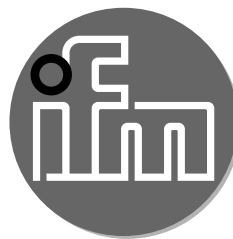


ifm electronic



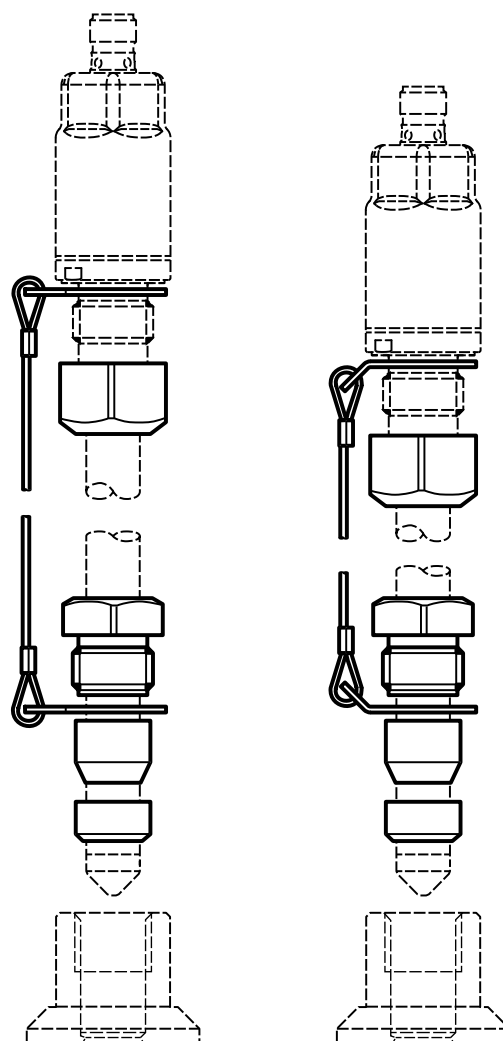
Installation instructions
Variable clamp fitting

efector160[®]

E43322

E43349

UK



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1 Safety instructions

- If the operating instructions or the technical data are not adhered to, personal injury and/or damage to property can occur. That is why installation, set-up and maintenance of the article must only be carried out by qualified personnel authorised by the machine operator.
- Before installing and removing the clamp fitting: Make sure that no pressure is applied to the system and there is no medium in the pipe or the tank. Also always note the potential dangers related to extreme machine or medium temperatures.
- Install the security cable (Figure 2) according to the instructions. This secures the sensor in applications subjected to pressure and with insufficient adhesive force of the clamp fitting (e.g. with insufficient tightening torque).
- Observe the max. admissible tank pressure: 6 bar
- No changes to the clamp fitting, in particular to the security cable and its fixtures, must be made.

1.1 General notes



For use in hygienic areas to EHEDG: Adhere to the applicable EHEDG guideline and the documentation of the respective sensor.

2 Functions and features

- Installation of binary level sensors without dead zone according to table:

Sensor	Accessories
LMT104	E43349
LMT105	E43322

- The installation depth of the sensors can be adjusted to suit the individual application (→ 2.1 Application examples).



