

# AS-Interface sensor/actuator module

## VBA-2E1A-G10-ZAL/E2L-1M-V1-Y

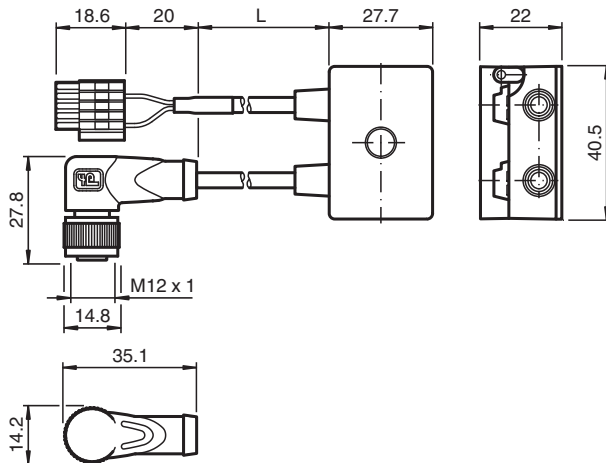


- Ultra-compact enclosure
- Gold-plated and machined contacts
- One piece housing
- Degree of protection IP68 / IP69K
- Direct connection via cable outlet

G10 ultra compact module 2 inputs and 1 output



### Dimensions



### Technical Data

#### General specifications

Node type	A/B node
AS-Interface specification	V3.0
Required gateway specification	≥ V2.1

#### Indicators/operating means

LED FAULT	error display; LED red red: communication error or address is 0 red flashing: overload of sensor power supply or overload of outputs or external auxiliary voltage $U_{AUX}$ missing
LED AS-i	AS-Interface voltage; LED green
LED IN	switching state (input); 2 LED yellow
LED OUT	Switching state (output); LED yellow

#### Electrical specifications

Auxiliary voltage	$U_{AUX}$	20 ... 30 V DC PELV
Rated operating voltage	$U_e$	18.5 ... 31.6 V from AS-Interface
Rated operating current	$I_e$	≤ 40 mA
Protection class		III
Surge protection		$U_{AUX}$ , $U_{in}$ : Over voltage category III, safe isolated power supplies (PELV)

#### Input

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

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## Technical Data

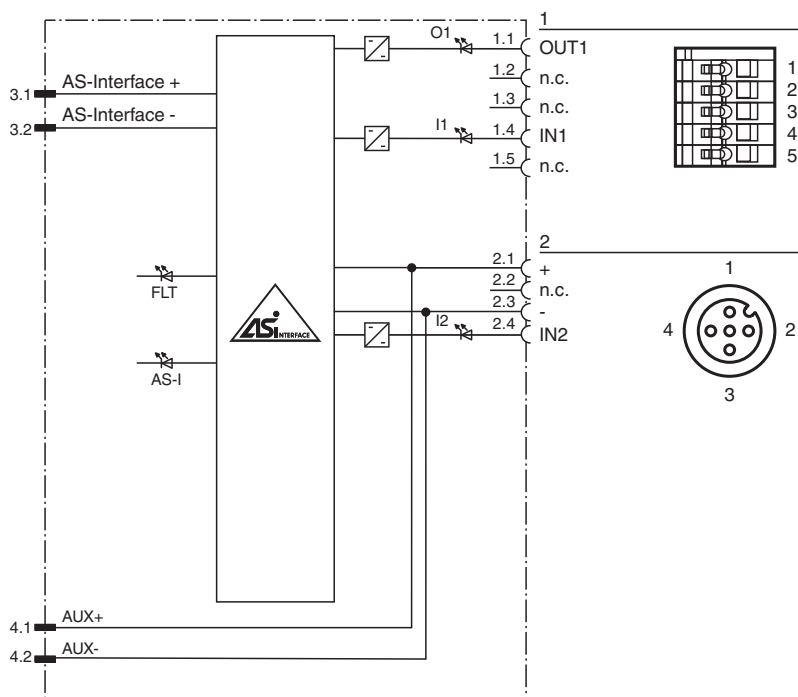
Number/Type	2 inputs for 2- or 3-wire sensors (PNP), DC
Supply	from external auxiliary voltage $U_{AUX}$
Voltage	20 ... 30 V
Current loading capacity	$\leq 1000$ mA overload and short-circuit resistant
Input current	$\leq 9$ mA (limited internally)
Switching point	according to DIN EN 61131-2 (Type 2)
0 (unattenuated)	$\leq 3$ mA
1 (attenuated)	$\geq 5$ mA
Signal delay	$< 1$ ms (input/AS-Interface)
<b>Output</b>	
Number/Type	1 electronic output, PNP,
Supply	from external auxiliary voltage $U_{AUX}$
Voltage	$\geq (U_{AUX} - 0.5$ V)
Current loading capacity	$\leq 1000$ mA overload and short-circuit resistant
<b>Directive conformity</b>	
Electromagnetic compatibility	
Directive 2014/30/EU	EN 62026-2:2013
<b>Standard conformity</b>	
Degree of protection	EN 60529:2000
Fieldbus standard	EN 62026-2:2013
Input	EN 61131-2:2007
Emitted interference	EN 61000-6-4:2007/A1:2011
AS-Interface	EN 62026-2:2013
Noise immunity	EN 61000-6-2:2005, EN 61326-1:2006, EN 62026-2:2013
<b>Programming instructions</b>	
Profile	S-7.A.E
IO code	7
ID code	A
ID1 code	7
ID2 code	E
<b>Data bits</b> (function via AS-Interface)	<b>InputOutput</b>
D0	IN1 O1
D1	IN2 -
D2	- -
D3	- -
<b>Parameter bits</b> (programmable via AS-i)	<b>function</b>
P0	communication monitoring P0 = 1 (default settings), monitoring = ON, i.e. if communication fails, the outputs are de-energised P0 = 0, monitoring = OFF, if communication fails, the outputs maintain their condition
P1	Input filter P1 = 0 input filter on, pulse suppression $\leq 2$ 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
<b>Ambient conditions</b>	
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
<b>Mechanical specifications</b>	
Degree of protection	housing: IP67 IP67 / IP68 / IP69K with flat cable VAZ-FK-S* M12 socket: IP69K

