

ifm electronic



Operating instructions

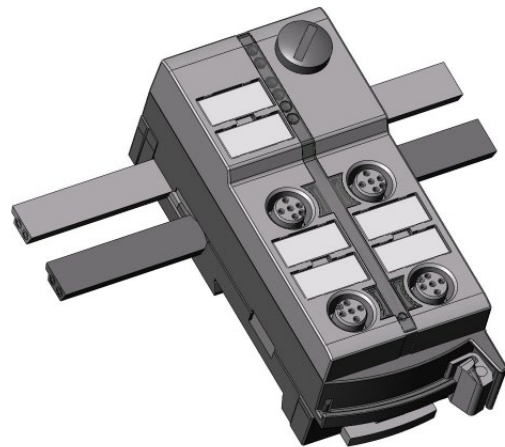
**AS interface**

ATEX ClassicLine module

**AC505A / AC507A /  
AC508A / AC514A / AC515A**

**UK**

7390945/00 08/2012



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Observe the instructions for the safe use in hazardous areas: → Operating instructions (Ex protection related part) for AS-i modules according to EU directive 94/9/EC annex VIII (ATEX) group II, equipment category 3D.

If no operating instructions (Ex protection related part) or EC declaration of conformity is supplied with this product in the language of the EU user country, these can be requested from your dealer (see delivery note) or manufacturer (see cover sheet / back).

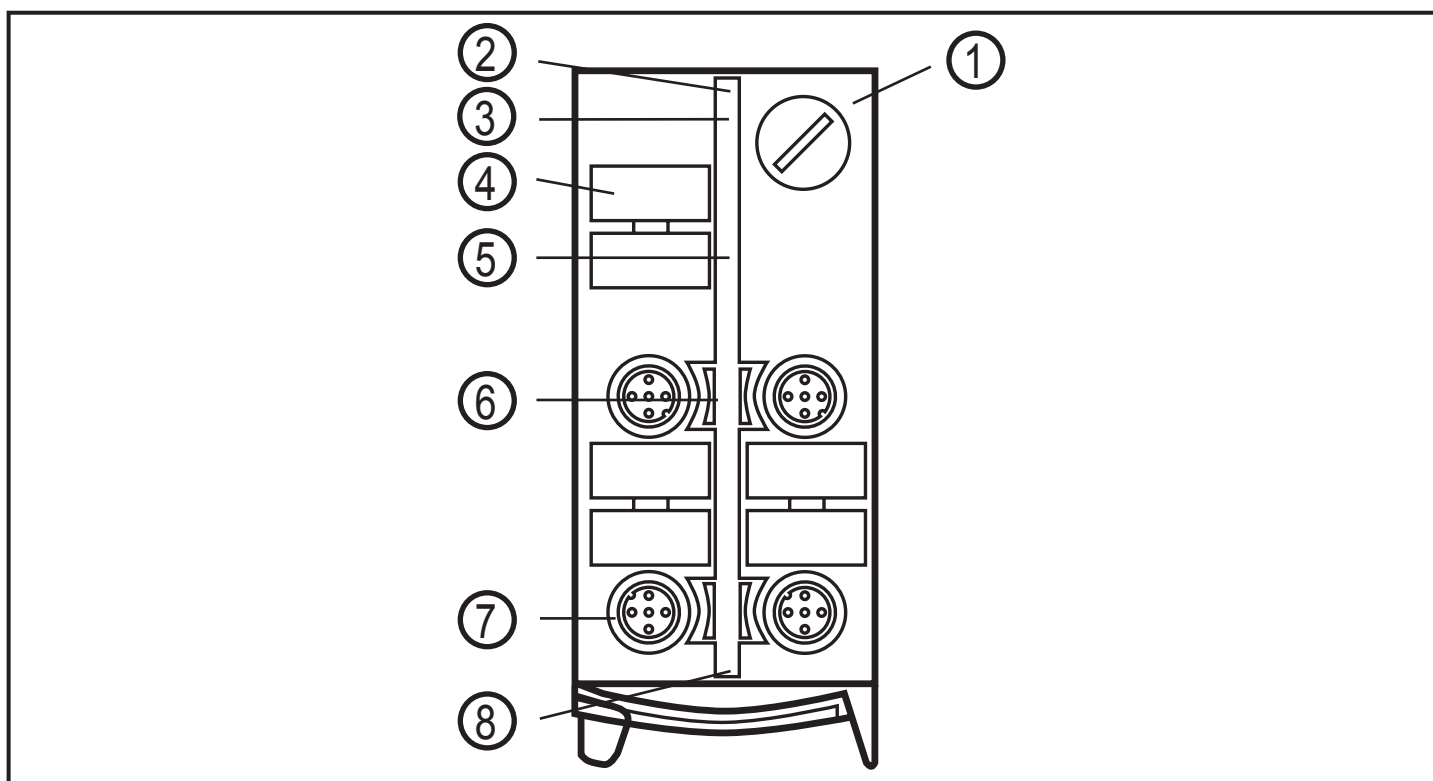
## 1 Safety instructions

- Please read the product description prior to installing the unit. Ensure that the product is suitable for your application without any restrictions.
- The unit conforms to the relevant regulations and EU directives.
- Improper use 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

