

EMOLON

**Motorized actuator
for use with
LONWORKS®-networks**



To be precise.



EMOLON

Description



The EMOLON proportional actuator has been designed for connection to LONWORKS®-networks. The bus (Link Power) supplies the voltage directly.

The integrated bus voltage monitoring avoids an overload of the network from a larger number of EMOLON actuators.

The Neuron® ID has a contact free output due to the service magnet. A yellow service LED acts as a status indicator.

The maintenance-free drive mechanism operates at an extremely low noise level.

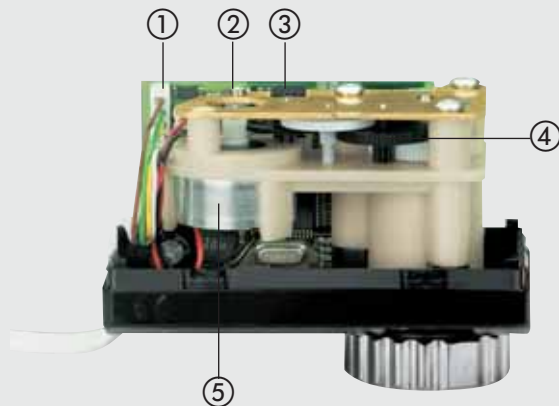
The compact body made of high quality plastic covers the motor, gears, stroke recognition and the entire communications and control technology.

This actuator has been designed to be fitted to all HEIMEIER thermostatic valve bodies and three-way valves. Adapters enable the mounting of thermostatic valve bodies of other manufacturers, see leaflet EMO T or EMOtec.

The electrical connection is protected against polarity inversion by a 6-wire cable which is fitted to the body.

Assembly

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- ① Communications and control technology
- ② Service LED
- ③ Position capture

- ④ Spur gear
- ⑤ Direct current motor (noiseless)

- Link Power with bus voltage monitoring
- Automatic stroke recognition
- Characteristic line compensation
- Runs extremely quietly
- Corresponds to LonMark guidelines
- LNS™ plug-in for configuration, monitoring and diagnostics

Function

When starting up, the stroke position of the valves is recorded in a closed and completely open position by the adjustment routine of the actuator.

Then the control value received by the LONWORKS® network is assigned to the effective valve stroke in a linear relationship. This results in a high resolution of the valve stroke. A linearization of the characteristic line of the thermostatic

valve bodies can be set by an LNS™ plug-in.

The motor is switched off as soon as the stroke position, which is equivalent to the received control variable, has been reached. Stability in this position is guaranteed by the self-locking gears. The pressure power within the closed range is adapted for thermostatic valve bodies with soft sealing discs.

Following a predetermined number of changes in position and after each interruption of the system voltage, the actuator automatically conducts a recalibration routine.

Two flexibly configurable binary inputs have been integrated for a direct connection to buttons, switches, conventional sensors etc. along with a PID controlling algorithm.

Technical data

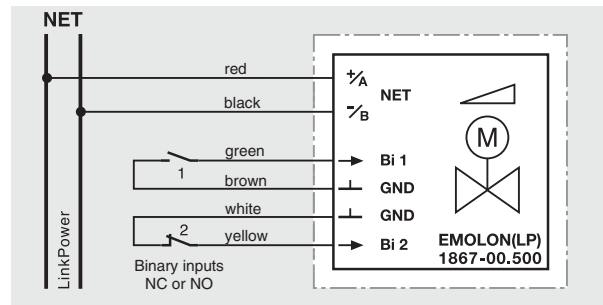
EMOLON	
Voltage supply:	from LONWORKS® – TP/FT network
– System voltage:	nom. 48 V DC (40.6 V – 42.4 V) / LinkPower for transceiver Typ LPT10
– Power consumption:	max. 12 mA ($\leq 570 \text{ mW} \cong 2 \text{ LinkPowerUnits}$)
Connection to network segment:	max. 64 actuator nodes for internal bus voltage monitoring
Network interface:	dependant on software; corresponds to the software documentation
Binary inputs:	2 freely configurable binary inputs (max. permitted wire extension 4 m)
– Assignment:	external, floating contacts (NO/NC)
– Signal current, signal voltage:	approx. 1 mA / 20 V impulses/5 ms
Valve stroke; Running time:	min. 1.0 mm, max. 4.2 mm; 25 s/mm
Type of protection (accord. to EN 60529):	(horizontal installation) IP 42 (vertical standing installation) IP 43
Safety class:	◊III; III according to EN 60730
Body, color:	plastic, white according to RAL 9016
Connection cable:	1 m fixed; type (J)EYY 3 x 2 x 0.6 (custom lengths available on request)
Connection to bus:	with polarity inversion protection; 2-pole with bus connection terminal
– of the binary inputs:	each 2-pole with bus or connection terminal
CE certification:	EN 50081-1; EN 50082-1; EN 50090-2-2
Ambient temperature:	0°C to 50°C (32°F to 122°F) in operation
Medium temperature:	max. 100°C (212°F)
Storage temperature:	–20°C to +70°C (–4°F to +158°F)
Installation:	can be used with all HEIMEIER thermostatic valve bodies and three-way valves

Max. permitted differential pressure during which the valve is kept closed, see brochures “Thermostatic valve bodies”; “Three-way reversing valve”; “Three-way mixing valve”; “Control valves for floor heating systems”

Article numbers

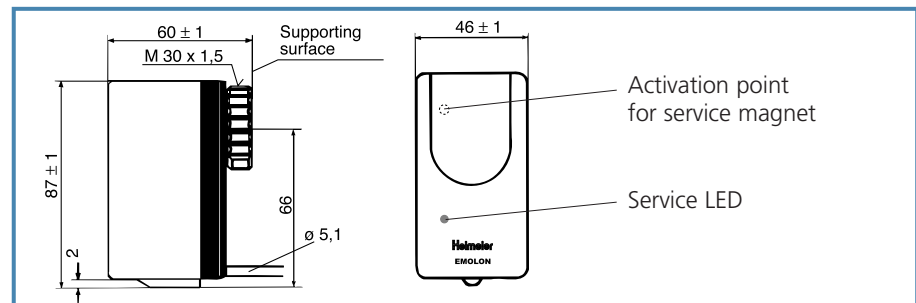
EMOLON / LP variant	1867-00.500
EMOLON / FT variant	available on request

Connection diagram



1 mm = 0,0394 inch

Length



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