



Model number
VBA-4E-G11-ZAJ-F
 G11 module
 4 inputs

- Features**
- Inputs for 2-, 3-, and 4-wire sensors
 - Supply of sensors from AS-Interface
 - Function display for bus and inputs
 - Protection degree IP68/IP69K
 - Communication monitoring
 - Cable piercing method with gold plated contact pins
 - AS-Interface POWER24

Function

The VBA-4E-G11-ZAJ-F is an AS-Interface switch-on module with 4 inputs. 2, 3 and 4 wire sensors can also be connected as mechanical contacts to the 4 sourcing electronic inputs.

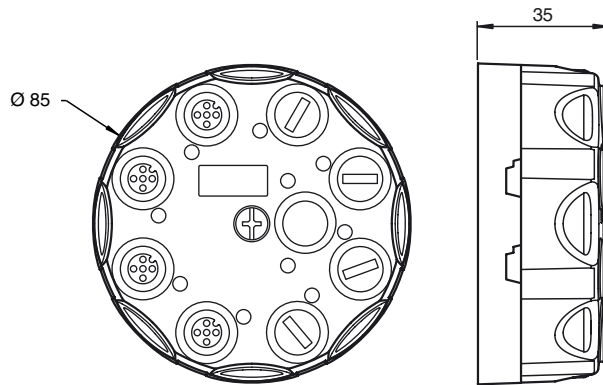
The housing with a central screw enables fast mounting on the base plate.

The connection to the sensors is via an M12x1 plug-in connection on the top side of the device. The AS-Interface flat cable and external energy supply are connected via the insulation piercing technology on the underside of the module.

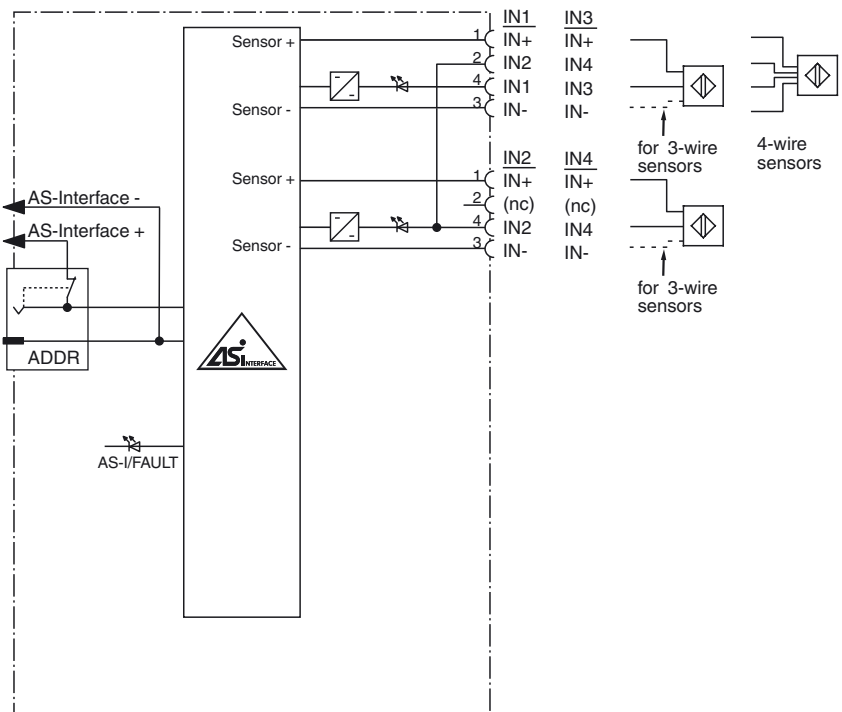
The inputs and the connected sensors are powered by the internal supply of the module (from the AS-Interface).

The current switching state of each input is indicated via an IN LED. The AS-i/FAULT LED indicates the status of the AS-Interface (normal operation, communication error, peripheral fault, address 0). The switch-on module is compatible with AS-Interface POWER24.

