



Operating instructions  
AS-i data decoupling module  
**AC1250**

**GB**

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# Contents

- 1 Preliminary note ..... 3
- 2 Symbols used ..... 4
- 3 Safety instructions ..... 5
- 4 Intended use ..... 6
- 5 Installation ..... 7
- 6 Electrical connection ..... 8
  - 6.1 Electrical supply ..... 8
  - 6.2 Wiring ..... 9
- 7 Technical data ..... 10
- 8 Scale drawing ..... 11
- 9 Maintenance, repair and disposal ..... 12

## 1 Preliminary note

You will find instructions, technical data, approvals, accessories and further information using the QR code on the unit / packaging or at [www.ifm.com](http://www.ifm.com).

## 2 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

### 3 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.

## 4 Intended use

- The AS-i data decoupling module is fixed to the AS-i gateway (AC14xx) and is supplied via an AUX or AS-i power supply.
- The AS-i data decoupling module supplies the AS-i gateway and the modules, sensors and actuators connected to AS-i 1 and AS-i 2 (only for AC1402).
- When the AS-i data decoupling module is used, several gateways can be supplied from one powerful power supply:
  - AS-i power supply 29.5...31.6 V
  - AUX power supply 21.5...31.6 V



- ▷ If an AUX power supply with a voltage < 30 V DC is used, the maximum AS-i cable length to be used is 50 m.



- ▷ Use modules, sensors and actuators suited for Power 24 V only.

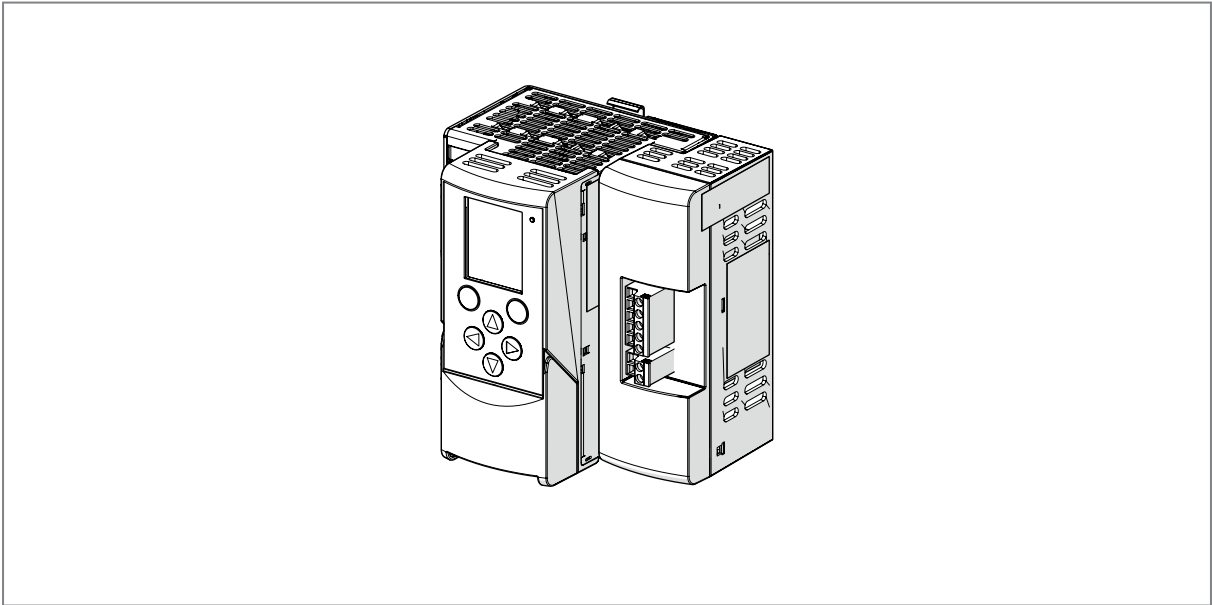
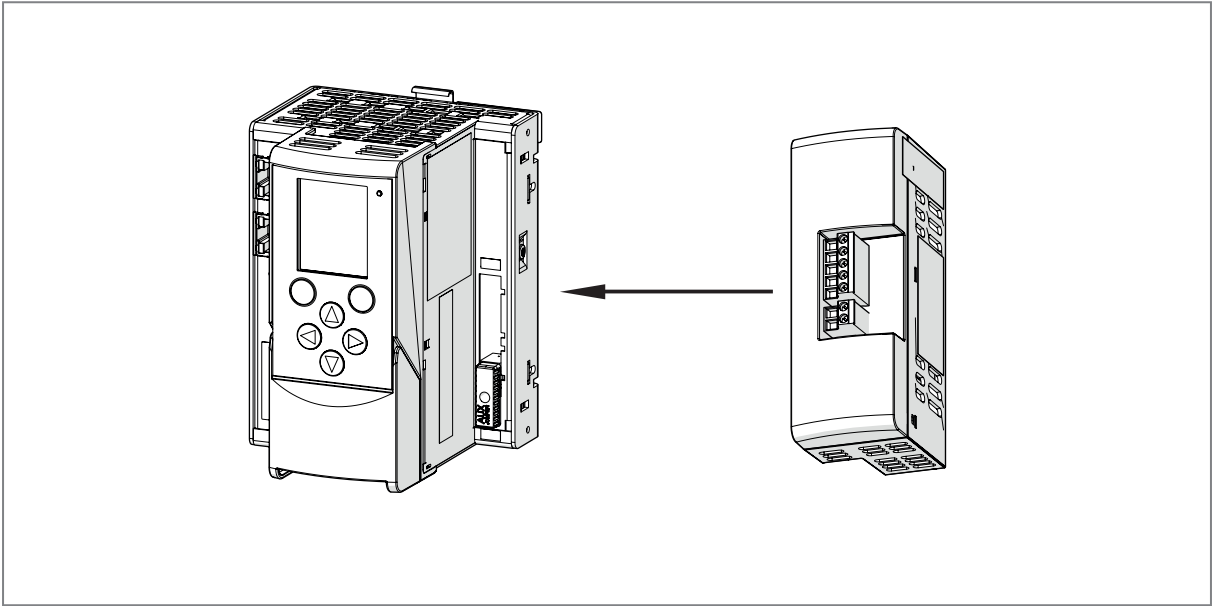