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**Technical Data**

Connection	AS-Interface/U <sub>AUX</sub> : AS-Interface flat cable Inputs/outputs: M12 round connector, 4-pin, A-coded, according to IEC 61076-2-101:2012 WAGO terminal type 733-105	
Material		
Contacts	M12: CuSn/Au WAGO terminal: CrNi	
Housing	PBT PC	
Body	PUR, black	
Cable	PUR	
Mounting screw	Stainless steel 1.4305 / AISI 303	
Cable		
Sheath diameter	Ø4,3 mm	
Color	black	
Cores	0.34 mm <sup>2</sup>	
Length	L	1 m
Mass	100 g	
Tightening torque, fastening screws	1.65 Nm	
Tightening torque, cable gland	0.4 Nm	

**Connection**

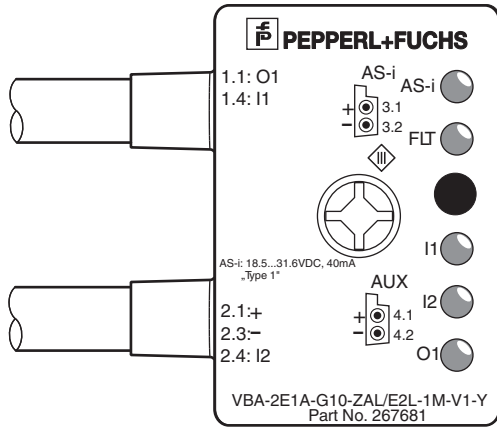


**Connection**

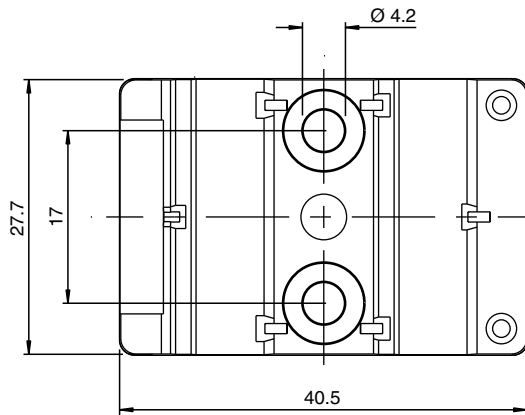
Do not connect inputs and outputs, which are supplied via the module from AS-interface or via auxiliary power, with power supply and signal circuits with external potentials.

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**Assembly**




**Mounting**



You may screw the device onto a level mounting surface using two M4 attachment screws. The attachment screws are not included.

**Accessories**

	<p><b>VAZ-PK-FK-0,2M-V1-W</b></p>	<p>Adapter cable G10 module/hand-held programming device</p>
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