Dimensions
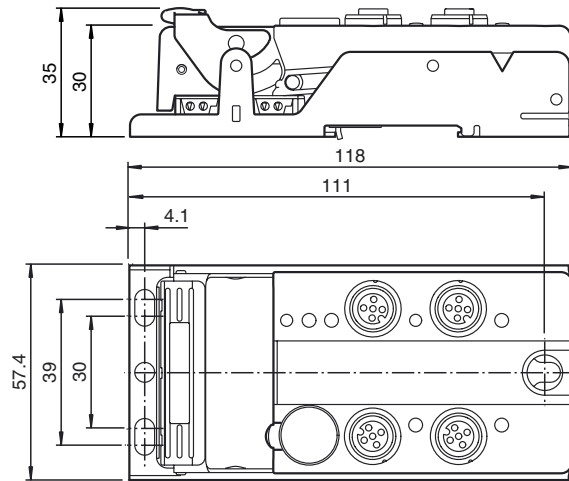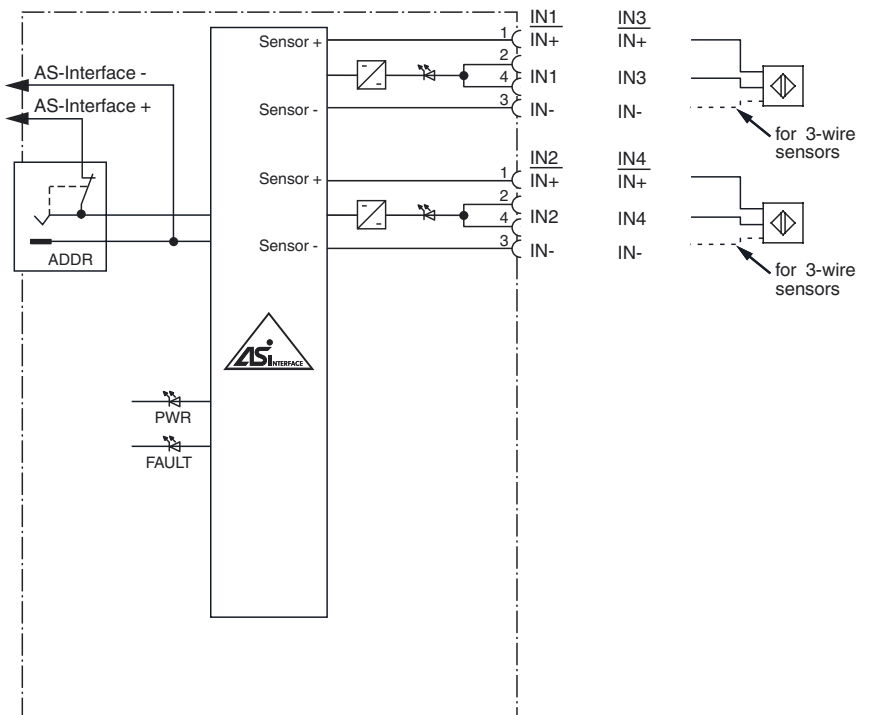

Model number

VBA-4E-G12-ZEJ

G12 flat module
4 inputs (PNP)

Features

- A/B slave with extended addressing possibility for up to 62 slaves
- One-piece housing with stainless steel base
- Installation without tools
- Metal threaded inserts with SPEED-CON technology
- Flat cable connection with cable piercing technique, variable flat cable guide
- Communication monitoring
- Inputs for 2- and 3-wire sensors
- DIN rail mounting
- AS-Interface certificate

