Dimensions

Base is sold separately

Electrical connection

Functional ground (FG)
Ground connection via mounting base

Indicating / Operating means
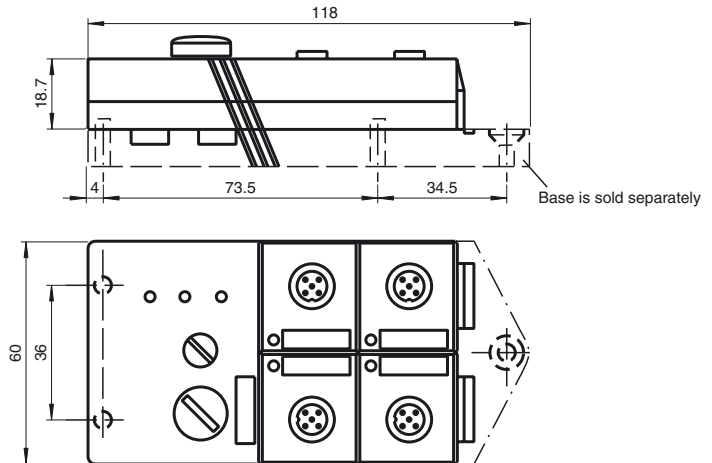

Model Number

VAA-2EA-G2-ZE/E2

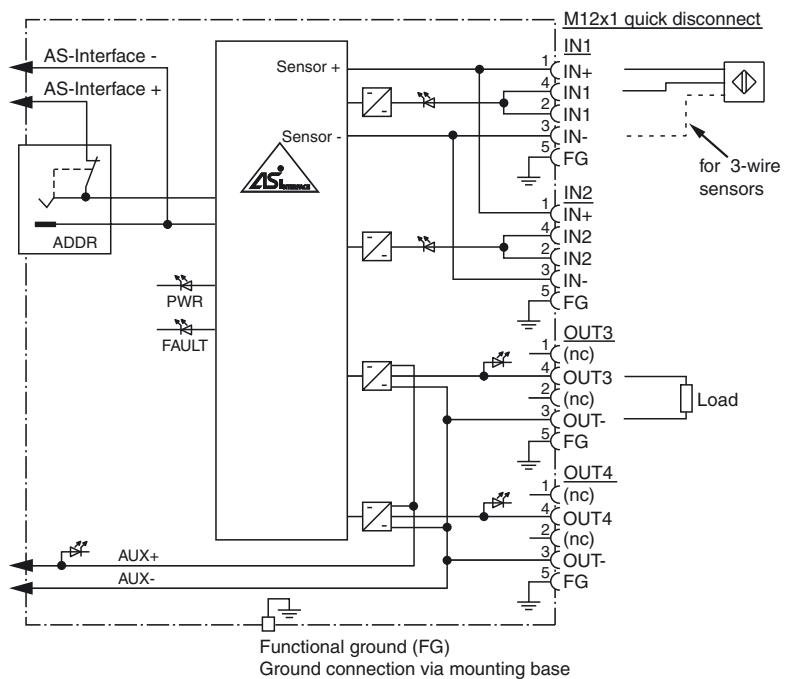G2 flat module
2 inputs (PNP) and 2 electronic outputs

Features

- AS-Interface certificate
- Protection degree IP67
- Addressing jack
- Flat cable connection with cable piercing technique, variable flat cable guide
- Communication monitoring, turn-off
- Inputs for 2- and 3-wire sensors
- Power supply of outputs from the external auxiliary voltage
- Power supply of inputs from the module
- Ground connection (PE) possible
- Function display for bus, ext. auxiliary voltage, inputs and outputs
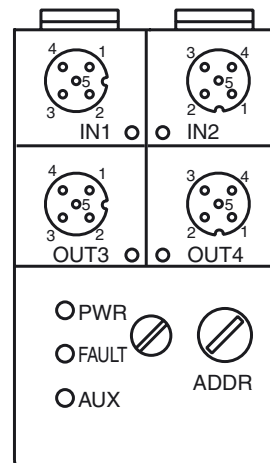- Monitoring of sensor overloads

AS-Interface sensor-/actuator module

VAA-2EA-G2-ZE/E2

Technical data

General specifications

Slave type	Standard slave
AS-Interface specification	V2.1
Required master specification	$\geq$ 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 AUX	ext. auxiliary voltage U_{AUX}; LED green
LED IN	switching state (input); 2 LED yellow
LED OUT	switching state (output); 2 LED yellow

Electrical specifications

Auxiliary voltage (output)	U_{AUX}	24 V DC ± 15 % PELV
Protection class		III
Rated operational voltage	U_e	26.5 ... 31.6 V from AS-Interface
Rated operational current	I_e	$\leq$ 40 mA (without sensors) / max. 190 mA

Input

Number/Type	2 inputs for 2- or 3-wire sensors (PNP), DC
Supply	from AS-Interface
Voltage	21 ... 31 V
Current loading capacity	$\leq$ 150 mA ($T_B \leq$ 40 °C), $\leq$ 120 mA ($T_B \leq$ 60 °C), short-circuit proof
Input current	$\leq$ 8 mA (limited internally)
Switching point	
0 (unattenuated)	$\leq$ 1.5 mA
1 (attenuated)	$\geq$ 4.5 mA

Output

Number/Type	2 electronic outputs, PNP
Supply	from external auxiliary voltage U_{AUX}
Current	1.5 A per output 3 A total ($T_B \leq$ 40 °C), 2 A total ($T_B \leq$ 60 °C)
Voltage	$\geq$ (U_{AUX} - 0,5 V)

Programming instructions

Profile	S-3.F
IO code	3
ID code	F

Data bits (function via AS-Interface)	input	output
D0	IN1	-
D1	IN2	-
D2	-	OUT3
D3	-	OUT4

Parameter bits (programmable via AS-i)	function
P0	communication monitoring P0 = 1 (basic setting), monitoring = ON, i.e. if communication fails, the outputs are de-energised P0 = 0, monitoring = OFF, if communication fails, the outputs maintain their condition
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
Connection	cable piercing method flat cable yellow/flat cable black inputs/outputs: M12 round connector
Mass	100 g
Mounting	Mounting base

Compliance with standards and directives

Standard conformity	
Protection degree	EN 60529

Function

The VAA-2EA-G2-ZE/E2 is an AS-Interface coupling module with 2 inputs and 2 outputs. Mechanical contacts and 2- and 3-wire sensors can be connected to the inputs. The outputs are electronic outputs, which can be loaded to 24 V DC and 1.5 A per output.

The IP67 flat module features an integrated addressing jack and is ideal for applications in the field.

Connection to the sensors/actuators is provided via M12 x 1 screw connections. The current switching state of each channel is indicated by an LED, located on the module's top side. Similarly, an LED is provided to monitor the AS-Interface communication and to indicate that the module has the address 0. If an AS-Interface communication error occurs, the outputs are de-energised.

The input circuit is monitored for short circuits. LEDs are also provided to indicate AS-Interface voltage and external power supply.

The U-G3FF mounting base is normally used for the connection of the AS-Interface flat cable and the external 24 V DC power supply. The specially designed base enables the user to connect flat cables from both sides. This means, for example, that 90° curves can be laid with very tight radii (variable flat cable guide).

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-G3FF
AS-Interface module mounting base