



AS-Interface pneumatic module

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

- AS-Interface certificate
- Degree of protection 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

Pneumatic module 4 inputs/2 pneumatic outputs



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:

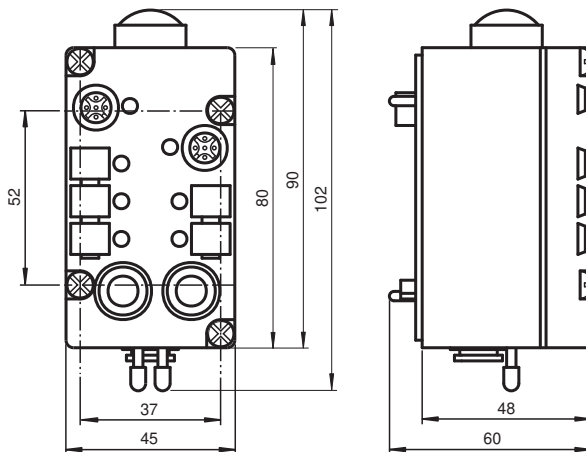
The slave address must be programmed before commissioning (default setting

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.

Dimensions



Technical Data

General specifications

Node type	Standard node
Indicators/operating means	
LED AS-i	AS-Interface voltage; LED green
LED IN	switching state (input); 4 LED yellow

Release date: 2023-11-21 Date of issue: 2023-11-21 Filename: 130938_eng.pdf

Refer to "General Notes Relating to Pepperl+Fuchs Product Information".

Pepperl+Fuchs Group
www.pepperl-fuchs.com

USA: +1 330 486 0001
fa-info@us.pepperl-fuchs.com

Germany: +49 621 776 1111
fa-info@de.pepperl-fuchs.com

Singapore: +65 6779 9091
fa-info@sg.pepperl-fuchs.com



Technical Data

LED OUT	Switching state (output); 2 LED yellow	
Electrical specifications		
Rated operating voltage	U_e	26.5 ... 31.6 V from AS-Interface
Rated operating 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	
Directive conformity		
Electromagnetic compatibility		
Directive 2014/30/EU	EN 62026-2:2013	
Standard conformity		
Degree of protection	EN 60529:2000	
AS-Interface	EN 62026-2:2013	
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		
Degree of protection	IP65 according to EN 60529	
Connection	cable piercing methos 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	

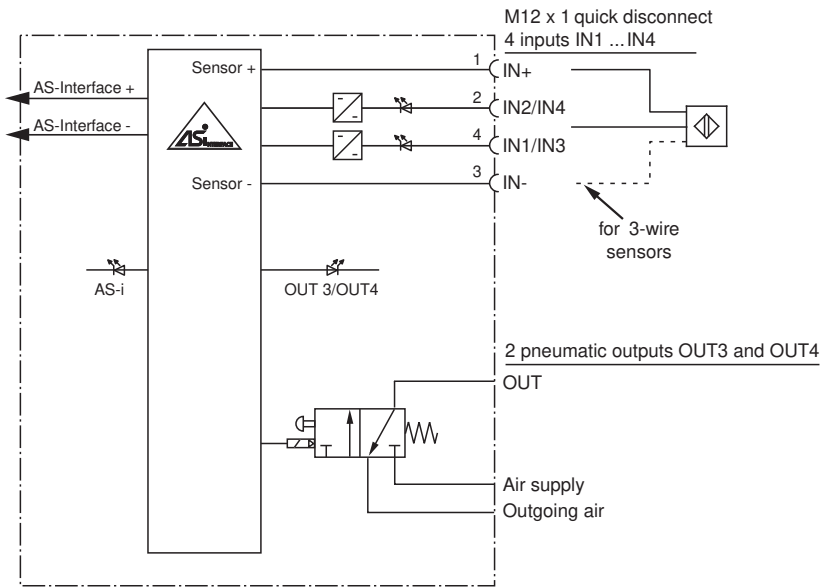
Release date: 2023-11-21 Date of issue: 2023-11-21 Filename: 130938_eng.pdf

Refer to "General Notes Relating to Pepperl+Fuchs Product Information".

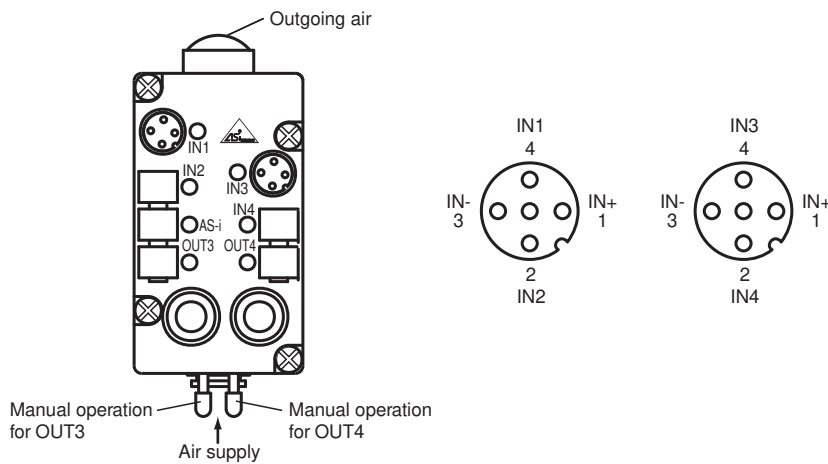
Pepperl+Fuchs Group
www.pepperl-fuchs.comUSA: +1 330 486 0001
fa-info@us.pepperl-fuchs.comGermany: +49 621 776 1111
fa-info@de.pepperl-fuchs.comSingapore: +65 6779 9091
fa-info@sg.pepperl-fuchs.com

PEPPERL+FUCHS

Connection



Assembly



Release date: 2023-11-21 Date of issue: 2023-11-21 Filename: 130938_eng.pdf

Refer to "General Notes Relating to Pepperl+Fuchs Product Information".

Pepperl+Fuchs Group
www.pepperl-fuchs.com

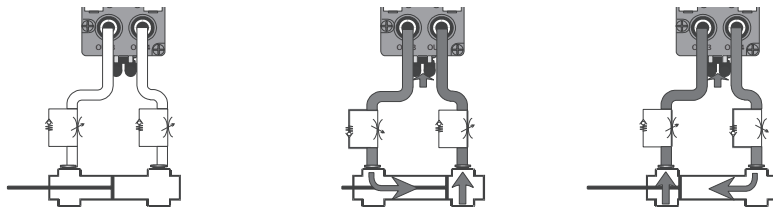
USA: +1 330 486 0001
fa-info@us.pepperl-fuchs.com

Germany: +49 621 776 1111
fa-info@de.pepperl-fuchs.com

Singapore: +65 6779 9091
fa-info@sg.pepperl-fuchs.com

Application

Examples for functions of the AS-Interface Airbox



Release date: 2023-11-21 Date of issue: 2023-11-21 Filename: 130938_eng.pdf

Refer to "General Notes Relating to Pepperl+Fuchs Product Information".

Pepperl+Fuchs Group
www.pepperl-fuchs.com

USA: +1 330 486 0001
fa-info@us.pepperl-fuchs.com

Germany: +49 621 776 1111
fa-info@de.pepperl-fuchs.com

Singapore: +65 6779 9091
fa-info@sg.pepperl-fuchs.com

 **PEPPERL+FUCHS**