

ifm electronic



Installation instructions
Welding adapters for units with G $\frac{1}{2}$
hygienic fitting

UK

efector160[®]

E30055

E30056

E43300

E43301

E43309

E43310

E43315

E43319

11 / 2013

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1 Basic notes



When used in hygienic areas to EHEDG and 3A: Adhere to the applicable EHEDG and 3A directives.

The 3A qualification only applies if sensors with PEEK sealing cone are used.



- The welding operation must be carried out by authorised personnel.
- It must be carried out carefully and according to state-of-the-art techniques.
- During welding and the following cooling phase the sensor must not be in place.
- The surfaces must be free from any contamination.
- Welding materials must be suitable for the adapter and wall material.

2 Functions and features

The welding adapter allows the hygienic installation of sensors with G1/2 hygienic fitting in tanks or piping systems.



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

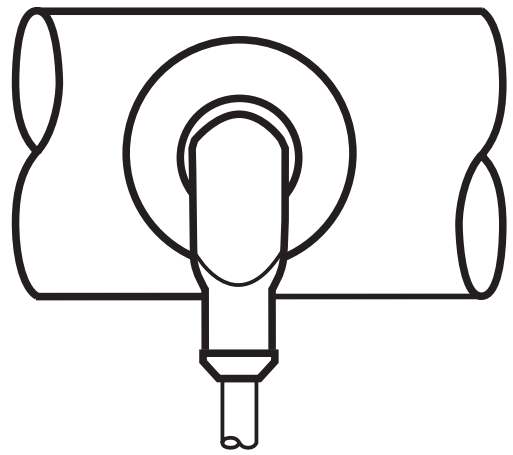
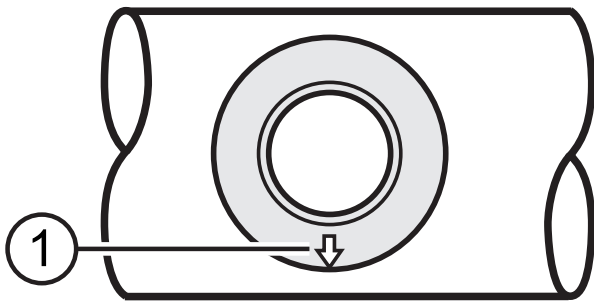
3 Preparations

- ▶ Cut a hole in the pipe or housing wall with the outside diameter of the adapter (max. oversize: 0.2 mm).
- ▶ If possible, screw a welding mandrel (for optimum heat dissipation and protection of the sealing edge) into the adapter, order no. E43314.

4 Welding operation



- The power of the welding device must be adapted to the thickness of the wall.
- The adapter must not deform.
- The sealing edge of the adapter must not be damaged by weld spatter or similar.



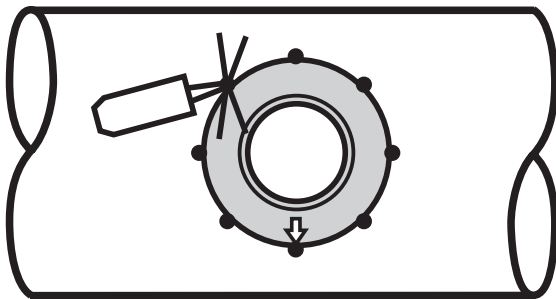
Adapter with defined initial thread position:

- ▶ Turn the marking (1) to the position provided for the cable outlet of the sensor.

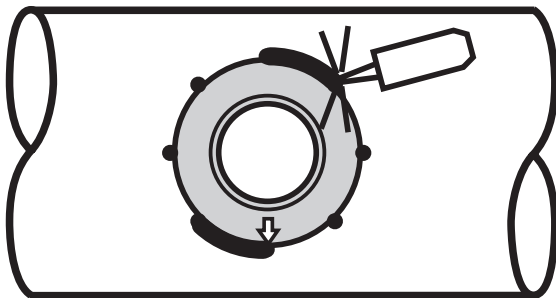
Adapter with leakage ports according to 3A:

- ▶ For reliable draining, align the adapter with only 1 leakage port so that the leakage port is located at the lowest possible point.

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- ▶ Fix the adapter in several spots with a sufficient adhesive force; apply the fixing points at equal distance opposite each other.



- ▶ Apply the welding seams between the fixing points, opposite each other. Ensure sufficient intervals between the individual sections (cooling phases to avoid glowing through / warping of the adapter due to overheating).

5 After welding

- ▶ Let the adapter cool down.
- ▶ The thread and sealing edge must be free from welding slag.
- ▶ If used: remove the welding mandrel.




If the sealing edge of the adapter is damaged, the adapter can no longer be used (remove the adapter and weld in a new one).

6 Installation of a sensor / a clamp fitting

Temperature sensor TAxxxx Clamp fitting E3xxxx	Level sensor LMxxxx
<p>▶ Lightly grease the contact areas (metal to metal) between the sensor and the adapter / sensor and the clamp fitting using a lubricating paste.</p> <p>The paste must be suitable and approved for the application and compatible with the elastomers used.</p>	<p>▶ Lightly grease the thread of the sensor using a lubricating paste.</p> <p>The paste must be suitable and approved for the application and compatible with the elastomers used.</p> <p>▶ Slide the sealing ring over the thread onto the sensor. The adapter is supplied with an FPM O-ring.</p>

Further procedure (applies to temperature sensor TAxxxx/clamp fitting E3xxxx/ level sensor LMxxxx):

- ▶ Screw the unit into the adapter until it is hand-tight.
Avoid damage to the sealing areas.

 If the unit can only be screwed into the thread with great resistance, do not force! Otherwise the unit or the adapter can be damaged.

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

 Too much torque may impair the seal.

- ▶ Tighten the unit using a spanner.

 On the tightening torque → operating instructions of the unit screwed in.

