



Model number

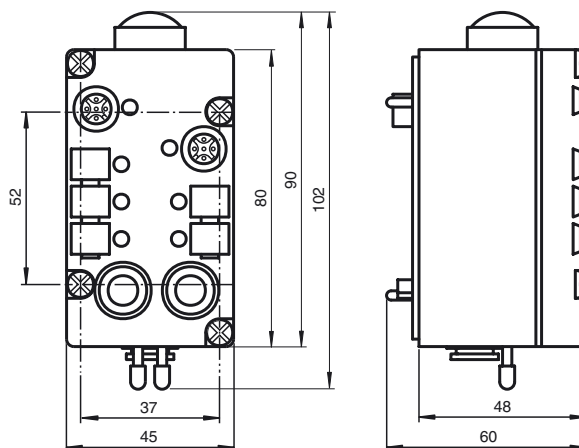
VAA-4E2A-G1-ZE/P-S

Pneumatic module
4 inputs/2 pneumatic outputs

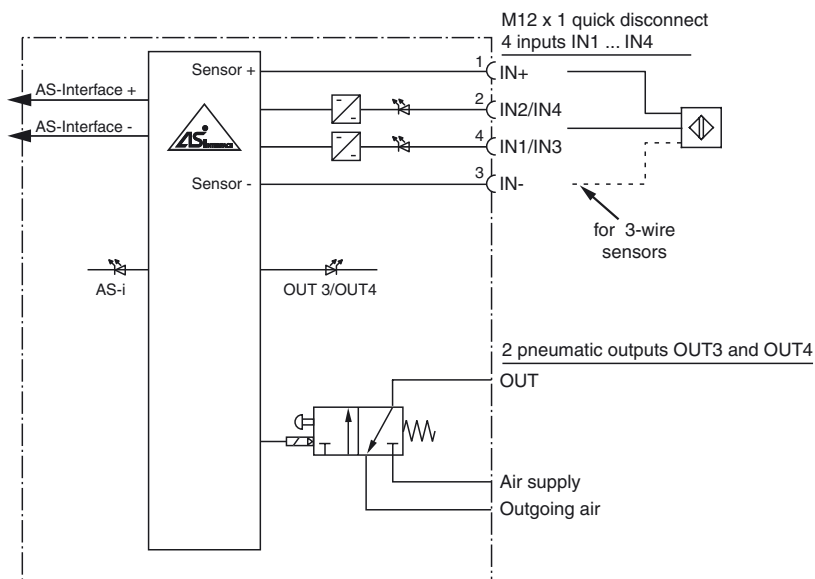
Features

- AS-Interface certificate
- Protection degree IP65
- Flat or round cable connection (via standardized EMS base, not included with delivery)
- Cable piercing method for flat cable
- Inputs for 2- and 3-wire sensors
- Function display for bus, inputs and outputs
- Direct connection of pneumatic cylinders