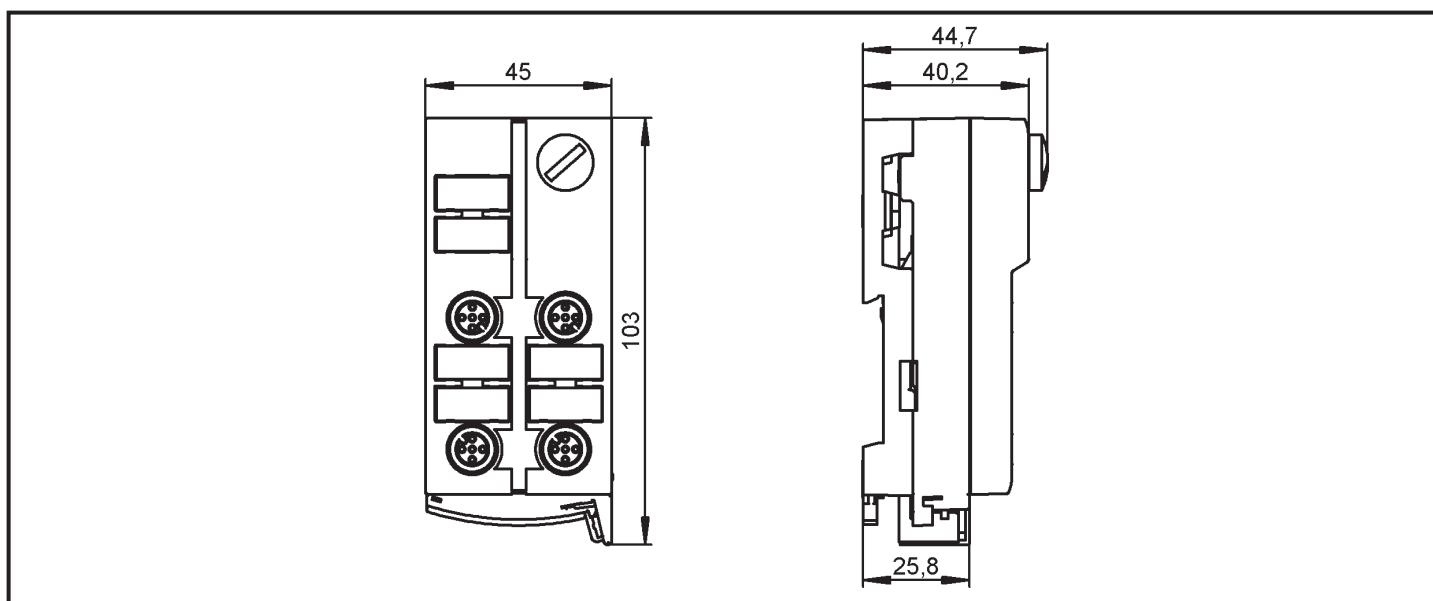
- Maximum number of modules per master:
  - 31 (AC505A, AC507A, AC508A)
  - 62 (AC514A, AC515A)
- AS-interface version 3.0, downward compatible

### 3 Operating and display elements

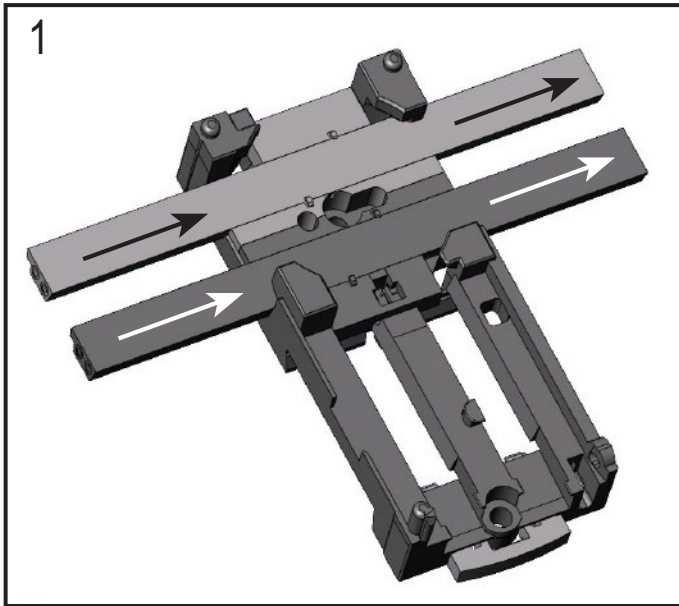


1. addressing interface
2. LED PWR
3. LED FAULT
4. labels
5. LED 1
6. LED 2
7. 4 M12 sockets
8. LED AUX

