

EMO EIB

**Motorized actuator
for direct connection to the
European Installation Bus**



Description



The EMO EIB proportional actuator is designed for connection to the European Installation Bus (EIB).

The connection is made directly, and a separate bus coupling is not necessary. In addition, there is no need for an external auxiliary energy supply, as the actuator is supplied with voltage from the bus.

Programming the physical address without direct contact is made possible with the aid of the programming magnet.

A red programming LED acts as a status

indicator.

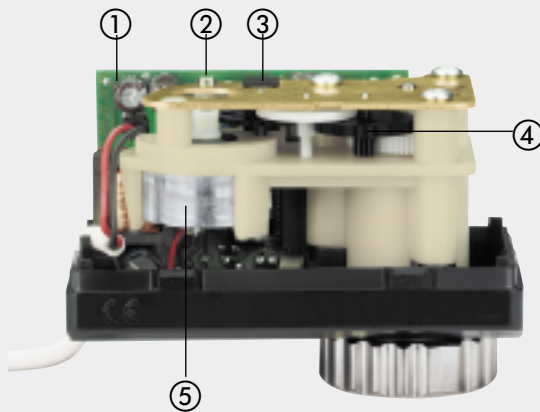
The maintenance-free drive mechanism operates at an extremely low noise level. The compact body made of top quality plastic covers the motor, gears, stroke recognition and the entire communications and controlling technology.

It may be installed on all HEIMEIER thermostatic valve bodies and three-way reversing valves.

The electrical connection is protected against polarity inversion with a 2-wire cable which is fitted to the body.

Assembly

EMO EIB



- ① Communications and control technology
- ② Programming LED
- ③ Position capture
- ④ Spur gear
- ⑤ Direct current motor (noiseless)

- No auxiliary voltage required
- Automatic stroke recognition
- Runs extremely quietly
- Integrated communications electronic technology
- Certified according to EIB standards

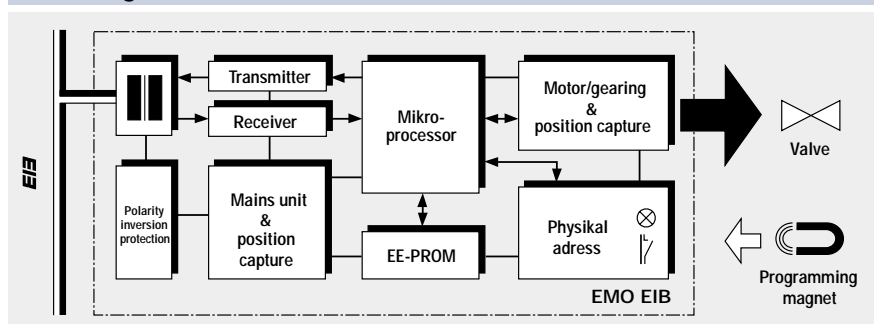
Function

When putting into operation, an actuator adjustment routine recognises the stroke position of the valve in closed and completely open position. The 8 bit control variable received via the EIB is then allocated to the effective valve stroke in a linear relationship. This results in the high resolution of the valve stroke in 256 positions.

The motor switched off as soon as the lift 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 valve discs.

Following a fixed predetermined number of changes in position and after each interruption of the system voltage, the drive mechanism automatically conducts an adjustment routine.

Block diagram



Application

The EMO EIB motorized actuators are used in the EIB building installation system in the heating, ventilation and air conditioning sectors.

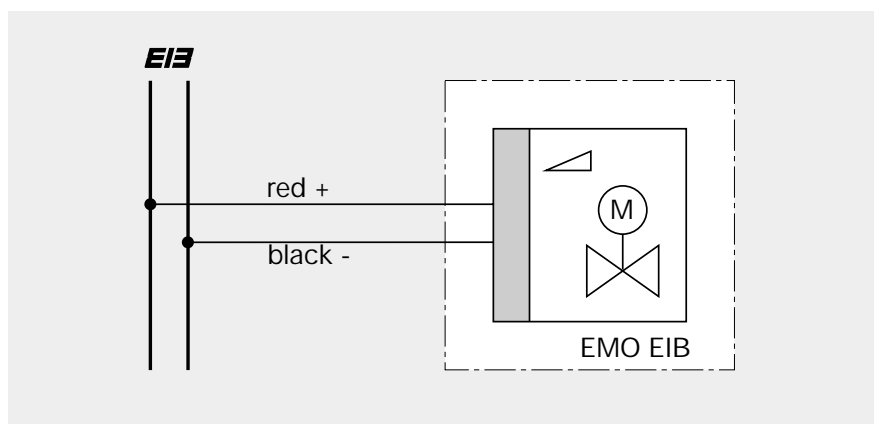
They can be installed on thermostatic valve bodies and make it possible, when used with the appropriate EIB constant controller, for optimal control results to be achieved even when more accurate

