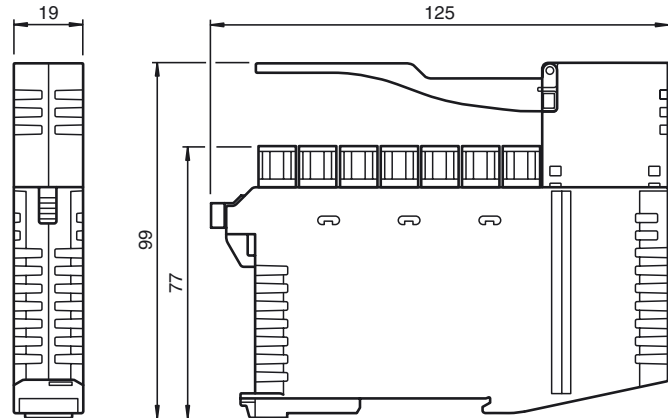




Dimensions



Electrical connection

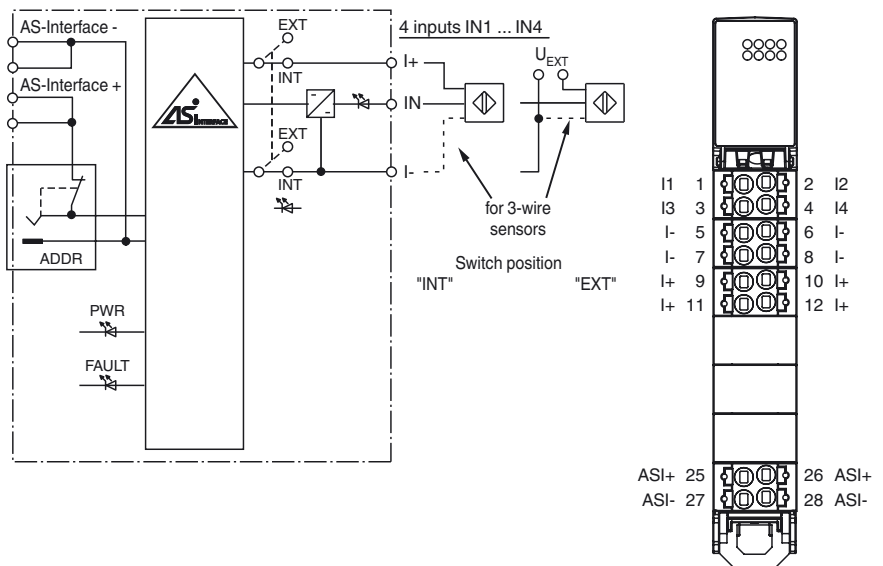
Model number

VAA-4E-KE5-ZEJQ-Y314458

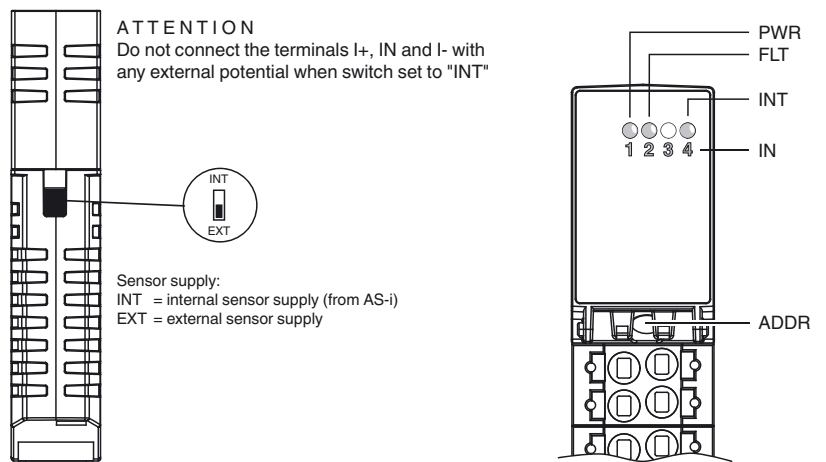
Cabinet module
4 inputs (PNP)

Features

- Housing with push-in connection technology and mechanically coded terminal blocks
- Housing width 19 mm, installation in the switch cabinet on DIN mounting rail
- Selectable supply to the sensors: External or from the module
- Function display for bus, internal sensor supply, and inputs



Indicating / Operating means



Release date: 2019-01-09 10:13 Date of issue: 2019-01-09 314458_eng.xml

Technical data**General specifications**

| | |
|-------------------------------|----------------|
| Slave type | Standard slave |
| AS-Interface specification | V3.0 |
| Required master specification | ≥ V2.0 |
| UL File Number | E223772 |
| MTBF | 368 a |

Indicators/operating means

| | |
|-----------|--|
| LED FAULT | Fault display; Red LED red: Communication fault or address is 0 red, flashing: Overload, internal input supply |
| LED INT | Internal input supply active; LED green |
| LED PWR | AS-Interface voltage; green LED green: voltage OK flashing green: address 0 |
| LED IN | switching state (input); 4 LED yellow |