Scale drawing

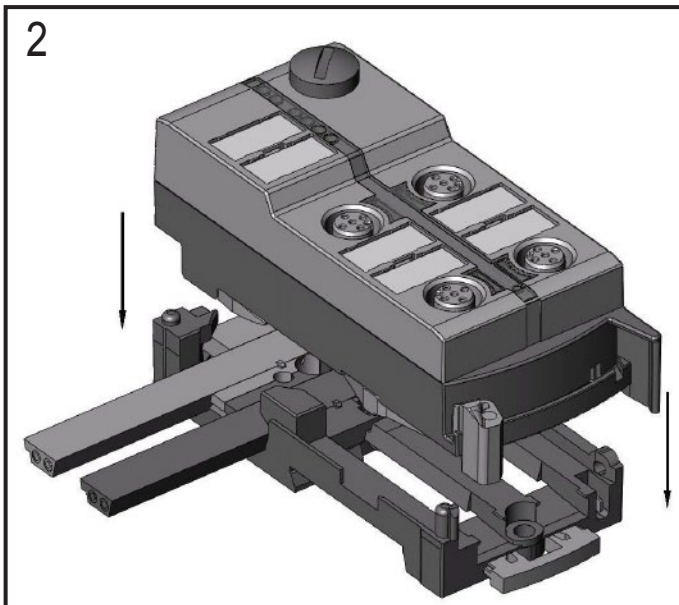


## 4 Installation

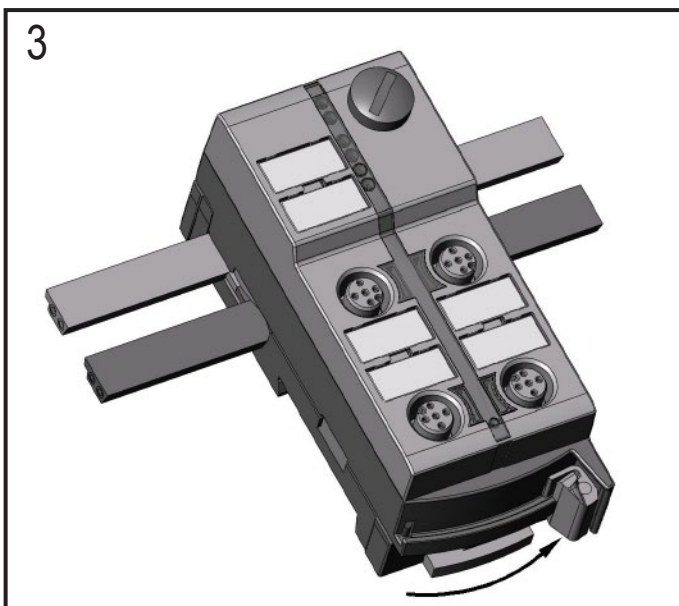


### Alignment of the flat cable on delivery

Carefully place the yellow and optionally the black AS-i flatcable (AC507A, AC508A, AC514A) into the profile slot.

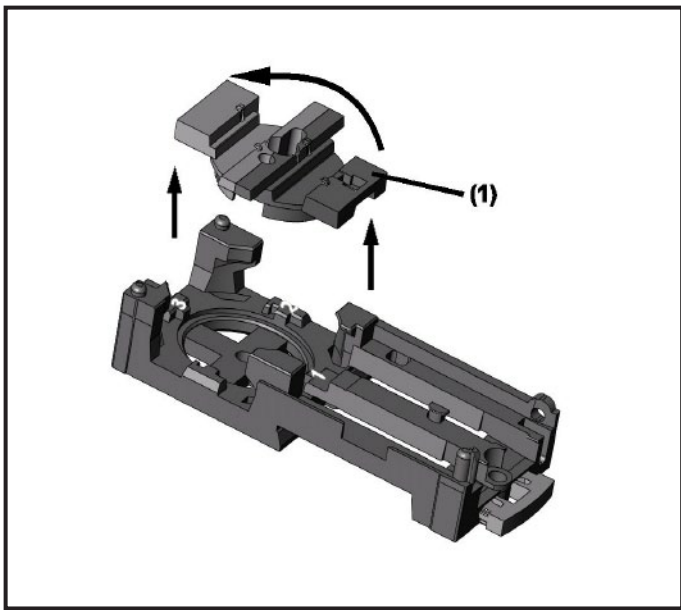


Mount the upper part.



