Model number
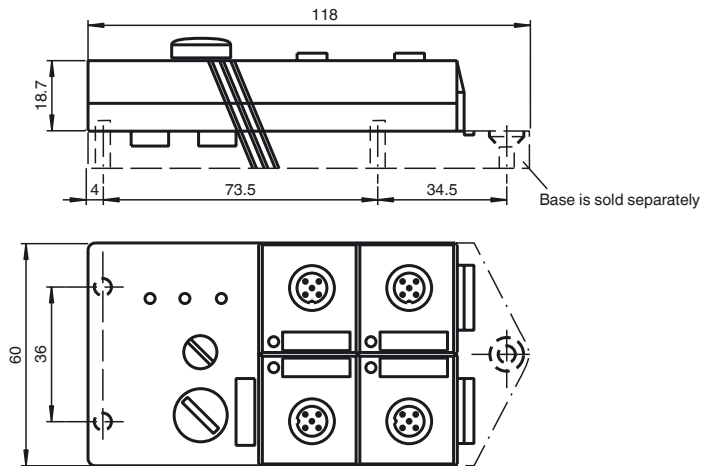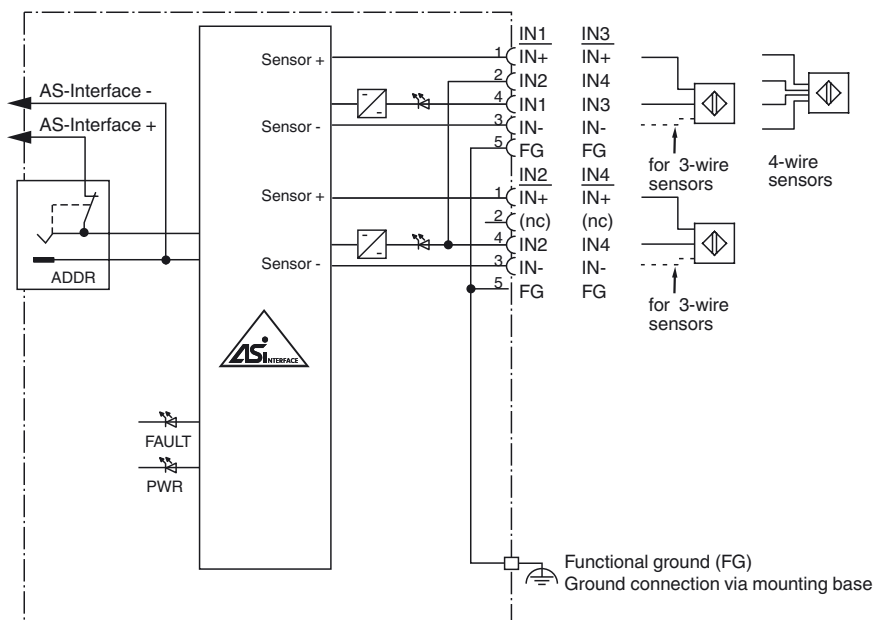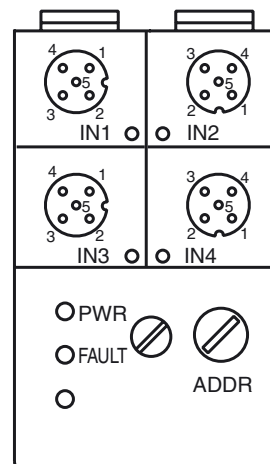
VBA-4E-G2-ZA

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

Base is sold separately

Electrical connection

for 3-wire sensors

4-wire sensors

Functional ground (FG)
Ground connection via mounting base

Indicating / Operating means

Refer to "General Notes Relating to Pepperl+Fuchs Product Information".

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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

Rated operating voltage	U_e	26.5 ... 31.6 V from AS-Interface
Rated operating current	I_e	≤ 40 mA (without sensors) / max. 240 mA
Protection class		III

Input

Number/Type	4 inputs for 2- or 3-wire sensors (PNP), DC option 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 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

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	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 ... 60 °C (-13 ... 140 °F)
Storage temperature	-25 ... 85 °C (-13 ... 185 °F)

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 50295:1999
Standard conformity	
Noise immunity	EN 61000-6-2:2005 , EN 50295:1999 , EN 61326-1:2006 , IEC 62026-2:2008
Emitted interference	EN 50295:1999
AS-Interface	EN 50295:1999
Input	EN 61131-2:2007
Protection degree	EN 60529:2000

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-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-KIT
AS-Interface Handheld with accessory

VBP-HH1-V3.0
AS-Interface Handheld

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

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

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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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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