62
Spec 2.1

Model Number

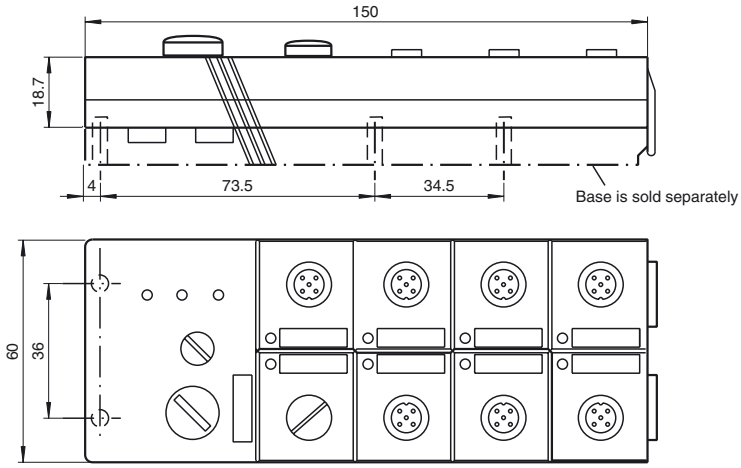
VBA-4E3A-G2-ZA0/EA0

G2 flat module
4 inputs (NPN) and 3 electronic outputs

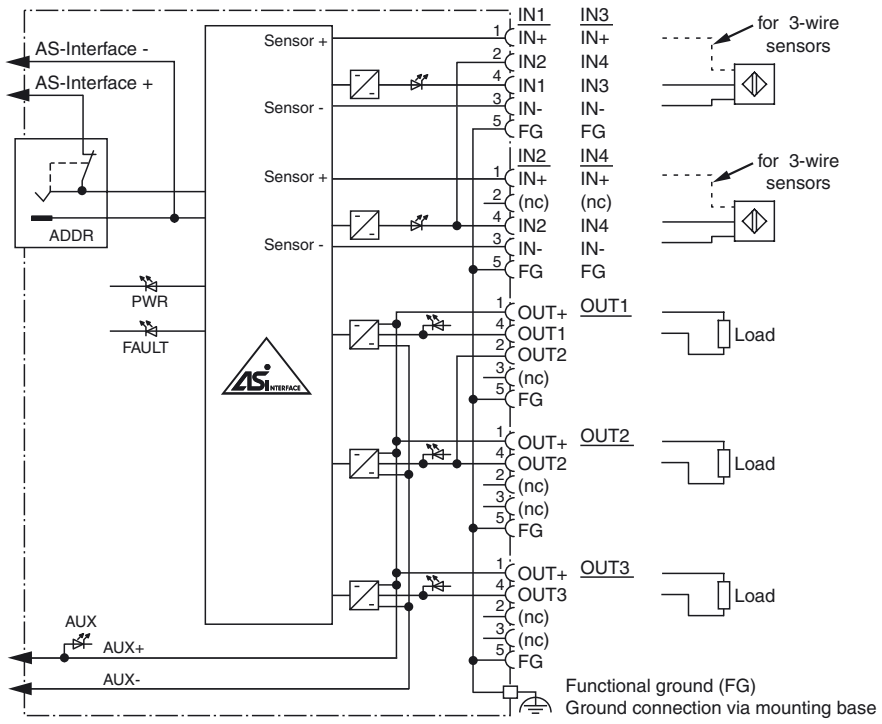
Features

- AS-Interface certificate
- Protection degree IP67
- A/B slave with extended addressing possibility for up to 62 slaves
- 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

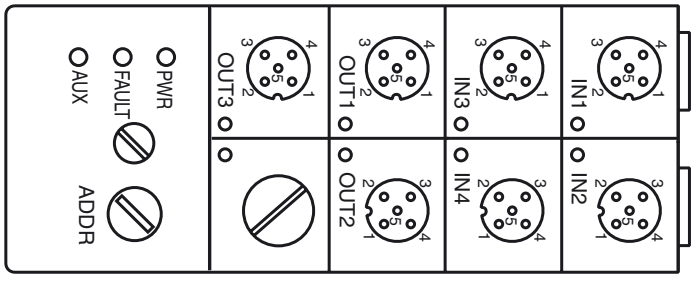
Dimensions



Electrical connection



Indicating / Operating means



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Technical data

General specifications		
Slave type		A/B slave
UL File Number		E87056
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); 4 LED yellow
LED OUT		switching state (output); 3 LED yellow
Electrical specifications		
Auxiliary voltage (output)	U_{AUX}	20 ... 30 V DC PELV (protection class 3 according to VDE 0106/IEC 364-4-41)
Protection class		III
Rated operational voltage	U_e	26.5 ... 31.6 V from AS-Interface
Rated operational current	I_e	≤ 40 mA (without sensors) / max. 240 mA
Input		
Number/Type		4 inputs for 2- or 3-wire sensors (NPN), DC alternative 2 inputs for 4-wire sensors (NPN), DC
Supply		from AS-Interface
Voltage		21 ... 31 V
Current loading capacity		≤ 200 mA (T_B ≤ 40 °C), ≤ 150 mA (T_B ≤ 60 °C), overload-proof and short-circuit proof
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		3 electronic outputs, NPN, overload and short-circuit proof
Supply		from external auxiliary voltage U_{AUX}
Current		1 A per output
Voltage		≥ (U_{AUX} - 0,5 V)
Programming instructions		
Profile		S-7.A.2
IO code		7
ID code		A
ID1 code		7
ID2 code		2

Data bits (function via AS-Interface)	**input**	**output**
D0	IN1	OUT1
D1	IN2	OUT2
D2	IN3	OUT3
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 (248 ... 333 K)
Storage temperature		-25 ... 85 °C (248 ... 358 K)
Mechanical specifications		
Protection degree		IP67 according to EN 60529
Connection		cable piercing method flat cable yellow/flat cable black inputs/outputs: M12 round connector
Mass		150 g
Mounting		Mounting base

Notes

For 4-wire sensors, it is only possible to use plug-in slot IN1 or IN3 for inputs 1+2 or 3+4 (jumpered internally).

Function

The VBA-4E3A-G2-ZA0/EA0 is an AS-Interface module with 4 Inputs and 3 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 collectively loaded with 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.
The connection for the sensors/actuators is via M12 x 1 screw connections. An LED is provided on the top of the module, for each channel, 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 AS-Interface voltage and external power supply.
The mounting plate U-G2FF is used as standard for the connection to the AS-Interface flat cable and the external 24 V DC supply. The specially designed base enables the user to connect flat cable from both sides.
The device incorporates communication monitoring, which switches off power to the outputs if no communication has taken place on the AS-Interface line for longer than 40 ms.
An overloading of the internal input 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.

Accessories

VBP-HH1
AS-Interface handheld

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

VAZ-FK-ED-G2
AS-Interface end seal

Matching system components

U-G2FF
AS-Interface module mounting base

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