



AS-Interface analog module

VBA-2A-G4-U

- Degree of protection IP65
- Flat or round cable connection (via standardized EEMS base, not included with delivery)
- Cable piercing method for flat cable
- Function display for bus, external auxiliary voltage and outputs
- Power supply of outputs external or from the module, as required

G4 module IP652 analog outputs (voltage)



Function

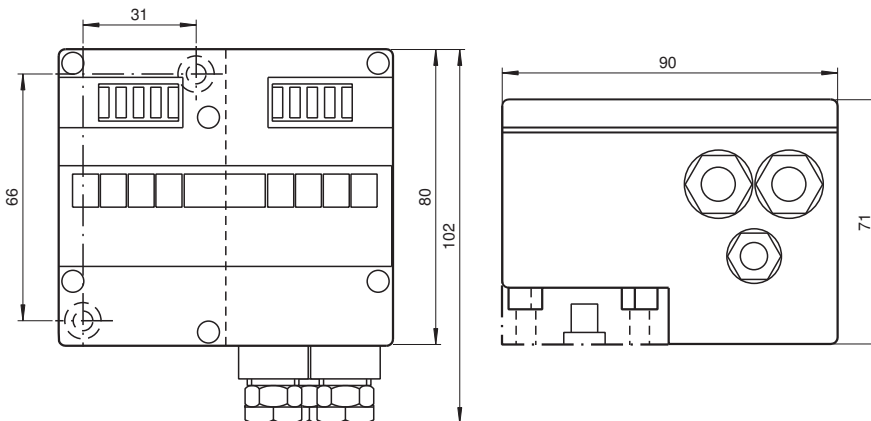
The VBA-2A-G4-U analogue module has two voltage outputs 0 V ... 10 V. The asynchronous transformation of measured values and the data transfer is accomplished in accordance with AS-Interface profile 7.3. The measured-value transmitter can be supplied from the AS-Interface or from the external auxiliary power via the black flat cable, depending on the wiring of the plug-in jumpers. The resolution of the analogue values is 13 bit.

The IP65 rated G4 module is especially suitable for rough conditions. Connection to the outputs is established by means of cable glands and cage tension spring terminals thus making the installation especially user-friendly. For pre-addressing the module it can be plugged directly onto the adapter of the hand-held programming device VBP-HH1.

Both flat and round cables can be used for the connection of the AS-Interface transmission line and the external 24 V DC power supply. Use the U-G1FF base for the AS-Interface flat cable. The AS-Interface standardised EEMS interface, uses the cable piercing method to connect both the yellow and black flat cables.

Use the U-G1PP base for a round cable. The AS-Interface cable as well as the external power supply may be connected within the U-G1PP base.

Dimensions



Technical Data

General specifications

Node type	Standard node
AS-Interface specification	V2.1
Required gateway specification	≥ V2.1
UL File Number	E223772

Functional safety related parameters

MTTF _d	145 a at 30 °C
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Indicators/operating means

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

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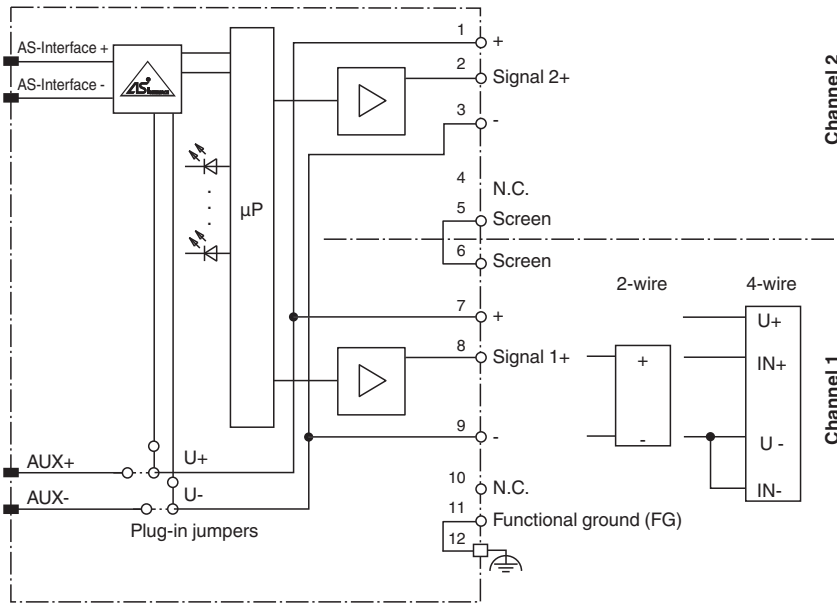
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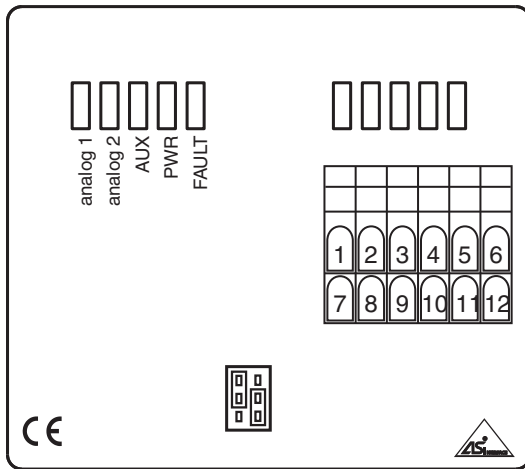
Technical Data

