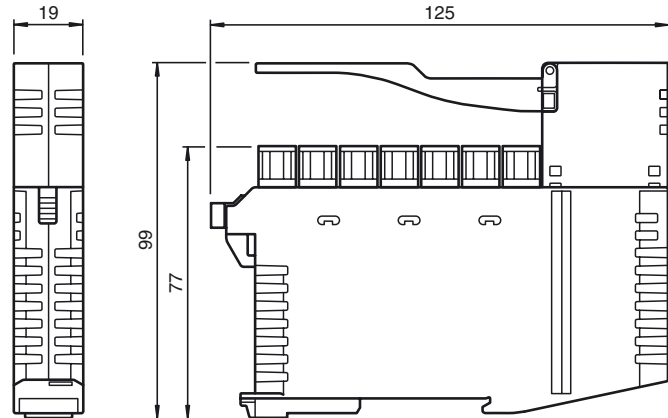




Dimensions



Electrical connection

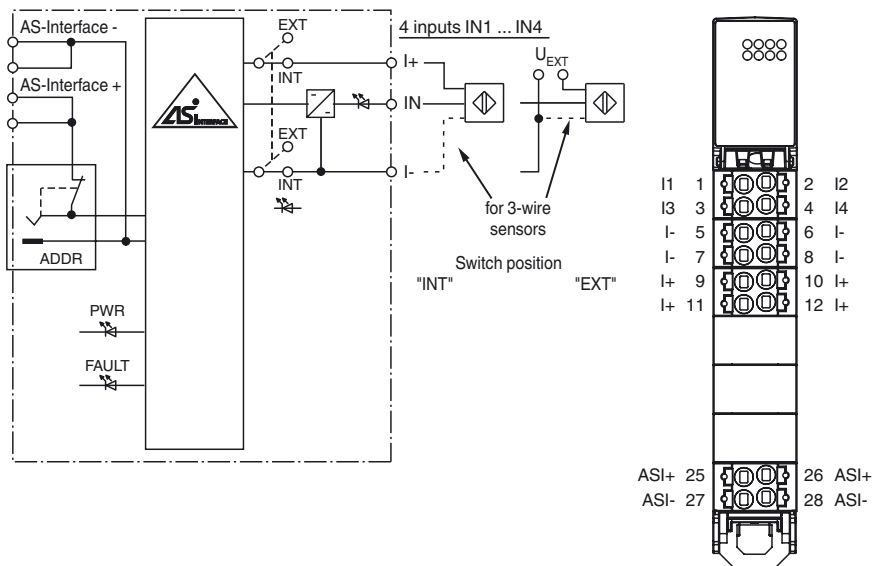
Model number

VBA-4E-KE5-ZEJQ

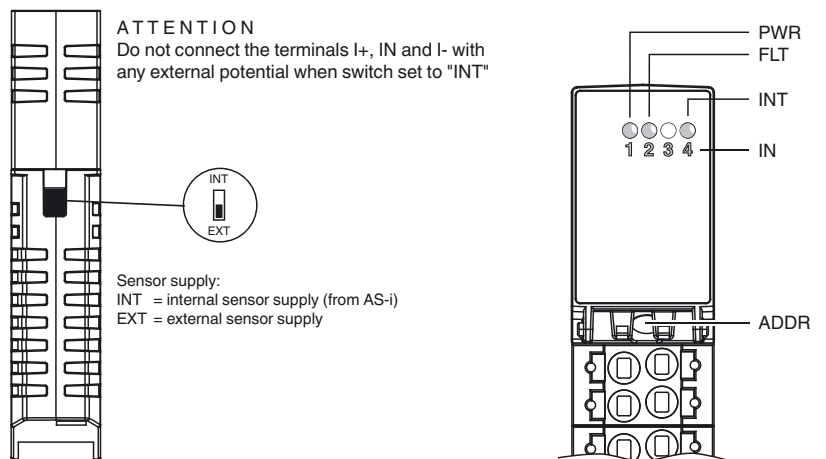
Cabinet module
4 inputs (PNP)

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 263812_eng.xml

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

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Technical data**General specifications**

Slave type	A/B slave
AS-Interface specification	V3.0
Required master specification	≥ V3.0
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	< 1 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.A.0
IO code	0
ID code	A
ID1 code	7
ID2 code	0

Data bits (function via AS-Interface)	input	output
D0	IN1	
D1	IN2	
D2	IN3	
D3	IN4	

Parameter bits (programmable via AS-i) function

P0	not used
P1	Input filter P1 = 0 input filter on, pulse suppression ≤ 2 ms P1 = 1 input filter off (default settings)
P2	Synchronous mode P2 = 0 synchronous mode on P2 = 1 synchronous mode off (default settings)
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**Function**

The AS-Interface connecting module VBA-4E-KE5-ZEJQ is a switch cabinet module with 4 inputs and. The housing is only 19 mm wide and takes up little space in the switch cabinet. The module is mounted by snapping 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 LEDs display the current switching status of the inputs.

Notes:

Filters that suppress pulses with a duration of 2 ms or less at the inputs can be connected via the parameter P1.

Parameter P2 activates the synchronous mode.. A signal indicating an overload of the internal input supply is transmitted to the AS-Interface master via the 'peripheral fault' function. Communication via the AS-Interface continues even if a peripheral fault is set.

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

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