control or control paths with high levels of difficulty are required.

Due to their low power consumption, the actuators receive their voltage supply directly from the bus. It is therefore not necessary to lay an additional auxiliary energy supply network.

Motorized actuators can also be used for room temperature control, e. g. on radiators and convectors, manifolds for under-floor heating systems, ceil cooling systems and radiant heating systems as well as fan-coil units and induction equipment in two or four conductor systems.

Connection diagram



Technical data

| EMO EIB | |
|----------------------------------|---|
| Voltage supply: | from EIB Bus (SELV according to IEC 364-4-41) |
| – System voltage: | 24 V DC (+6 V / –4 V) |
| – Power consumption: | typ. 10 mA (= 240 mW; j approx. 2 BA modules) |
| Participants per EIB-Linie: | max. 64 (depending on the nature of the voltage supply and participants) |
| Communications: | 3 x 8 bit format for set value, actual value and status 1 x 1 bit format for compulsory position (open window recognition) |
| Valve stroke: | min. 1.0 mm; max. 4.0 mm |
| Running time: | 25 s/mm |
| Type of protection: | according 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 9010 |
| Connection cable: | 1 m fix; J-Y (St) Y 1 x 2 x 0,6 (custom lengths available on request) |
| Connection to the bus cable: | polarity inversion protection; 2-pole with EIB bus terminal |
| CE certified (EMV/NS): | EN 55022 and EN 50082-2 / EN 60730 |
| Ambient temperature: | 0°C to 50°C (32°F to 158°F) in operation |
| Medium temperature: | max. 100°C (212°F) |
| Storage temperature: | –20°C to +70°C (–4°F to +158°F) |
| Installation: | fits all HEIMEIER thermostatic valve bodies and three-way reversing valves |

Max. permitted differential pressure during which the valve is kept closed, see brochure: "Thermostatic valve bodies"; "Three-way reversing valves"; "Controlling valves for floor heating systems".

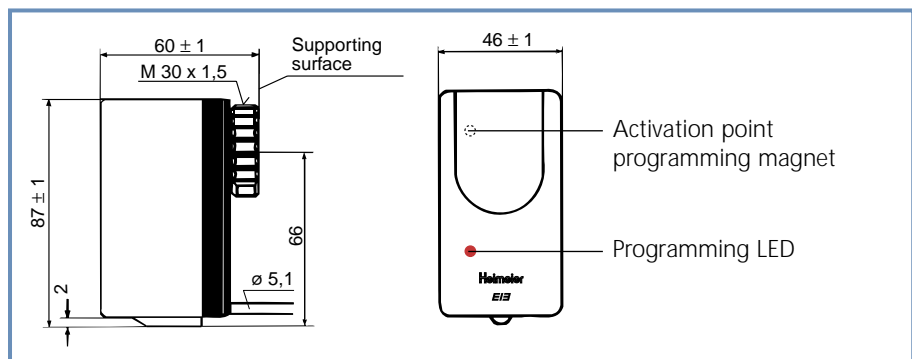
Article number

1865-00.500

Accessories

- Product data base** 3,5" diskette with HEIMEIER-specific data on EMO EIB for down loading into ETS2 from version 1.1 onwards. **Art. no.: 1865-00.433**
- Programming magnet** for releasing the programming of physical addresses without contact. **Art. no.: 1865-01.433**
- Bus terminal** Connecting and branch terminal, in red/black pairs for connecting max. 4 solid conductors with a diameter of \varnothing 0.6–0.8 mm. VPE: 10 pieces. **Art. no.: 1865-02.433**

Dimensions



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