ifm electronic

CE

Operating instructions

AS-interface

ClassicLine IO-Link module

AC5225

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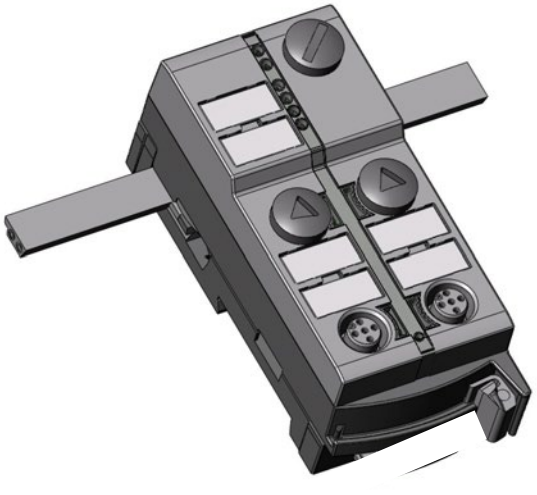

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Contents

Preliminary note

Important note
Non-compliance can result in malfunctions or interference.

Information
Supplementary note.

1 Safety instructions

- Please read the product description prior to set-up of the unit. 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.
- That is why installation, electrical connection, set-up, operation and maintenance of the unit must only be carried out by qualified personnel authorised by the machine operator.

2 Functions and features

The AS-i module operates as a slave with bidirectional data transfer in the AS-i network. The data transfer to the host is asynchronous according to the AS-i profile S-7.5.5 and the AS-i specification 3.0.

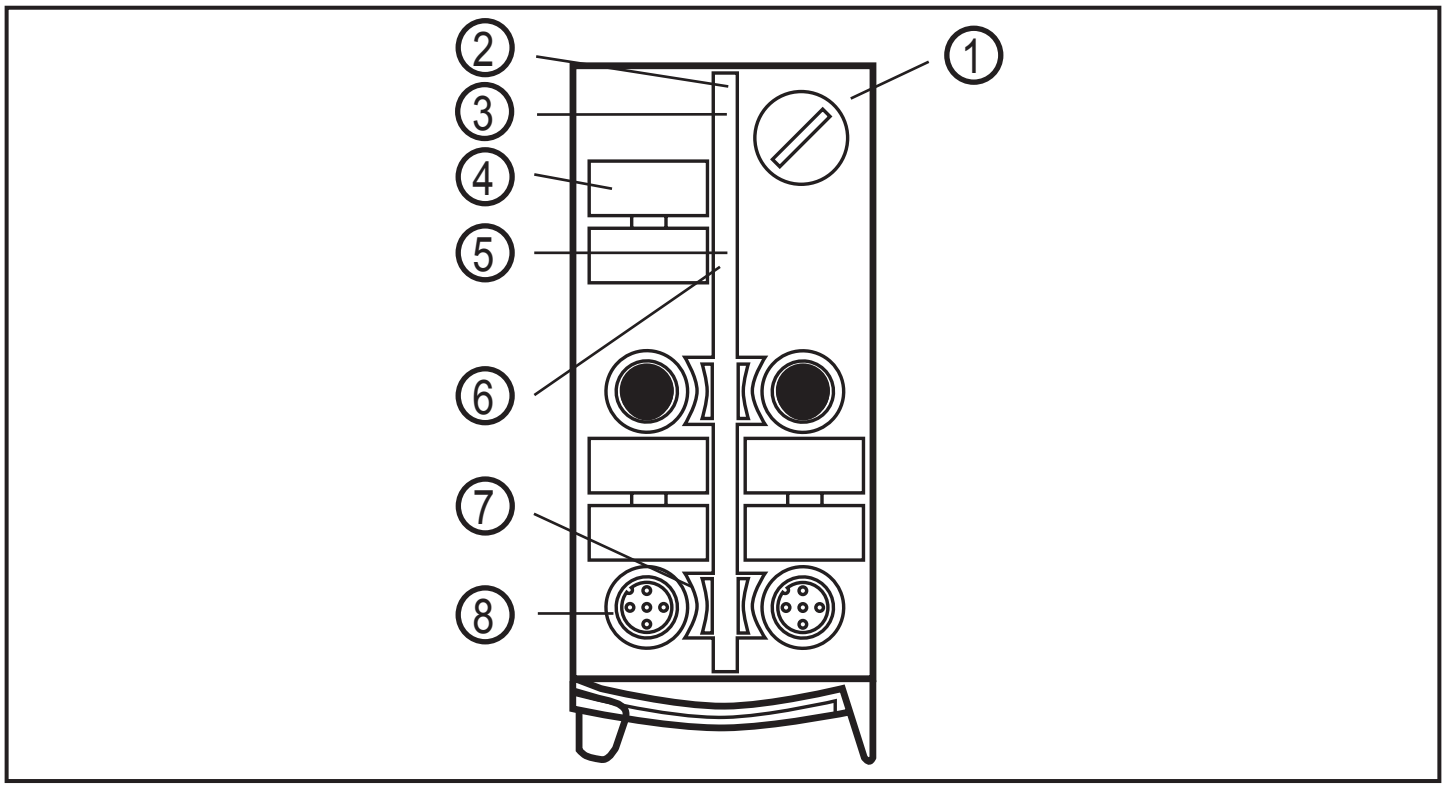
- maximum number of modules per master: 31
- master profile M4 required

