



Model number

VAA-4EA-G4-ZE/E2

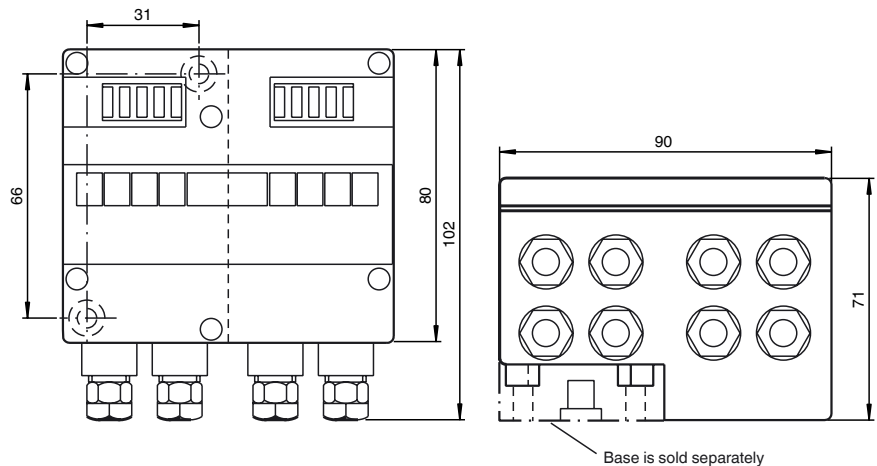
G4 module IP65

4 inputs (PNP) and 4 electronic outputs

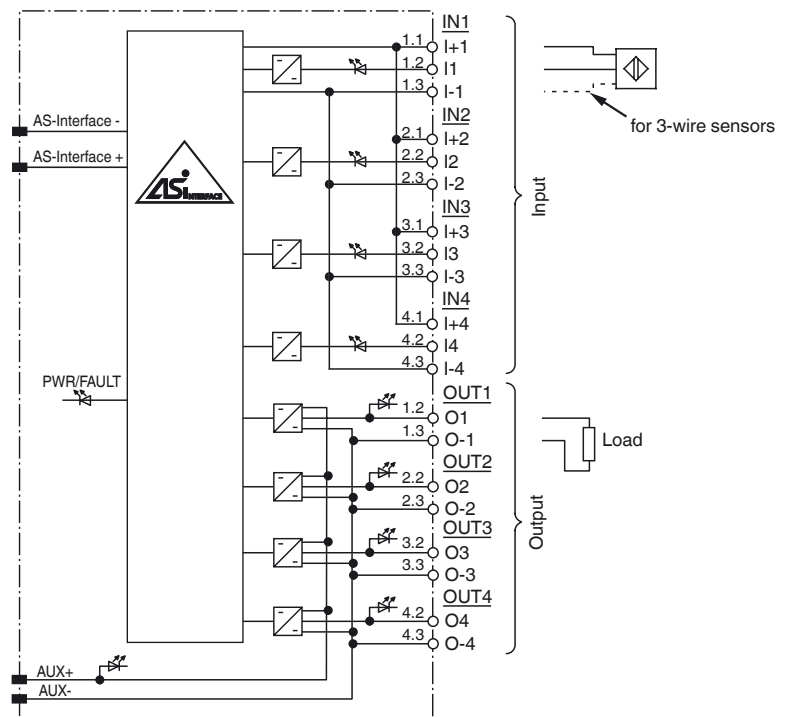
Features

- AS-Interface certificate
- Degree of protection IP65
- Flat or round cable connection (via standardized EEMS base, not included with delivery)
- Cable piercing method for flat cable
- 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
- Function display for bus, ext. auxiliary voltage, inputs and outputs
- Monitoring of sensor overloads

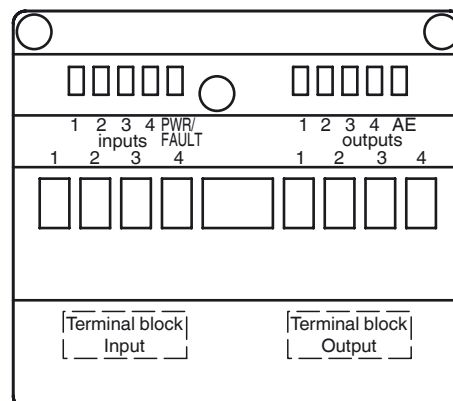
Dimensions



Electrical connection



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/FAULT	dual LED green/red green: AS-Interface voltage red: overload sensor supply
LED IN	switching state (input); 4 LED yellow
LED OUT	Switching state (output); 4 LED yellow
LED AE	ext. auxiliary voltage U_{AUX} ; LED green

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	≤ 60 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	≤ 180 mA ($T_B \leq 40^\circ\text{C}$), ≤ 140 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	IP65
Connection	cable piercing method or terminal compartment yellow flat cable/black flat cable or standard round cable inputs/outputs: M12 x 1.5 cable glands and cage tension spring terminals
Mass	350 g
Mounting	DIN rail or screw mounting

Compliance with standards and directives

Standard conformity	
Degree of protection	EN 60529

Function

The VAA-4EA-G4-ZE/E2 is an AS-Interface coupling module with four inputs and four outputs. Mechanical contacts and 2- and 3-wire sensors can be connected to the inputs. The sensors are supplied via the module. The outputs are electronic outputs, which can be loaded to 24 V DC and 2 A per output (total load < 4 A).

The G4 module is especially suitable for rough conditions. Sensors and actuators attach to cable glands and cage tension spring terminals thus making the installation especially user-friendly. For pre-addressing the module it can be plugged directly onto the adapter of the hand-held programming device VBP-HH1.

The current switching state of each channel is indicated by an LED, located on the module's top side. In the case of communication errors on the bus, the outputs are de-energised via an integrated watchdog, which can be deactivated by the parameter bit P0.

Both flat and round cables can be used for the AS-Interface transmission line and the external 24 V DC power supply. Use the U-G1FF base for the AS-Interface flat cable. The AS-Interface standardised EEMS interface, uses the cable piercing method to connect both the yellow and black flat cables. Use the U-G1PP base for the round cable. The AS-Interface cable as well as the external power supply may be connected within this base.

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-G1FF

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

U-G1FFA

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

U-G1PP

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