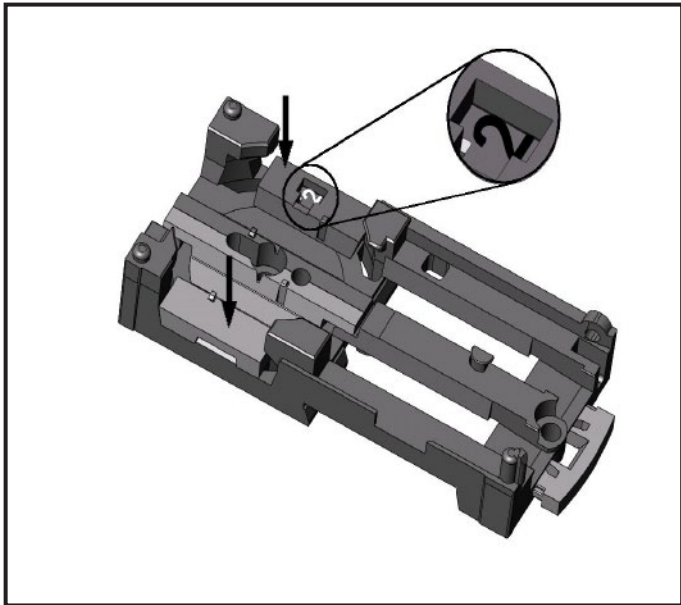
Lock the unit.

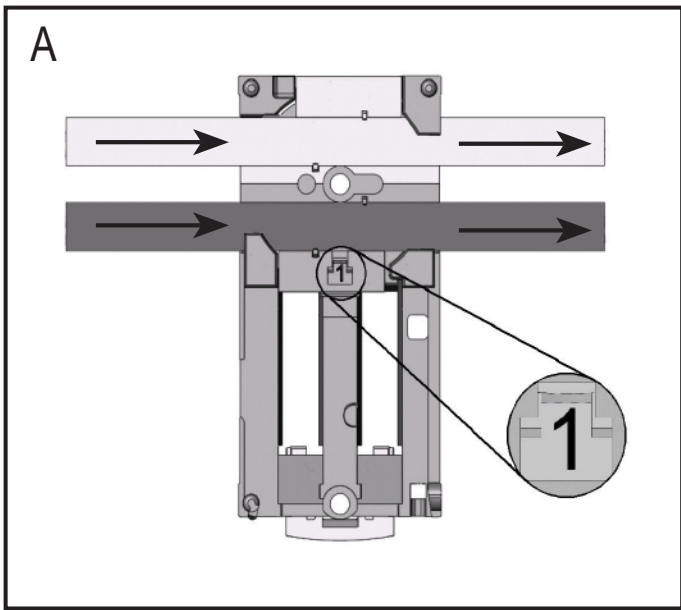
UK



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.