The slave enables connection of

- max. 2 IO-Link devices
- digital positive-switching sensors and actuators
- devices with and without IO-Link function

When the sensors and actuators are supplied from AS-i the load must not exceed a maximum of 200 mA. There is an electrical connection between the sensor and AS-i.

3 Control and indicating elements



1: Addressing interface
2: LED PWR
3: LED FAULT
4: Labels
5: LED green port 1
6: LED green port 2
7: LEDs yellow + red
8: 2 M12 sockets

4 Installation

1

Alignment of the flat cable on delivery

Carefully place the yellow flat cable into the profile slot.

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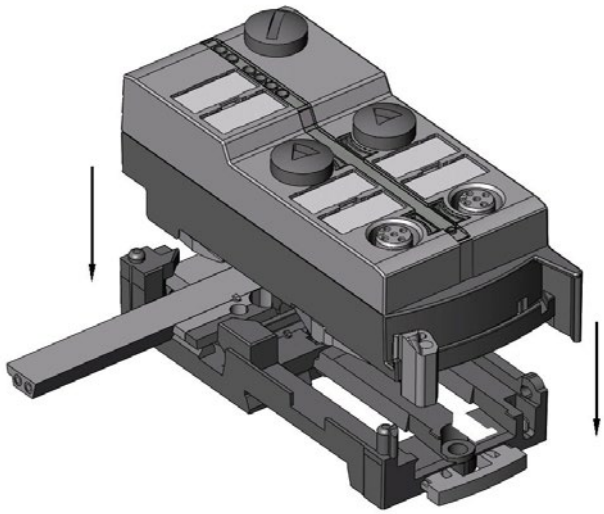
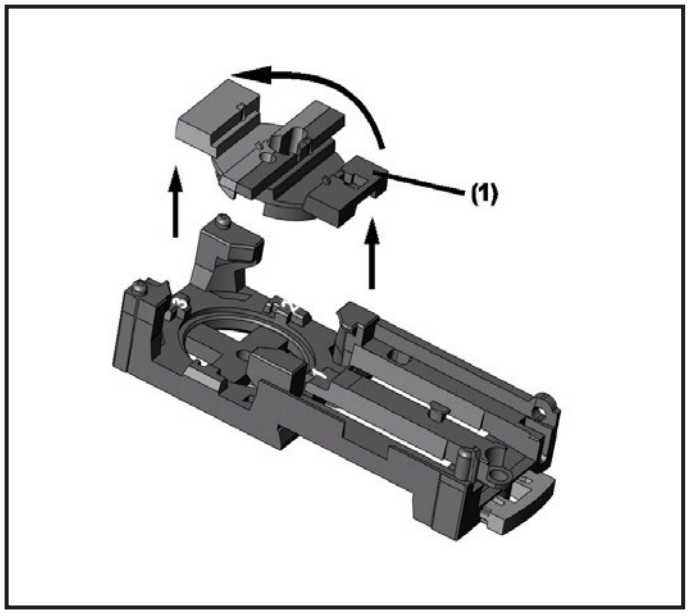
2



Mount the upper part.

