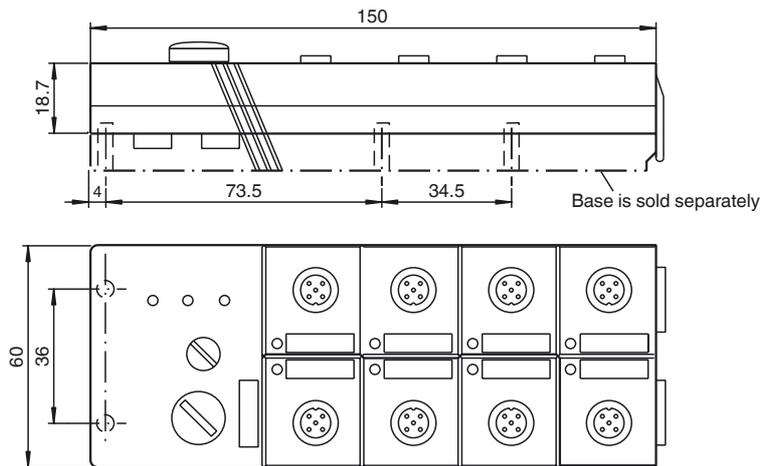
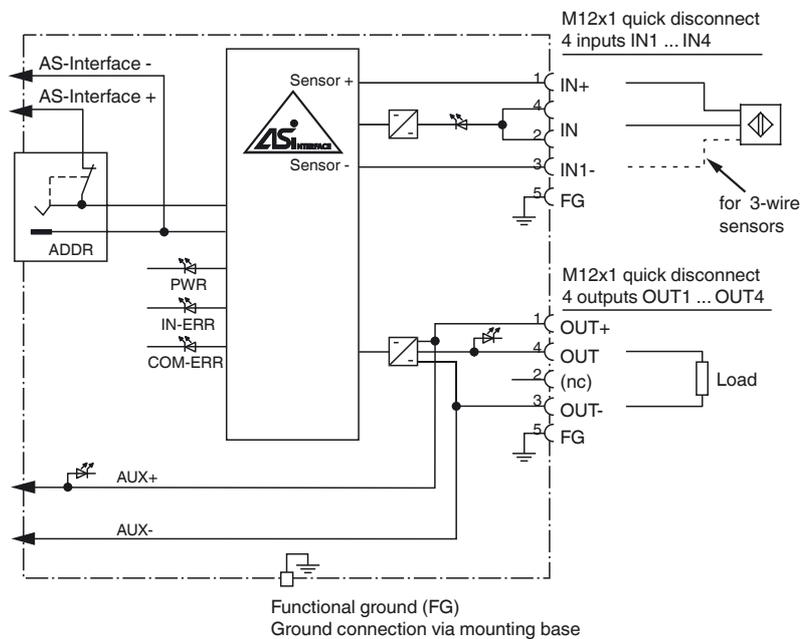




Dimensions



Electrical connection



Model number

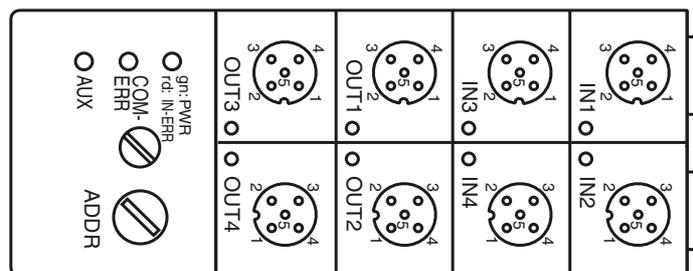
VAA-4EA-G2-ZE/E2

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

Features

- AS-Interface certificate
- Degree of protection 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

Indicating / Operating means



Release date: 2019-01-09 10:19 Date of issue: 2019-01-09 048381_Leng.xml

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
LED IN-ERR	overload of sensor power supply; LED red

Electrical specifications

Auxiliary voltage (output)	U_{AUX}	24 V DC ± 15 % PELV
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
Supply	from AS-Interface
Voltage	21 ... 31 V
Current loading capacity	≤ 200 mA ($T_B \leq 40^\circ\text{C}$), ≤ 150 mA ($T_B \leq 60^\circ\text{C}$), 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 (default settings), 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 (-13 ... 140 °F)
Storage temperature	-25 ... 85 °C (-13 ... 185 °F)

Mechanical specifications

Degree of protection	IP67
Connection	Cable piercing method flat cable yellow/flat cable black inputs/outputs: M12 round connector
Mass	150 g
Mounting	Mounting plate

Compliance with standards and directives

Standard conformity	
Degree of protection	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-V3.0-KIT**

AS-Interface Handheld with accessory

VBP-HH1

Handheld programming device

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-G2FF**

AS-Interface module mounting base for connection to flat cable (AS-Interface and external auxiliary power)