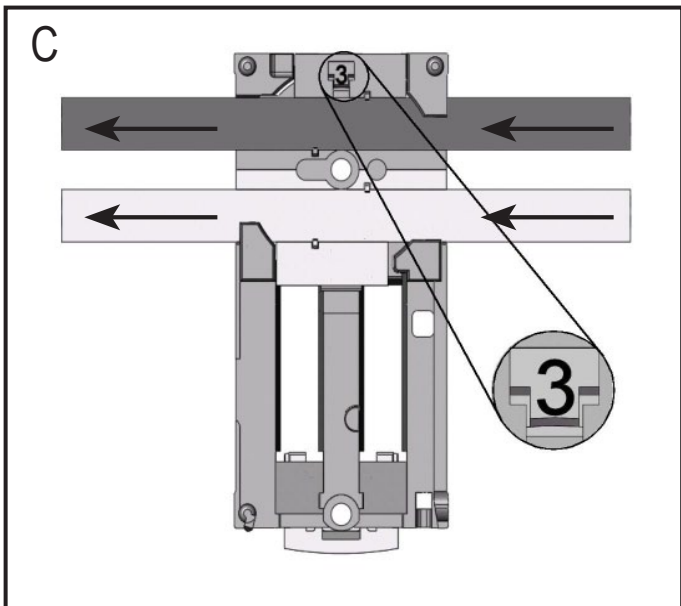
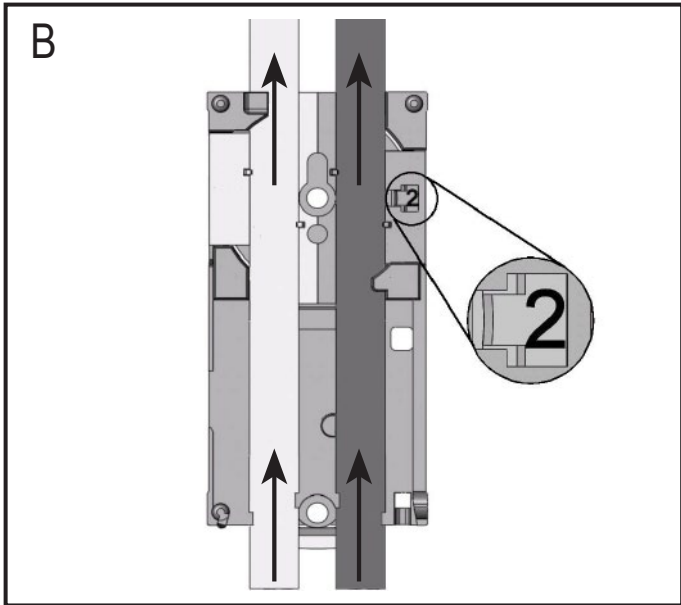


