Model Number

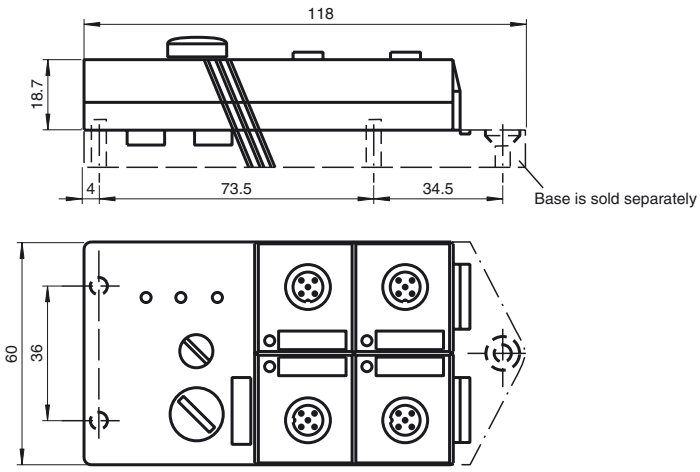
VBA-4E-G2-ZA

G2 flat module
4 inputs (PNP)

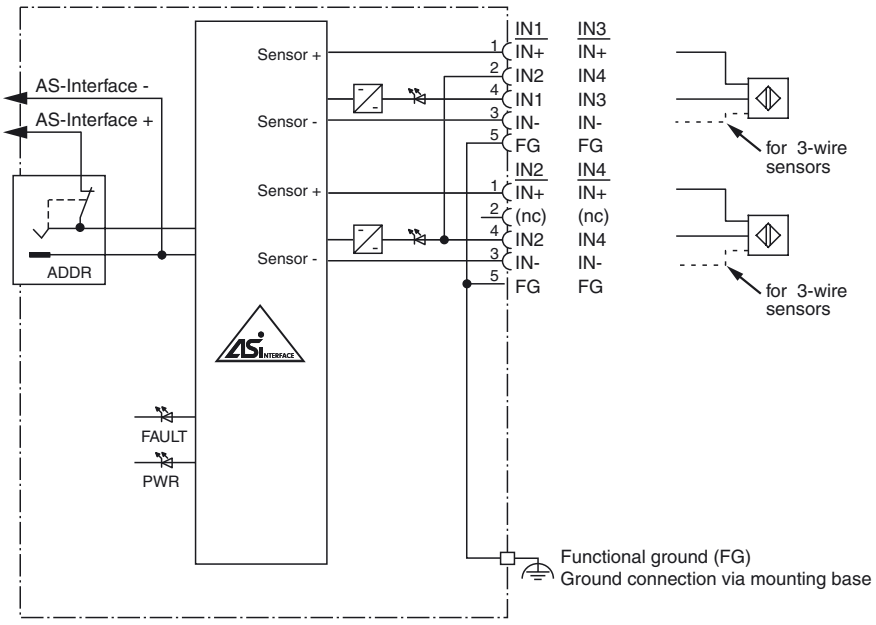
Features

- 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
- Supply for inputs from AS-Interface
- Ground connection (FE) possible
- Function display for bus and inputs
- Detection of overload on sensor supply

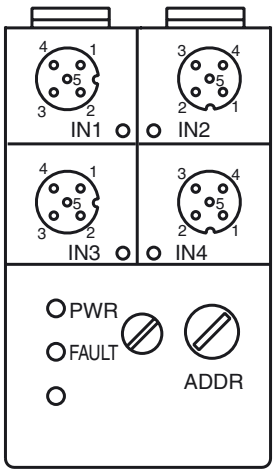
Dimensions



Electrical connection



Indicators / 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
Indicators/operating means		
LED FAULT		error display; LED red red: communication error or address is 0 red flashing: overload of sensor supply
LED PWR		AS-Interface voltage; LED green
LED IN		switching state (input); 4 LED yellow
Electrical specifications		
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 (PNP), DC alternative 2 inputs for 4-wire sensors (PNP), 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
Programming instructions		
Profile		S-0.A.2
IO code		0
ID code		A
ID1 code		7
ID2 code		2

Data bits (function via AS-Interface)	**input**	**output**
D0	IN1	-
D1	IN2	-
D2	IN3	-
D3	IN4	-

Parameter bits (programmable via AS-i)	**function**
P0	Communication monitoring P0 = 0 monitoring = off, the outputs maintain the status if communication fails P0 = 1 monitoring = on, i.e. if communication fails, the outputs are deenergised (basic setting)
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 ... 60 °C (248 ... 333 K)
Storage temperature		-25 ... 85 °C (248 ... 358 K)
Mechanical specifications		
Protection degree		IP67
Connection		cable piercing method flat cable yellow inputs: M12 round connector
Material		
Housing		PBT
Mass		100 g
Mounting		Mounting base
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		
Interference rejection		EN 61000-6-2:2001
Emitted interference		EN 61000-6-4:2001
AS-Interface		EN 50295:1999-10
Input		EN 61131-2: 2007
Protection degree		EN 60529:2000

Function

The VBA-4E-G2-ZA is an AS-Interface interface module with 4 Inputs. Mechanical contacts (e. g. push buttons) as well as 2-, 3- and 4-wire sensors can be connected to the inputs.
The IP67 flat module is ideal for applications in the field. An addressing jack is integrated in the module.
The sensors are connected by means of M12 x 1 screw connections. An LED is provided for each channel to indicate the current switching status. Similarly, an LED is available to monitor the AS-Interface communication and the indication that the module has the address 0.
The mounting plate U-G3FF is used, as standard, for connection to the AS-Interface. This lower section enables the flat cable to be contacted from both sides. If input and output modules are used in a mixed system, the flat cable for the internal power supply can be inserted in the lower section of this module. The module does not access this cable. The advantage is that both flat cables can be laid in parallel, without the danger of the module being destroyed by an incorrect connection.
An overloading of the internal input supply is signalled to the AS-Interface master via the "Peripheral fault" function. Communication via the AS-Interface remains unaffected.

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

Accessories

VBP-HH1-V3.0
AS-Interface Handheld

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

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

U-G3FF
AS-Interface module mounting base

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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).

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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