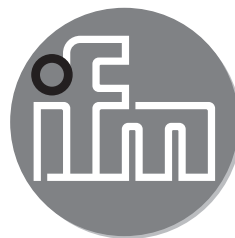$C\!\epsilon$

ifm electronic

| **Operating instructions (safety-related part ATEX)** |
| **AS-i modules (AirBox)** |
| **AC246A / AC528A / AC542A / AC546A / AC551A / AC570A** |

Operating instructions (safety-related part ATEX)
Remarks for safe use in hazardous areas

Functions and features
- Use in hazardous areas according to the classification
  | II 3D | (group II, category 3, apparatus for dust atmosphere)
  The standards EN60079-0 and EN60079-31 are applied.

- Marking

  ⟨Ex⟩ **II 3D Ex tc IIIB T80°C Dc X IP50**

Installation / set-up
The units must only be installed, connected and set up by qualified staff. The qualified staff must have knowledge of protection classes, regulations and provisions for apparatus in hazardous areas.
Check whether the classification (see "Marking" above and marking on the unit) is suitable for the application.

- Permissible operating temperature of the application:

  Ta: -10...50°C

Installation remarks / installation
- Adhere to the relevant national regulations and provisions.
- Before mounting ensure that the installation is disconnected from power and that no pressure is applied.
- Protect unit and cable against destruction.
- During installation and laying, the bending radii of the cables and a suitable strain relief must be such that neither the cable entries nor the seals are subjected to mechanical stress.
- Cover any unused sockets with protective caps (E73004), tightening torque 0.8 Nm.
- Do not separate the M12 connectors when energised.
- The installation position of the AirBox can be freely selected.
- Avoid electrostatic charging on plastic units and cables.
- Do not mount the module in the dust flow.
- Avoid dust deposits on the module.
- Avoid electrostatic charging, only clean the unit with a damp cloth. In principle, rubbing with non-conductive materials must be avoided.
- Avoid direct radiation with high UV components (sunlight), mount the unit in a protected place.

- To avoid electrostatic charging steps must be taken to ensure the equalisation of potential of metal parts (impact protection housing, fixing elements, etc.).

Special conditions for safe operation

- The unit is rated for a low impact energy (mechanical damage) (2 joules). The module housing and the cables must be effectively protected against mechanical stress and damage by means of appropriate measures (e.g. impact protection housing E7000A)*.
- Use connectors which are suited for hazardous areas, e.g. ifm connectors EVC**A with Ex certificate (certificate number BVS 08 ATEX E 109 U).
- Protective caps and M12 fittings may only be opened or closed in a sufficiently clean environment.
- The unit must only be installed together with the impact protection housing (E7000A)* unless mechanical protection is implemented by means of other measures.
- To maintain the IP protection rating both cable ducts must be used by AS-i flat cables. If only one cable duct is used, the other one has to be closed using the flat cable blank E70399*.
- Flat cables must be firmly laid. Loads on the entry caused by strain or movement of the flat cables must be avoided.

