 10 - 30$ V DC)
2	Us, signal end position CLOSED
3	L-, supply voltage ($U_B = 10 - 30$ V DC)
4	Us, signal end position OPEN

M12 plug, 4-pin, NPN with LED display* (Code 112)



PIN	Standard
1	L+, supply voltage ($U_B = 10 - 30$ V DC)
2	Us, signal end position CLOSED
3	L-, supply voltage ($U_B = 10 - 30$ V DC)
4	Us, signal end position OPEN

* LED display assignment



1 - not available for function Code A11, A21

2 - not available for function Code A12, A22

LED	Assignment	Limit switch	LED colour
V1	Operating voltage	OPEN	Yellow
V2	OPEN position	OPEN	Green
V3	CLOSED position	CLOSED	Red
V4	Operating voltage	CLOSED	Yellow

Order data

Field bus	Code
Without	000

Electrical connection	Code
M16 cable gland	1101
M12 plug, 4-pin	1110

Function		Code
OPEN/CLOSED	Standard	A00
OPEN	Standard	A01
CLOSED	Standard	A02
OPEN/CLOSED	PNP with LED display	A10
OPEN	PNP with LED display	A11
CLOSED	PNP with LED display	A12
OPEN/CLOSED	NPN with LED display	A20
OPEN	NPN with LED display	A21
CLOSED	NPN with LED display	A22

Connection diagram	Code
Terminals, PNP	101
M12 plug; 4-pin	102
Terminals, NPN	103
M12 plug, 4-pin, PNP with LED display	110
M12 plug, 4-pin, NPN with LED display	112

Switch	Code
SPDT (Single Pole Double Throw) switch	103

Approval	Code
without	-
UL approval (not for all versions)	U

Order example	1230	000	Z	A00	103	1101	101	-
Type	1230							
Field bus (code)		000						
Accessory			Z					
Function (code)				A00				
Switch (code)					103			
Electrical connection (code)						1101		
Connection diagram (code)							101	
Approval (Code)								-

Please order mounting kit 1230 S01 Z... (spindle + mounting parts) separately with reference to the particular valve type.

When ordering please specify the complete valve type key, e. g. Type 1230 000 Z A00 103 1101 101 for mounting to GEMÜ valve 690/20 D 0114-1.

For possible combinations see table of availability in the section Technical data.