



Operating instructions
(Ex protection related part)

GB

E7377A

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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



Remarks for safe use in hazardous areas

- The device must only be installed, connected and set up by qualified staff. The qualified staff must have knowledge of types of protection, regulations and provisions for apparatus in hazardous areas.
- The classification and marking of the device must be suitable for the application.
- Adhere to the respective national regulations and provisions as well as the relevant installation regulations.
- Observe other applicable documents:
- The device 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.
- In case of malfunctions of the device, please contact the manufacturer. Tampering with the device is not allowed.
- Installation, electrical connection, set-up, programming, configuration, operation and maintenance of the product must be carried out by personnel qualified and authorised for the respective activity.
- Protect device, connectors and cables against damage.
- Replace damaged devices, since otherwise the technical data and safety will be impaired.

3 Intended use

The flat cable splitter is used to open

- an AS-i spur (yellow / yellow)
- or a spur for the external auxiliary voltage (black / black).

Use in hazardous areas according to the classification

ATEX classification	Marking	Permissible ambient temperature
 II 3G	II 3G Ex ec IIC T6 Gc X	Ta 0...60 °C
 II 3D	II 3D Ex tc IIIC T 70°C Dc X	Ta 0...60 °C



When using EPDM flat cables, the temperature range is extended to -15...60 °C.

Tests with the following flat cables were carried out and passed successfully:

E74000 (EPDM, yellow), E74010 (EPDM, black), E74200 (TPE, yellow), E74210 (TPE, black) and all technically identical length variants.

The flat cables E74100 (PUR, yellow) and E74110 (PUR, black) as well as all technically identical versions with different lengths are not suited. It is the responsibility of the operator to check the suitability of the flat cables for use in hazardous areas, taking into account the environmental conditions (temperature, chemicals, etc).

The requirements of the following standards are met:

- EN60079-0, EN60079-7 and EN60079-31

4 Installation



CAUTION

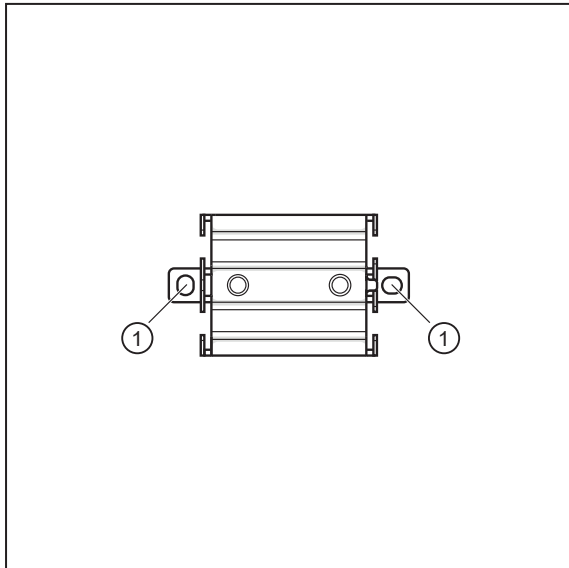
Risk of injury from piercing contacts that are sharp-edged due to their function when the device is opened.

- Take special care during installation.



- Disconnect the power to the machine during installation.

- Avoid electrostatic charging on plastic housings and cables.



Step 1

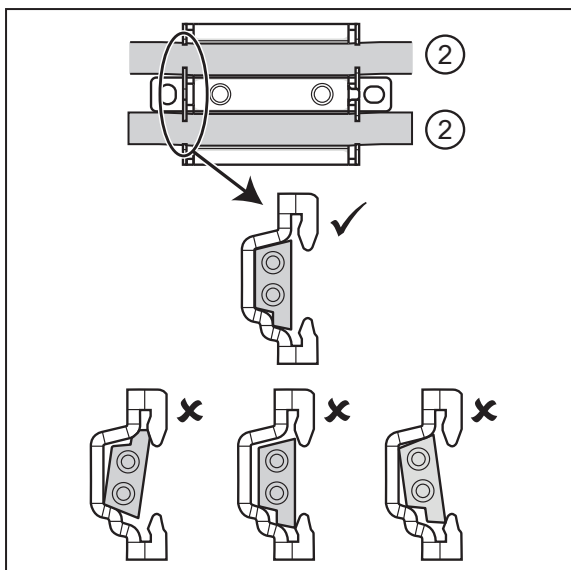
Install lower part

- 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 architect. (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).