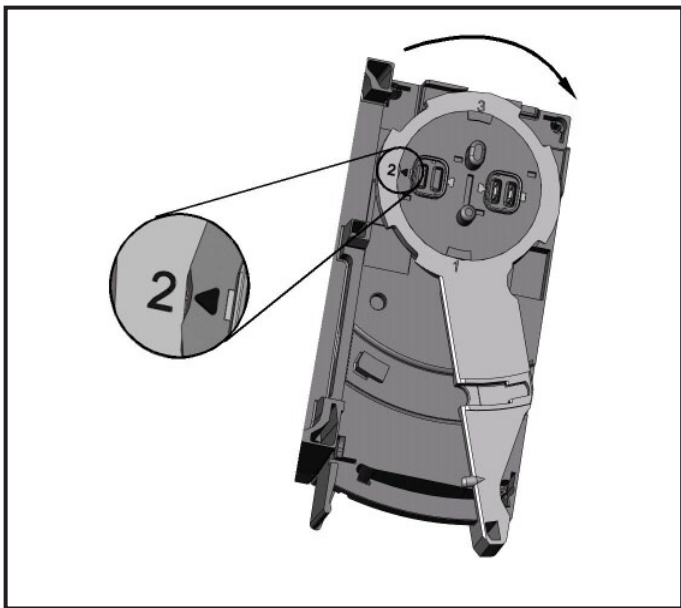


## Settings at the lower part

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

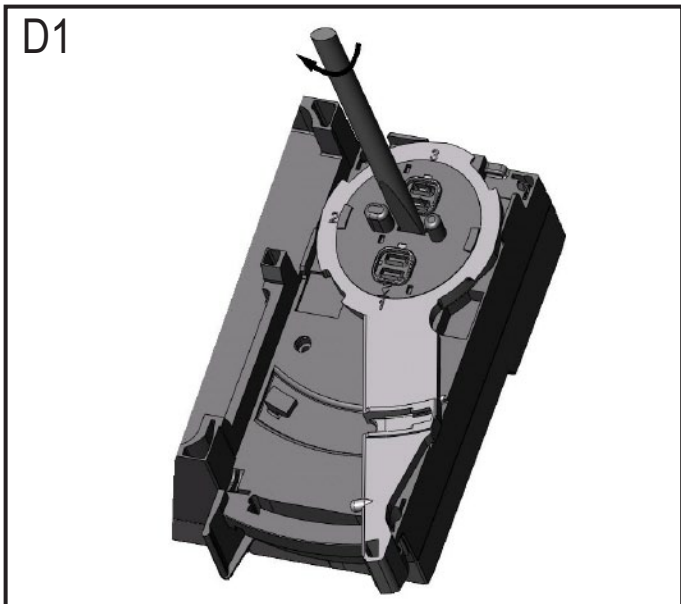
A = factory setting



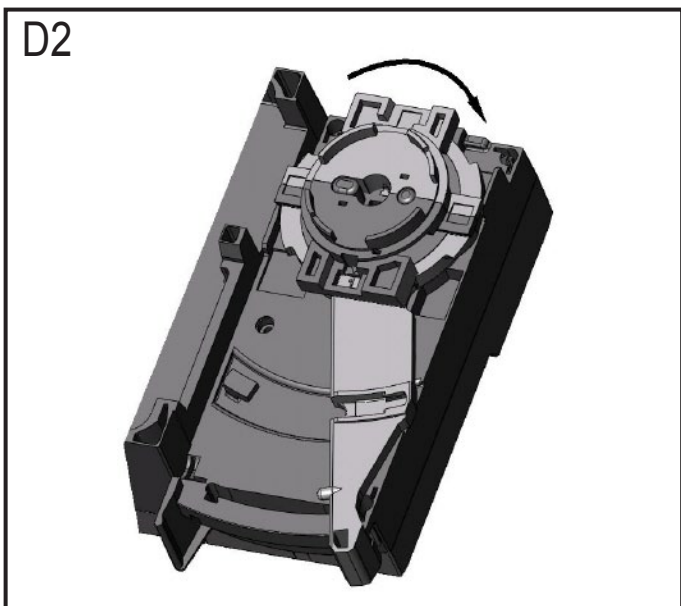


## Settings at the upper part

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



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

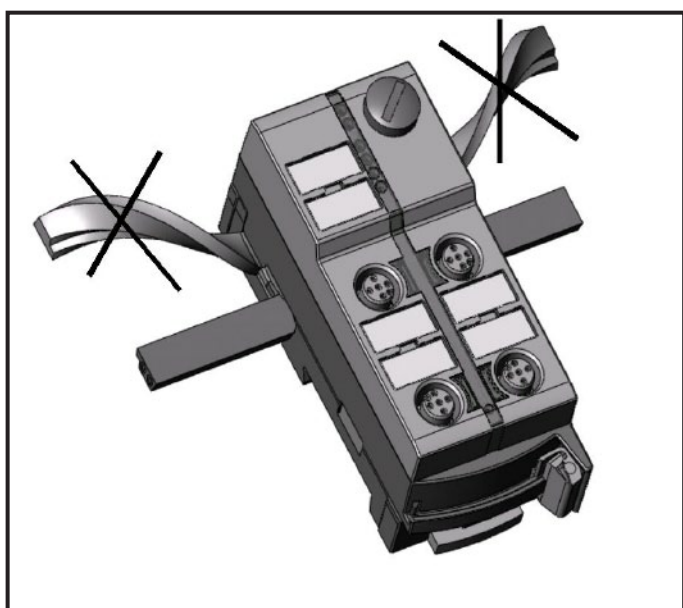
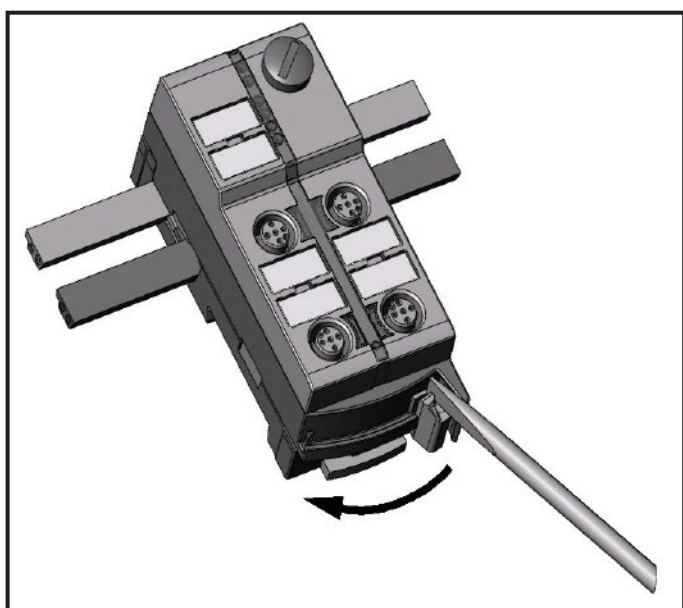




## Open the unit



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.

# 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.

If a slave with the extended addressing mode (AC514A, AC515A) is used in combination with a master of the first generation (version 2.0), the parameter P3 must be 1 and the output bit D3 must be 0\*. The output bit D3 and the parameter bit P3 must not be used.

\* default setting

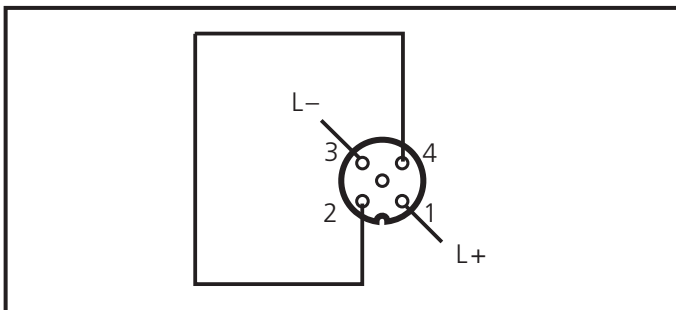
If a slave with the extended addressing mode is used in combination with a master of the first generation (version 2.0), an address between 1A and 31A must be assigned to this slave.