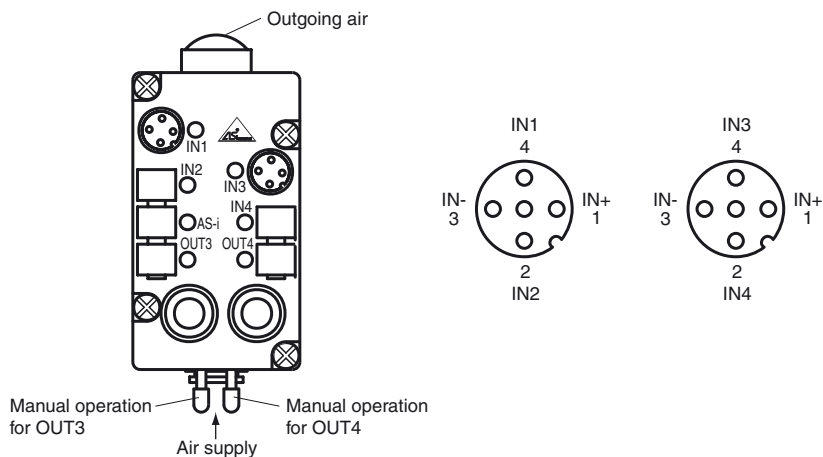
Dimensions



Electrical connection



Indicating / Operating means



Release date: 2011-07-13 15:13 Date of issue: 2011-07-13 130938_eng.xml

Technical data**General specifications**

Slave type	Standard slave
------------	----------------

Functional safety related parameters

MTTF _d	44 a
Mission Time (T _M)	10 a
Diagnostic Coverage (DC)	0 %

Indicators/operating means

LED AS-i	AS-Interface voltage; LED green
LED IN	switching state (input); 4 LED yellow
LED OUT	Switching state (output); 2 LED yellow

Electrical specifications

Rated operational voltage	U _e	26.5 ... 31.6 V from AS-Interface
Rated operational current	I _e	≤ 45 mA (without sensors) ≤ 200 mA (complete)

Input

Number/Type	2x 2 inputs for 2- or 3-wire sensors (PNP), DC
Supply	from AS-Interface
Current loading capacity	≤ 100 mA, short-circuit protected
Switching point	OFF: ≤ 1.5 mA ON: ≥ 5 mA, ≥ 10 V

Output

Number/Type	2 pneumatic outputs with separated 3/2-way valves
-------------	---

Pneumatic output

Venting guide	Sinter filter
Compressed air	2 ... 8 bar, filtered (5 µm), oiled or unoled compressed air
Air throughput	550 NI/min at 6/0 bar 350 NI/min at 6/5 bar NI = Standard litre
Valve cross-section	5 mm

Programming instructions

Profile	S-7.F
IO code	7
ID code	F
ID1 code	F
ID2 code	F

Data bits (function via AS-Interface)	input	output
D0	IN1	-
D1	IN2	-
D2	IN3	OUT3
D3	IN4	OUT4

Parameter bits (programmable via AS-i) function

P0	not used
P1	not used
P2	not used
P3	not used

Ambient conditions

Ambient temperature	0 ... 55 °C (32 ... 131 °F)
Storage temperature	-20 ... 85 °C (-4 ... 185 °F)

Mechanical specifications

Protection degree	IP65 according to EN 60529
Connection	cable piercing method or terminals flat cable or standard round cable inputs: M12 x 1 quick disconnect outputs: plug-in hose connector (8 mm)
Mass	approx. 200 g
Mounting	DIN rail or screw mounting

Function

The VAA-4E2A-G1-ZE/P-S module features 4 inputs for the connection of 2- or 3-wire sensors and 2 pneumatic outputs with a high air flow rate for direct control of pneumatic drives in the field. 2 separate 3/2-way valves are integrated in the module. Both the valve and the sensors connected to the module are supplied via the bus cable.

The sensors are connected to the module via M12 x 1-circular connectors; the outputs are connected to the pneumatic drive via standard hose plug-in connectors (LEGRIS LF 3000, 8 mm).

Various bases are available for the module. The U-G1F (or U-G1FA) base provides the connection to the AS-Interface flat cable; the U-G1P base provides the connection to a round cable.

It happens very frequently that output modules must be installed in series with the pneumatic module. If the outputs of the output modules are supplied with external power transferred via a flat cable, a suitable EEMS base (U-G1FF or U-G1FFA) must be used for the pneumatic module. In this case, VAA-4E2A-G1-ZE/P-S accesses the AS-Interface cable instead of the power supply cable.

Note:

The slave address must be programmed before commissioning (default setting 0).

Medium: Filtered (5 µm), oiled or unoled compressed air (2 ... 8 bars).

Warning:

Dangerous electric voltage can lead to electric shock and burns. The system must be disconnected from the power supply before the beginning of the works.

