

3-Point Controller

Description

The GEMÜ 1283 E-module is used for the manual or automatic regulation or position control of motorized valves, e. g. for GEMÜ 413/418, 563/568, 613/618 and 693/698.

Construction and function

The E-module compares the set value which is set via the fascia keys or an external standard signal (0/4 to 20 mA) with the actual detected value from the motorized valve or an actual value signal (0/4-20 mA).

The valve adjustment "Open" and "Closed" is initiated by relays. These are energized until the difference between the actual and set value is less than the dead zone, i.e. they readjust the valve position.

Over the whole of the control range, switch points are adjustable as minimum and maximum values via the menu.

The 3-digit 7-segment display can either display the set value or the actual value or the valve position.

As an option the module provides a standardized 4-20 mA output signal which can either output the set value, the actual value or the valve position. This output signal can be used for external remote indication or for further processing.

Design

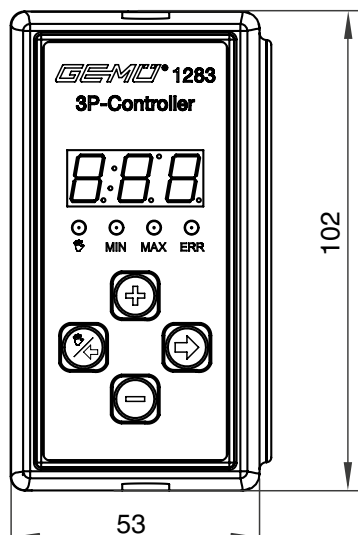
For panel mounting or direct mounting to the valve

Advantages

- Adjustable dead zone
- Adjustable min/max limitation of the stroke position
- 2 relay outputs for valve activation
- For panel mounting or direct mounting to the motorized valve
- Reliable electronic system for maintenance-low function
- Adjustable display
- The motorized actuator voltage may differ from the supply voltage for the controller



Dimensional drawing - front view [mm]



Technical data

General information

Protection class to EN 60529	IP 40
EMC directive	
Interference resistance	EN 61000-6-2
Interference emission	EN 61000-6-4 (class B)
Weight	510 g
Dimensions L x W x H	See dimensional drawing
Mounting position	Optional

Operating conditions

Ambient temperature	0 to + 60 °C
Storage temperature	0 to + 60 °C

Materials

Housing	PPO 30 % glass reinforced
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Controller data

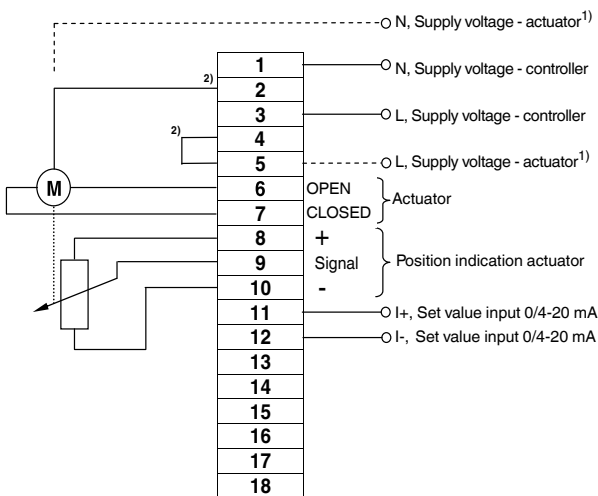
Dead zone	adjustable ≥ 0.5 %
Controller version	3-point controller

Electrical data

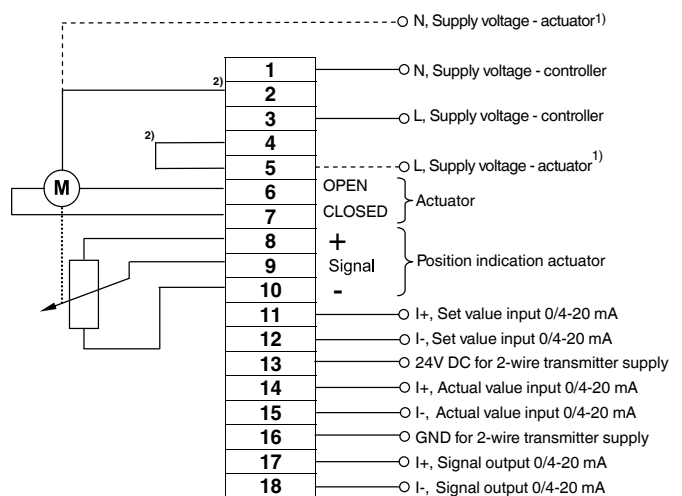
Power supply	24 V DC ± 15 % 24 V 50/60 Hz ± 15 % 100-250 V 50/60 Hz ± 15 %
Power consumption (without motor load and without options)	4 VA / 4 W
Analogue inputs	
Set value input	0/4-20 mA $R_i = 50 \Omega$
Actual value input In1	for connection of a potentiometer $R > 500 \Omega$
Actual value input In2 (optional)	0/4-20 mA (2/3-wire)
Analogue output (optional)	
Actual value output	4-20 mA
Load resistor	$< 600 \Omega$
Relay outputs	
Switching voltage	U_N 250 V AC, U_N 24 V DC
Switching current	I_N 5 A AC @ 250 V AC I_N 5 A DC @ 24 V DC
Switch rating max.	1250 VA, 150 W
Operating and display elements	
Display	3-digit 7-segment display
Keys	4 membrane protected fascia keys
LED	4 status LEDs

Electrical connections

1283 000 Z XX 01 00 ...



1283 000 Z XX 01 01 ...

