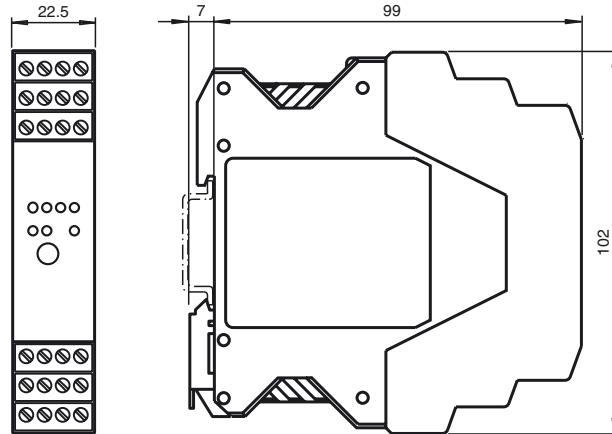
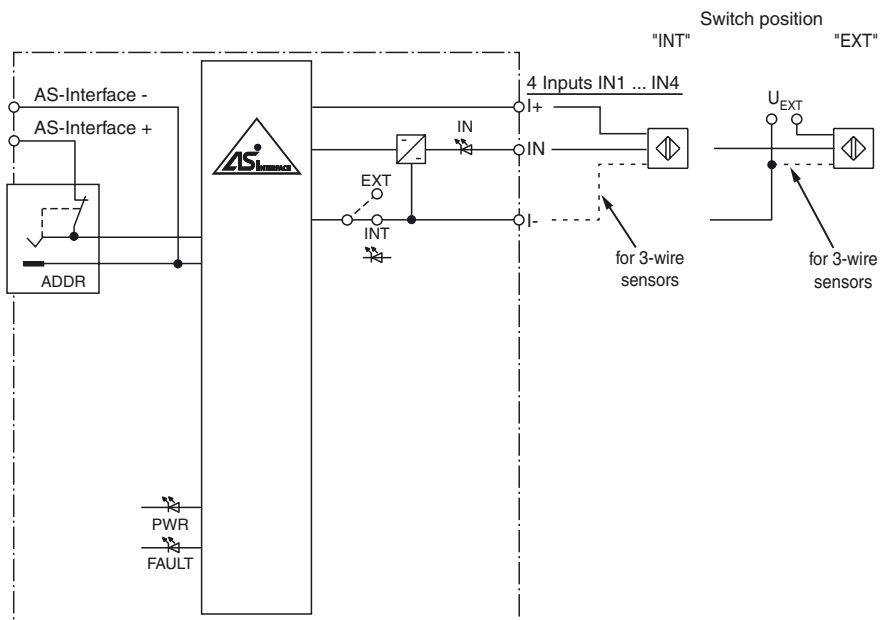




Dimensions



Electrical connection



Model number

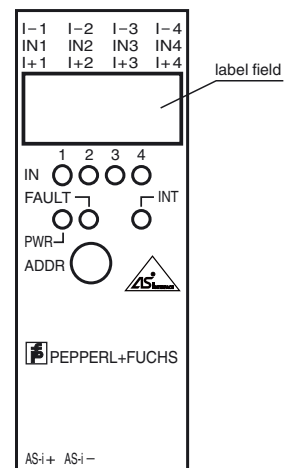
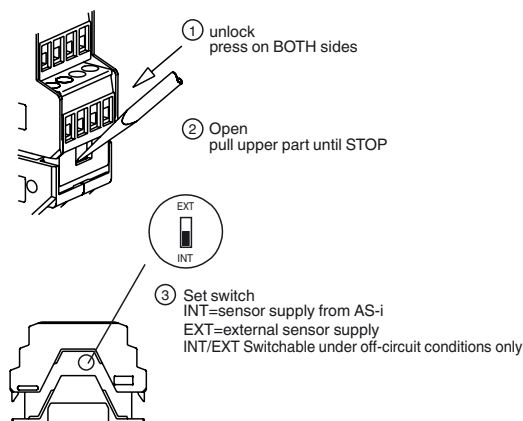
VBA-4E-KE-ZE