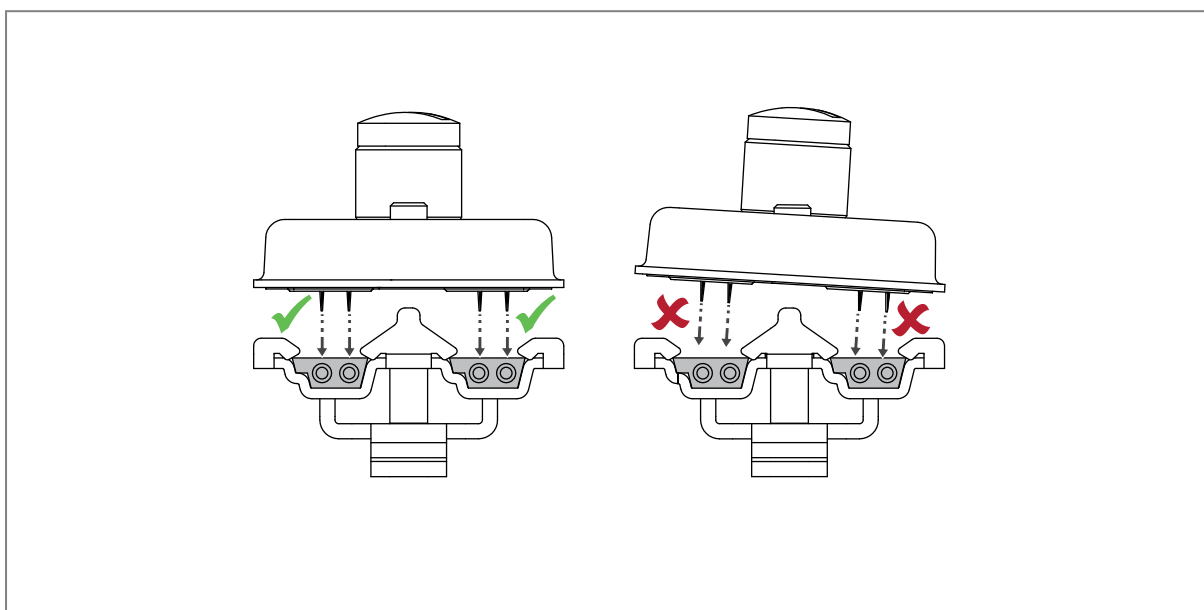


Step 2: Insert the flat cables

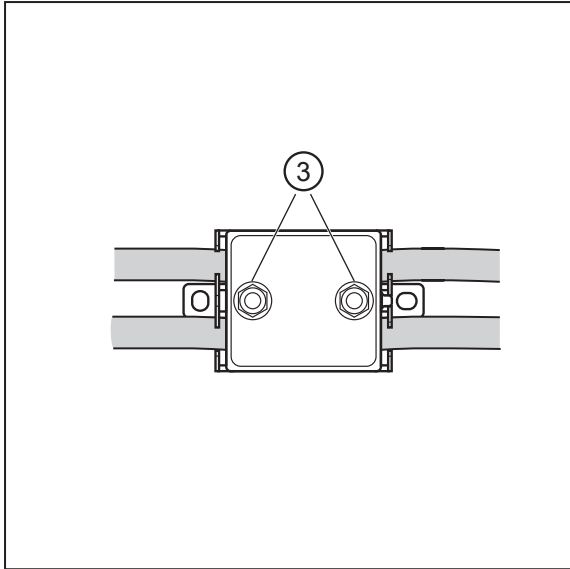
► Insert both yellow AS-i flat cables (2) for the AS-i voltage in the cable duct.

► As an alternative, insert both black 24 V flat cables (2) in the cable duct.

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



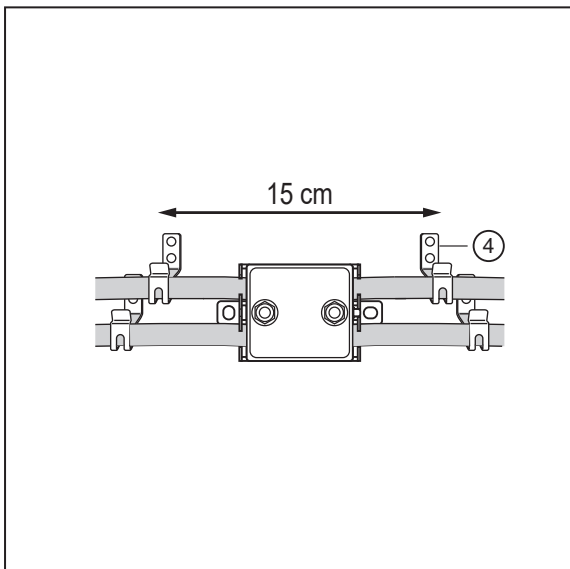
Step 3: Fit upper part



► Tighten the fixing screws (3) with 2.5 Nm.

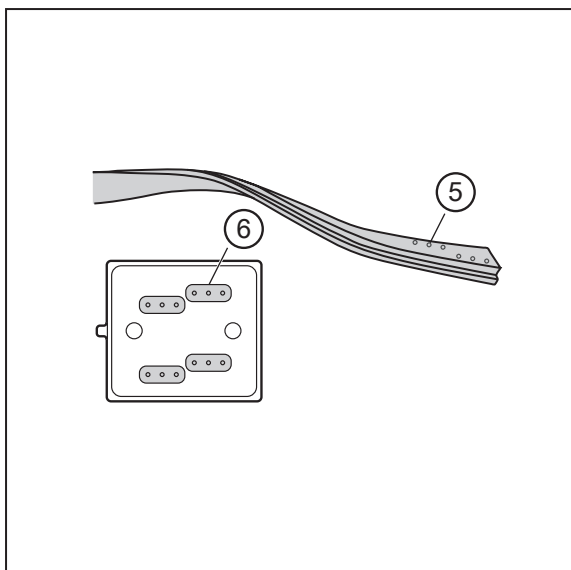


Recheck all torques 10 days after the initial installation and retighten, if necessary.



Step 4: Lay flat cables

- Lay flat cables; straight for a minimum of 15 cm.
- If necessary, use the optional AS-i clips (4) (→ Accessories).
- Provide all outgoing AS-i flat cables 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 (5) or at least position them within the black seal (6) of the device.

4.1 Special conditions for safe operation

- ▶ Ensure that intensive electrostatic charging is excluded.
- ▶ Avoid direct exposure to high levels of UV light (sunlight). Mount the device in a protected place.
- ▶ Do not mount the device in the dust compartment.
- ▶ Avoid dust deposits on the product.
- ▶ Do not disconnect connectors or modules when energized.
- ▶ Only open or close connectors or modules in a sufficiently clean environment.
- ▶ Only use the enclosed modules and seals.
- ▶ Close unused cable ducts with the enclosed flat cable blank.
- ▶ Lay the flat cable firmly. Avoid stress due to traction or movement.

The device is designed for low impact energy according to EN 60079-0.

5 Electrical connection



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.