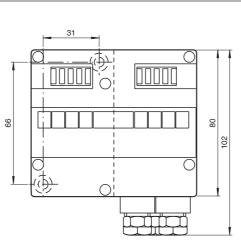
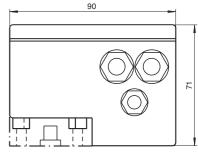
# AS-Interface analog module







# **Electrical connection**

AS-Interface

AS-Interface

**Dimensions** 

## Model number

## VBA-2A-G4-I

G4 module IP65 2 analog outputs (current)

### Features

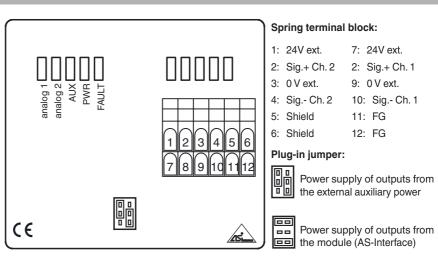
- Protection degree IP65
- Flat or round cable connection (via standardized EEMS base, not included with delivery)
- Cable piercing method for flat cable
- Function display for bus, external auxiliary voltage and outputs
- Power supply of outputs external or from the module, as required

3 × K 4 o Signal 2μP 5 Screen × N 6 . Screen 2-wire 7 8 -φ̈́ Signal 1+  $\triangleright$ U+ AUX+ ์ บ-AUX- $\cap$ Ċ 11 - Functional ground (FG) Plug-in jumpers 

<u>1</u> į +

\_2 ↓ ⊖ Signal 2+

# Indicating / Operating means



Refer to "General Notes Relating to Pepperl+Fuchs Product Information"

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# VBA-2A-G4-I

Channel 2

Channel 1

4-wire

U+

IN+

U -

IN-

1

F PEPPERL+FUCHS

# AS-Interface analog module

| Technical data                              |                  |  |
|---|------------------|--|
| General specifications                      |                  |  |
| Slave type                                  |                  | Standard slave   |
| AS-Interface specification                  |                  | V2.1   |
| Required master specification               |                  | ≥ V2.1   |
| UL File Number                              |                  | E223772  |
| Functional safety related paramet           | ers              |  |
| MTTF <sub>d</sub>                           |                  | 145 a at 30 °C   |
| Indicators/operating means                  |                  |  |
| LED FAULT                                   |                  | error display; LED red<br>red: communication error<br>red flashing: peripheral error   |
| LED PWR                                     |                  | AS-Interface voltage; LED green  |
| LED ANALOG                                  |                  | status output signal; LED green<br>green: $0 \text{ mA} \le 1 \le 23 \text{ mA}$<br>green flashing: $1 > 23 \text{ mA}$ (peripheral error)   |
|   |                  | ext. auxiliary voltage U <sub>AUX</sub> ; LED green  |
| Electrical specifications                   |                  |  |
| Auxiliary voltage (output)                  | U <sub>AUX</sub> |  |
| Rated operating voltage                     | U <sub>e</sub>   | 26.5 31.6 V from AS-Interface<br>≤ 80 mA   |
| Rated operating current<br>Protection class | le               | ≤ 80 mA<br>III   |
|   |                  |  |
| Output<br>Number/Type                       |                  | 2 analog outputs (ourront) 0 20 mA   |
| Supply                                      |                  | 2 analog outputs (current), 0 20 mA<br>from AS-Interface or from external auxiliary voltage as required  |
|   |                  | U <sub>AUX</sub>   |
| Resolution                                  |                  | 13 Bit / 1 µA  |
| Programming instructions                    |                  |  |
| Profile                                     |                  | S-7.3.5  |
| IO code                                     |                  | 7  |
| ID code                                     |                  | 3  |
| ID2 code                                    | ,                | 5  |
| Data bits (function via AS-Interface)       |                  | The transfer of the data value is based on AS-Interface Profile 7.3.   |
| Parameter bits (programmable via            | ι AS-i)          | function   |
| PO  |                  | not used   |
| P1  |                  | projecting of the 2nd channel<br>P1=1, channel 2 is projected<br>P1=0, channel 2 is not projected  |
| P2  |                  | Message of peripheral error<br>P2=1, peripheral error is reported<br>P2=0, peripheral error is not reported  |
| P3  |                  | not used   |
| Ambient conditions                          |                  |  |
| Ambient temperature                         |                  | 0 70 °C (32 158 °F)  |
| Storage temperature                         |                  | -25 85 °C (-13 185 °F)   |
| Mechanical specifications                   |                  |  |
| Protection degree                           |                  | IP65   |
| Connection                                  |                  | cable piercing method or terminal compartment<br>yellow flat cable/black flat cable or standard round cable<br>inputs/outputs: $2 \times M16 \times 1.5$ cable glands and cage tension<br>spring terminals, $1 \times M12 \times 1.5$ cable gland (not used) |
| Material                                    |                  |  |
| Housing                                     |                  | PA 6 GF30  |
| Mass  |                  | 350 g  |
| Mounting                                    |                  | DIN mounting rail  |
| Compliance with standards and d ves         | lirecti-         |  |
| Standard conformity<br>Protection degree    |                  | EN 60529:2000  |

#### **Notes**

Do not connect inputs and outputs, which are supplied via the module from AS-interface or via auxiliary power, with power supply and signal circuits with external potentials.

# Function

The VBA-2A-G4-I analogue module has two analogue current outputs 0 mA ... 20 mA. Measured value conversion and data transmission are performed asynchronously in accordance with AS-Interface profile 7.3. Depending on how the plug-in jumpers are wired, the outputs can be powered from the AS-Interface or the external auxiliary power through the black flat wire. The resolution of analog values is 13 bits.

The G4 module in IP65 is particularly suitable for hard field use. The connection to the outputs is established by screwed connections and cage-clamp terminals. This makes the installation especially user friendly. The module can be plugged directly onto the adapter of the VBP-HH1 of the hand held programming device for pre-addressing.

The connection to the AS-Interface transmission line and the external 24 V DC power supply can be made with flat wire or round cable. If AS-Interface flat wire is used, the lower part of the U-G1FF should be used. The contact to the two lines is made with the EEMS interface standardised for AS-Interface, i. e. using the insulation penetration technique.

For a round cable, the U-G1PP base should be used. Here as well, it is possible to connect both the AS-Interface lead and the external power supply in the base.

#### Accessories

VBP-HH1-V3.0-KIT AS-Interface Handheld with accessory

VBP-HH1-V3.0 AS-Interface Handheld

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 adressing 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)

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Refer to "General Notes Relating to Pepperl+Fuchs Product Information" Pepperl+Fuchs Group

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