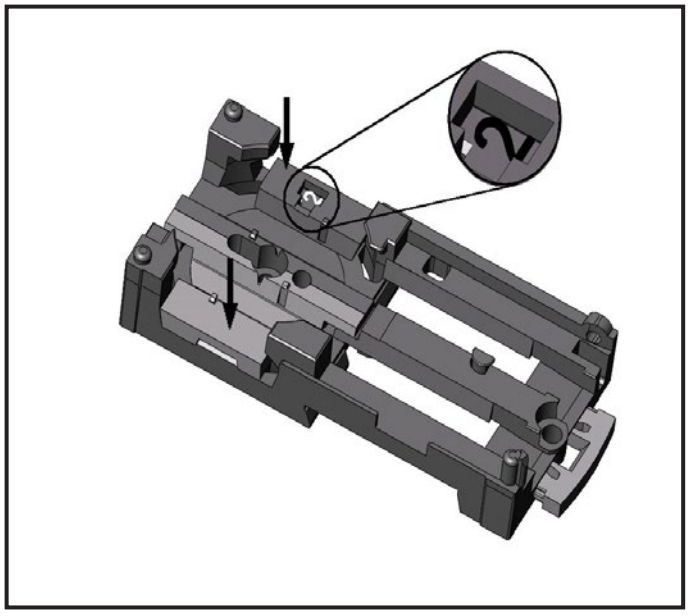
3

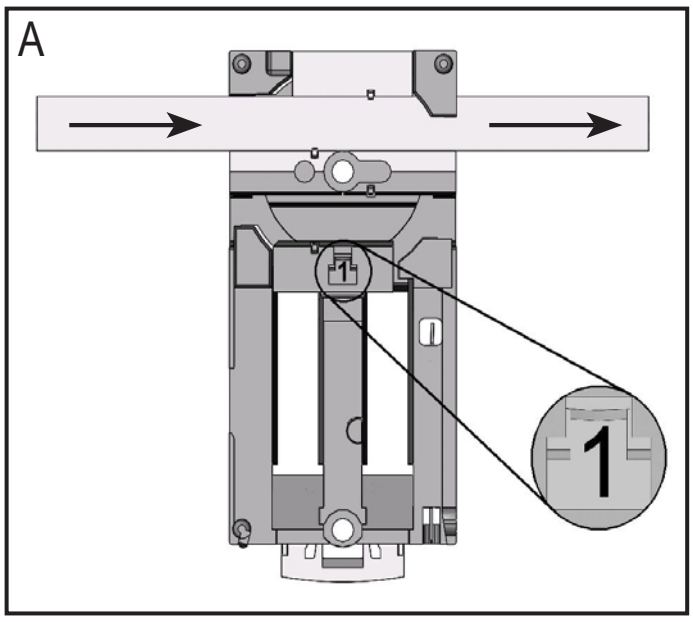
Lock the unit.



With the supplied lower part the flat cable can be aligned in three directions.

For the requested direction place the flat cable guide (1) accordingly.

