



Installation instructions
AS-i flat cable splitter
E75354

GB

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1 Preliminary note

You will find instructions, technical data, approvals, accessories and further information using the QR code on the device / packaging or at documentation.ifm.com.

1.1 Symbols used

- ✓ Requirement
- Instructions
- ▷ Reaction, result
- [...] Designation of keys, buttons or indications
- Cross-reference
-  Important note
Non-compliance may result in malfunction or interference.
-  Information
Supplementary note

1.2 Warnings

Warnings indicate the possibility of personal injury and damage to property. This enables safe product handling. Warnings are graded as follows:



WARNING

Warning of serious personal injury

- ▷ If the warning is not observed, fatal and serious injuries are possible.



CAUTION

Warning of minor to moderate personal injury

- ▷ If the warning is not observed, minor to moderate injuries are possible.

ATTENTION

Warning of damage to property

- ▷ If the warning is not observed, damage to property is possible.

1.3 Safety symbol on the device



Safety symbol on the device:

- Adhere to the operating instructions for the safe operation of the unit.

2 Safety instructions

- The unit 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 (→ Intended use).
- 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, electrical connection, set-up, operation and maintenance of the product must be carried out by qualified personnel authorised by the machine operator.
- Protect units and cables against damage.
- Replace damaged units, otherwise the technical data and safety will be impaired.
- Observe applicable documents.

3 Intended use

The flat cable insulation displacement connector allows tapping the AS-i voltage via the M12 socket (current rating 2 A → Technical data).

The device is designed for use outside of a control cabinet in production environments.

Permitted use:

- in industrial environments as a fixed device
- indoors

4 Installation



CAUTION

Risk of injury from piercing contacts that are sharp-edged due to their function when the device is opened.

- ▶ Take special care during installation.

ATTENTION

No protection rating / no protection of the contacts without mounted connectors / protective caps.

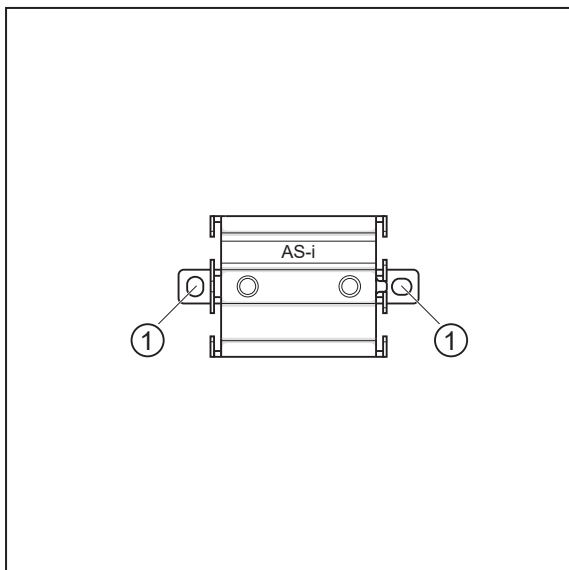
- ▷ Inadmissible soiling / moisture possible.
- ▷ Separation of circuits / safety might be impaired.
- ▶ Before installation / when replacing the device, observe pollution degree 2.
- ▶ Ensure separation / safety.



- ▶ Disconnect the power to the machine during installation.



- ▶ Remove protective cap for M12 socket when the plug is connected (→ Step 3).



Step 1

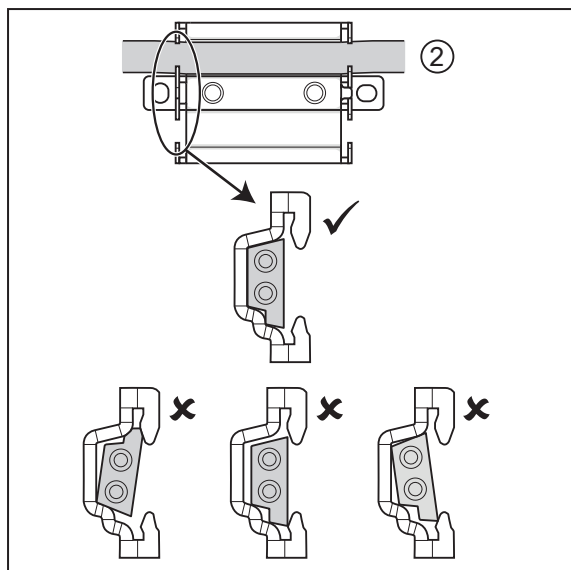
Install lower part

- ▶ Choose a plane mounting surface.
- ▶ Fix the lower part to the mounting surface at the mounting holes (1).

Alternative fixing

Weld the lower part to the mounting hole plates (1) on a suitable mounting surface.

