

Model number

VBA-4E-KE1-Z

KE1 switch cabinet module
4 inputs

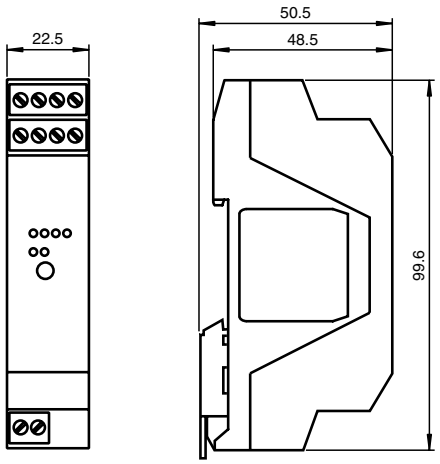
Features

- A/B slave with extended addressing possibility for up to 62 slaves
- Housing with removable terminals
- Communication monitoring
- Inputs for 2-wire sensors and mechanical contacts
- Addressing jack
- Power supply of inputs from the module
- Function display for bus, external auxiliary voltage and inputs

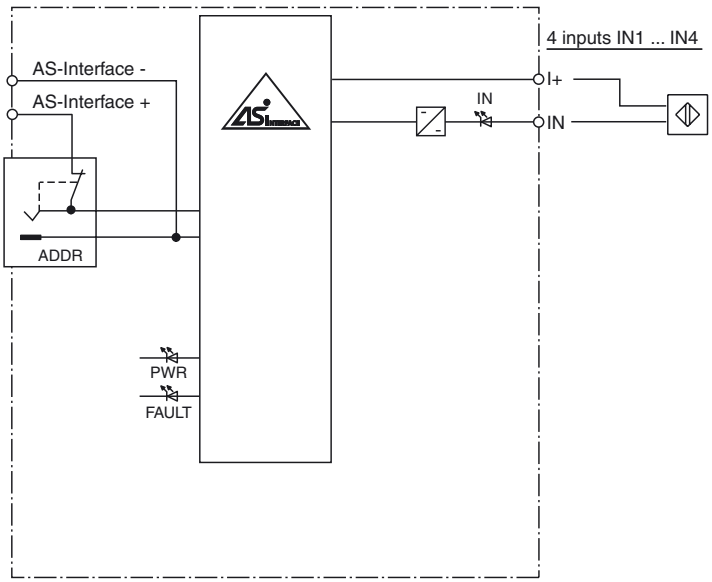
Function

The VBA-4E-KE1 AS-Interface coupling module is a cabinet module with 4 inputs. The housing, only 22.5 mm in width and 48.5 mm in height, 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.
Plug-in terminals are used for connection. 4-way terminal blocks (black) are used for the inputs. The AS-Interface is connected via a double terminal block (yellow).
The supply of the inputs and the connected sensors occurs internally via the module (from AS-Interface). An LED on the front control plate is used to display the current switching state for each input.

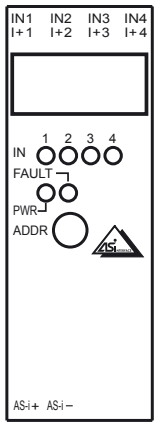
Dimensions



Electrical connection



Indicating / Operating means



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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		
$MTTF_d$		730 a
Mission Time (T_M)		20 a
Diagnostic Coverage (DC)		0 %
Indicators/operating means		
LED FAULT		error display; LED red red: communication error or address is 0
LED PWR		AS-Interface voltage; LED green
LED IN		switching state (input); 4 LED yellow
Electrical specifications		
Rated operational voltage	U_e	26.5 ... 31.6 V from AS-Interface
Rated operational current	I_e	≤ 25 mA (without sensors) / max. 60 mA
Protection class		III
Overvoltage protected		U_e: Over voltage category III, safe isolated power supplies (PELV)
Input		
Number/Type		4 inputs for 2-wire sensors (PNP), DC or for mechanical contacts
Supply		from AS-Interface
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)		**Input**
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 (basic setting)
P2		Synchronous mode P2 = 0 synchronous mode on P2 = 1 synchronous mode off (basic setting)
P3		not used
Ambient conditions		
Ambient temperature		-25 ... 70 °C (-13 ... 158 °F)
Storage temperature		-25 ... 85 °C (-13 ... 185 °F)
Relative humidity		90 % , noncondensing
Pollution Degree		2
Mechanical specifications		
Protection degree		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		80 g
Mounting		DIN rail
Compliance with standards and directives		
Directive conformity		
EMC Directive 2004/108/EC		EN 61000-6-2:2001, EN 61000-6-4:2001, EN 50295:1999
Standard conformity		
Noise immunity		EN 61000-6-2:2001
Emitted interference		EN 61000-6-4:2001
AS-Interface		EN 50295:1999

Accessories

VBP-HH1-V3.0
AS-Interface Handheld

VAZ-PK-1,5M-V1-G
Connection cable module/hand-held programming device

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Input	EN 61131-2:2007
Protection degree	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.

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