<div align="right">* to be ordered separately</div>

Tests with the following flat cables were carried out and passed successfully:
E74000, E74100, E74010, E74200, E74210, E74110 as well as all technically identical versions with different lengths.
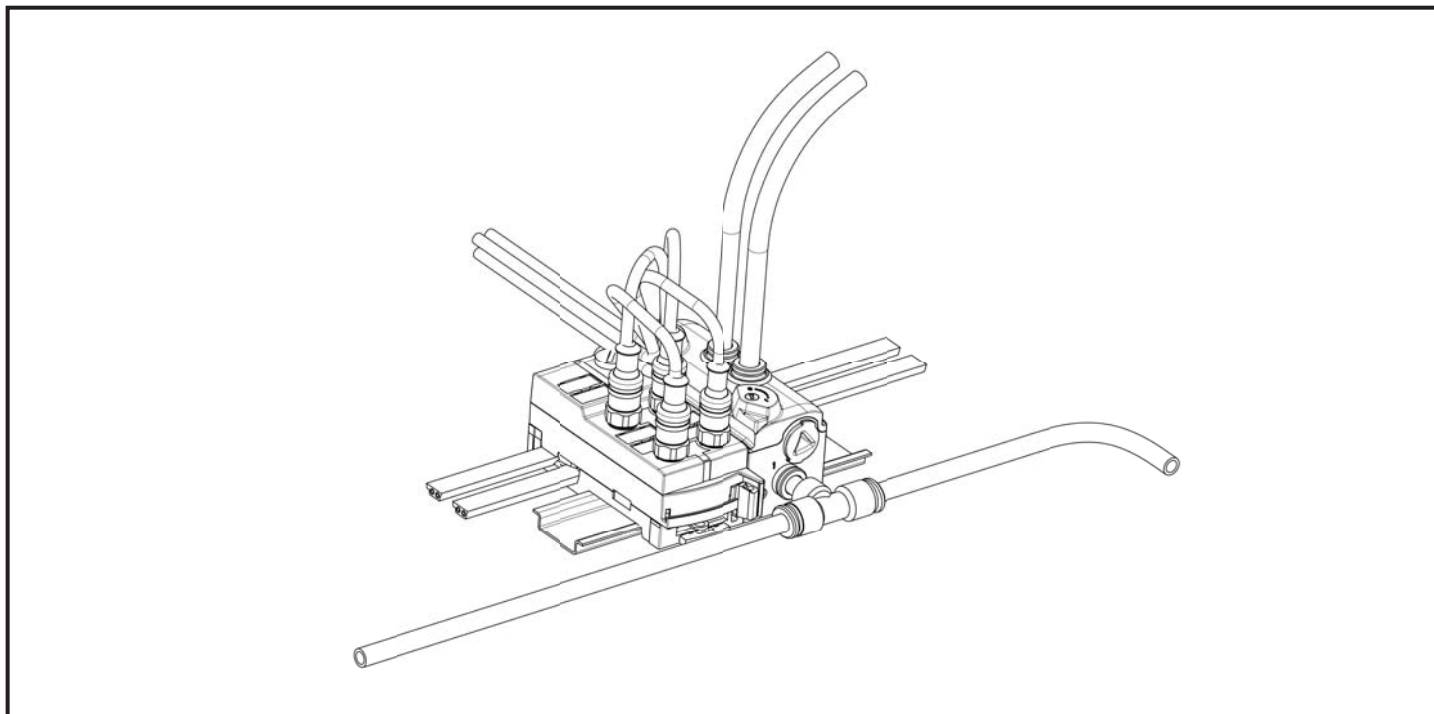It is the responsibility of the operator to check the suitability of the flat cables for use in hazardous areas, taking into account the environmental conditions (temperature, chemicals, etc).
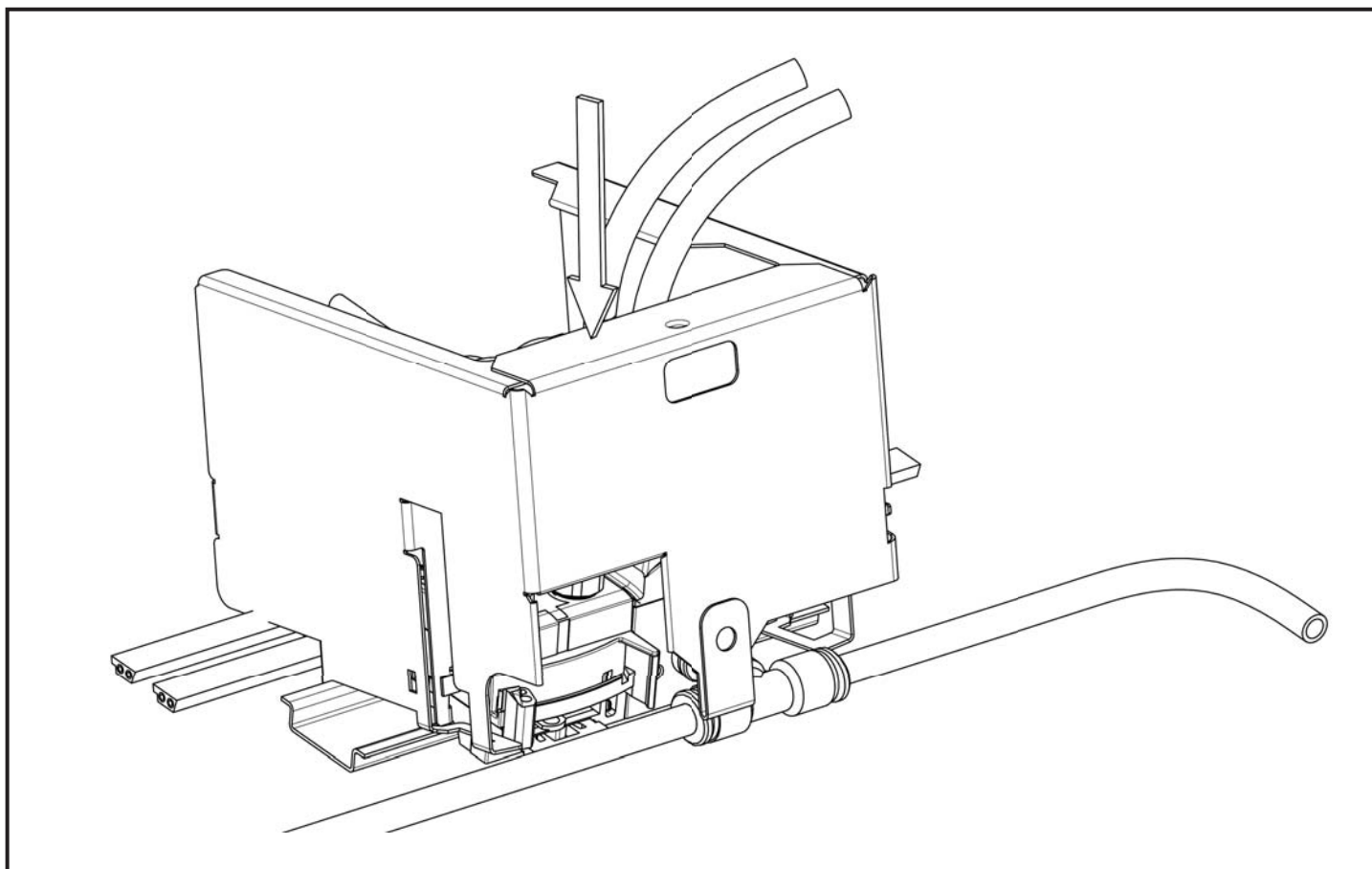
Maintenance / repair