KE switch cabinet module
4 inputs (PNP)

Features

- A/B slave with extended addressing possibility for up to 62 slaves
- Housing with removable and color coded terminals
- Communication monitoring
- Inputs for 2- and 3-wire sensors
- Addressing jack
- Supply of inputs external or from the module, as required
- Function display for bus, internal input supply and inputs

Indicating / Operating means



Release date: 2016-09-08 13:29 Date of issue: 2016-09-08 113695_eng.xml

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 4411
fa-info@de.pepperl-fuchs.com

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

Technical data**General specifications**

| | |
|-------------------------------|-----------|
| Slave type | A/B slave |
| AS-Interface specification | V2.1 |
| Required master specification | ≥ V2.0 |
| UL File Number | E87056 |

Functional safety related parameters

| | |
|--------------------------------|-------|
| MTTF _d | 380 a |
| Mission Time (T _M) | 20 a |
| Diagnostic Coverage (DC) | 0 % |

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; LED green |
| 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 | ≤ 30 mA (without sensors) / max. 180 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 2- or 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 | ≤ 8 mA (limited internally) |
| Switching point | according to DIN EN 61131-2 (Type 2) |
| 0 (unattenuated) | ≤ 2 mA |
| 1 (attenuated) | ≥ 4 mA |
| Signal delay | < 2 ms (input/AS-Interface) |
| Signal frequency | ≤ 250 Hz |

Programming instructions

| | |
|----------|---------|
| Profile | S-0.A.0 |
| IO code | 0 |
| ID code | A |
| ID1 code | 7 |
| ID2 code | 0 |

Data bits (function via AS-Interface)

| Data bits | Input |
|-----------|-------|
| 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 ... 60 °C (-13 ... 140 °F) |
| Storage temperature | -25 ... 85 °C (-13 ... 185 °F) |
| Relative humidity | 90 % , noncondensing |
| Pollution degree | 2 |

Mechanical specifications

| | |
|----------------------|---|
| Degree of protection | IP20 |
| Connection | removable terminals rated connection capacity: rigid/flexible (with and without wire-end ferrules): 0.25 mm ² ... 2.5 mm ² for multiple-wire connection with two wires of equal cross-section: flexible with twin wire-end ferrules: 0.5 mm ² ... 1.5 mm ² |
| Material | |
| Housing | PA 66-FR |
| Mass | 150 g |
| Mounting | DIN mounting rail |

Compliance with standards and directives

| | |
|---------------------------|---|
| Directive conformity | |
| EMC Directive 2004/108/EC | EN 61000-6-2:2005, EN 61000-6-4:2007, EN 50295:1999 |
| Standard conformity | |
| Noise immunity | EN 61000-6-2:2005 |

Function

The VBA-4E-KE-ZE AS-Interface coupling module is a cabinet module with 4 inputs. The housing, only 22.5 mm in width, takes up little place in the switch cabinet. The module is mounted by snapping onto the 35 mm DIN rail in accordance with EN 50022.

It can be connected by plug-in terminals. 4-way terminal blocks (black) are used for the inputs. The AS-Interface is connected via a double terminal block (yellow). This allows simple disconnection of single actuators or supply by commissioning or service. Either the module (from the AS-Interface) or an external power source are used to supply power to the inputs and the connected sensors. One switch in the device is used for switching. The selection of the internal input power supply is displayed on the INT LED. An LED on the front control plate is used to display the current switching state for each input.

Note:

An overload of the internal input supply is reported by the 'periphery error' to the AS-Interface master. Communication over the AS-Interface remains in effect.

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

| | |
|----------------------|-------------------|
| Emitted interference | EN 61000-6-4:2007 |
| AS-Interface | EN 50295:1999 |
| Input | EN 61131-2:2004 |
| Degree of protection | EN 60529:2000 |

Notes

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