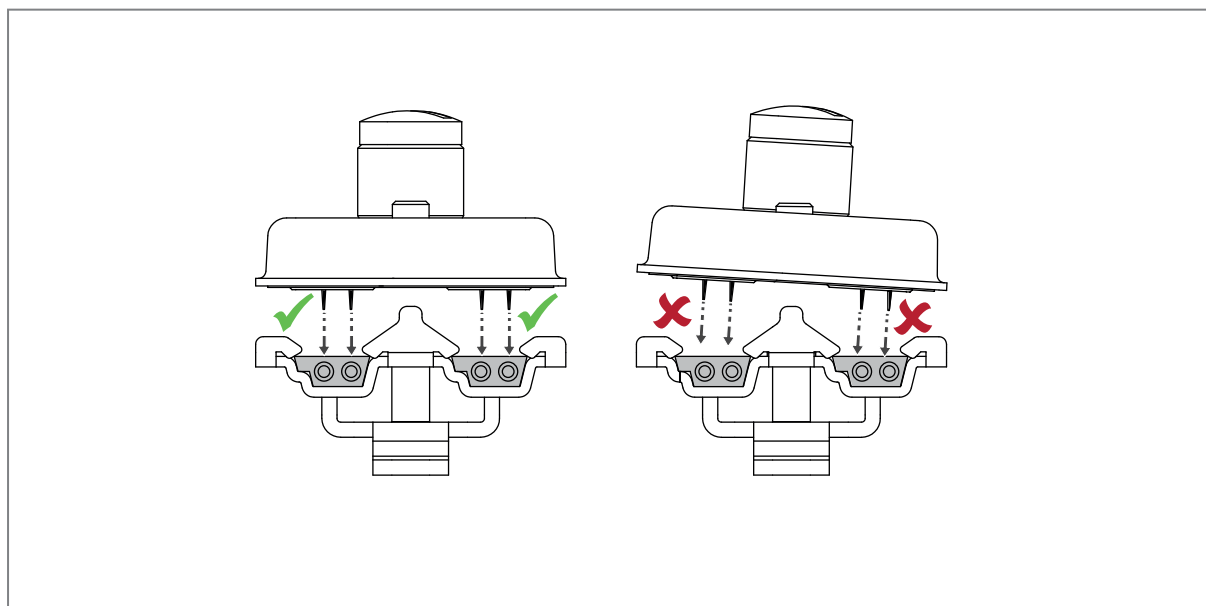
This is the responsibility of the system manufacturer. (Observe the material characteristics, limit the heat input into the device during the welding process, protect the device and the seals from damage caused by the welding process).



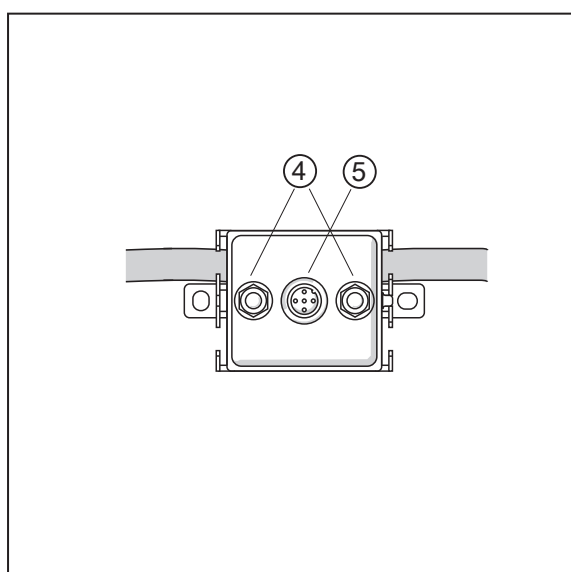
► Insert the yellow AS-i flat cable (2) into the cable duct "AS-i".

Step 2: Insert cable

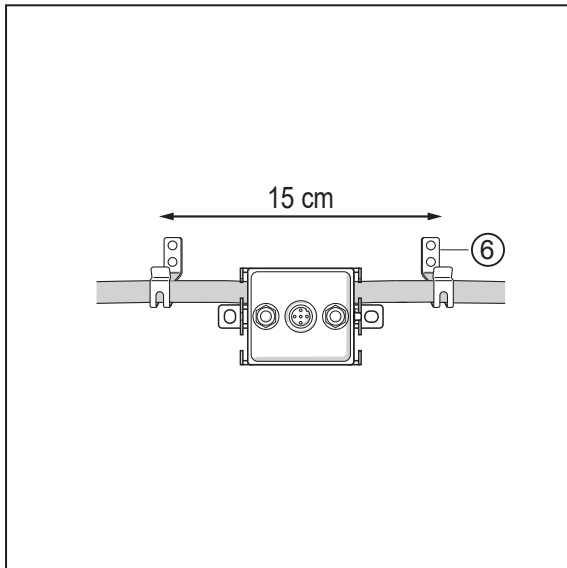
Place the upper part so that the piercing contacts penetrate the flat cable vertically.



