



ECOLAB

Model number

VBA-2E-G10-ZEJ-2X3M

G10 ultra-compact module
2 inputs, open cable ends

Features

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

Function

The AS-Interface G10 ultra-compact module is suitable for the remote connection of sensors within very limited space. The one-piece enclosure has the protection degree IP68/IP69K.

The AS-Interface flat cable is contacted via pointy, gold-plated contact pins. The exact location of the pins on the lead is ensured by the swivel mechanism. Sensors are connected to the module via open cable end.

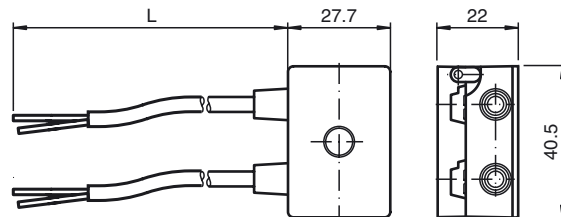
Multiple LEDs indicate the current status of the AS-Interface strand and the inputs and are used for diagnosis. The ultra-compact module is powered from the AS-Interface strand.

Accessories

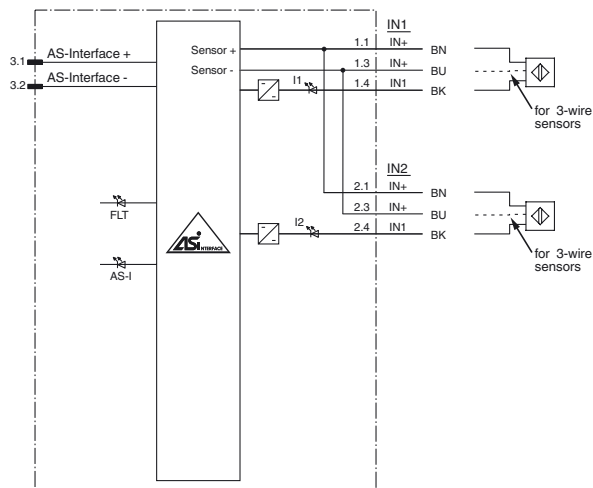
VAZ-PK-FK-0,2M-V1-W

Adapter cable G10 module/hand-held programming device

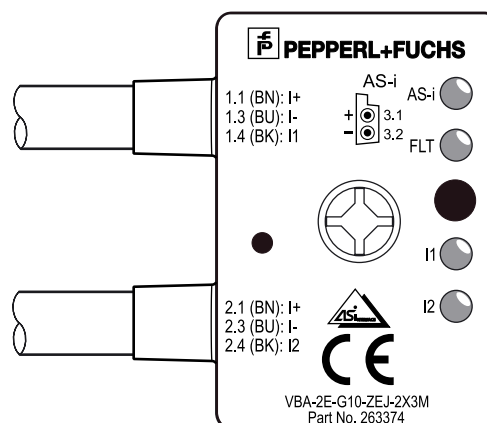
Dimensions



Electrical connection



Indicating / Operating means



Technical data

General specifications

Slave type	A/B slave
AS-Interface specification	V3.0
Required master specification	≥ V2.0
UL File Number	E223772 "For use in NFPA 79 Applications only"

Functional safety related parameters

MTTF _d	555 a
Indicators/operating means	
LED FAULT	error display; LED red red: communication error or address is 0 red flashing: overload of sensor power supply or outputs
LED AS-i	AS-Interface voltage; LED green
LED IN	switching state (input); 2 LED yellow
Electrical specifications	
Rated operating voltage	U _e 18.5 ... 31.6 V from AS-Interface
Rated operating current	I _e ≤ 40 mA (without sensors) / max. 120 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 AS-Interface
Voltage	21 ... 31 V
Current loading capacity	75 mA at TB ≤ 40 °C (104 °F) 60 mA at TB ≤ 75 °C (167 °F) 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)
Directive conformity	
Electromagnetic compatibility	
Directive 2014/30/EU	EN 62026-2:2013
Standard conformity	
Degree of protection	EN 60529:2000
Fieldbus standard	EN 62026-2:2013
Input	EN 61131-2:2007
Emitted interference	EN 61000-6-4:2007
AS-Interface	EN 62026-2:2013
Noise immunity	EN 61000-6-2:2005, EN 61326-1:2006, EN 62026-2:2013
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	- -
D3	- -
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)
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 IP67 / IP68 / IP69K with flat cable VAZ-FK-S-*
Connection	AS-Interface: AS-Interface flat cable Inputs & matching connector: M12 round connector, 4-pin, A-coded, according to IEC 61076-2-101:2012
Material	
Contacts	CuSn / Au
Housing	PBT PC
Cable	PUR
Mounting screw	Stainless steel 1.4305 / AISI 303
Cable	
Sheath diameter	Ø4,3 mm
Color	black
Cores	4 x 0.34 mm ²
Length	L 3 m

Mass	100 g
Tightening torque, fastening screws	1.65 Nm
Tightening torque, cable gland	0.4 Nm

Approvals and certificates

UL approval	cULus Listed, Type 1 enclosure
Maximum permissible ambient temperature	$\leq 65\text{ °C}$ ($\leq 149\text{ °F}$)

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.

