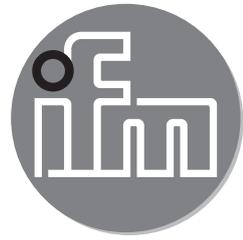


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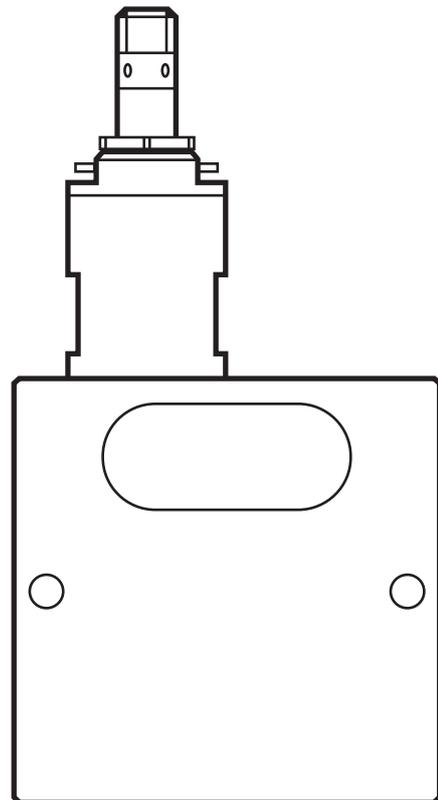
Operating instructions
Mechatronic flow sensor

efector300[®]

SBU3xx
SB0500

UK

80008282 / 00 08 / 2014



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1 Preliminary note

- ▶ Instruction
- > Reaction, result
- Cross-reference



Important note

Non-compliance may result in malfunction or interference.



Information

Supplementary note.

2 Safety instructions

- Please read this document prior to set-up of the unit. Ensure that the product is suitable for your application without any restrictions.
- Improper or non-intended use may lead to malfunctions of the unit or to unwanted effects in your application. That is why installation, electrical connection, set-up, operation and maintenance of the unit must be carried out by qualified personnel authorised by the machine operator.
- In order to guarantee the correct condition of the unit for the operating time it is necessary to use it only for media to which the wetted materials are sufficiently resistant (→ Technical data).
- The responsibility whether the measurement devices are suitable for the respective application lies with the operator. The manufacturer assumes no liability for consequences of misuse by the operator. Improper installation and use of the devices result in a loss of the warranty claims.
- During installation or in case of a fault (housing damage), media under high pressure or hot media can leak from the system.
 - ▶ Install the unit according to the applicable rules and regulations.
 - ▶ Ensure that the system is free of pressure during installation.
 - ▶ Ensure that no media can leak at the mounting location during installation.
 - ▶ Equip the unit with suitable protection (e.g. cover) to avoid hazard to personnel from leaking media.