- ▷ Das Gerät darf nicht zusammen mit den SafeLine-Geräten der Baureihe AC4nnS verwendet werden.

# 5 Installation

► Disconnect power before installation.

Fix the AS-i data decoupling module to the AS-i gateway.



## 6 Electrical connection



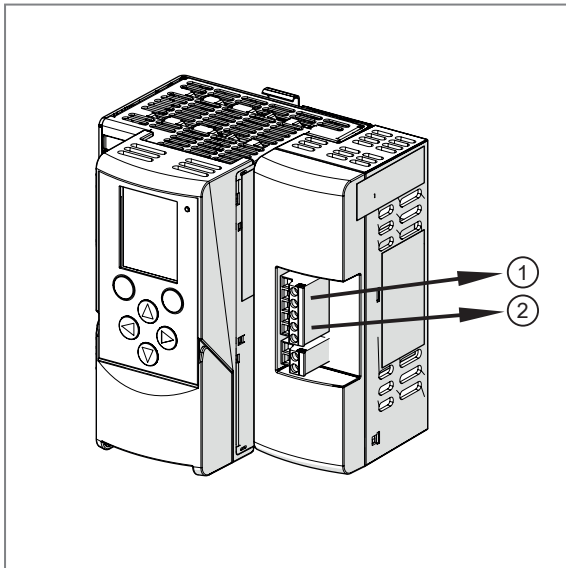
The unit must be connected by a qualified electrician.

- Observe the national and international regulations for the installation of electrical equipment.

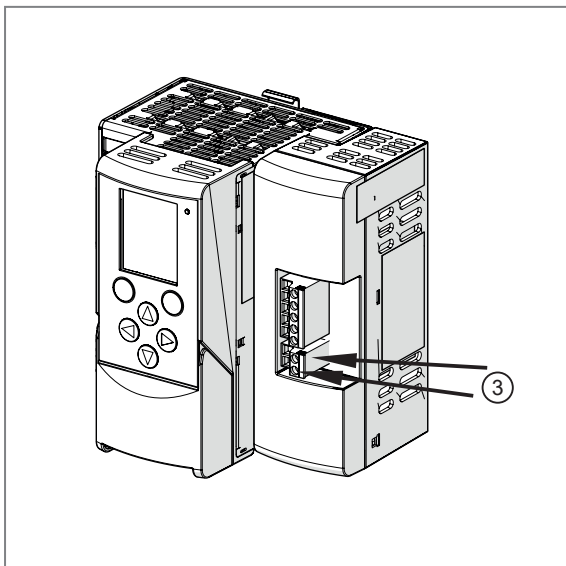
### 6.1 Electrical supply

All units (gateway, AS-i 1, AS-i 2) are supplied from one voltage source:

