



AS-Interface sensor/actuator module VBA-2E2A-G2-ZA/EA2

- AS-Interface certificate
- Degree of protection IP67
- A/B node with extended addressing possibility for up to 62 nodes
- Addressing jack
- Flat cable connection with cable piercing technique, variable flat cable guide
- Communication monitoring
- Inputs for 2-, 3-, and 4-wire sensors
- Power supply of outputs from the external auxiliary voltage
- Supply for inputs from AS-Interface
- Ground connection (FE) possible
- Function display for bus, ext. auxiliary voltage, inputs and outputs
- Detection of overload on sensor supply
- Detection of output overload

G2 flat module 2 inputs (PNP) and 2 electronic outputs



Function

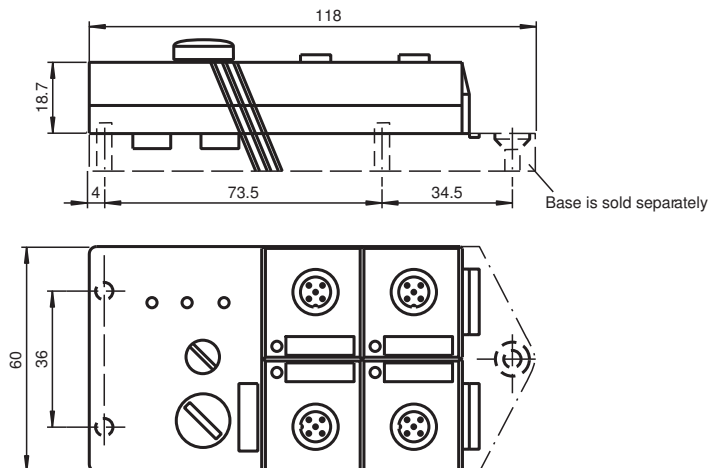
The VBA-2E2A-G2-ZA/EA2 is an AS-Interface interface module with 2 Inputs and 2 outputs. Mechanical contacts (e. g. push buttons) as well as 2-, 3- and 4-wire sensors can be connected to the inputs. The outputs are electronic outputs, which can be loaded to 24 V DC and 1 A per output. The IP67 flat module is ideal for applications in the field. An addressing jack is integrated in the module. Connection to the sensors/actuators is provided via M12 x 1 screw connections. An LED is provided for each channel, on the top of the module, to indicate the current switching status. Similarly, an LED is provided to monitor the AS-Interface communication and to indicate that the module has the address 0. LEDs are also provided to indicate the ASInterface voltage and the external power supply. The U-G3FF mounting base is normally used for the connection of the AS-Interface flat cable and the external 24 V DC power supply. The specially designed base enables the user to connect flat cable from both sides. The device is equipped with communication monitoring, which switches off power to the inputs if no communication has taken place for longer than 40 ms. An overloading of the internal power supply or of the outputs is signalled to the AS-interface master via the "Peripheral fault" function. Communication via the AS-Interface remains intact.

Note:
The mounting base for the module is sold separately.

Application

In the case of 4-wire sensors, you must use slot IN3 for the inputs (internally bridged).