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3 Functions and features

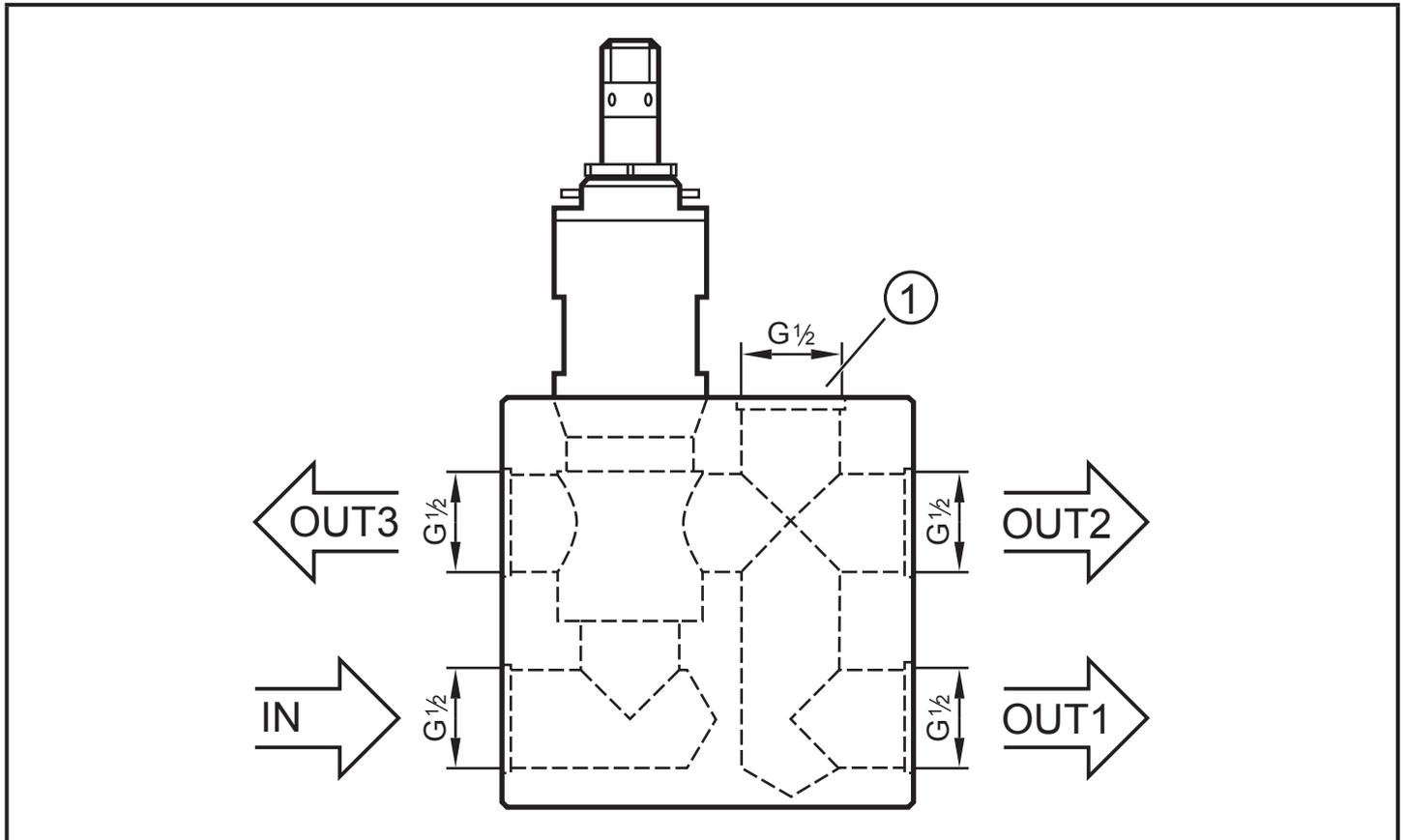
The unit monitors liquids (glycol solutions, industrial oils, coolants).

It detects the volumetric flow quantity to the principle of differential pressure and switches the output.

The switch point is adjustable.

4 Installation

The unit provides 5 connections for pipe thread G ½:



1: Connection for additional sensor

IN: Inlet

OUT1...OUT3: 3 x outlet for three different types of connection.



Baffled pipes at the input and output side are not necessary.

4.1 Sealing plugs

The connections 1, OUT2 and OUT3 are equipped with sealing plugs on delivery.

► Remove the sealing plugs if required.

5 Electrical connection

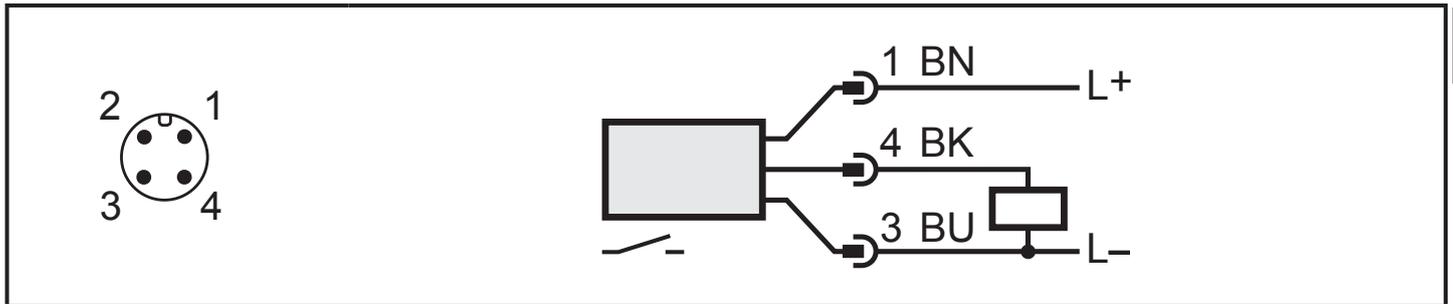


The unit must be connected by a qualified electrician.

The national and international regulations for the installation of electrical equipment must be adhered to.

Voltage supply according to EN 50178, SELV, PELV.