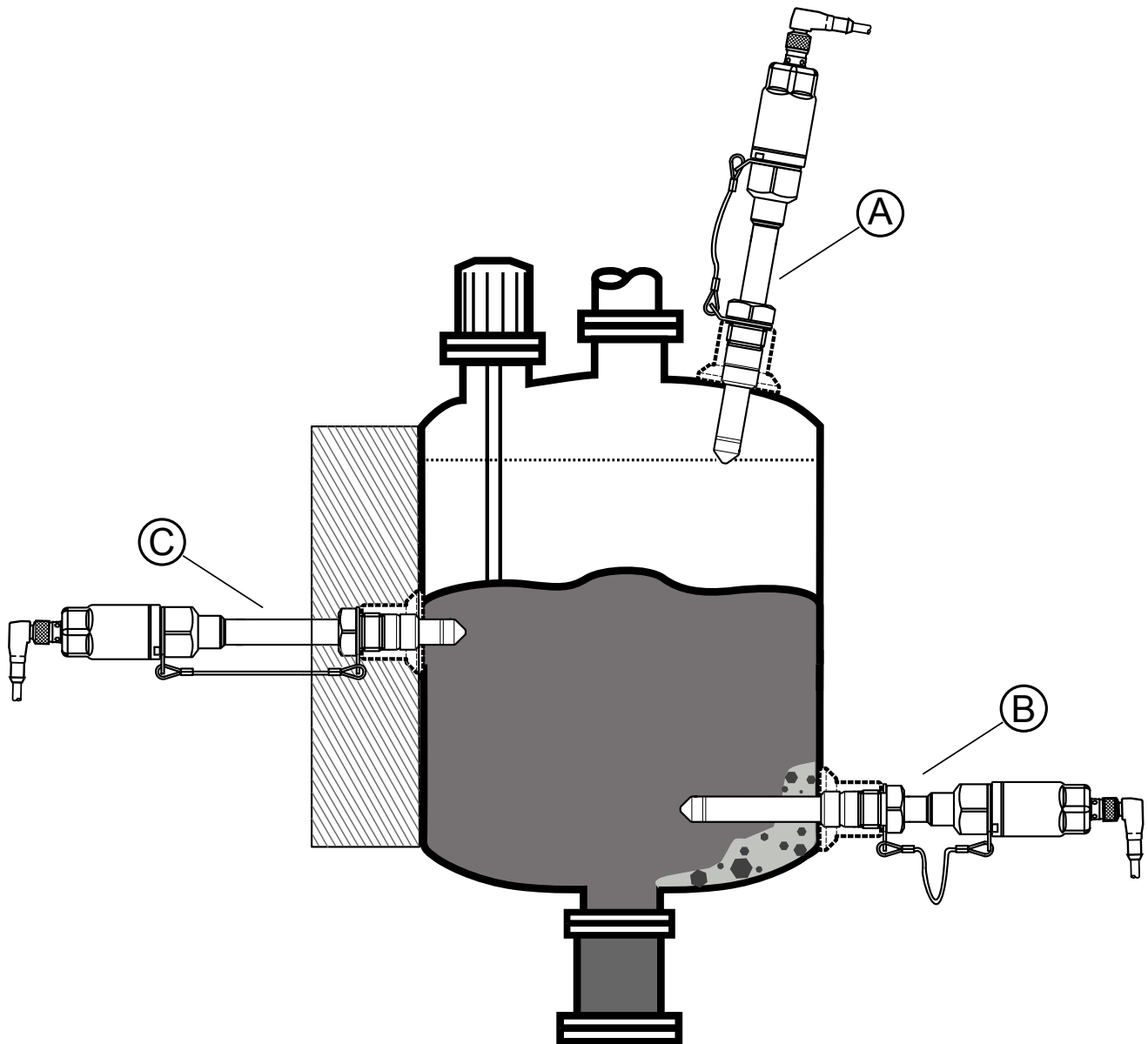
The clamp fitting is intended for installation in existing G $\frac{1}{2}$ hygienic adaptations (www.ifm.com → Data sheet search → Accessories).



Maximum tank pressure: 6 bar

2.1 Application examples

Fig. 1



A: Use as overspill protection, variable setting of the response height.

B: Use in applications with deposits; deeper positioning in the tank.

C: Use in insulated tanks, bridging the insulation layer right into the tank



When mounted in restricted spaces: Adhere to the probe length and the minimum distances as indicated in the operating instructions of the sensor to avoid malfunction and damage to the sensor.

3 Preparations

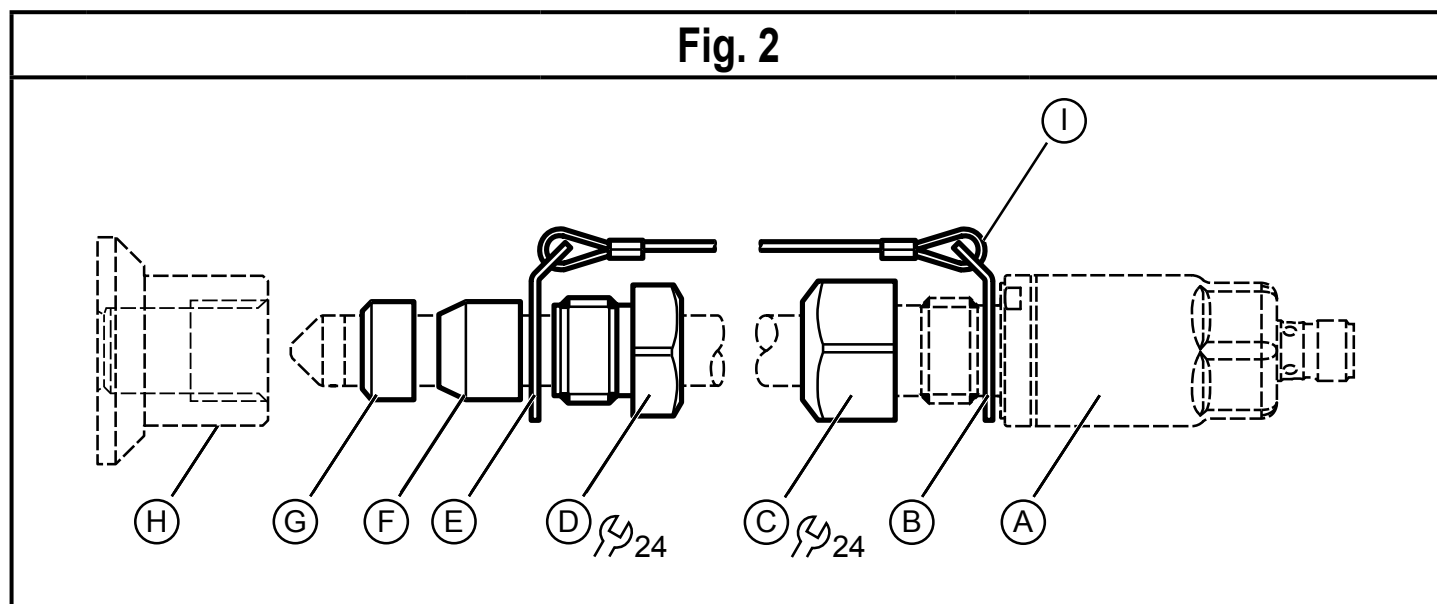
Installation requires a suitable process connection installed on the tank (→ 2). Otherwise install / weld in a suitable G½ adapter. Observe the installation instructions of the selected adapter.



