Model number

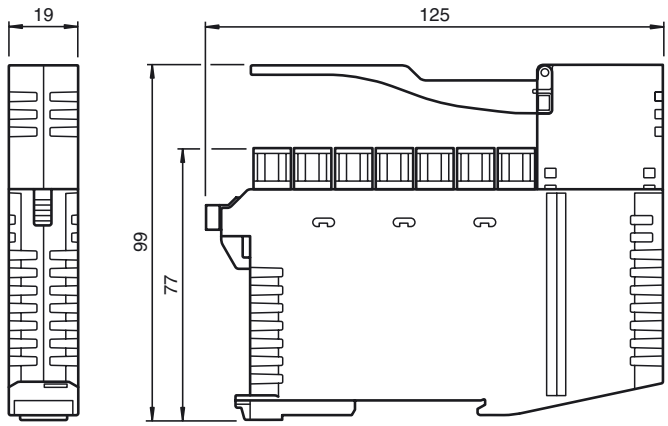
VBA-4E-KE5-ZEJQ

Cabinet module
4 inputs (PNP)

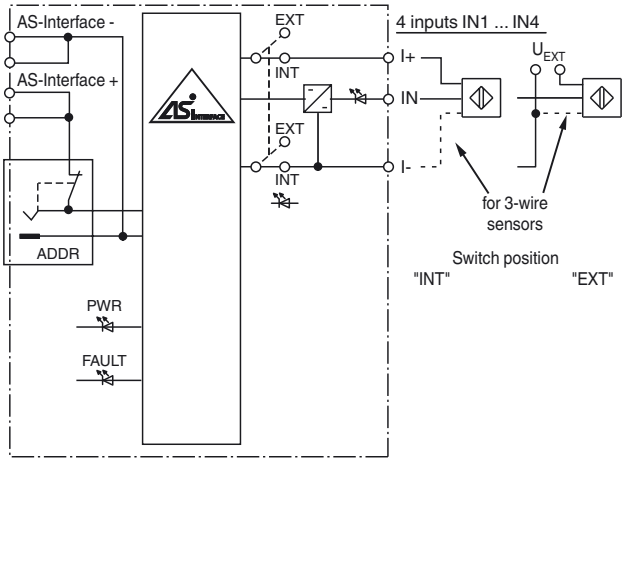
Features

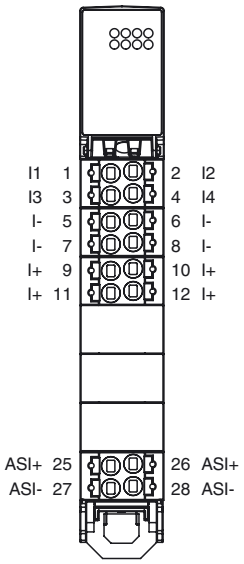
- Housing with push-in connection technology and mechanically coded terminal blocks
- Housing width 19 mm, installation in the switch cabinet on DIN mounting rail
- Selectable supply to the sensors: External or from the module
- Function display for bus, internal sensor supply, and inputs

Dimensions

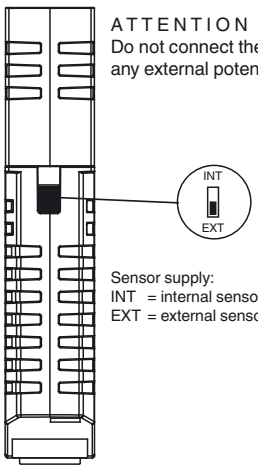


Electrical connection



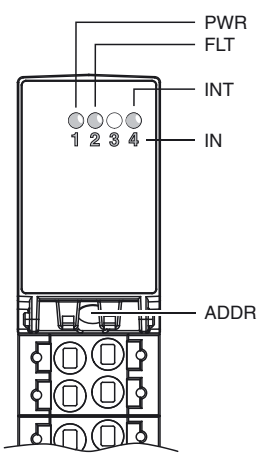


Indicating / Operating means



ATTENTION
Do not connect the terminals I+, IN and I- with any external potential when switch set to "INT"

Sensor supply:
INT = internal sensor supply (from AS-i)
EXT = external sensor supply



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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

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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.

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