Electrical connection

Indicating / Operating means
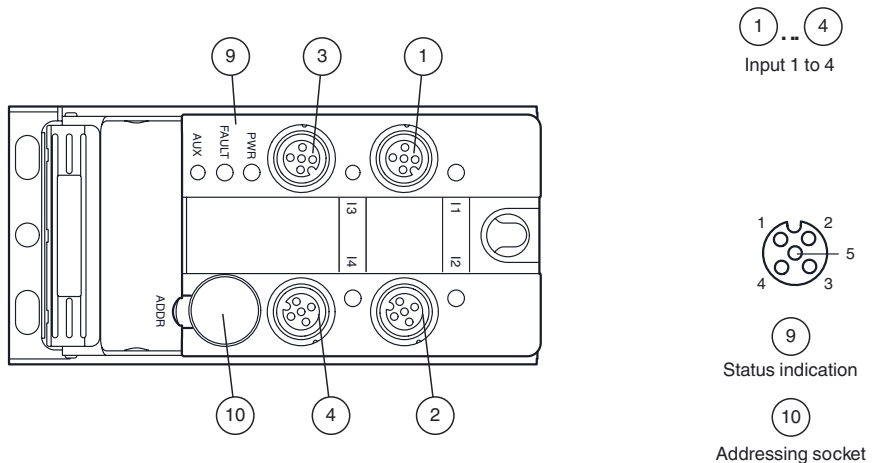
Input 1 to 4

Status indication

Addressing socket

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Technical data

General specifications

Slave type	A/B slave
AS-Interface specification	V3.0
Required master specification	≥ V2.1
UL File Number	E87056

Functional safety related parameters

$MTTF_d$	410 a
Mission Time (T_M)	20 a
Diagnostic Coverage (DC)	0 %

Indicators/operating means

LED FAULT	error display; LED red red: communication error or address is 0 red flashing: overload of sensor supply
LED PWR	AS-Interface voltage; green LED green: voltage OK flashing green: address 0
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
Supply	from AS-Interface
Voltage	21 ... 31 V
Current loading capacity	≤ 200 mA, overload 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)	≥ 6 mA
Signal delay	< 1 ms (input/AS-Interface)

Programming instructions

Profile	S-0.A.0
IO code	0
ID code	A
ID1 code	7
ID2 code	0

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 P1 = 0 input filter on, pulse suppression ≤ 2 ms P1 = 1 input filter off (basic setting)
P2	Synchronous mode P2 = 0 synchronous mode on P2 = 1 synchronous mode off (basic setting)
P3	not used

Ambient conditions

Ambient temperature	-25 ... 70 °C (-13 ... 158 °F)
Storage temperature	-25 ... 85 °C (-13 ... 185 °F)
Shock and impact resistance	30 g, 11 ms in 6 spatial directions 3 shocks 10 g, 16 ms in 6 spatial directions 1000 shocks
Vibration resistance	0.75 mm 10 ... 57 Hz , 5 g 57 ... 150 Hz, 20 cycles

Mechanical specifications

Degree of protection	IP67
Connection	cable piercing method flat cable yellow inputs: M12 round connector
Material	
Housing	PBT
Mass	200 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
Emitted interference	EN 61000-6-4:2007
Input	EN 61131-2
Degree of protection	EN 60529
Fieldbus standard	EN 50295, IEC 62026-2

Function

The VBA-4E-G12-Z*J is an AS-Interface trigger module with 4 inputs. 2- and 3-wire sensors as well as mechanical contacts can be connected to the plus switching electronic inputs.

The solid housing permits fast mounting without tools as well as easy removal without tools. The stainless steel shell and the cast housing ensure durability and a high protection category.

The connection to the AS-Interface cable is achieved via penetration technology in the integrated flat cable. The insert for the flat cables can be turned in two orientations.

All connections to inputs are implemented via metal inserts for high stability. The connection to the sensors is achieved via a M12 x 1 circular connector with SPEEDCON quick locking option.

The inputs and the connected sensors are supplied via the internal power supply of the module (from AS-Interface).

To indicate the current switching state there is an LED for each channel fitted to the top of the module.

An LED to indicate the AS-Interface voltage and that the module has an address of 0 is available, another indicates errors in the AS-Interface communication as well as periphery faults.

This module can be mounted in any position using three screws or can be snapped onto the DIN rail using the stainless steel holder.

Accessories

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

VAZ-V1-B3
Blind plug for M12 sockets

VBP-HH1-V3.0
AS-Interface Handheld

VAZ-PK-1,5M-V1-G
Adapter cable module/hand-held programming device

VAZ-CLIP-G12
lock for G12 module

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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.

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