### AC505A (4 inputs)

AS-i profile S-0.0.E / extended addressing mode: no

Data bit	D0	D1	D2	D3
Input	I1	I2	I3	I4
Socket	I-1	I-2	I-3	I-4

### Inputs

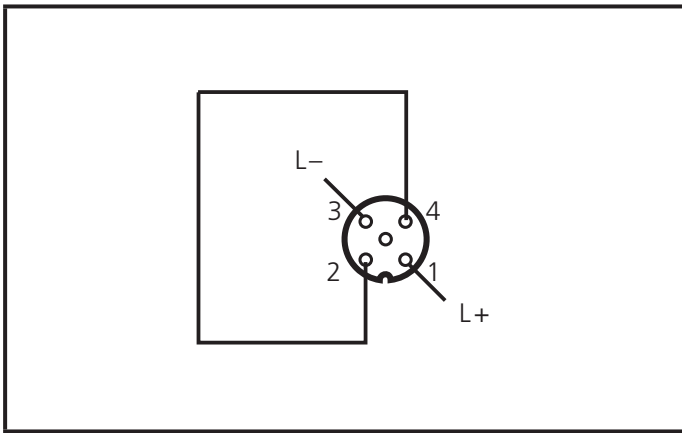


## AC507A (2 outputs / 2 inputs)

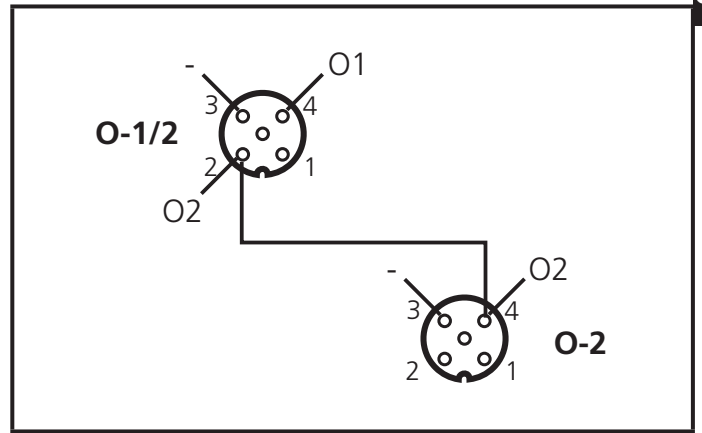
AS-i profile S-3.0.E / extended addressing mode: no / AUX

Data bit	D0	D1	D2	D3
Input	I1	I2	-	-
Socket	I-1	I-2	-	-
Output			O1	O2
Socket			O-1/2	O-1/2   O-2

### Y-circuit inputs



### Y-circuit outputs

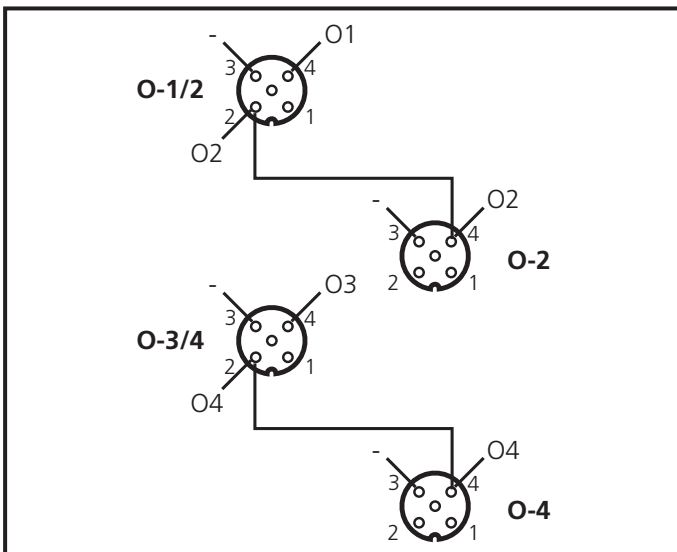


## AC508A (4 outputs)

AS-i profile S-8.0.E / extended addressing mode: no / AUX

Data bit	D0	D1	D2	D3
Output	O1	O2	O3	O4
Socket	O-1/2	O-1/2   O-2	O-3/4	O-3/4   O-4

