

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.

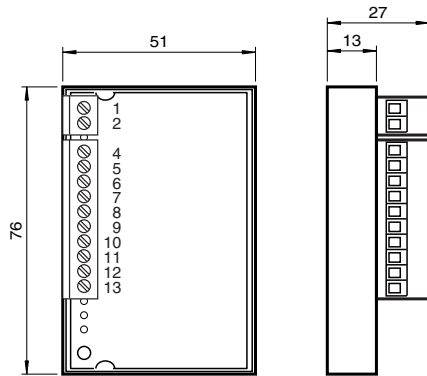
Note:

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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Technical Data

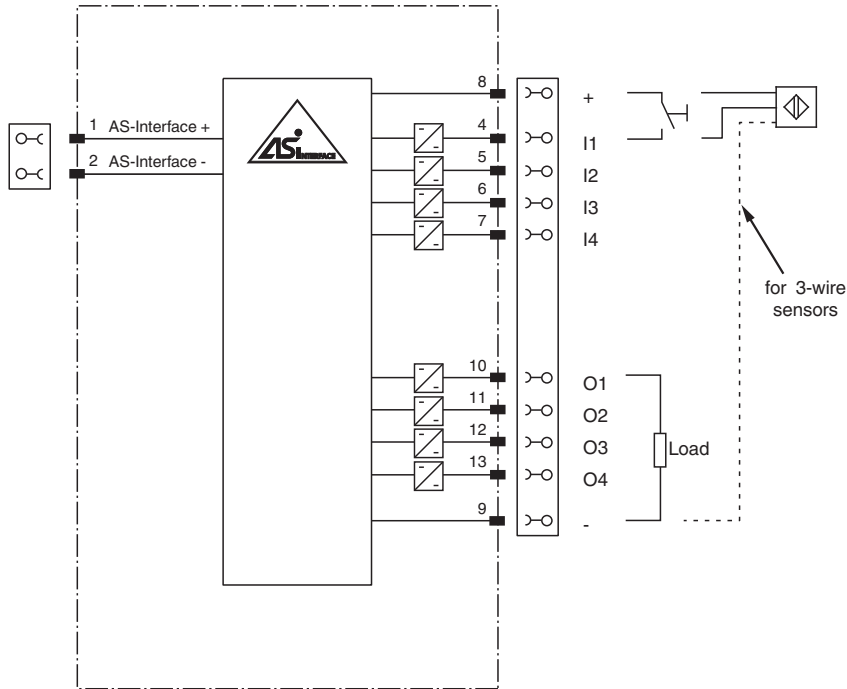
| Input | |
|---|---|
| Number/Type | 4 inputs for 2- or 3-wire sensors (PNP), DC |
| Supply | from AS-Interface |
| Voltage | 21 ... 31 V |
| Input current | ≤ 8 mA (limited internally) |
| Switching point | according to EN 61131-2 Typ 1 |
| 0 (unattenuated) | ≤ 1.5 mA |
| 1 (attenuated) | ≥ 4 mA |
| 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) | Input Output |
| 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 ² ... 1.5 mm ² In case of wire end ferrule with plastic sleeve: 0.25 mm ² ... 0.5 mm ² On connection of multiple conductors when using two conductors with the same cross section: Flexible with twin wire end ferrule: |

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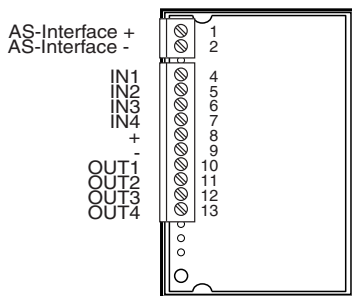
Technical Data

| | |
|--------------------------------------|------------------|
| Tightening torque of clamping screws | 0.22 ... 0.25 Nm |
|--------------------------------------|------------------|

Connection



Assembly



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