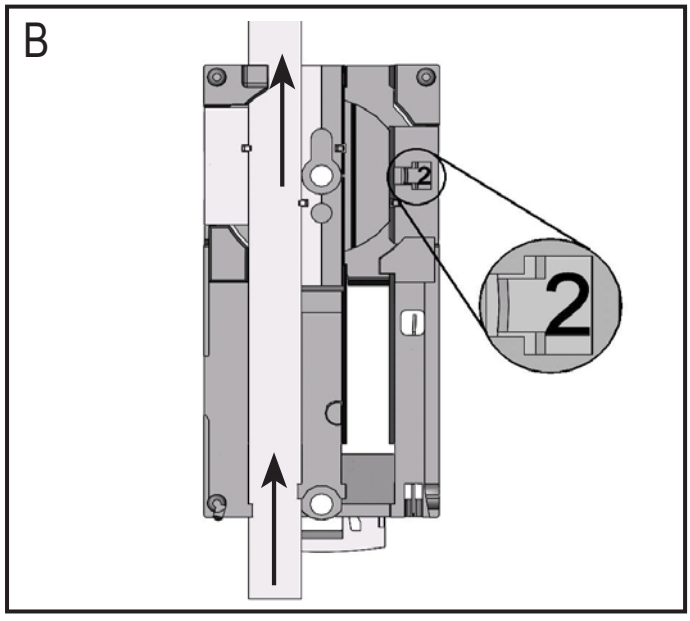


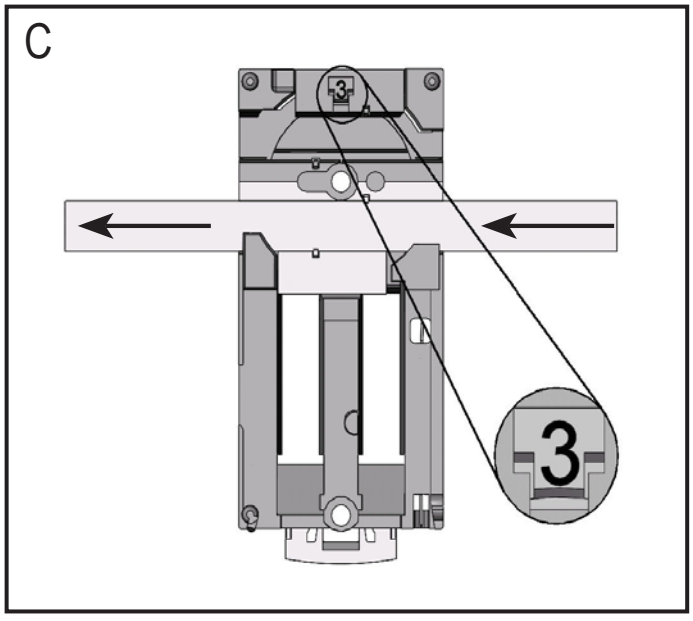


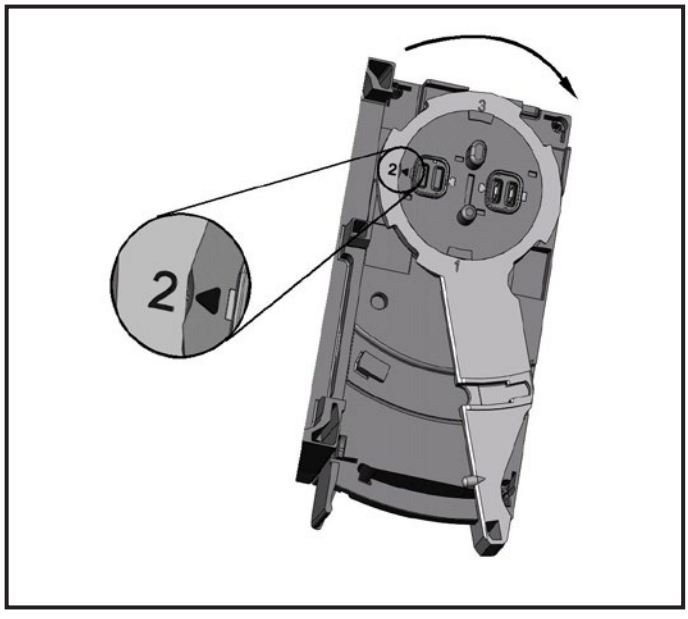
Settings at the lower part

Select the position 1, 2 or 3 depending on the requested flat cable alignment (→).

A = factory setting



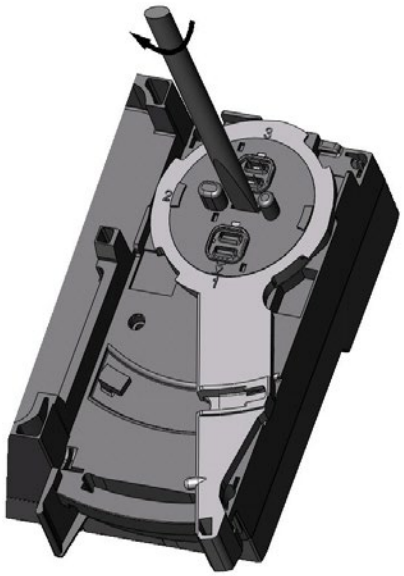




Settings at the upper part

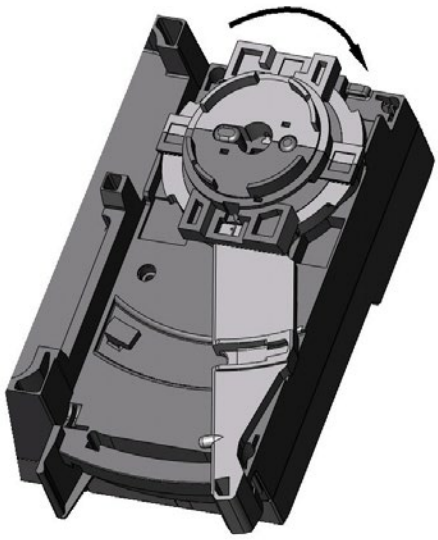
Then set the selected position at the upper part. To do so, turn the triangle to the corresponding number (fig. D1 and D2).

D1



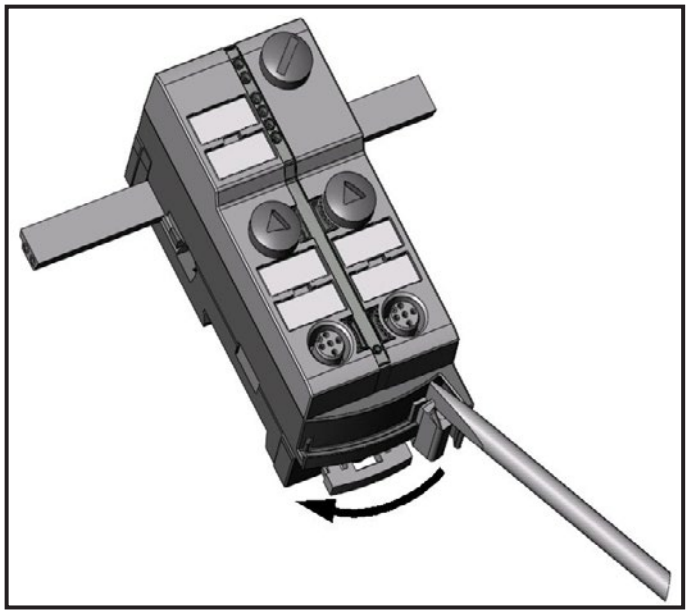
Use a tool, e.g. a screwdriver (figure D1) or the yellow / black flat cable guide (figure D2).