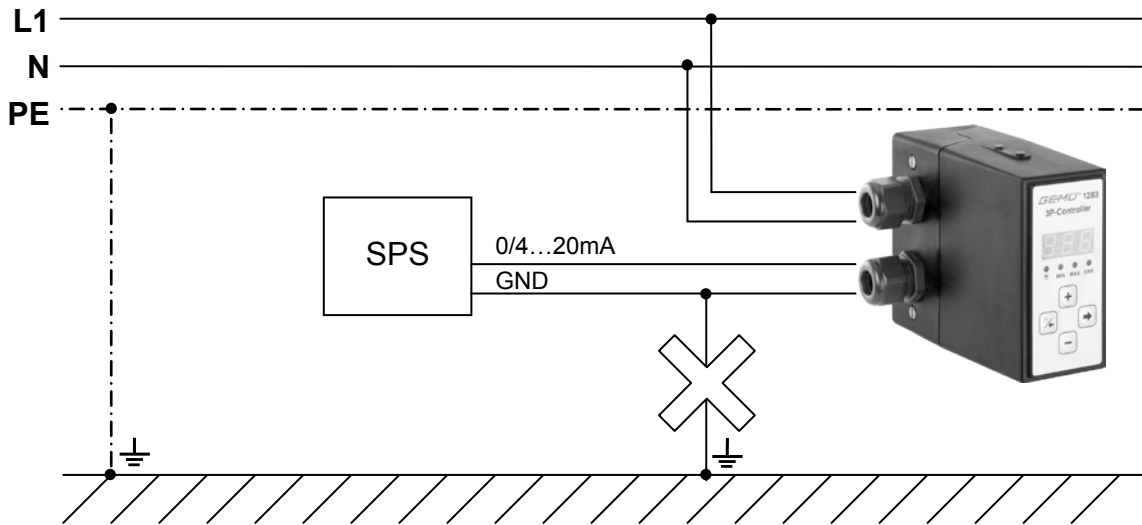


¹ required when actuator and controller power supply are different

² required when actuator and controller power supply are identical

Electrical connections

Electrical connection - Basic version:
Potential-free set value signal

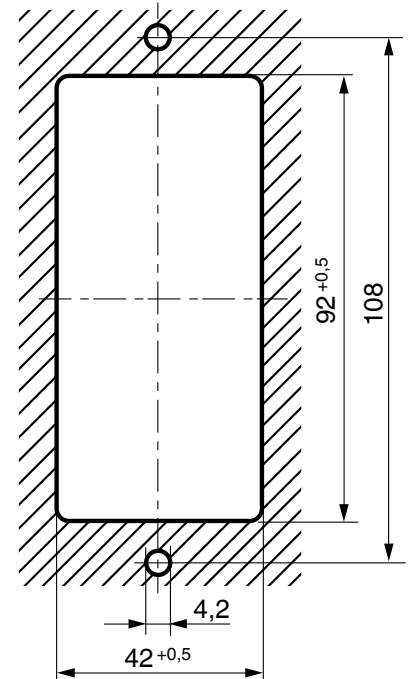
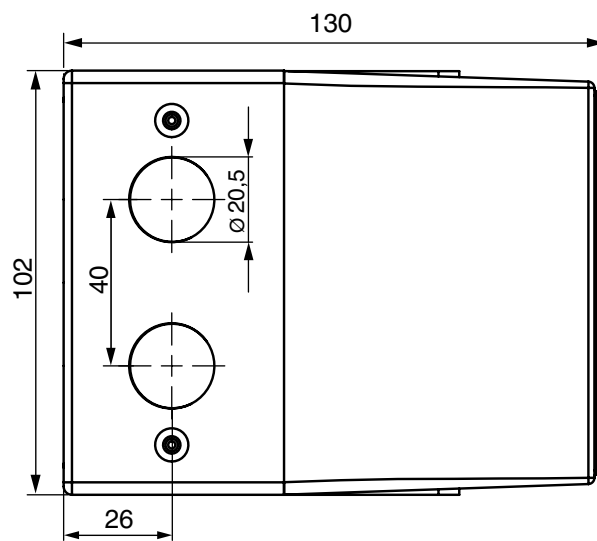
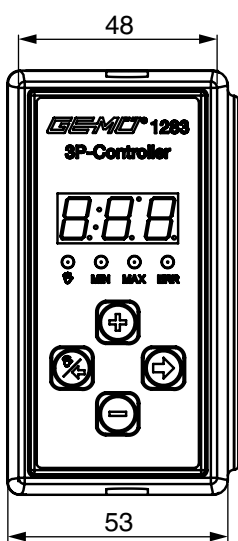


Electrical connection - Special version (Art.No. on request):
Set value signal connected to ground potential

Dimensions [mm]

GEMÜ 1283

Panel cutout



Order data

Field bus	Code	Device version	Code
Without	000	3-point controller	01

Accessory	Code	Options	Code
Accessory	Z	Without	00
		Current output 4-20 mA and actual value input for process control	01

Mounting version	Code	Voltage/Frequency	Code
Direct mounting	00	24 V DC	C1
Panel mounting	10	24 V 50/60Hz	C4
		100-250 V 50/60Hz	O4

Order example	1283	000	Z	00	01	00	C4
Type	1283						
Field bus (code)		000					
Accessory (code)			Z				
Mounting version (code)				00			
Device version (code)					01		
Options (code)						00	
Voltage/Frequency (code)							C4

Mounting example



GEMÜ 613
motorized 2/2-way plastic diaphragm valve
with GEMÜ 1283 3-point controller



GEMÜ 9698
electromotorized actuator
with GEMÜ 1283 3-point controller

For further controllers, accessories and other products
please see our Product Range catalogue and Price List. Contact GEMÜ.

GEMÜ® VALVES, MEASUREMENT
AND CONTROL SYSTEMS