The unit must not be modified nor can it be repaired. In case of a fault please contact the manufacturer. The data sheet and the EC declaration of conformity are available from the manufacturer on request.

UK

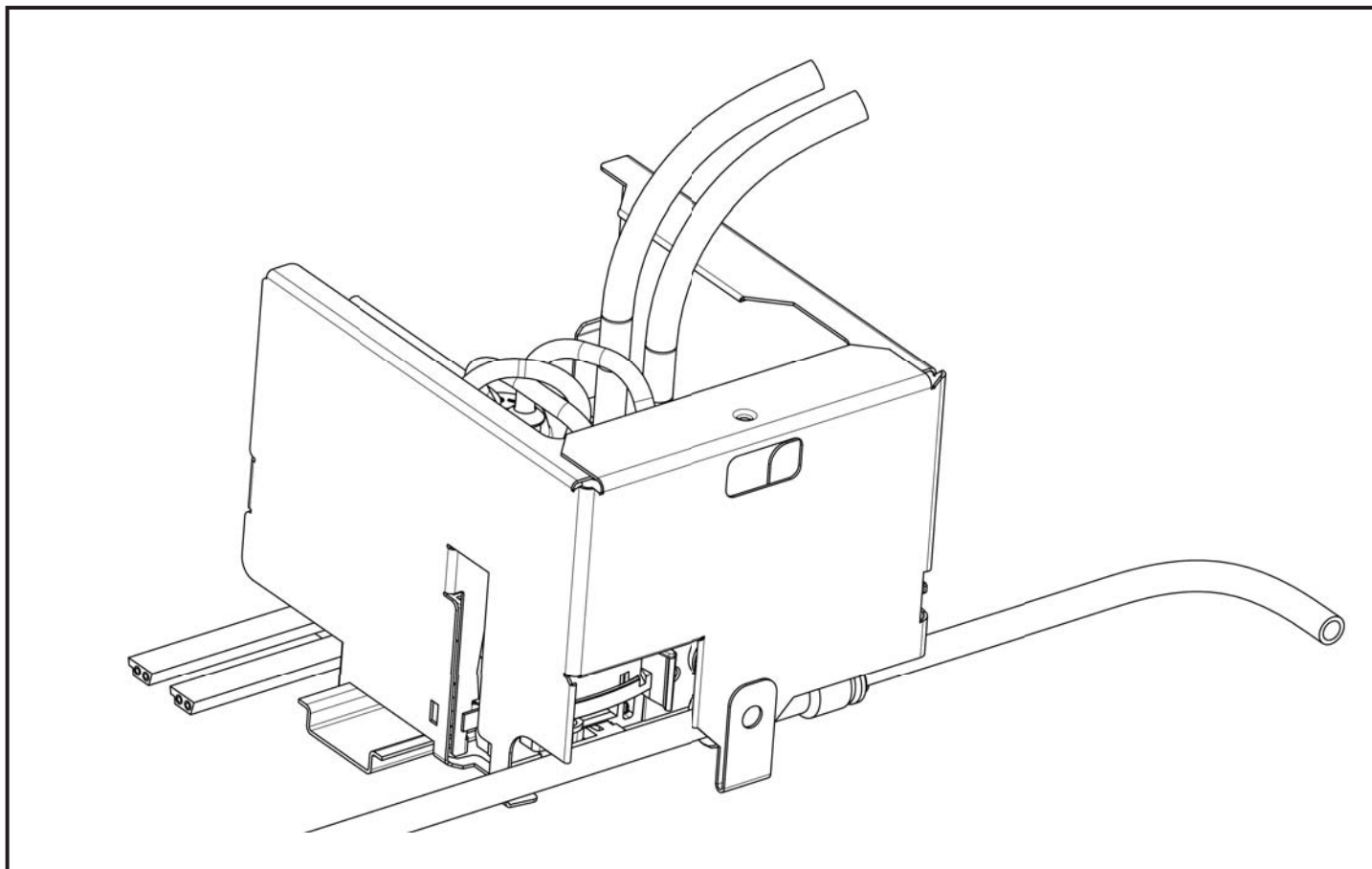# Installation with protective housing (impact protection housing E7000A)

