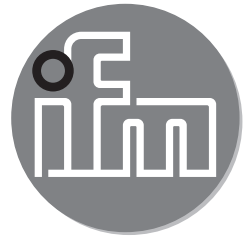


ifm electronic



Operating instructions
Sensor for condition monitoring
of a rotor lock

UK

efector120[®]

M9500x



80005173 / 00 06 / 2015

Content

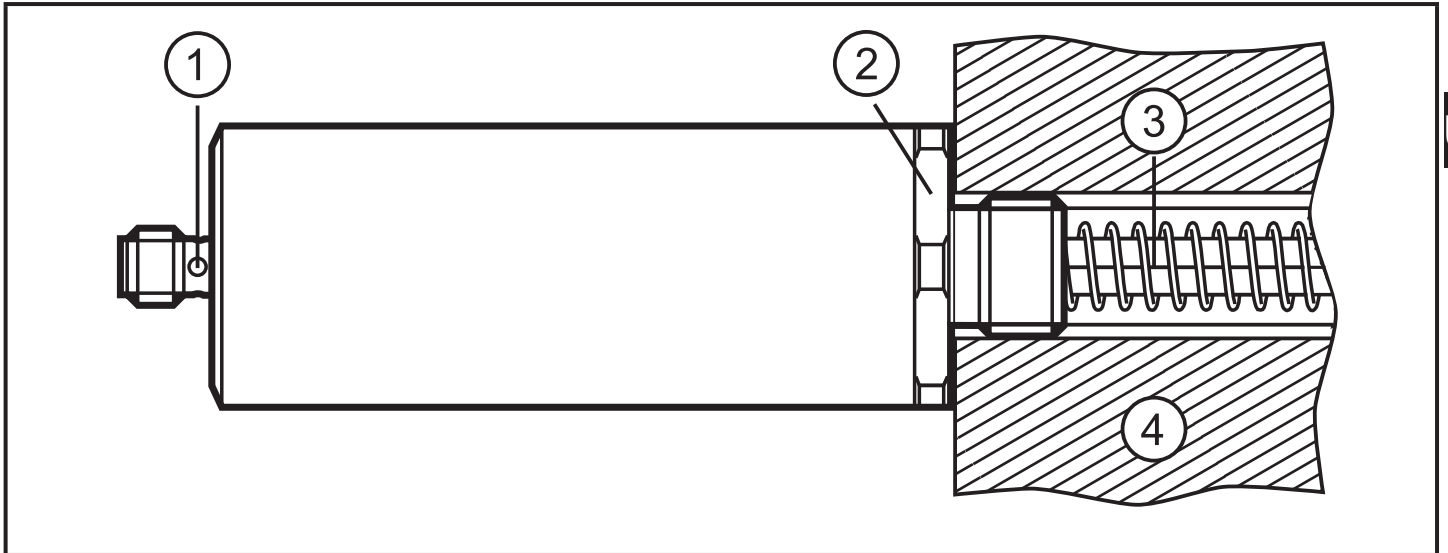
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1 Functions and features

The unit operates on the magnetic principle. The unit detects the position of the plunger and indicates it by three switching signals.

2 Installation

2.1 Installation of the unit in the application



- 1: output 1 (LED yellow), output 2 (LED off), output 3 (LED red)
- 2: wrench flat
- 3: plunger
- 4: installation environment or application

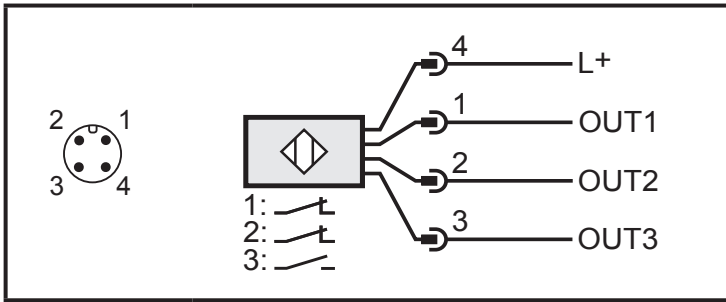
3 Electrical connection



The unit must be connected by a qualified electrician.

- ▶ The national and international regulations for the installation of electrical equipment must be adhered to.
- ▶ Ensure voltage supply to EN 50178.

- ▶ Disconnect power.
- ▶ Connect the unit as follows.



If only one output is required:

- ▶ Connect output 3.

If only output 1 or 2 is connected, the unit does not function.

