



Model Number

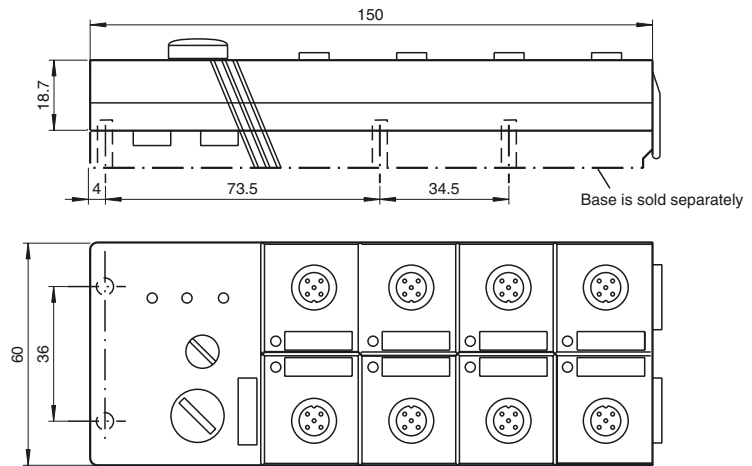
VAA-4EA-G2-ZE/E2

G2 flat module
4 inputs (PNP) and 4 electronic outputs

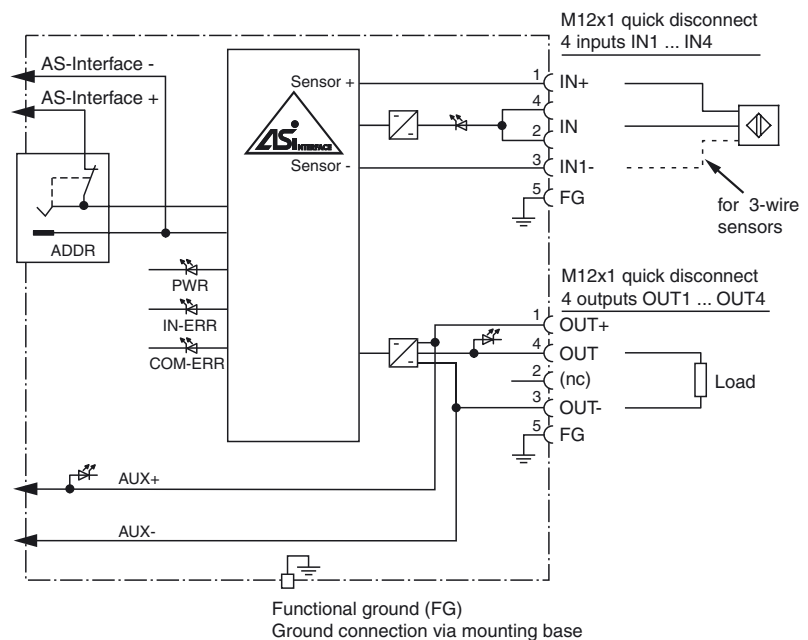
Features

- 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

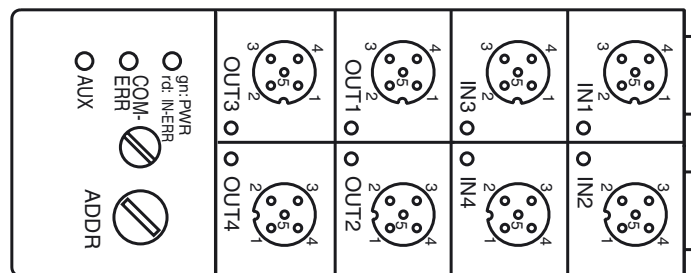
Dimensions



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 COM ERR	communication error / address is 0; LED red
LED AUX	ext. auxiliary voltage U_{AUX} ; LED green
LED IN	switching state (input); 4 LED yellow
LED OUT	switching state (output); 4 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	≤ 40 mA (without sensors) / max. 240 mA

Input

Number/Type	4 inputs for 2- or 3-wire sensors (PNP), DC
Supply	from AS-Interface
Voltage	21 ... 31 V
Current loading capacity	≤ 200 mA ($T_B \leq 40 \text{ }^\circ\text{C}$), ≤ 150 mA ($T_B \leq 60 \text{ }^\circ\text{C}$), short-circuit protected
Input current	≤ 8 mA (limited internally)
Switching point	
0 (unattenuated)	≤ 1.5 mA
1 (attenuated)	≥ 4.5 mA

Output

Number/Type	4 electronic outputs, PNP
Supply	from external auxiliary voltage U_{AUX}
Current	2 A per output, 4 A total
Voltage	≥ ($U_{AUX} - 0,5 \text{ V}$)

Programming instructions

Profile	S-7.F
IO code	7
ID code	F

Data bits (function via AS-Interface)	input	output
D0	IN1	OUT1
D1	IN2	OUT2
D2	IN3	OUT3
D3	IN4	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	150 g
Mounting	Mounting base

Compliance with standards and directives

Standard conformity	
Protection degree	EN 60529

Function

The VAA-4EA-G2-ZE/E2 is an AS-Interface coupling module with 4 inputs and 4 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 2 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 in case the watchdog is active.

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

The U-G2FF mounting base is used as a standard connection to the AS-Interface flat cable and to 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-G2FF

AS-Interface module mounting base