

ifm electronic



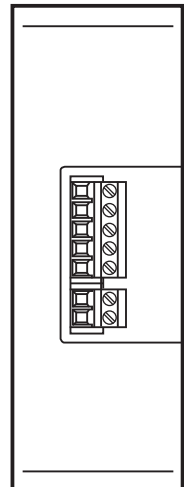
Operating instructions
AS-i data decoupling module

ecomat300[®]

AC1250

UK

7390833/00 05/2010



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1 Preliminary note

- An instruction is indicated by "▶":
Example: ▶ Mount the unit as shown.
- A reaction to the action is indicated by ">":
Example: > yellow LED lights.



Important note

Non-compliance can result in malfunction or interference.



Information

Supplementary note.

UK

2 Safety instructions

- Please read the operating instructions prior to set-up of the device. Ensure that the product is suitable for your application without any restrictions.
- The unit conforms to the relevant regulations and EC directives.
- Improper or non-intended use may lead to malfunctions of the unit or to unwanted effects in your application.
- Installation, electrical connection, set-up, operation and maintenance of the unit must only be carried out by qualified personnel authorised by the machine operator.

3 Functions and features

- 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 21.6...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.

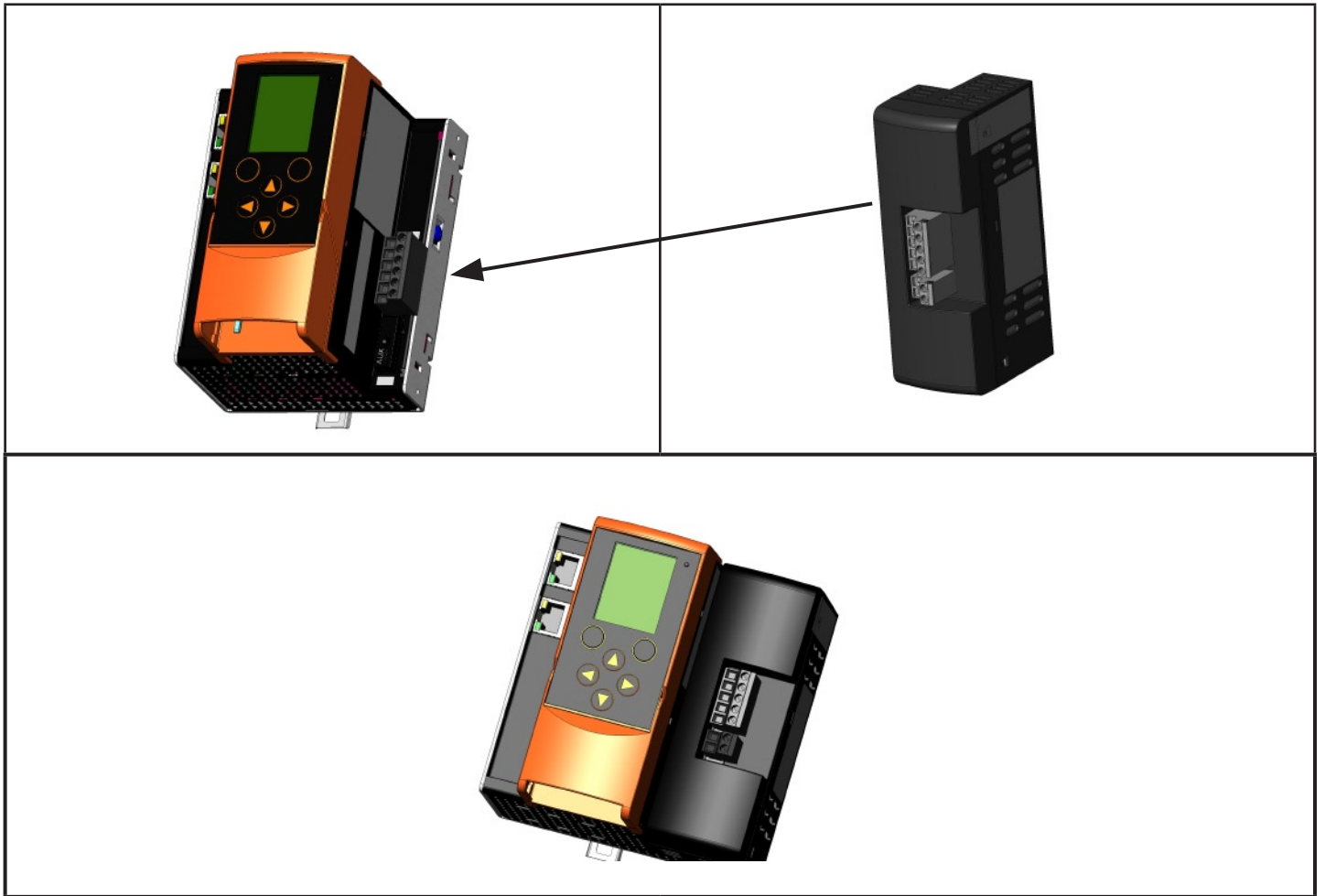
- ▶ Use modules, sensors and actuators suited for Power 24 V only.