4 Set-up

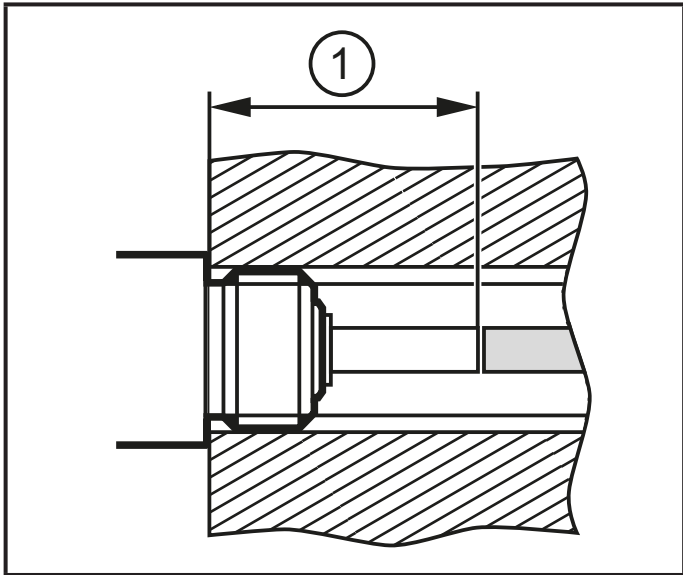
- ▶ Install the unit in the application.



Programming the switch points outside the application and subsequent installation in the application can lead to switch point shifting.

- ▶ Connect the unit.
- ▶ Switch on the operating voltage.
- > Output 1 and output 3 continuously switch on and off alternately. Both LEDs flash (factory setting).

4.1 Switch point programming for output 1

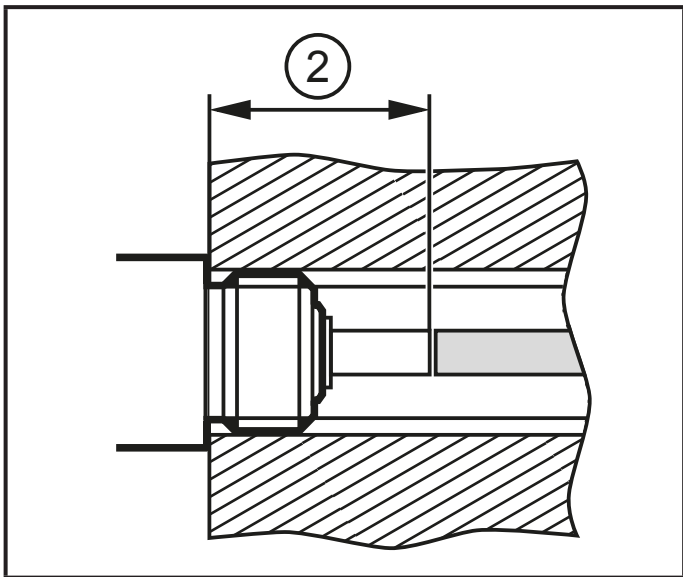


1: teach position 1

- ▶ Bring plunger to teach position 1.
- ▶ Short output 1 to GND (≥ 1 s).
- ▶ Remove short circuit.
- > Switch-off point:
switch point 1 + 0.5 mm.

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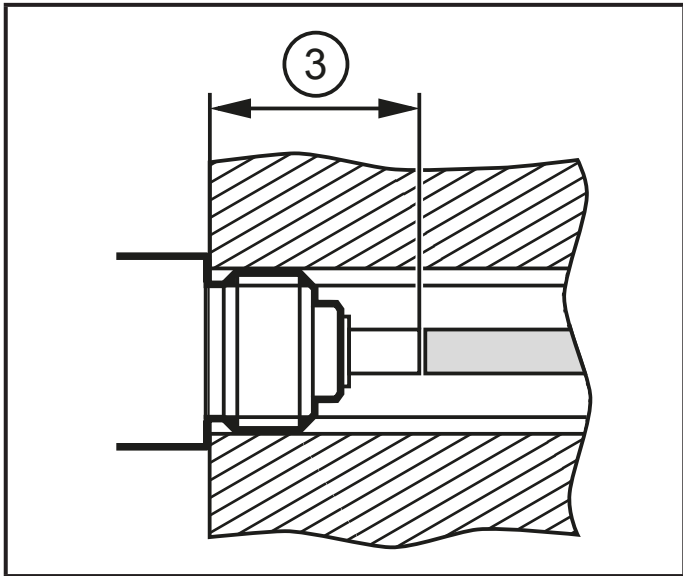
4.2 Switch point programming for output 2



2: teach position 2

- ▶ Bring plunger to teach position 2.
- ▶ Short output 2 to GND (≥ 1 s).
- ▶ Remove short circuit.
- > Switch-off point:
switch point 2 - 0.5 mm.

