



**Model number**

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

G10 ultra compact module  
2 inputs and 1 output

**Features**

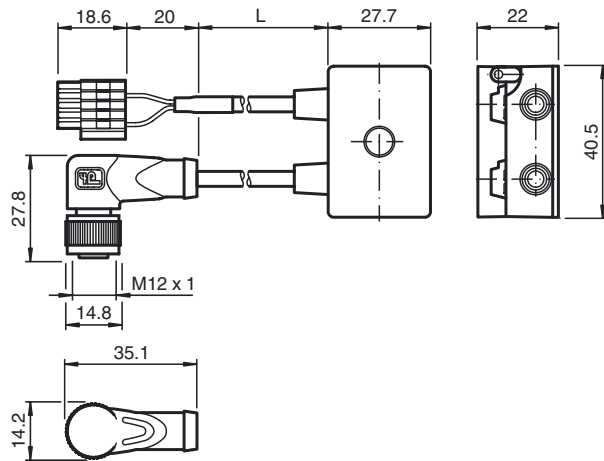
- Ultra-compact enclosure
- Gold-plated and machined contacts
- One piece housing
- Degree of protection IP68 / IP69K
- Direct connection via cable outlet

**Accessories**

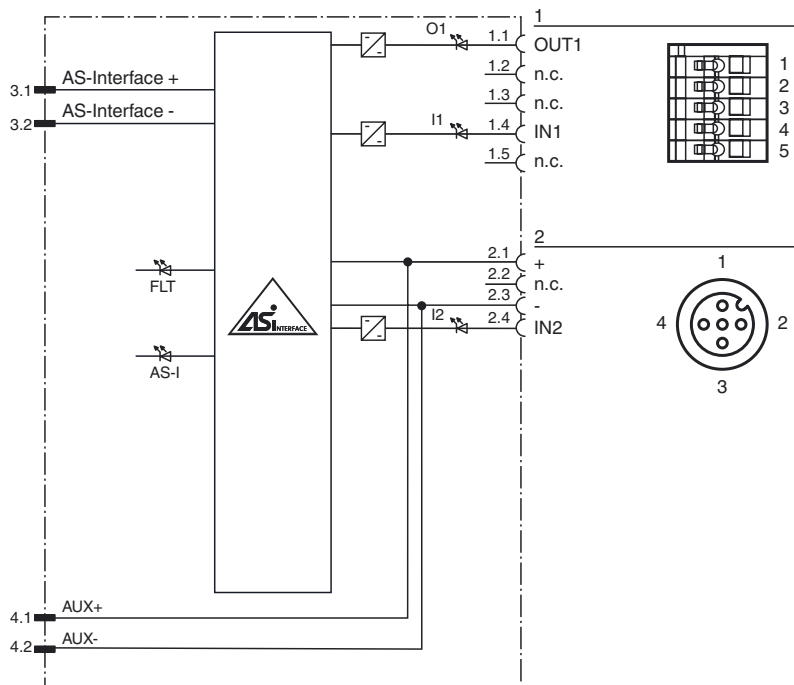
**VAZ-PK-FK-0,2M-V1-W**

Adapter cable G10 module/hand-held programming device

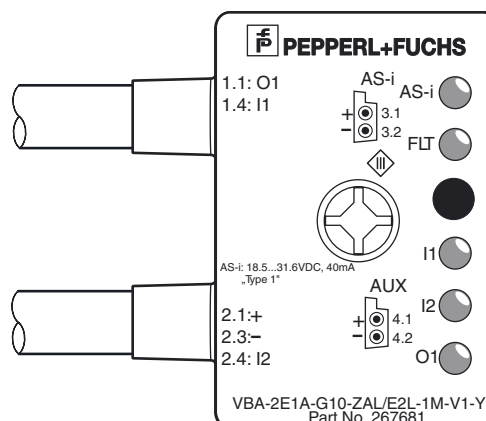
**Dimensions**



**Electrical connection**



**Indicating / Operating means**



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

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**Technical data****General specifications**

Slave type	A/B slave
AS-Interface specification	V3.0
Required master 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 / max. 60 mA
Protection class		III
Surge protection	$U_{AUX}$ , $U_{in}$ :	Over voltage category III, safe isolated power supplies (PELV)

**Input**

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	≤ 1000 mA overload and short-circuit resistant
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)

**Output**

Number/Type	1 electronic output, PNP,
Supply	from external auxiliary voltage $U_{AUX}$
Voltage	≥ ( $U_{AUX} - 0.5$ V)
Current loading capacity	≤ 1000 mA overload and short-circuit resistant

**Programming instructions**

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

**Data bits (function via AS-Interface)**

	input	output
D0	IN1	O1
D1	IN2	-
D2	-	-
D3	-	-

**Parameter bits (programmable via AS-i)**

Parameter	function
P0	communication monitoring P0 = 1 (basic setting), 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 ≤ 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	housing: IP67 IP67 / IP68 / IP69K with flat cable VAZ-FK-S* M12 socket: IP69K
Connection	AS-Interface/ $U_{AUX}$ : 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	black PUR
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

#### 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 61326-1:2006, EN 50295:1999
Emitted interference	EN 61000-6-4:2007/A1:2011
Input	EN 61131-2:2007
Degree of protection	EN 60529:2000
Fieldbus standard	EN 50295:1999, IEC 62026-2:2008

#### 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

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

