

Installation instructions
Welding adapter
for units with G1 male sealing cone

UK

11540882 / 00 03 / 2020

Contents

1 Preliminary note.....	2
1.1 Symbols used	2
2 Safety instructions	3
3 Functions and features	3
3.1 Basic notes	4
4 Installation.....	5
4.1 Welding operation.....	5
5 Post-processing in case of installation in a tank	6
6 Install sensor.....	7
7 Set-up	7

1 Preliminary note

1.1 Symbols used

- ▶ Instruction
- > Reaction, result
- [...] Designation of keys, buttons or indications
- Cross-reference
-  Important note
Non-compliance may result in malfunction or interference
-  Information
Supplementary note



CAUTION

Warning of personal injury.

- > Slight reversible injuries may result.

2 Safety instructions

- The product described is a subcomponent for integration into a system.
 - The system architect is responsible for the safety of the system.
 - The system architect undertakes to perform a risk assessment and to create documentation in accordance with legal and normative requirements to be provided to the operator and user of the system. This documentation must contain all necessary information and safety instructions for the operator, the user and, if applicable, for any service personnel authorised by the architect of the system.
- Read this document before setting up the product and keep it during the entire service life.
- The product must be suitable for the corresponding applications and environmental conditions without any restrictions.
- Only use the product for its intended purpose (→ Functions and features).
- Only use the product for permissible media (→ Technical data).
- If the operating instructions or the technical data are not adhered to, personal injury and/or damage to property may occur.
- The manufacturer assumes no liability or warranty for any consequences caused by tampering with the product or incorrect use by the operator.
- Installation, set-up, operation and maintenance of the product must be carried out by personnel qualified and authorised for the respective activity.
- Protect the product against damage.

UK

3 Functions and features

The welding adapter allows the installation of sensors with G1 male sealing cone in tanks or piping systems.



In case of installation of non-flush sensors in restricted spaces: Note the immersion depth of the sensor in order to avoid damage to the sensor and neighbouring power packs.

3.1 Basic notes



When used in hygienic areas to EHEDG and 3-A:

- ▶ Adhere to the applicable EHEDG and 3-A directives.
- ▶ Assure EHEDG-compliant or 3-A-compliant integration of the adapter in the plant (observe the respective notes in the operating instructions of the sensor to be used).

3A conformity is only ensured in connection with 3A approved sensors.



If the tank or pipe system is treated after the adapter has been welded in (e.g. grinding, pickling, sand-blasting, glass bead blasting or applying procedures such as powder coating, painting etc.):

- ▶ Make sure that the interior and the sealing edge of the adapter are not post-treated or damaged. Appropriate measures: Use of the welding mandrel (→ 4.1) or masking of the zone to be protected.



- ▶ The welding operation must be carried out by authorised personnel.
- ▶ The welding operation must be carried out carefully and according to state-of-the-art technology.
- ▶ 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.

4 Installation



CAUTION!

During the welding operation, the adapter and the welding mandrel can increase in temperature to over 65 °C (149 °F).

> Risk of burns.

► Let the adapter and the welding mandrel cool down.

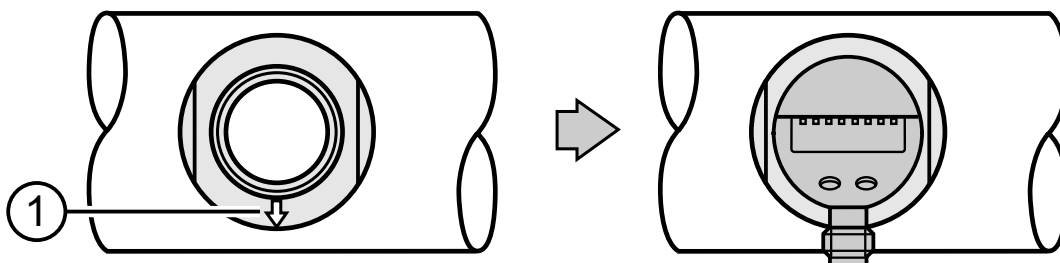
- Bore a hole in the pipe or tank wall with the outside diameter of the adapter. Max. oversize 0.2 mm.
- Screw a welding mandrel (for optimum heat dissipation and protection of the sealing edge) into the adapter, order no. E30435.

UK

4.1 Welding operation



- The welding method must be suitable for the welding task and the power of the welding equipment must be adapted to the material thickness.
 - The adapter must not warp.
 - During welding, avoid overheating of the adapter and observe sufficient cooling phases.
 - The sealing edge of the adapter must not be damaged by weld spatter or similar. Ensure sufficient protection of the sealing edge before starting the welding process (→ 3.1).
- Weld adapter:

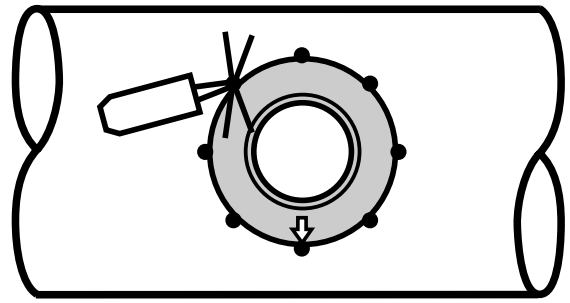


- Adapter alignment: Turn the marking (1) (marking may vary) to the position provided for the display of the screwed sensor.

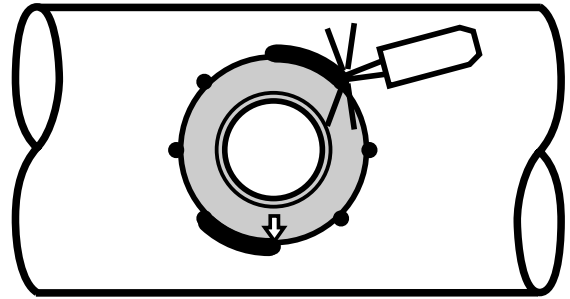
Adapter with leakage ports according to EHEDG and 3-A:

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

- ▶ 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 to avoid glowing through or warping of the adapter due to overheating.



- ▶ Let the adapter and the welding mandrel cool down.
- ▶ Remove the welding mandrel.
- ▶ Remove deposits from the thread.

5 Post-processing in case of installation in a tank



Prevent any damage to the sealing edge if subsequent surface treatment of the tank's inside (e.g. grinding or polishing) is necessary .

Before post-processing:

- ▶ Screw in welding mandrel E30435.
- ▶ Carry out post-processing.
- ▶ Remove the welding mandrel.

6 Install sensor



A lubricating paste is required to install the sensor. It must be suitable and approved for the respective application.

- ▶ Remove protective packaging only just before mounting.
- ▶ Ensure cleanliness of the sealing areas.
- ▶ Use lubricating paste (A) sparingly and apply to threaded parts.
- ▶ Screw in the unit by hand in order to check for ease of movement and functionality of the thread. If the tightening torque is too high, do not use any tool, but check the thread and replace the adapter, if necessary.
- ▶ Tighten the unit using a spanner. Tightening torque: → Operating instructions of the sensor



Too much torque may impair the seal.



If the sealing area is damaged: replace the adapter.

7 Set-up

- ▶ Before set-up, check the tank or pipe for ingress resistance.
- ▶ Set-up of the sensor: → Operating instructions of the sensor.

More information at www.ifm.com