4.3 Switch point programming for output 3



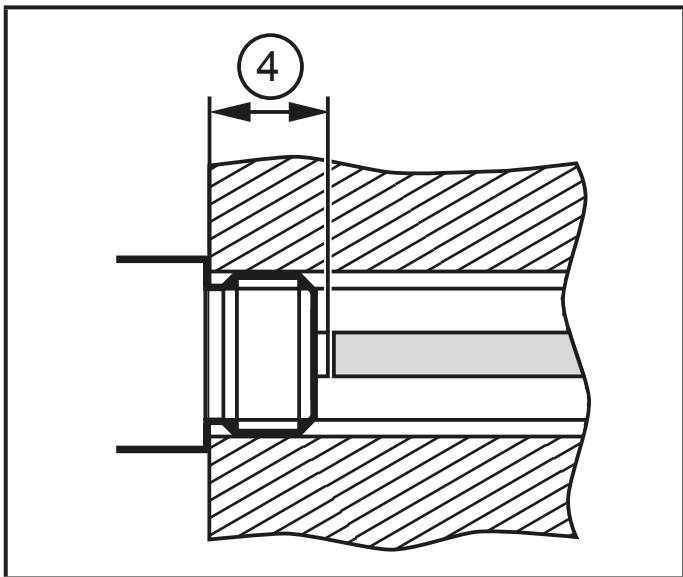
3: teach position 3

- ▶ Bring plunger to teach position 3.
- ▶ Short output 3 to GND (≥ 1 s).
- ▶ Remove short circuit.
- > Switch-off point:
switch point 3 - 0.5 mm.

4.4 Switch point reprogramming



Both switch points can only be reprogrammed together because this requires the original factory setting.



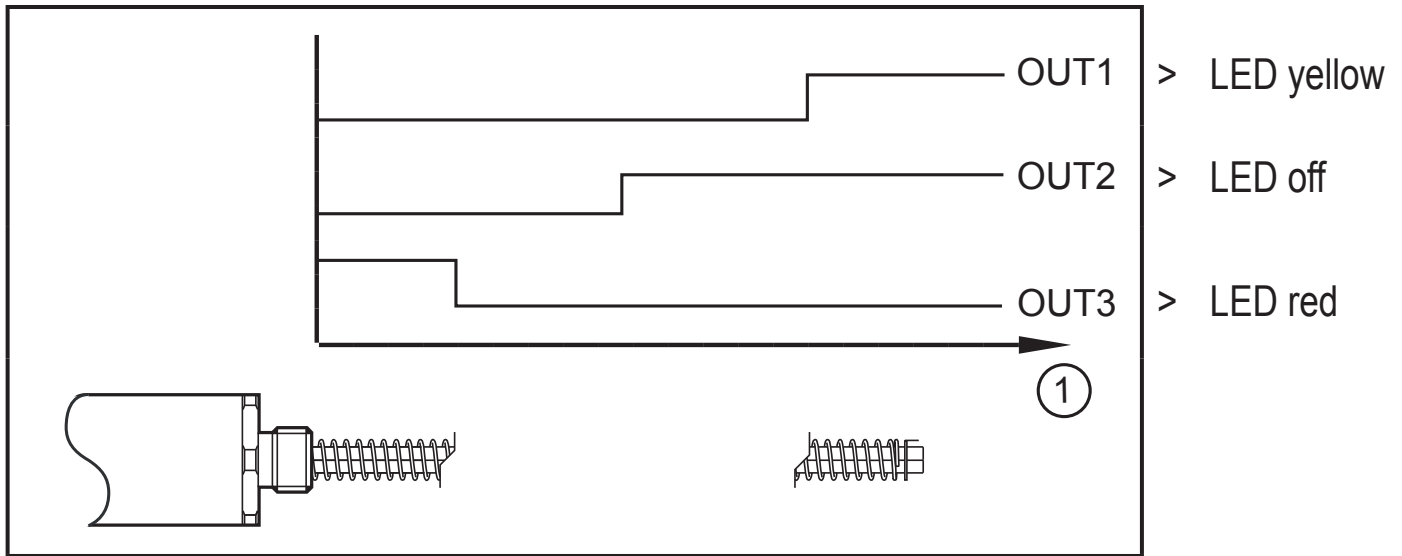
4: reset position

- ▶ Switch off the operating voltage (≥ 2 s).
- ▶ Bring plunger to the reset position: The plunger is retracted into the unit at maximum position.
- ▶ Short output 3 to GND.
- ▶ Switch on the operating voltage.
- ▶ Maintain the short circuit (≥ 1 s) and then remove it.
- > Factory setting restored.
- ▶ Reprogram switch points \rightarrow 4.1, \rightarrow 4.2 and \rightarrow 4.3.

4.5 Switching characteristics (example)



The switch points can be set anywhere within the whole operating range.



1: operating range

Technical data and further information at www.ifm.com

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