▶ Gather the cables together

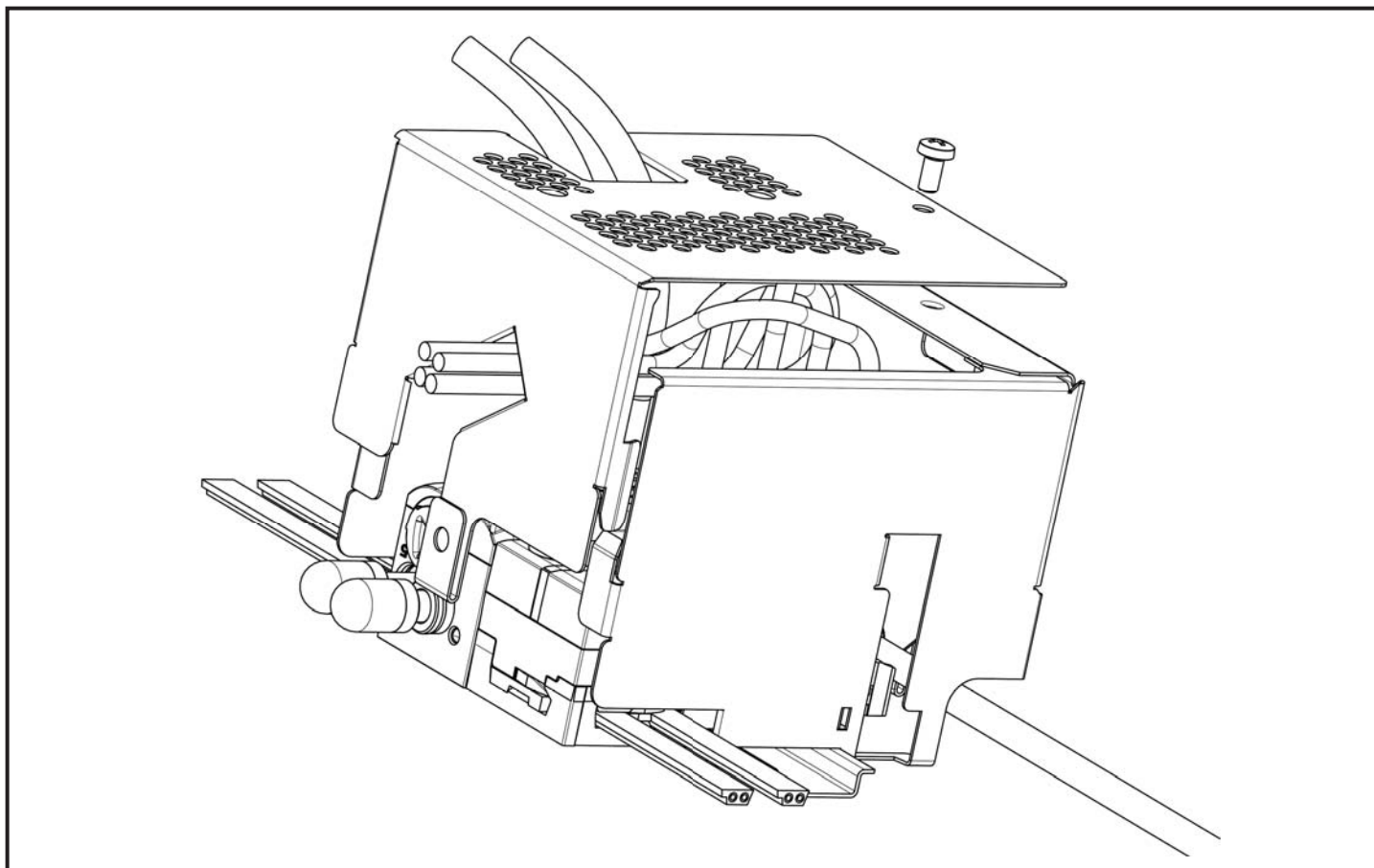▶ Attach the frame to the DIN rail and clip it into place

▶ Gather the cables together

\> Frame in place

► Attach the cover, clip it into place and tighten the screw

> Cover installed