For installing the clamp fitting and the sensor a lubricating paste is needed. It must be suitable and approved for the given application and compatible with the elastomers used (e.g. O-ring for LMTxxx). The manufacturer recommends the Klüber paste UH184-201 (USDA-H1 approval).

4 Installation

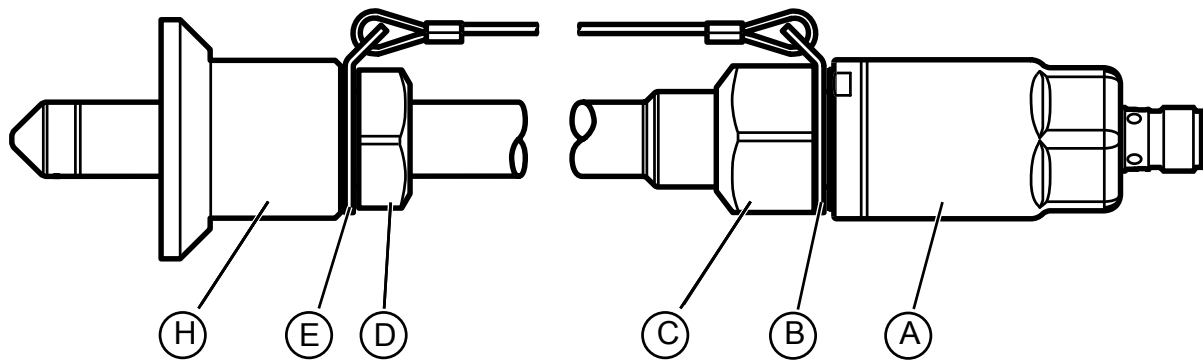
Fig. 2



- | | | |
|----------------------|---------------------|-------------------|
| A: Sensor | D: Clamp fitting | G: Socket |
| B: Retaining element | E: Security element | H: Adapter |
| C: Coupling nut | F: Clamp | I: Security cable |

- ▶ Slightly grease the contact surfaces and the thread of parts (C) and (D) (Figure 2).
- ▶ Slide parts (B) to (G) over the sensor the right way round.
- ▶ The angled eyelets of the safety elements (B) and (E) must be installed as shown in the figure. Avoid damage to the sealing areas.
- ▶ Screw part (C) to the sensor (A). Tightening torque: min. 25 Nm.
- ▶ Slide the complete device (sensor + clamp fitting) into the existing adapter (H).
- ▶ Slide the parts (G), (F) and (E) one after the other without tilting in the order shown into the adapter (H).

Figure 3



- A: Sensor
B: Security element
C: Coupling nut
D: Clamp fitting
E: Security element
H: Adapter

- Set the required immersion depth and screw part (D) in the adapter (H) until the sensor is positioned hand tight (Figure 3).

! In case of high mechanical stress (e.g. plant vibration) it may be necessary to secure the screw connections (part C and part D), e.g. by a screw retaining compound. In this case, do not use any grease paste.

! Use the screw retaining compound sparingly. Do not wet any parts in contact with the medium. Substances such as screw retaining compounds may migrate into the medium. Make sure that they are harmless.

- If the clamp fitting can only be screwed into the thread with great resistance: Do not rework the thread, remove the adapter and install / weld in a new adapter!

! Too much torque may impair the seal.

- Tighten the clamp fitting using a spanner.
Tightening torque 25...30 Nm.
- After installation check the tank for ingress resistance

5 Maintenance, repair

- ▶ Add the test for correct, tight fitting and for damage to the components (screw connections, safety rope, fixings) to the maintenance plan of the plant.
- ▶ Replace complete fitting if damaged.

In case screw connections loosen:

- ▶ Secure screw connection, e.g. with screw retaining compound.
Remarks and tightening torques (→ 4).



It is not possible to repair the variable clamp connection.

More information at www.ifm.com