4 Installation



▶ Disconnect the system from power before installation.

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



5 Electrical connection



The unit must be connected by a qualified electrician.

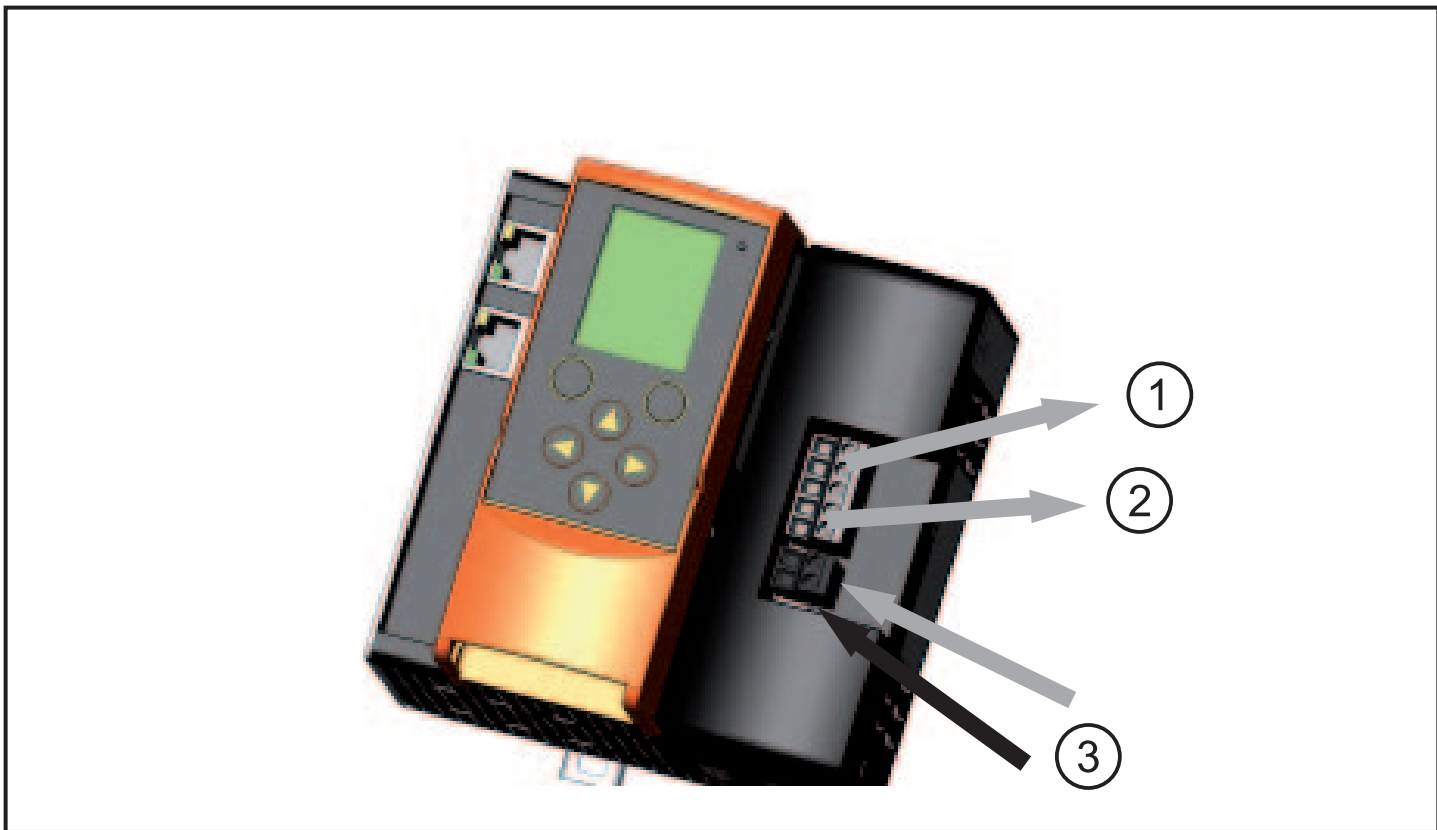
The national and international regulations for the installation of electrical equipment must be adhered to.

▶ Disconnect power.