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



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Core colours of ifm sockets: 1 = BN (brown), 3 = BU (blue), 4 = BK (black)

Colours to DIN EN 60947-5-2

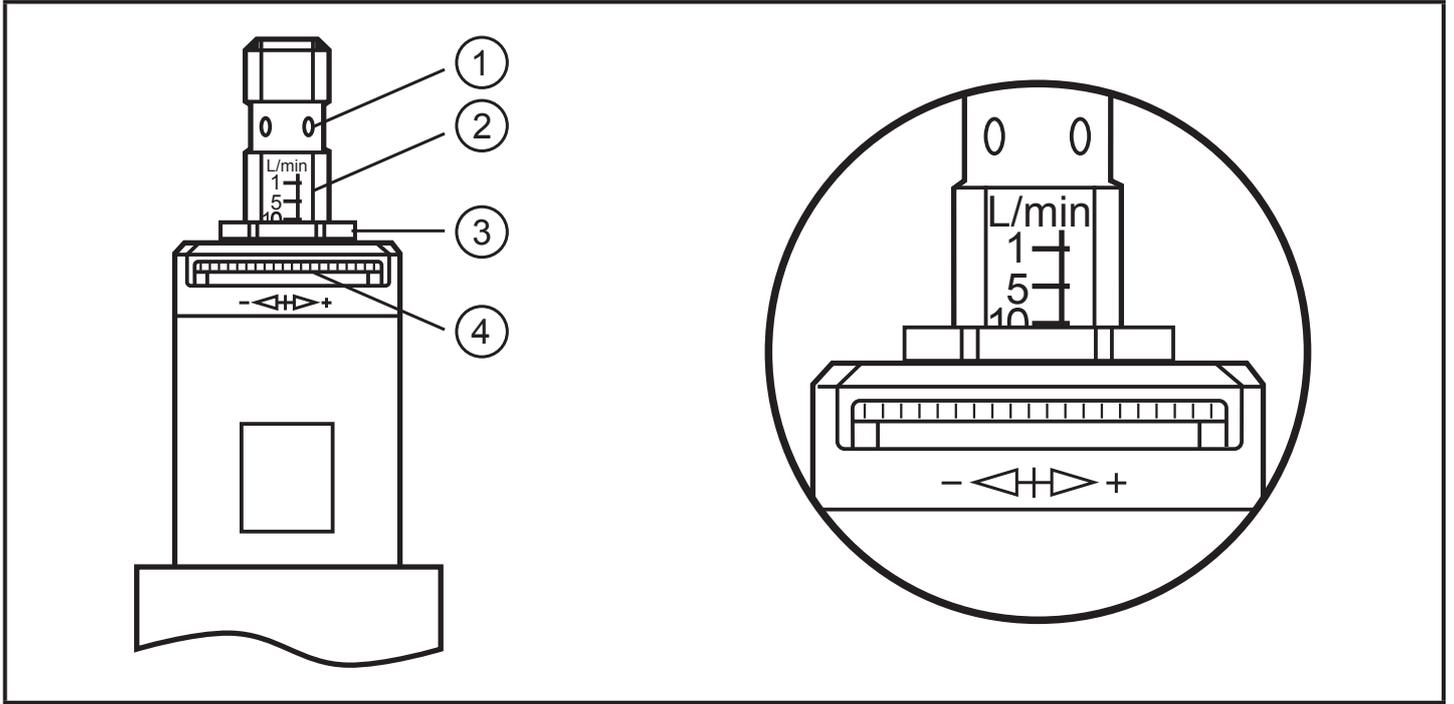


Information about the available sockets/plugs at www.ifm.com.

6 Settings

There are 2 options to set the switch point:

- Definition of the preset value → 6.1.
- Setting the unit to the existing flow → 6.2.



- 1: LED
- 2: Setting scale
- 3: Lock nut
- 4: Knurl

 Do not turn the knurl beyond the maximum value of the setting range (→ Technical data) to avoid faulty switching.

6.1 Definition of the target value for the switch point

- ▶ Loosen the lock nut.
- ▶ Turn the knurl until the target value becomes visible on the setting scale (see figure → 6 Settings).
- ▶ Tighten the lock nut.

6.2 Setting the switch point to the existing flow

- ▶ Let the normal flow circulate in the installation.
- ▶ Loosen the lock nut.
- ▶ Set the switch point by slowly turning the knurl: the switch point has been reached as soon as the LED is lit.
- ▶ Tighten the lock nut.

7 Operation

After power on, the unit is ready for operation.

It detects the volumetric flow quantity and switches the output according to the setting.

- Output closed (LED = ON), if volumetric flow quantity \geq switch point.
- Output open (LED = OFF), if volumetric flow quantity $<$ switch point.

8 Technical data and scale drawing

Technical data and scale drawing at www.ifm.com.

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9 Maintenance, repair, disposal

If used correctly, no maintenance and repair measures are necessary.

In case of strongly polluted media: mount a filter before the inlet (IN). Recommendation: use a 200-micron filter.

Only the manufacturer is allowed to repair the unit.

After use dispose of the unit in an environmentally friendly way in accordance with the applicable national regulations.