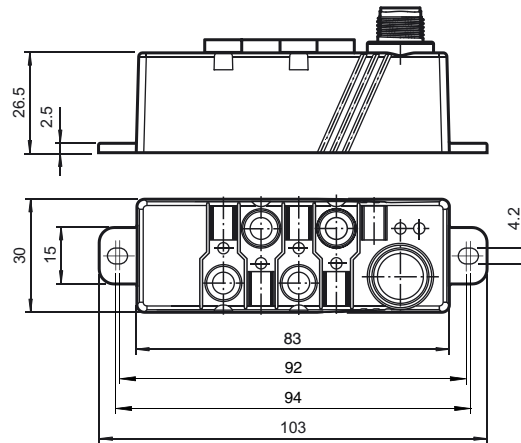




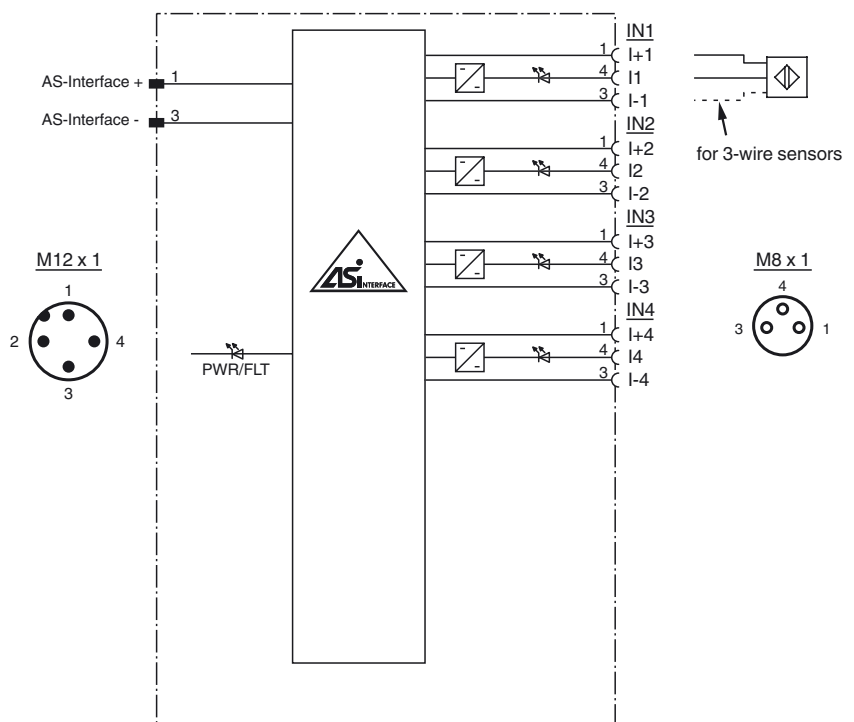
Model number
VBA-4E-G16-ZEJ
 G16 compact module
 4 inputs (PNP)

- Features**
- Compact design
 - Connections via round connector
 - AS-Interface connection via M12 metal threaded insert with SPEEDCON
 - Function display for bus and inputs
 - Degree of protection IP67 / IP68 / IP69K
 - Inputs for 2- and 3-wire sensors
 - Supply for inputs from AS-Interface
 - Communication monitoring
 - Detection of overload on sensor supply

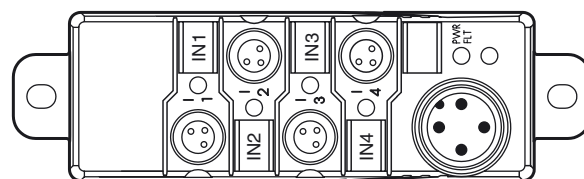
Dimensions



Electrical connection



Indicating / Operating means



Release date: 2020-02-21 09:34 Date of issue: 2020-02-21 188850_eng.xml

Technical data**General specifications**

Slave type	A/B slave
AS-Interface specification	V3.0
Required master specification	≥ V2.1
UL File Number	E223772

Functional safety related parameters

MTTF _d	390 a
Mission Time (T _M)	20 a
Diagnostic Coverage (DC)	0 %

Indicators/operating means

LED PWR/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	26.5 ... 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
Supply	from AS-Interface
Voltage	21 ... 31 V
Current loading capacity	≤ 200 mA (T _B ≤ 40 °C), ≤ 150 mA (T _B ≤ 70 °C), overload-proof 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)

Directive conformity

Electromagnetic compatibility	
Directive 2014/30/EU	EN 62026-2:2013 EN 61000-6-2:2005, EN 61000-6-4:2007

Standard conformity

Degree of protection	EN 60529:2000
Fieldbus standard	EN 62026-2:2013
Input	EN 61131-2
Emitted interference	EN 61000-6-4:2007
AS-Interface	EN 62026-2:2013
Noise immunity	EN 61000-6-2:2005 EN 62026-2:2013

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 (default settings)
P2	Synchronous mode P2 = 0 synchronous mode on P2 = 1 synchronous mode off (default settings)
P3	not used

Ambient conditions

Ambient temperature	-25 ... 70 °C (-13 ... 158 °F)
Storage temperature	-25 ... 85 °C (-13 ... 185 °F)
Relative humidity	85 % , noncondensing
Climatic conditions	For indoor use only
Altitude	≤ 2000 m above MSL
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
Pollution degree	3

Mechanical specifications

Degree of protection	IP67 / IP68 / IP69k
Connection	AS-Interface: M12 x 1 quick disconnect actuators: M8 x 1 quick disconnect
Material	
Housing	PBT
Mass	100 g
Tightening torque, cable gland	0.4 Nm (M12 connector), 0.2 Nm (M8 connector)
Mounting	screw mounting

Function

The VBA-4E-G16-ZEJ is an AS-Interface compact module with 4 inputs. 2- and 3-wire sensors as well as mechanical contacts can be connected to the plus switching electronic inputs.

The particularly slim design with 30 mm is ideally suited for the common profile widths with simple sliding block mounting or screw fitting in narrow shafts. To guarantee the protection category the electronics is compound-filled.

All module connections are implemented with metal inserts for high stability. The connection to the AS-Interface cable is achieved via a M12 x 1 circular connector with SPEEDCON quick locking option. The advantage of the plug-connection is that no separate base is required. For addressing a standard cable with M12 x 1 screw connections can also be used. The connections to the sensors are made via M8 x 1 screw connections.

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, to monitor the AS-Interface communication, and to indicate that the module has an address of 0, is also available.

The module can be fitted in any position using two screws.

Accessories**VBP-HH1-V3.0-KIT**

AS-Interface Handheld with accessory

VAZ-T1-FK-0,3M-PUR-V1-G

Splitter box AS-Interface to 1x M12 round connector

V1-G

Female connector, M12, 4-pin, field attachable

VAZ-V3-B

Blind plug for M8 sockets

VBP-HH1-V3.0

AS-Interface Handheld