## Model number

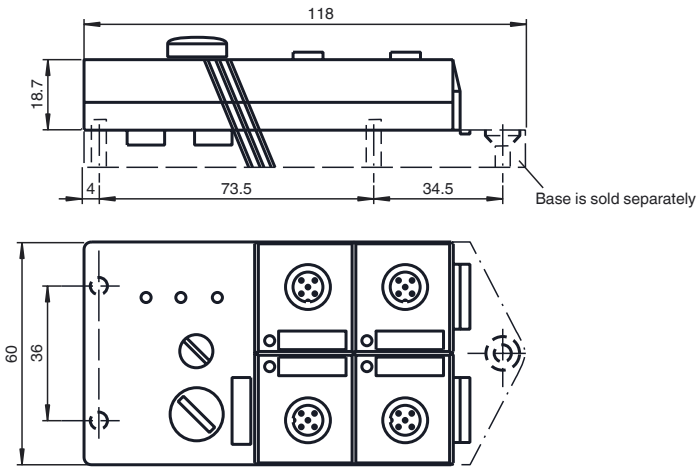
**VBA-4E-G2-ZA**

G2 flat module
4 inputs (PNP)

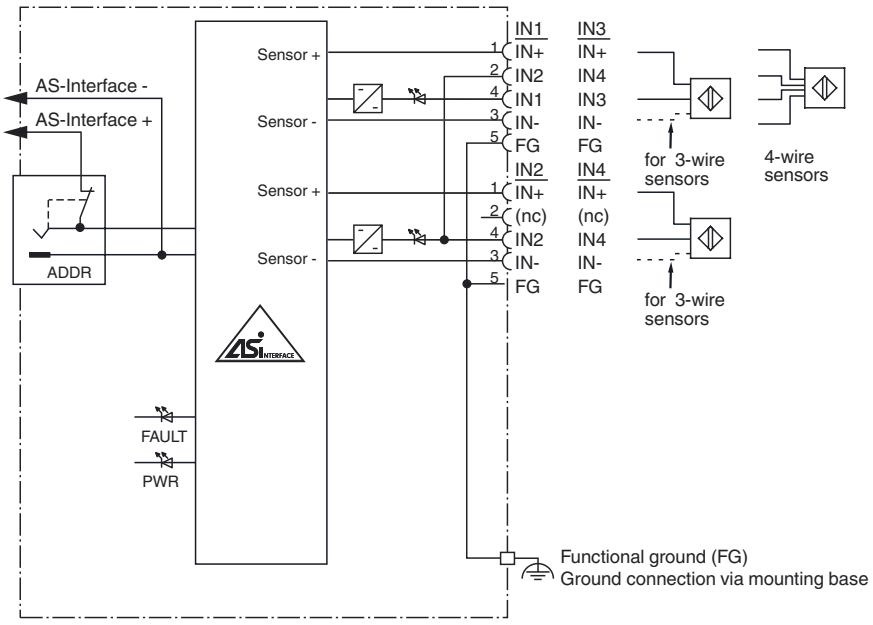
## Features

- AS-Interface certificate
- Protection degree IP67
- A/B slave with extended addressing possibility for up to 62 slaves
- Addressing jack
- Flat cable connection with cable piercing technique, variable flat cable guide
- Communication monitoring
- Inputs for 2-, 3-, and 4-wire sensors
- Supply for inputs from AS-Interface
- Ground connection (FE) possible
- Function display for bus and inputs
- Detection of overload on sensor supply