Accessories**VBP-HH1-V3.0**

AS-Interface Handheld

Matching system components**U-G1F**

AS-Interface module mounting base for connection to flat cable (AS-Interface)

U-G1P

AS-Interface module mounting base for connection to round cable (AS-Interface)

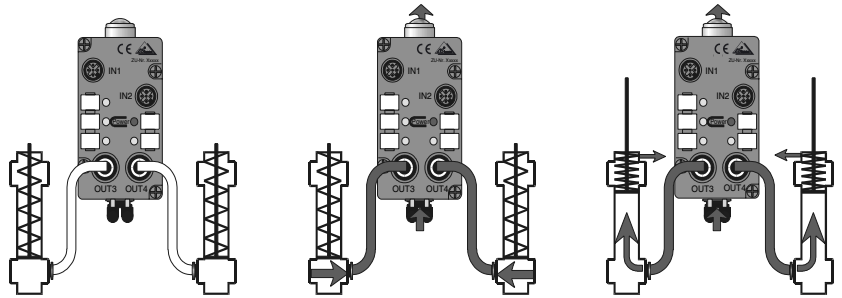
U-G1FA

AS-Interface module mounting base with addressing jack for connection to flat cable (AS-Interface)

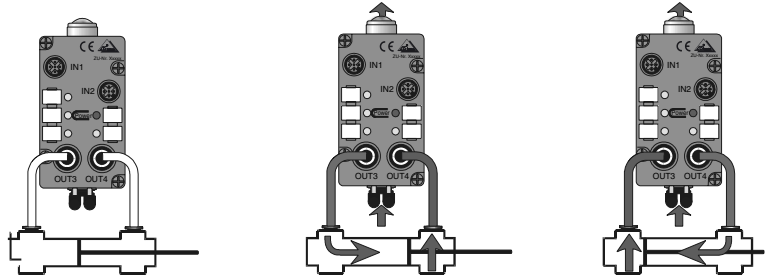
Notes

Examples for functions of the AS-Interface Airbox

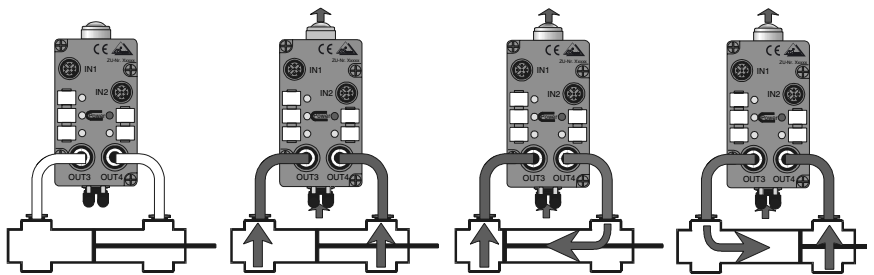
as 3/2-way valve



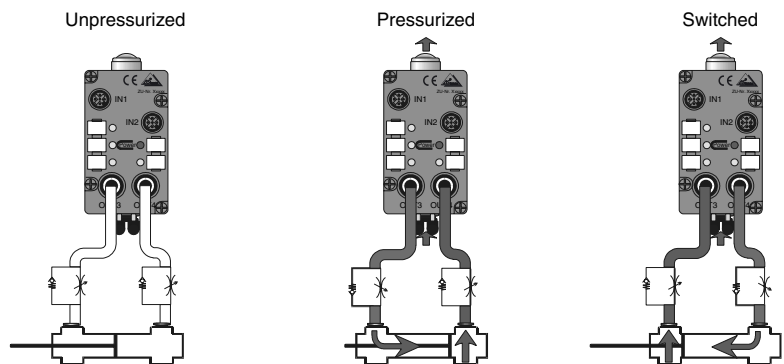
as 4/2-way valve



as 5/2-way valve



as 5/2-way valve



Release date: 2011-07-13 15:13 Date of issue: 2011-07-13 130938_eng.xml