- AUX power supply 21.5...31.6 V DC (grounded or ungrounded) or
- AS-i power supply 29.5...31.6 V



- 1: AS-i 2 is supplied from the data decoupling module (21.0...31.6 V, max. 4 A)  
 2: AS-i 1 is supplied from the data decoupling module (21.0...31.6 V, max. 4 A)



- 3: 3: Total supply from an AUX power supply or an AS-i power supply



## 6.2 Wiring

Terminal	Pin	Designation
AS-i 2 +	1	AS-i + for AS-i line 2
AS-i 2 -	2	AS-i - for AS-i line 2
AS-i 1 +	3	AS-i + for AS-i line 1
AS-i 1 -	4	AS-i - for AS-i line 1
FE	5	functional earth
24 V	1	Geräteversorgung (24 V oder AS-i +)
0 V	2	Geräteversorgung (0 V oder AS-i -)

## 7 Technical data

Maximum input voltage:	31.6 V DC
Reverse polarity protection	Yes *
Number of AS-i networks to be supplied	2
Current rating per AS-i network:	max. 4 A
Short-circuit protection per AS-i network	Yes
Separate protection of the AS-i networks	yes **

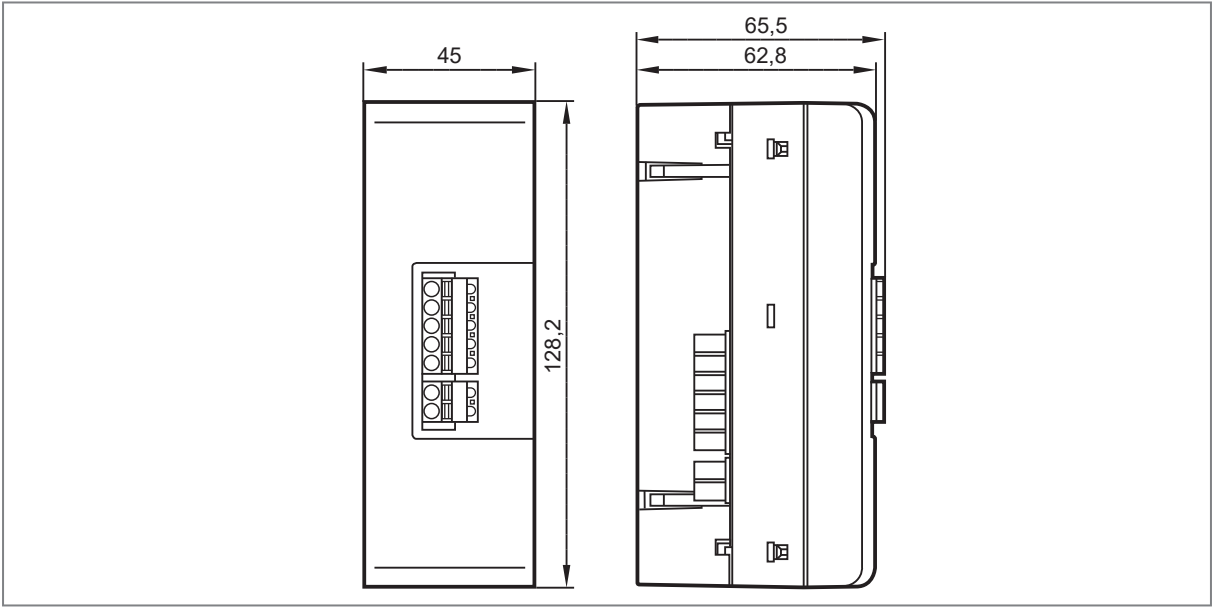
The module is protected against reverse polarity but does not prevent reverse polarity of the AS-i bus.

In case of a short-circuit in the AS-i network, the thermal overload protection of the module cannot prevent any effect on the other AS-i network



- ▷ In case of a short-circuit in the AS-i network the complete electrical supply fails as long as the thermal overload protection has not yet been activated. The duration of the interruption mainly depends on the short-circuit current, the ambient temperature and the power of the power supply used.

### 8 Scale drawing



## 9 Maintenance, repair and disposal

The unit is maintenance-free.

- ▶ Contact ifm in case of malfunction.
- ▶ Do not open the housing as the unit does not contain any components which can be maintained by the user. The unit must only be repaired by the manufacturer.
- ▶ Clean the device using a dry cloth.
- ▶ Dispose of the unit in accordance with the national environmental regulations.