Model number

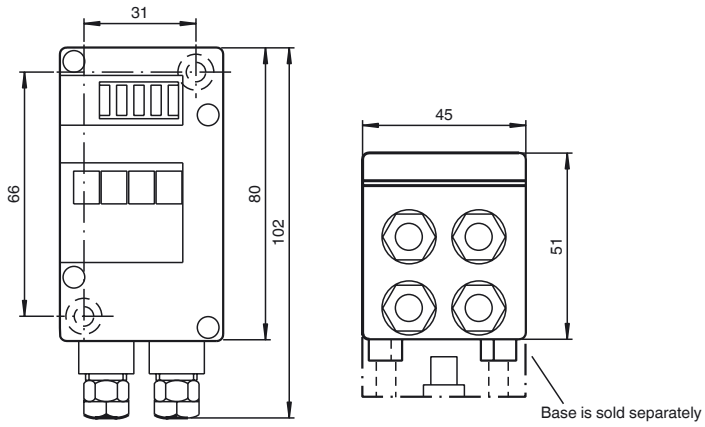
VAA-4E-G4-N

G4 module IP67
4 inputs (NAMUR)

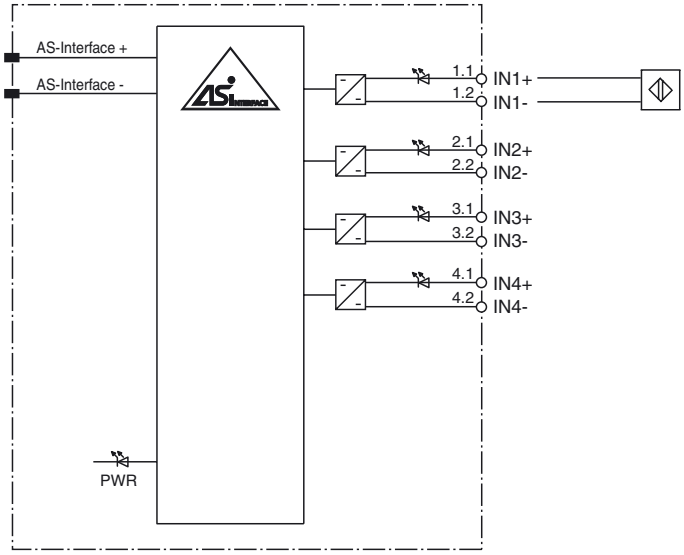
Features

- AS-Interface certificate
- Degree of protection IP67
- Flat or round cable connection (via standardized EMS base, not included with delivery)
- Cable piercing method for flat cable
- Inputs in accordance with IEC 60947-5-6 (NAMUR, DIN 19234)
- Function display for bus and inputs
- Lead monitoring of inputs that can be switched off selectively by channel

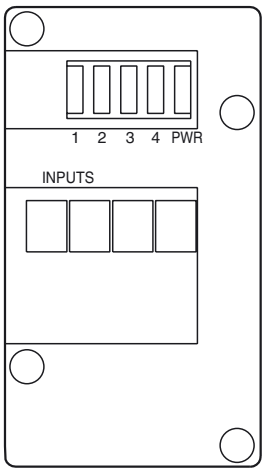
Dimensions



Electrical connection



Indicating / Operating means



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Technical data

General specifications		
Slave type		Standard slave
AS-Interface specification		V2.0
Required master specification		≥ V2.0
UL File Number		E87056
Indicators/operating means		
LED PWR		AS-Interface voltage; LED green
LED IN		4 dual LED yellow/red yellow: switching state (input) red: lead breakage red and yellow: line short-circuit
Electrical specifications		
Rated operating voltage	U_e	26.5 ... 31.6 V from AS-Interface
Rated operating current	I_e	≤ 40 mA
Protection class		III
Input		
Number/Type		4 Inputs for NAMUR sensors
Supply		from AS-Interface
Voltage		8 V
Switching point		OUT ≥ 1.8 mA ON ≤ 1.5 mA
Line fault detection		lead breakage: ≤ 0.15 mA lead short-circuit: ≥ 6 mA
Programming instructions		
Profile		S-0.F
IO code		0
ID code		F
Data bits (function via AS-Interface)		**input** / **output**
D0		IN1 / -
D1		IN2 / -
D2		IN3 / -
D3		IN4 / -
Parameter bits (programmable via AS-i)		**function**
P0		lead monitoring IN1 P0 = 1 (default settings), monitoring deactivated P0 = 0, monitoring activated
P1		lead monitoring IN2 P1 = 1 (default settings), monitoring deactivated P1 = 0, monitoring activated
P2		lead monitoring IN3 P2 = 1 (default settings), monitoring deactivated P2 = 0, monitoring activated
P3		lead monitoring IN4 P3 = 1 (default settings), monitoring deactivated P3 = 0, monitoring activated
Ambient conditions		
Ambient temperature		-25 ... 60 °C (-13 ... 140 °F)
Storage temperature		-25 ... 85 °C (-13 ... 185 °F)
Mechanical specifications		
Degree of protection		IP67
Connection		cable piercing method or terminal compartment yellow flat cable or standard round cable inputs: M12 x 1.5 cable gland and cage tension spring terminals
Mass		180 g
Mounting		DIN rail or screw mounting
Compliance with standards and directives		
Standard conformity		
Degree of protection		EN 60529

Function

The VAA-4E-G4-N is an AS-Interface coupling module with 4 inputs for sensors per DIN 19234 (NAMUR), which can be monitored for lead breakage and short circuit (see note).
The IP67 rated G4 module is especially suitable for rough conditions. Sensors attach to cable glands and cage tension spring terminals. For pre-addressing the module it can be plugged directly onto the adapter of the handheld programming device VBP-HH1.
Both flat and round cables can be used for the connection of the AS-Interface transmission line. Use the U-G1F or U-G1FF base for AS-Interface flat cables. The connection to the AS-Interface cable is established via the standardised EMS interface (cable piercing method). The U-G1F base can also be used as IP67 AS-Interface distribution box. Use the U-G1FF base, when modules with outputs are mounted in series with the module. The flat cable for external power supply can be placed in this base, since the module does not access the supply line.
Use the U-G1P or U-G1PP base for round cables. These bases have the same functionality as the U-G1F or the U-G1FF bases.

Note:
Lead breakage/short circuit monitoring is activated or deactivated per channel, by means of the parameter bits P0 ... P3. All error conditions are linked by an OR-logic-operation. In a failure case, the AS-Interface master indicates an error and the module disconnects from the AS-Interface, while the watchdog is activated.

Accessories

VBP-HH1-V3.0-KIT
AS-Interface Handheld with accessory

VBP-HH1
Handheld programming device

VAZ-G4-B
Blind plug PG7

VAZ-G4-B1
Blind plug M12

Matching system components

U-G1F
AS-Interface module mounting base for connection to flat cable (AS-Interface)

U-G1FA
AS-Interface module mounting base with adressing jack for connection to flat cable (AS-Interface)

U-G1P
AS-Interface module mounting base for connection to round cable (AS-Interface)

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Refer to “General Notes Relating to Pepperl+Fuchs Product Information”.
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