Electrical specifications

| | | |
|---------------------------|---------------------|--|
| Auxiliary voltage (input) | U_{EXT} | 12 ... 30 V DC PELV |
| Rated operating voltage | U_e | 26.5 ... 31.6 V from AS-Interface |
| Rated operating current | I_e | ≤ 35 mA (without sensors) / max. 190 mA |
| Protection class | | III |
| Surge protection | U_{EXT} , U_e : | Over voltage category III, safe isolated power supplies (PELV) |

Input

| | |
|--------------------------|---|
| Number/Type | 4 inputs for 3-wire sensors (PNP), DC |
| Supply | from AS-Interface (switch position INT, default settings) or external U_{EXT} (switch position EXT) |
| Voltage | 21 ... 31 V DC (INT) |
| Current loading capacity | ≤ 150 mA, overload- and short-circuit protected (INT) |
| Input current | ≤ 5.6 mA (max.) |
| Switching point | according to DIN EN 61131-2 (type 1) |
| 0 (unattenuated) | ≤ 0.5 mA |
| 1 (attenuated) | ≥ 2 mA |
| Signal delay | < 3 ms (Input/AS-Interface) |

Directive conformity

| | |
|-------------------------------|-----------------|
| Electromagnetic compatibility | |
| Directive 2014/30/EU | EN 62026-2:2013 |

Standard conformity

| | |
|----------------------|---|
| Degree of protection | EN 60529:2000 |
| Fieldbus standard | EN 62026-2:2013 |
| Input | EN 61131-2:2004 |
| Emitted interference | EN 61000-6-4:2007 |
| AS-Interface | EN 62026-2:2013 |
| Noise immunity | EN 61000-6-2:2005, EN 61326-1:2006, EN 62026-2:2013 |

Programming instructions

| | |
|----------|-------|
| Profile | S-0.0 |
| IO code | 0 |
| ID code | 0 |
| ID1 code | F |
| ID2 code | F |

Data bits (function via AS-Interface)

| | input | output |
|----|-------|--------|
| D0 | IN1 | |
| D1 | IN2 | |
| D2 | IN3 | |
| D3 | IN4 | |

Parameter bits (programmable via AS-i)

| Parameter bits | function |
|----------------|----------|
| P0 | not used |
| P1 | not used |
| P2 | not used |
| P3 | not used |

Ambient conditions

| | |
|-----------------------------|--|
| Ambient temperature | -25 ... 70 °C (-13 ... 158 °F) |
| Storage temperature | -25 ... 85 °C (-13 ... 185 °F) |
| Relative humidity | 85 % , noncondensing |
| Climatic conditions | For indoor use only |
| Altitude | ≤ 2000 m above MSL |
| Shock and impact resistance | 15 g, 11 ms in 6 spatial directions, 3 shocks 10 g, 16 ms in 6 spatial directions, 1000 shocks |
| Vibration resistance | 0.35 mm 10 ... 57 Hz , 5 g 57 ... 150 Hz, 20 cycles |
| Pollution degree | 2 |

Mechanical specifications

| | |
|----------------------|--|
| Degree of protection | IP20 For safety applications: Installation in an enclosure with a minimum protection class of IP54 required |
|----------------------|--|

Function

The AS-Interface connecting module VAA-4E-KE5-ZEJQ-Y314458 is a switch cabinet module with four inputs. The housing is only 19 mm wide and takes up little space in the switch cabinet. The module is mounted by snapping it onto the 35 mm DIN rail in compliance with EN 50022.

The connection is made via removable 4-pin push-in terminal blocks. For AS-i+ and AS-i-, two connections are available in each case; these connections are bridged in the terminal block. If the terminal block is disconnected from the module, the link between these connections is retained. The terminal blocks are mechanically coded.

The supply to the inputs and the connected sensors can be fed either from the internal supply of the module from the AS-Interface or via an external U_{EXT} voltage source. A switch located on the side of the module changes the source.

The internal input supply is displayed via the INT LED. The relevant IN LED displays the current switch state of the inputs.

Notes:

Overloading of the internal input supply is displayed via the FAULT LED. The communication via AS-Interface remains unaffected.

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

AS-Interface Handheld with accessory

VBP-HH1-V3.0

AS-Interface Handheld

VAZ-PK-1,5M-V1-G

Adapter cable module/hand-held programming device

VAZ-BRIDGE-BU/BN60MM/0,75-100

Jumper for switch cabinet modules with spring terminals or screw terminals

| | |
|------------|---|
| Connection | Removable push-in terminals rated connection capacity: rigid: 0.20 mm ² ... 1.5 mm ² flexible (without wire end ferrule): 0.20 mm ² ... 2.5 mm ² flexible (with wire end ferrule): 0.25 mm ² ... 1.5 mm ² |
| Material | |
| Housing | PA 66-FR |
| Mass | 110 g |
| Mounting | DIN mounting rail |

Notes

Do not connect inputs, which are supplied via the module from AS-interface, with power supply and signal circuits with external potentials.