Dimensions



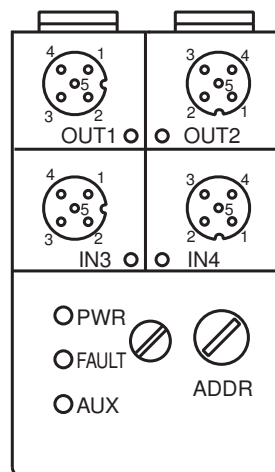
Technical Data

General specifications		
Node type		A/B node
AS-Interface specification		V2.1
Required gateway specification		≥ V2.1
UL File Number		E223772
Indicators/operating means		
LED FAULT		error display; LED red red: communication error or address is 0 red flashing: overload of sensor power supply or outputs
LED PWR		AS-Interface voltage; LED green
LED AUX		ext. auxiliary voltage U_{AUX} ; LED green
LED IN		switching state (input); 2 LED yellow
LED OUT		Switching state (output); 2 LED yellow
Electrical specifications		
Auxiliary voltage (output)	U_{AUX}	20 ... 30 V DC PELV
Rated operating voltage	U_e	26.5 ... 31.6 V from AS-Interface
Rated operating current	I_e	≤ 40 mA (without sensors) / max. 140 mA
Protection class		III
Surge protection		U_{AUX} , U_{in} : Over voltage category III, safe isolated power supplies (PELV)
Input		
Number/Type		2 inputs for 2- or 3-wire sensors (PNP), DC option 1 input for 4-wire sensor (PNP), DC
Supply		from AS-Interface
Voltage		21 ... 31 V
Current loading capacity		≤ 100 mA ($T_B \leq 40^\circ\text{C}$), ≤ 75 mA ($T_B \leq 60^\circ\text{C}$), overload-proof and short-circuit protected
Input current		≤ 8 mA (limited internally)
Switching point		according to DIN EN 61131-2 (Type 2)
0 (unattenuated)		≤ 2 mA
1 (attenuated)		≥ 4 mA
Output		
Number/Type		2 electronic outputs, PNP overload and short-circuit proof
Supply		from external auxiliary voltage U_{AUX}
Voltage		≥ ($U_{AUX} - 0.5\text{ V}$)
Current		1 A per output
Directive conformity		
Electromagnetic compatibility		
Directive 2014/30/EU		EN 62026-2:2013 EN 61000-6-2:2001 EN 61000-6-4:2001
Standard conformity		
Degree of protection		EN 60529:2000
Input		EN 61131-2:2007
Emitted interference		EN 61000-6-4:2001
AS-Interface		EN 62026-2:2013
Noise immunity		EN 61000-6-2:2001
Programming instructions		
Profile		S-B.A.2
IO code		B
ID code		A
ID1 code		7
ID2 code		2
Data bits (function via AS-Interface)		Input Output
D0		- OUT1
D1		- OUT2
D2		IN3 -

Technical Data

D3	IN4 -
Parameter bits (programmable via AS-i)	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	85 % , noncondensing
Climatic conditions	For indoor use only
Altitude	≤ 2000 m above MSL
Pollution degree	3
Mechanical specifications	
Degree of protection	IP67
Connection	Cable piercing method flat cable yellow/flat cable black inputs/outputs: M12 round connector
Material	
Housing	PBT
Mass	100 g
Tightening torque, cable gland	0.4 Nm
Mounting	Mounting plate

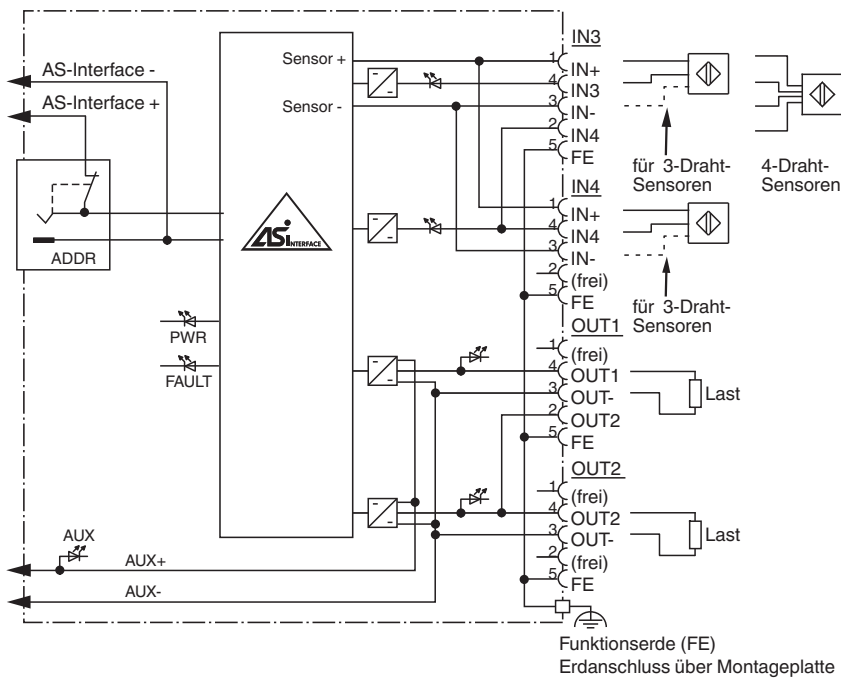
Assembly



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.

Connection



Matching System Components

	U-G3FF	AS-Interface module mounting base for connection to flat cable (AS-Interface and external auxiliary power)
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Accessories

	VBP-HH1-V3.0-KIT	AS-Interface Handheld with accessory
	VAZ-PK-1,5M-V1-G	Adapter cable module/hand-held programming device

Release date: 2021-09-27 Date of issue: 2021-09-27 Filename: 114618_eng.pdf