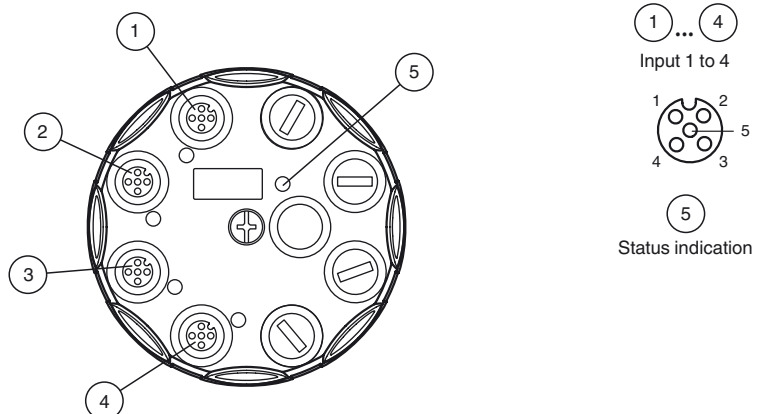
Dimensions



Electrical connection



Indicating / Operating means



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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	120 a
Mission Time (T _M)	20 a
Diagnostic Coverage (DC)	0 %

Indicators/operating means

LED AS-i/FAULT	Status display; multi-colour LED Green: normal operation Red: communication fault Flashing yellow/red: address 0 Flashing green/red: sensor supply overload
LED IN	switching state (input); 4 LED yellow

Electrical specifications

Rated operating voltage	U _e	18,0 ... 31.6 V from AS-Interface
Rated operating current	I _e	≤ 40 mA (without sensors) / max. 240 mA
Protection class		III
Surge protection		U _e : Over voltage category III, safe isolated power supplies (PELV)

Input

Number/Type	4 inputs for 2- or 3-wire sensors (PNP), DC option 2 inputs for 4-wire sensors (PNP), DC
Supply	from AS-Interface
Voltage	12 ... 31 V
Current loading capacity	≤ 200 mA, overload and short-circuit protected
Input current	≤ 9 mA (limited internally)
Switching point	according to DIN EN 61131-2 (Type 2)
0 (unattenuated)	≤ 3 mA
1 (attenuated)	≥ 5 mA
Signal delay	< 1 ms (input/AS-Interface)

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

Protection degree	IP68 / IP69K
Connection	AS-Interface: AS-Interface flat cable Inputs: M12 round connector
Material	
Housing	PBT PC
Mounting screw	Stainless steel 1.4305 / AISI 303
Mass	200 g
Mounting	Mounting base

Compliance with standards and directives

Directive conformity	
EMC Directive 2004/108/EC	EN 61000-6-2:2005, EN 61000-6-4:2007, EN 50295:1999
Standard conformity	
Noise immunity	EN 61000-6-2:2005, EN 61326-1:2006, EN 50295:1999
Emitted interference	EN 61000-6-4:2007
Input	EN 61131-2:2007
Protection degree	EN 60529:2000

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-V1-B

Blind plug for M12 sockets

VAZ-FK-S-BK-SEAL

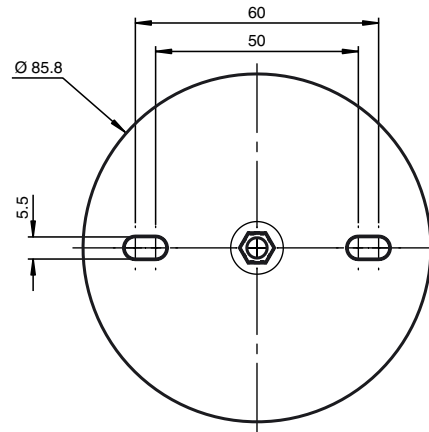
AS-Interface flat cable seal

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.

Mounting instructions

Screw the device onto a level mounting surface using two M5 attachment screws. The attachment screws are not included.



Screw a blind plug onto spare connections to ensure the protection category.