### Y-circuit outputs



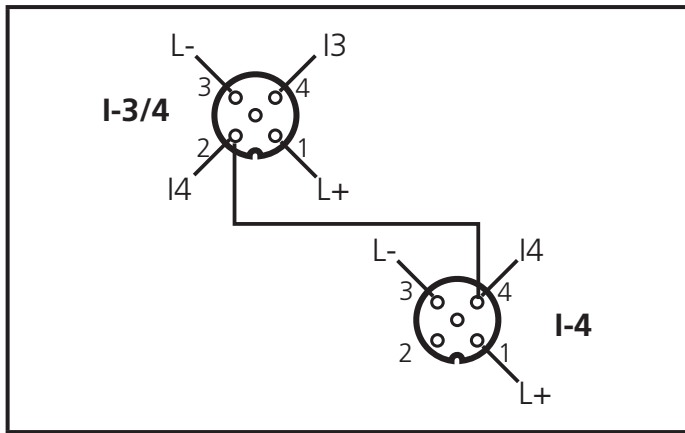
## AC514A

2 outputs / 2 inputs

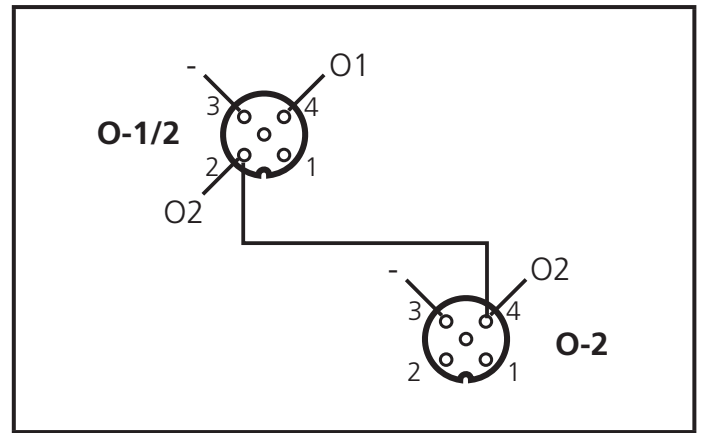
AS-i profile S-B.A.E / extended addressing mode: yes / AUX

Data bit	D0		D1		D2		D3	
Input	-		-		I3		I4	
Socket	-		-		I-3/4		I-3/4	I-4
Output	O1		O2		-		-	
Socket	O-1/2		O-1/2	O-2	-		-	

Y-circuit inputs



Y-circuit outputs



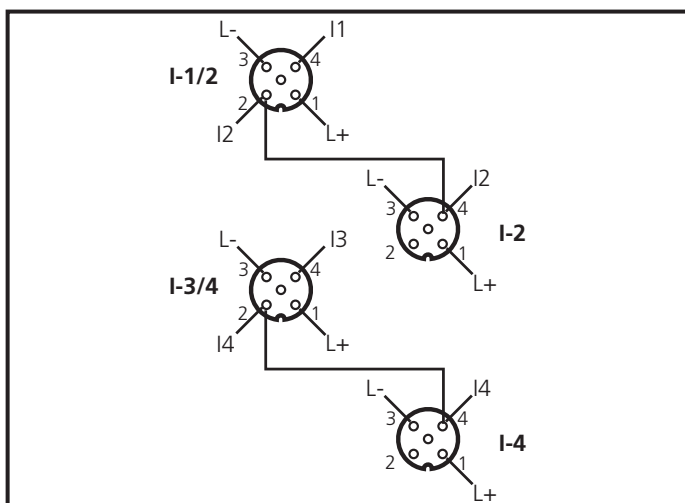
## AC515A

4 inputs

AS-i profile S-0.A.E / extended addressing mode: yes

Data bit	D0		D1		D2		D3	
Input	I1		I2		I3		I4	
Socket	I-1/2		I-1/2	I-2	I-3/4		I-3/4	I-4

Y-circuit inputs



## 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

## 7 Operation



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

UK

- LED PWR green: AS-i voltage supply ok
- LED FAULT red lights: AS-i communication error, slave does not participate in the „normal“ exchange of data, e.g. slave address 0
- LED FAULT red flashes: peripheral fault, e.g. sensor supply / output overloaded or shorted
- LED 1 yellow: logic state of the outputs
- LED 2 yellow: input / output switched
- LED AUX green: AUX voltage supply ok (AC507A, AC508A, AC514A)



Overload and short circuit of the input supply and the outputs are signalled as peripheral fault to the AS-i master (version 2.1 or higher).

## 8 Technical data

Technical data and further information at [www.ifm.com](http://www.ifm.com).