5.1 Electrical supply

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

- AUX power supply 21.6...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...31.1 V, max. 4 A)
- 2: AS-i 1 is supplied from the data decoupling module (21.0...31.1 V, max. 4 A)
- 3: Total supply from an AUX power supply or an AS-i power supply

5.2 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	device supply (24 V or AS-i +)
0 V	2	device supply (0 V or AS-i -)

6 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.

6.1 Data sheets



Data sheets can be found at:
www.ifm.com → Data sheet search → AC1250

7 Approvals/standards



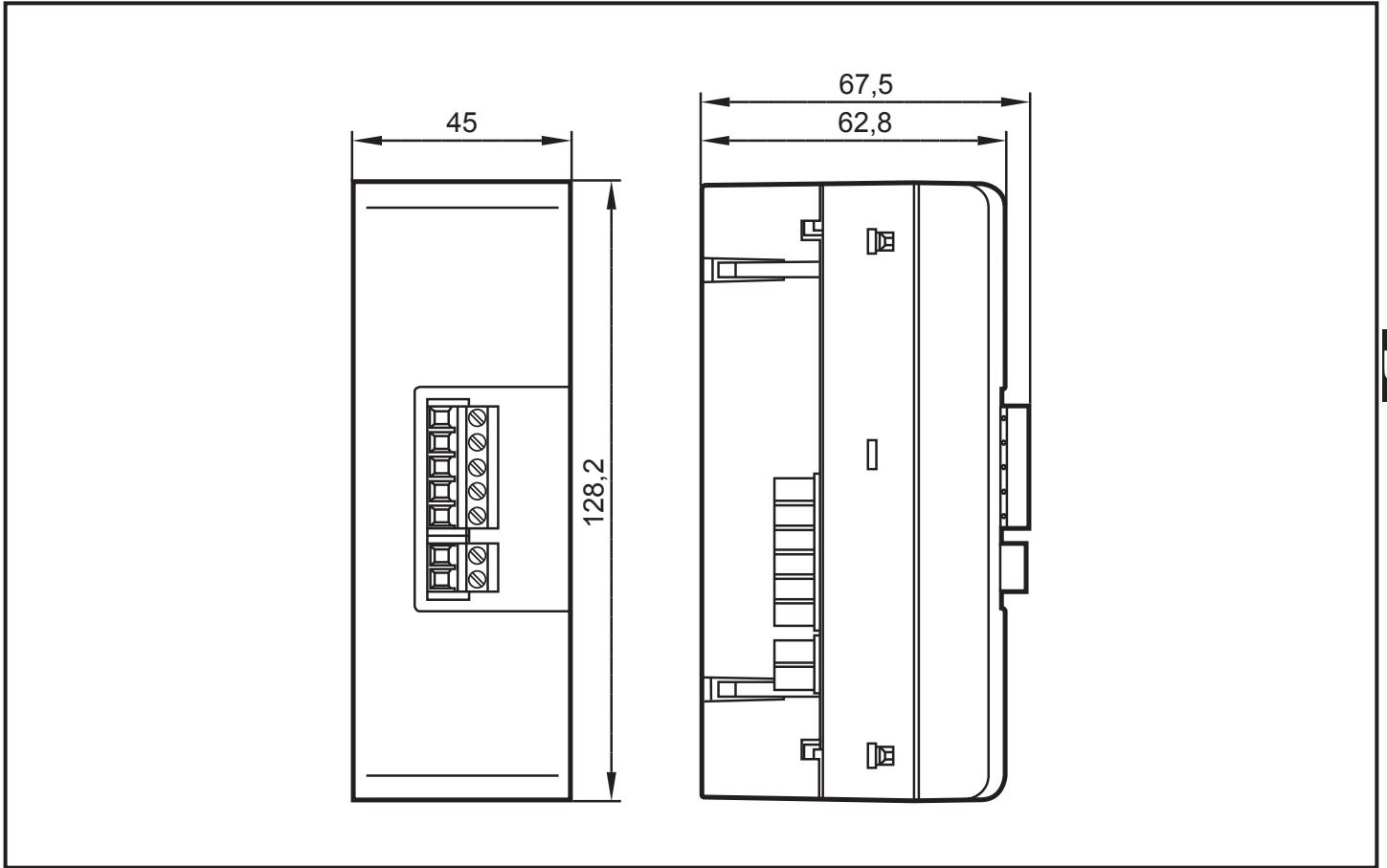
The EC declaration of conformity and approvals can be found at:
www.ifm.com → Data sheet search → AC1250 → Approvals

8 Maintenance, repair and disposal

The operation of the unit is maintenance-free. After use dispose of the unit in an environmentally friendly way in accordance with the applicable national regulations.

9 Scale drawing

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