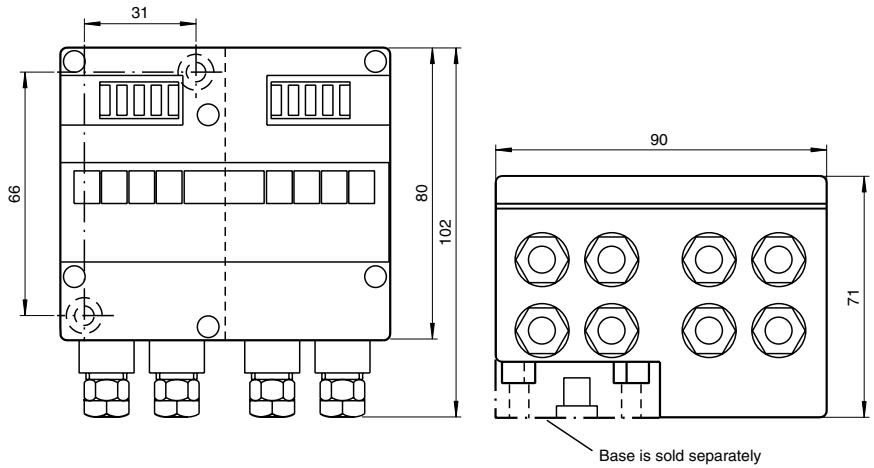
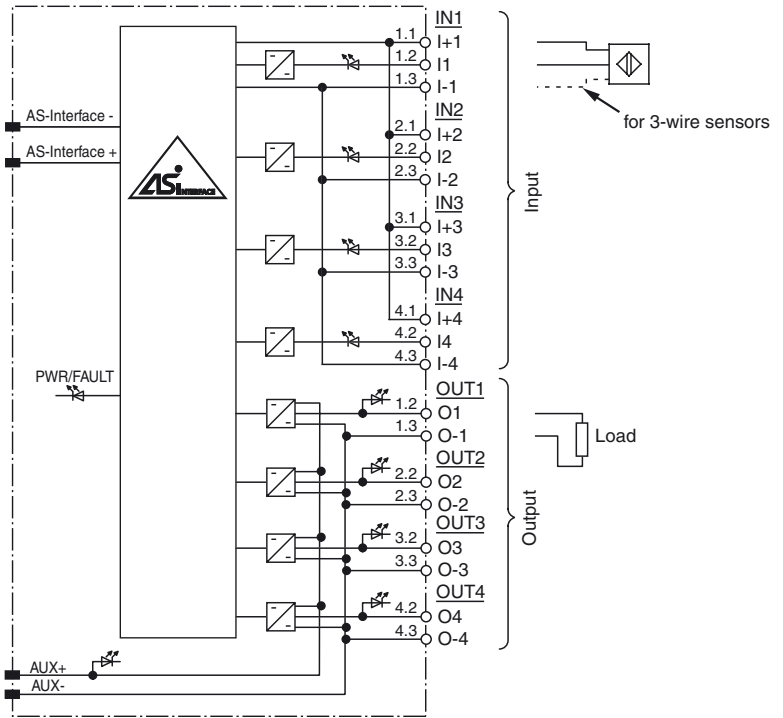




Dimensions



Electrical connection



Model Number

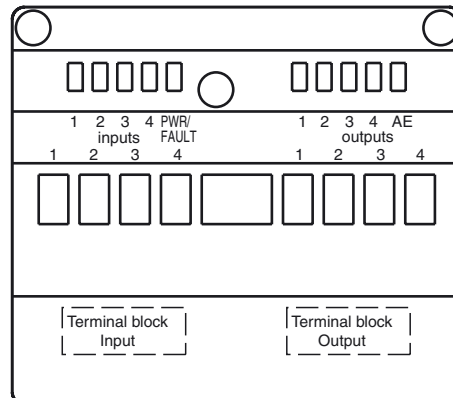
VAA-4EA-G4-ZE/E2

G4 module IP65
4 inputs (PNP) and 4 electronic outputs

Features

- AS-Interface certificate
- Protection degree IP65
- Flat or round cable connection (via standardised EEMS base, not included in the delivery package)
- 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

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/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 |
| Protection class | | III |
| Rated operational voltage | U_e | 26.5 ... 31.6 V from AS-Interface |
| Rated operational current | I_e | ≤ 60 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 | ≤ 180 mA ($T_B \leq 40 \text{ }^\circ\text{C}$), ≤ 140 mA ($T_B \leq 60 \text{ }^\circ\text{C}$), short-circuit proof |
| 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 | IP65 |
| Connection | cable piercing method or terminal compartment flat cable yellow/flat cable black or standard round cable inputs/outputs: screwed connection M12 x 1,5 and cage clamp terminals |
| Mass | 350 g |
| Mounting | DIN rail or screw mounting |

Compliance with standards and directives

| | |
|---------------------|----------|
| Standard conformity | |
| Protection degree | 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
AS-Interface handheld

VAZ-G4-B
Blind plug

Matching system components

U-G1FF
AS-Interface module mounting base

U-G1FFA
AS-Interface module mounting base

U-G1PP
AS-Interface module mounting base