Step 3: Fit upper part



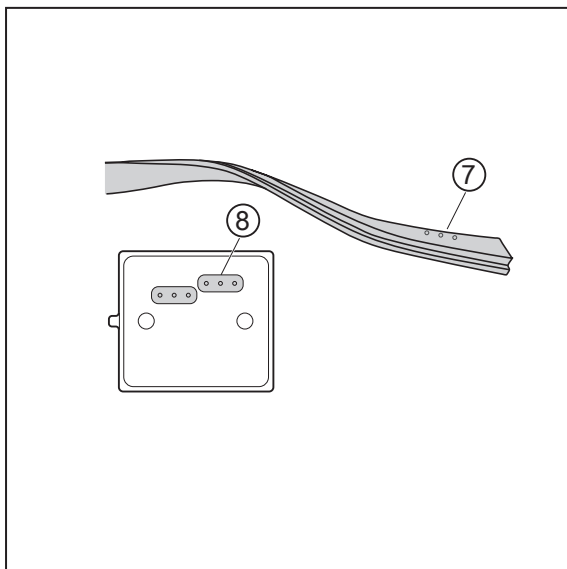
- ▶ Tighten the fixing screws (4) with 2.5 Nm.
- ▶ Remove protective cap from the M12 socket (5) and manually fix the M12 connector using the coupling nut. Tighten until you feel the end stop.
- ▶ Check the torque (1.3 Nm +/- 0.1 Nm) at the end stop with a torque wrench and retighten, if necessary.



Step 4:

Lay flat cable

- ▶ Lay flat cable; straight for a minimum of 15 cm.
- ▶ If necessary, use the optional AS-i clips (6) (→ Accessories).
- ▶ Provide all outgoing cables (AS-i flat cable and M12 cable) with a suitable strain relief max. 1 m behind the cable entry. With every additional metre, install another strain relief.



Step 5:

Replace device

Note on replacement:

Precisely use the pierced points of the AS-i flat cable (7) or at least position within the black seal (8) of the device.

4.1 General notes on wiring

The threaded connections in the device correspond to the M12 standard. To ensure compliance with the specified protection rating, only cables that comply with this standard may be used. In the case of self-assembled cables, the system manufacturer is responsible for the protection rating.

- ▶ Use connectors with gold-plated contacts.
- ▶ During installation, place the connectors vertically so that the coupling nut will not damage the thread.
- ▶ Observe the coding of the connectors during installation.

If sockets in the device:

- ▶ Tighten the cable plug using 1.3 ± 0.1 Nm.
- ▶ Provide all outgoing cables with suitable strain relief after a maximum of 1000 mm. Observe the minimum bending radius of the cables (→ information from the cable manufacturer).

The IP rating of the overall system depends on the protection ratings of the individual devices, the applied connection elements and the corresponding protective caps.

- ▶ Ensure correct fit and proper assembly of the M12 connection parts.
 - ▷ If these instructions are not complied with, the specified protection rating cannot be guaranteed.

5 Electrical connection



The unit must be connected by a qualified electrician.

- ▶ Observe the national and international regulations for the installation of electrical equipment.
- ▶ Disconnect power.
- ▶ Connect the unit as follows:

	Pin	Connection
	1	AS-i +
	2	not connected
	3	AS-i -
	4	not connected
	5	not connected



WARNING

The output current is not limited in the device.

- ▷ Risk of defect due to inadmissible heating.
- ▷ Risk of fire due to overload / short circuit.
- ▶ Limit output current externally to the values of the technical data → Technical data.
- ▷ Safety guaranteed.

- ▶ Alternatively supply the unit via a limited energy circuit according to IEC 61010-1 or class 2 according to UL1310.



The external protection of the AS-i currents according to the valid regulations in order to comply with the values of the technical data is the responsibility of the system manufacturer.

The AS-i circuit is insulated from device surfaces that could be touched with basic insulation according to IEC 61010-1 (secondary circuit with max. 32 V DC, supplied from the mains circuit up to 300 V of overvoltage category II).

The external wiring has to be carried out in a way that ensures the required separation from other circuits.

6 Maintenance, cleaning, repair and disposal

6.1 Maintenance

The unit is maintenance-free.

6.2 Cleaning the housing surface

- ▶ Disconnect the device.
- ▶ For wet cleaning and pressure cleaning, observe the conditions of the device's protection rating (→ Technical data).

Cleaning agents must be compatible with housing materials (→ Technical data) and wiring and must not damage them.

6.3 Repair

- ▶ It is not possible to repair the unit.

6.4 Disposal

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