Dimensions

Base is sold separately

Electrical connection
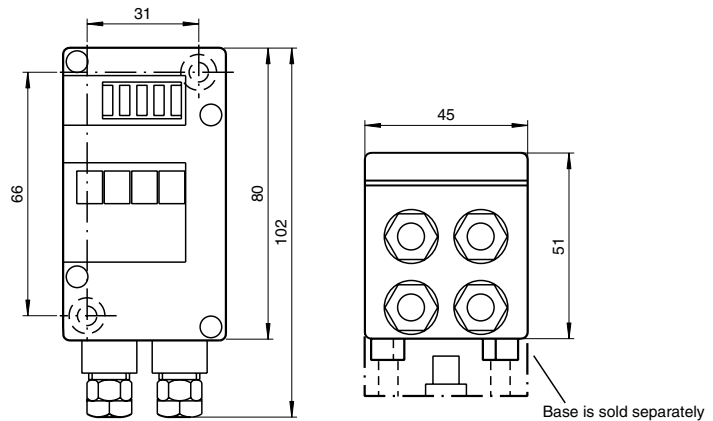

Model Number

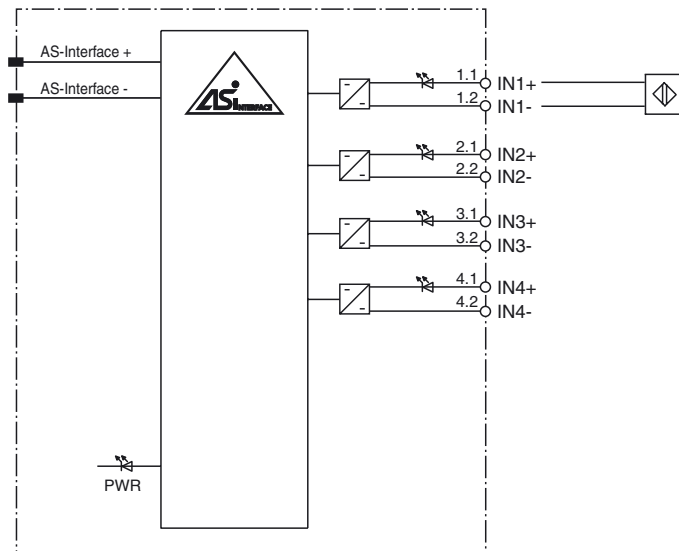**VAA-4E-G4-Z**

G4 module IP67
4 inputs (2-wire)

Features

- AS-Interface certificate
- Protection degree IP67
- Flat or round cable connection (via standardised EMS base, not included in the delivery package)
- Inputs for 2-wire sensors
- Function display for bus and inputs
- Lead monitoring of inputs that can be switched off selectively by channel
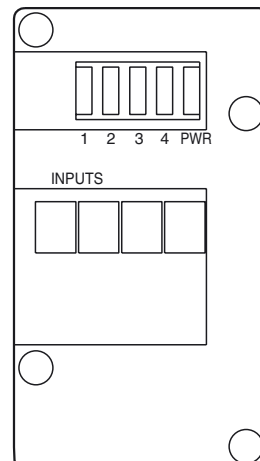
Indicating / Operating means

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

Protection class		III
Rated operational voltage	U_e	26.5 ... 31.6 V from AS-Interface
Rated operational current	I_e	≤ 40 mA

Input

Number/Type	4 inputs for 2-wire sensors, DC
Supply	from AS-Interface
Voltage	15 V
Input current	≤ 8 mA (limited internally)
Switching point	
0 (unattenuated)	≤ 1.5 mA
1 (attenuated)	≥ 4.5 mA
Lead monitoring	lead breakage: ≤ 0.5 mA lead short-circuit: ≥ 5 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 (basic setting), monitoring deactivated P0 = 0, monitoring activated
P1	lead monitoring IN2 P1 = 1 (basic setting), monitoring deactivated P1 = 0, monitoring activated
P2	lead monitoring IN3 P2 = 1 (basic setting), monitoring deactivated P2 = 0, monitoring activated
P3	lead monitoring IN4 P3 = 1 (basic setting), monitoring deactivated P3 = 0, monitoring activated

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 or terminal compartment flat cable yellow or standard round cable inputs: screwed connection M12 x 1,5 and cage-clamp terminals
Mass	180 g
Mounting	DIN rail or screw mounting

Compliance with standards and directives

Standard conformity	
Protection degree	EN 60529

Function

The VAA-4E-G4-Z AS-Interface coupling module is a field module with 4 inputs. The inputs permit the connection of 2-wire sensors, 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 hand-held programming device VBP-HH1.

Both flat and round cables can be used for the connection of the AS-Interface cable. Use the U-G1F or U-G1FF base for 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 the U-G1PP base for a round cable. 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 monitoring function is activated.

Accessories

VBP-HH1
AS-Interface handheld

VAZ-G4-B
Blind plug

Matching system components

U-G1F
AS-Interface module mounting base

U-G1FA
AS-Interface module mounting base

U-G1P
AS-Interface module mounting base