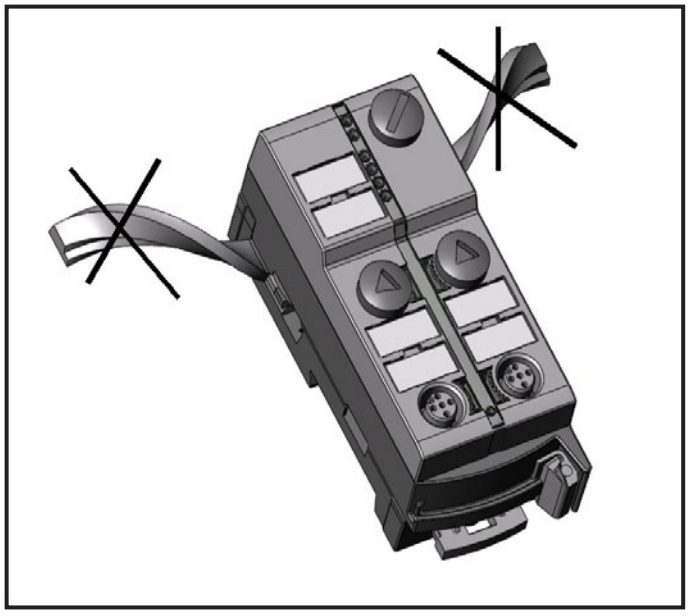
D2



Open the unit

Open the unit using a tool as shown (e.g. screwdriver).





Take care in laying the AS-i flat cable, the flat cable should be laid straight for about 15 cm.

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5 Addressing

The address is set to 0 at the factory.

5.1 Addressing with the AC1154 addressing unit

When mounted and wired the module can be addressed with the addressing cable (E70213) via the integrated addressing interface.

5.2 Parameter setting of the slave

Parameter bit / Designation	Description	
P0 Default data mapping activated	1	Device-specific default data mapping is used.
	0	Mapping has to be specified via ‘process data assignment’; if this is not the case, the device will generate a peripheral fault.
P1	1	reserved
	0	reserved
P2 Plug and Comm mode activated	1	Plug and Comm mode is activated: Scan mode Freerun DeviceID, VendorID, FunctionID = 0000 $_{hex}$
	0	The configuration must be defined via the 'IO-Link gateway configuration'. If there is no configuration or if the configuration is wrong, a peripheral fault is indicated.

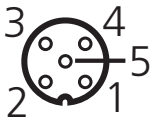
The Plug and Comm mode cannot be operated with digital outputs (actuators without IO-Link) and can only be used to a limited extent with digital inputs (signal frozen for approx. 10 ms).

6 Electrical connection

Connect the plugs of the sensors / actuators to the M12 sockets. Cover the unused sockets with protective caps (E73004)*, the addressing socket with the supplied protective cap. Tightening torque 0.8 Nm.

The flat cable end seal (E70413)* must be used if the module is at the end of the cable line. * to be ordered separately

1: sensor supply + 24 V (L+ in IO-Link)
2: not used
3: sensor supply + 0 V (L- in IO-Link)
4: DI / DO for IO-Link communication
5: not used



7 Operation

Avoid build-up of dirt and dust on the upper and lower parts so that the locking mechanism is not affected.

Check whether the unit operates correctly. Display by LEDs:

LED yellow	Output status port 1, port 2, DI/DO mode
LED green	Communication port 1, port 2 in IO-Link mode
LED red	Disturbed communication port 1, port 2
LED green PWR	AS-i voltage is applied
LED red FAULT on	AS-i communication error
LED red FAULT flashes	AS-i / IO-Link peripheral fault*

* The peripheral fault signals configuration and diagnostic messages depending on the setting of the unit.

8 Maintenance / Repair

The unit must not be modified nor can it be repaired. In case of a fault please contact the manufacturer.

9 Technical data

Technical data, system manual and further information at www.ifm.com.

10 Scale drawing