

# ASi PCB module

## VAA-4E4A-CB1-Z/E2



- Integrated communication monitoring function
- Inputs and outputs short-circuit and overload proof
- No external power supply required
- Connection via removable screw terminals

I/O module as encapsulated PCB with 4 inputs and 4 outputs



### Function

The AS-Interface connecting module is ideal for integrating custom electronics, such as illuminated pushbuttons or LED lights. The PCB is supplied with power entirely via AS-Interface. The inputs and outputs are resistant to short circuits and overloading. The display and control elements and AS-Interface are connected via cable strands.

A signal indicating an overload of the outputs is transmitted to the AS-Interface master via the "peripheral fault" function. The communication via AS-Interface remains unaffected.

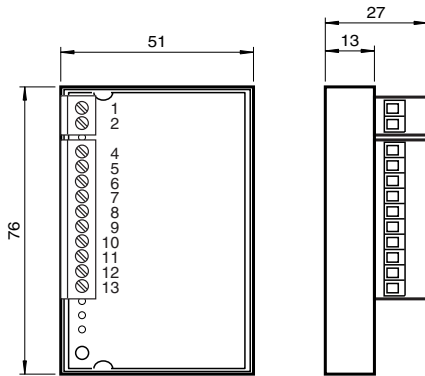
**Note:**

A communication monitoring function is integrated into the system. This function disconnects the outputs from the power supply when no communication is taking place on the AS-Interface line.

### Application

LED displays should be used preferably, in order to avoid an exceeding of the max. current.

### Dimensions



### Technical Data

General specifications		
Node type		Standard node
AS-Interface specification		V2.0
Required gateway specification		≥ V2.0
UL File Number		E223772
Electrical specifications		
Rated operating voltage	$U_e$	26.5 ... 31.6 V from AS-Interface
Rated operating current	$I_e$	≤ 30 mA (without sensors) / max. 180 mA
Protection class		III
Surge protection		$U_e$ : Over voltage category III, safe isolated power supplies (PELV)

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

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## Technical Data

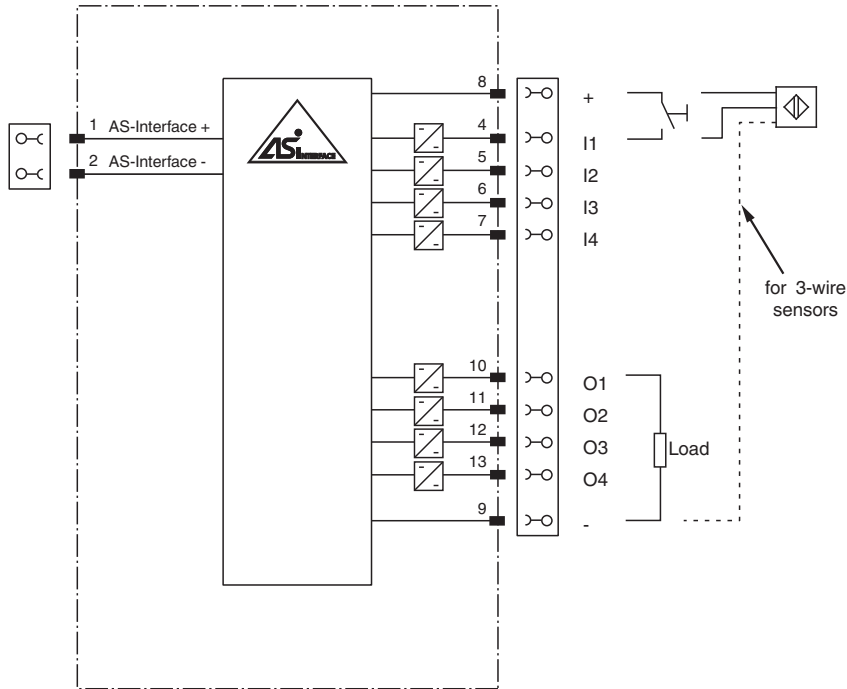
Input	
Number/Type	4 inputs for 2- or 3-wire sensors (PNP), DC
Supply	from AS-Interface
Voltage	21 ... 31 V
Input current	≤ 8 mA (limited internally)
Switching point	according to EN 61131-2 Typ 1
0 (unattenuated)	≤ 1.5 mA
1 (attenuated)	≥ 4 mA
Output	
Number/Type	4 electronic outputs, PNP
Supply	from AS-Interface
Voltage	21 ... 31 V
Current	≤ 100 mA per output, ≤ 140 mA total
Directive conformity	
Electromagnetic compatibility	
Directive 2014/30/EU	EN 61326-1:2013 EN 61000-6-4:2007 EN 62026-2:2015
Standard conformity	
Degree of protection	EN 60529:2000
Fieldbus standard	EN 62026-2:2013
Input	EN 61131-2:2015
Emitted interference	EN 61000-6-4:2007
AS-Interface	EN 62026-2:2013
Noise immunity	EN 61326-1:2013
Programming instructions	
Profile	S-7.0
IO code	7
ID code	0
ID1 code	F
ID2 code	E
Data bits (function via AS-Interface)	InputOutput
D0	IN1 OUT1
D1	IN2 OUT2
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	-25 ... 60 °C (-13 ... 140 °F)
Storage temperature	-40 ... 85 °C (-40 ... 185 °F)
Relative humidity	85 % , noncondensing
Climatic conditions	For indoor use only
Altitude	≤ 2000 m above MSL
Pollution degree	2
Mechanical specifications	
Connection	screw terminals, removable rated connection capacity: rigid/flexible (with and without wire-end ferrules): 0.25 mm <sup>2</sup> ... 1.5 mm <sup>2</sup> In case of wire end ferrule with plastic sleeve: 0.25 mm <sup>2</sup> ... 0.5 mm <sup>2</sup> On connection of multiple conductors when using two conductors with the same cross section: Flexible with twin wire end ferrule:

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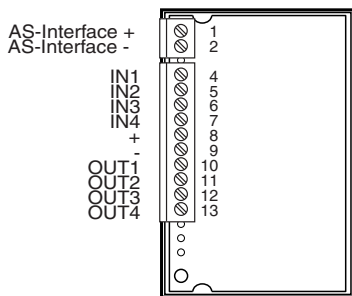
**Technical Data**

Tightening torque of clamping screws	0.22 ... 0.25 Nm
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**Connection**



**Assembly**



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