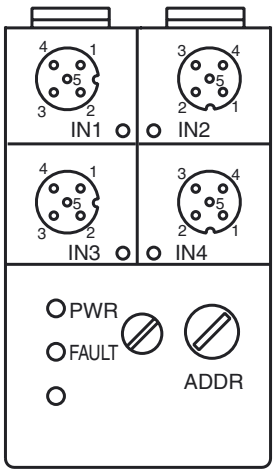
## Dimensions




## Electrical connection




## Indicating / Operating means

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## Technical data

| | | |
|---|---|---|
| **General specifications** | | |
| Slave type | | A/B slave |
| AS-Interface specification | | V2.1 |
| Required master specification | | ≥ V2.0 |
| UL File Number | | E87056 |
| **Indicators/operating means** | | |
| LED FAULT | | error display; LED red<br>red: communication error or address is 0<br>red flashing: overload of sensor supply |
| LED PWR | | AS-Interface voltage; LED green |
| LED IN | | switching state (input); 4 LED yellow |
| **Electrical specifications** | | |
| 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<br>option 2 inputs for 4-wire sensors (PNP), DC |
| Supply | | from AS-Interface |
| Voltage | | 21 ... 31 V |
| Current loading capacity | | ≤ 200 mA ($T_B$ ≤ 40 °C),<br>≤ 150 mA ($T_B$ ≤ 60 °C), overload-proof and short-circuit protected |
| Input current | | ≤ 8 mA (limited internally) |
| Switching point | | according to DIN EN 61131-2 (Type 2) |
| 0 (unattenuated) | | ≤ 2 mA |
| 1 (attenuated) | | ≥ 4 mA |
| **Programming instructions** | | |
| Profile | | S-0.A.2 |
| IO code | | 0 |
| ID code | | A |
| ID1 code | | 7 |
| ID2 code | | 2 |
| **Data bits** (function via AS-Interface) | | **input** / **output** |
| D0 | | IN1 / - |
| D1 | | IN2 / - |
| D2 | | IN3 / - |
| D3 | | IN4 / - |
| **Parameter bits** (programmable via AS-i) | | **function** |
| P0 | | not used |
| P1 | | Input filter<br>P1 = 0 input filter on, pulse suppression ≤ 2 ms<br>P1 = 1 input filter off (basic setting) |
| P2 | | Synchronous mode<br>P2 = 0 synchronous mode on<br>P2 = 1 synchronous mode off (basic setting) |
| P3 | | not used |
| **Ambient conditions** | | |
| Ambient temperature | | -25 ... 60 °C (-13 ... 140 °F) |
| Storage temperature | | -25 ... 85 °C (-13 ... 185 °F) |
| **Mechanical specifications** | | |
| Protection degree | | IP67 |
| Connection | | cable piercing method<br>flat cable yellow<br>inputs: M12 round connector |
| Material | | |
| Housing | | PBT |
| Mass | | 100 g |
| Mounting | | Mounting base |
| **Compliance with standards and directives** | | |
| Directive conformity | | |
| EMC Directive 2004/108/EC | | EN 50295:1999 |
| Standard conformity | | |
| Noise immunity | | EN 61000-6-2:2005 , EN 50295:1999 , EN 61326-1:2006 , IEC 62026-2:2008 |
| Emitted interference | | EN 50295:1999 |
| AS-Interface | | EN 50295:1999 |
| Input | | EN 61131-2:2007 |
| Protection degree | | EN 60529:2000 |

## Notes

For 4-wire sensors, it is only possible to use plug-in slot IN1 or IN3 for inputs 1+2 or 3+4 (jumpered internally).

## Function

The VBA-4E-G2-ZA is an AS-Interface interface module with 4 Inputs. Mechanical contacts (e. g. push buttons) as well as 2-, 3- and 4-wire sensors can be connected to the inputs.
The IP67 flat module is ideal for applications in the field. An addressing jack is integrated in the module.
The sensors are connected by means of M12 x 1 screw connections. An LED is provided for each channel to indicate the current switching status. Similarly, an LED is available to monitor the AS-Interface communication and the indication that the module has the address 0.
The mounting plate U-G3FF is used, as standard, for connection to the AS-Interface. This lower section enables the flat cable to be contacted from both sides. If input and output modules are used in a mixed system, the flat cable for the internal power supply can be inserted in the lower section of this module. The module does not access this cable. The advantage is that both flat cables can be laid in parallel, without the danger of the module being destroyed by an incorrect connection.
An overloading of the internal input supply is signalled to the AS-Interface master via the "Peripheral fault" function. Communication via the AS-Interface remains unaffected.

**Note:**
The mounting base for the module is sold separately.

## Accessories

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

**VBP-HH1-V3.0**
AS-Interface Handheld

**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-G3FF**
AS-Interface module mounting base for connection to flat cable (AS-Interface and external auxiliary power)

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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.

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