

AS-Interface sensor/actuator module VBA-4E-KE-ZEJQ

- Housing with removable and color coded terminals
- Communication monitoring
- Inputs for 2- and 3-wire sensors
- Addressing jack
- Selectable supply to the sensors: External or from the module
- Function display for bus, internal sensor supply, and inputs
- A/B node with extended addressing possibility for up to 62 nodes

KE switch cabinet module 4 inputs (PNP)



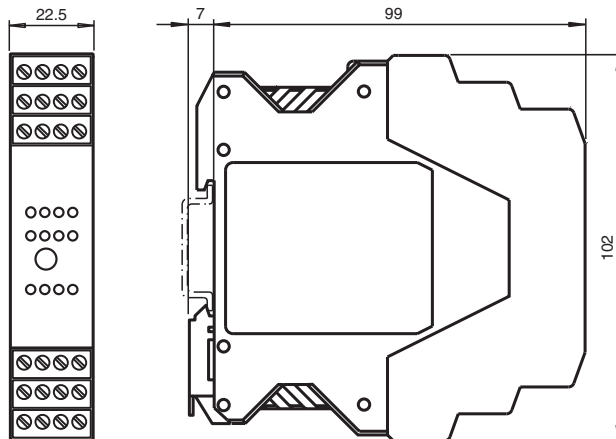
Function

The AS-Interface I/O module VBA-4E-KE-ZEJQ is a control cabinet module with 4 inputs. The housing is only 22.5 mm wide and takes up little space in the control cabinet. The module is mounted by snapping onto the 35-mm DIN rail in compliance with EN 50022. The connection is made via plug-in terminals. Four-terminal blocks (black) are used for the inputs. The connection of AS Interface is via a 2-terminal block yellow. 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 voltage source. A switch located on the side of the module changes the supply source. The choice of internal input supply is displayed via the LED INT. The LED IN display the current switching status of the relevant inputs.

Note:

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.

Dimensions



Technical Data

General specifications	
Node type	A/B node
AS-Interface specification	V3.0
Required gateway specification	≥ V2.0
UL File Number	E223772
Indicators/operating means	
LED FAULT	Fault display; Red LED red: Communication fault or address is 0 red, flashing: Overload, internal input supply

Release date: 2021-09-27 Date of issue: 2021-09-27 Filename: 228631_eng.pdf

Technical Data

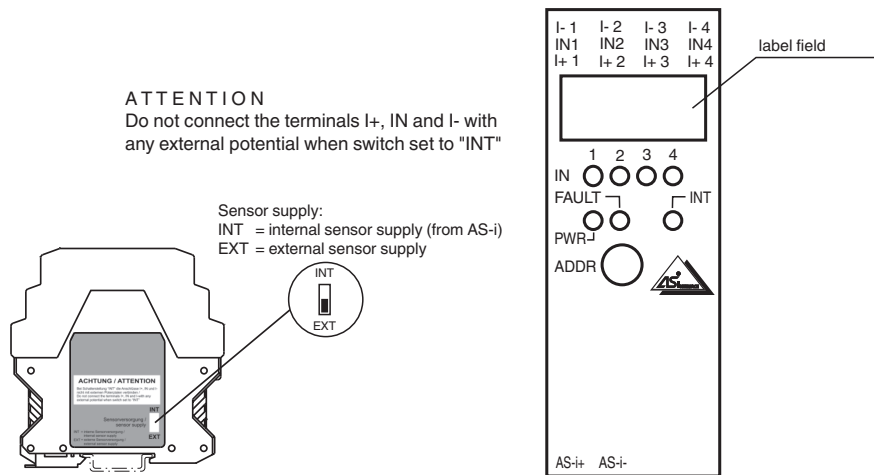
LED INT		Internal input supply active; LED green
LED PWR		AS-Interface voltage; green LED green: voltage OK flashing green: address 0
LED IN		switching state (input); 4 LED yellow
Electrical specifications		
Auxiliary voltage (input)	U_{EXT}	12 ... 30 V DC PELV
Rated operating voltage	U_e	26.5 ... 31.6 V from AS-Interface
Rated operating current	I_e	≤ 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		≤ 9 mA (limited internally)
Switching point		according to DIN EN 61131-2 (Type 2)
0 (unattenuated)		≤ 3 mA
1 (attenuated)		≥ 5 mA
Signal delay		< 1 ms (input/AS-Interface)
Directive conformity		
Electromagnetic compatibility		
Directive 2014/30/EU		EN 62026-2:2013 EN 61000-6-2:2005, EN 61000-6-4:2007
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 ... 60 °C (-13 ... 140 °F)
Storage temperature		-25 ... 85 °C (-13 ... 185 °F)
Relative humidity		85 % , noncondensing

Release date: 2021-09-27 Date of issue: 2021-09-27 Filename: 228631_eng.pdf

Technical Data

Climatic conditions	For indoor use only
Altitude	≤ 2000 m above MSL
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
Tightening torque of clamping screws	0.5 Nm ... 0.6 Nm

Assembly

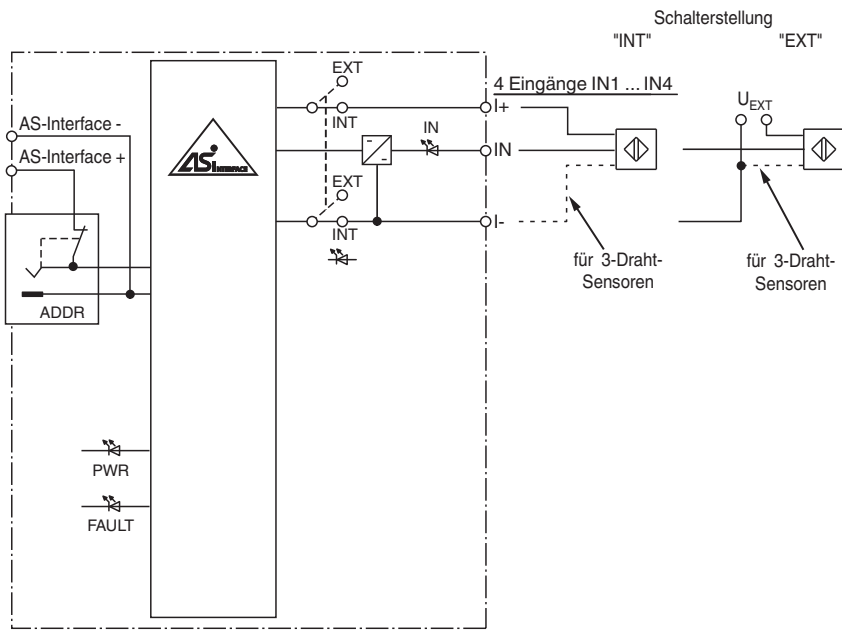


Connection

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.

Release date: 2021-09-27 Date of issue: 2021-09-27 Filename: 228631_eng.pdf

Connection



Accessories

	<p>VAZ-PK-1,5M-V1-G</p>	<p>Adapter cable module/hand-held programming device</p>
--	--------------------------------	--

Release date: 2021-09-27 Date of issue: 2021-09-27 Filename: 228631_eng.pdf