LED FAULT		error display; LED red red: communication error red flashing: peripheral error
LED PWR		AS-Interface voltage; LED green
LED ANALOG		status output signal; LED green green: $0\text{ V} \leq U \leq 11.5\text{ V}$ green flashing: $U > 11.5\text{ V}$ (peripheral error)
LED AUX		ext. auxiliary voltage U_{AUX} ; LED green
Electrical specifications		
Auxiliary voltage (output)	U_{AUX}	24 V DC \pm 15 % PELV
Rated operating voltage	U_e	26.5 ... 31.6 V from AS-Interface
Rated operating current	I_e	$\leq 80\text{ mA}$
Protection class		III
Output		
Number/Type		2 analog outputs (voltage), 0 ... 10 V
Supply		from AS-Interface or from external auxiliary voltage as required U_{AUX}
Resolution		13 Bit / 1 mV
Directive conformity		
Electromagnetic compatibility		
Directive 2014/30/EU		EN 62026-2:2013
Standard conformity		
Degree of protection		EN 60529:2000
AS-Interface		EN 62026-2:2013
Programming instructions		
Profile		S-7.3.5
IO code		7
ID code		3
ID2 code		5
Data bits (function via AS-Interface)		The transfer of the data value is based on AS-Interface Profile 7.3.
Parameter bits (programmable via AS-i)		function
P0		not used
P1		projecting of the 2nd channel P1=1, channel 2 is projected P1=0, channel 2 is not projected
P2		Message of peripheral error P2=1, peripheral error is reported P2=0, peripheral error is not reported
P3		not used
Ambient conditions		
Ambient temperature		0 ... 70 °C (32 ... 158 °F)
Storage temperature		-25 ... 85 °C (-13 ... 185 °F)
Mechanical specifications		
Degree of protection		IP65
Connection		cable piercing method or terminal compartment yellow flat cable/black flat cable or standard round cable inputs/outputs: 2 x M16 x 1.5 cable glands and cage tension spring terminals, 1 x M12 x 1.5 cable gland (not used)
Material		
Housing		PA 6 GF30
Mass		350 g
Mounting		DIN mounting rail

Connection



Assembly



Spring terminal block:

- 1: 24V ext. 7: 24V ext.
- 2: Sig.+ Ch. 2 8: Sig.+ Ch. 1
- 3: 0 V ext. 9: 0 V ext.
- 4: N.C. 10: N.C.
- 5: Shield 11: FG
- 6: Shield 12: FG

Plug-in jumper:

- Power supply of outputs from the external auxiliary power
- Power supply of outputs from the module (AS-Interface)

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.



Matching System Components

	U-G1FF	AS-Interface module mounting base for connection to flat cable (AS-Interface and external auxiliary power)
	U-G1FFA	AS-Interface module mounting base with addressing jack for connection to flat cable (AS-Interface and external auxiliary power)
	U-G1PP	AS-Interface module mounting base for connection to round cable (AS-Interface and external auxiliary power)

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Accessories

	VBP-HH1-V3.0-KIT	AS-Interface Handheld with accessory
	VAZ-G4-B1	Blind plug M12