AS-Interface analog module
VBA-4E-G4-Pt100

- Degree of protection IP65
- Flat or round cable connection (via standardized EMS base, not included with delivery)
- Cable piercing method for flat cable
- Function display for bus and inputs
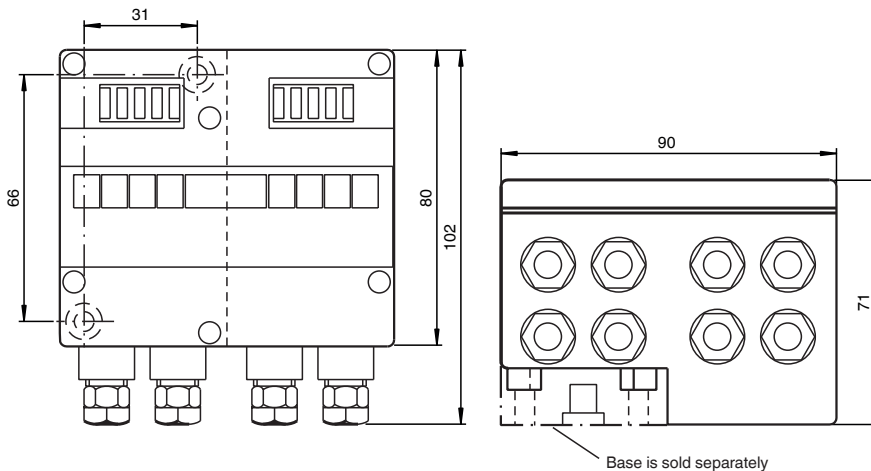
G4 module IP654 inputs for Pt100

Function

The VBA-4E-G4-Pt100 analogue module has four analogue inputs for Pt100 RTDs. The asynchronous transformation of measured values and the data transfer is accomplished in accordance with AS-Interface profile 7.3. The resolution of the analogue values is 16 bit or 0.1 °C. System disturbances are eliminated using a programmable filter (50 Hz/60 Hz).

The IP65 rated G4 module is especially suitable for use in hazardous environments. Connection to the measured-value transmitters is established by means of cable glands and cage tension spring terminals thus making the installation especially user-friendly. For preaddressing the module, it can be plugged directly onto the adapter of the hand-held programming device VBP-HH1.

Various bases are available for the module. Use the U-G1F base to connect to the ASInterface flat cable, and the U-G1P base to connect to the round cable. The bases can, at the same time, be used as IP67 rated distributor box. Moreover, they both have two connection possibilities for AS-Interface cables.

Output modules often have to be mounted in series with input modules. The outputs of the output modules are supplied externally with power. If the power is supplied via a flat cable, the power cable has to be mounted in the base of the input module. The U-G1FF base should be used in this case. The VBA-4E-G4-Pt100 then uses the AS-Interface cable instead of the power cable.

Dimensions

Base is sold separately

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

$MTTF_d$	150 a at 30 °C

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

Pepperl+Fuchs Group
www.pepperl-fuchs.com
USA: +1 330 486 0001
fa-info@us.pepperl-fuchs.com
Germany: +49 621 776 1111
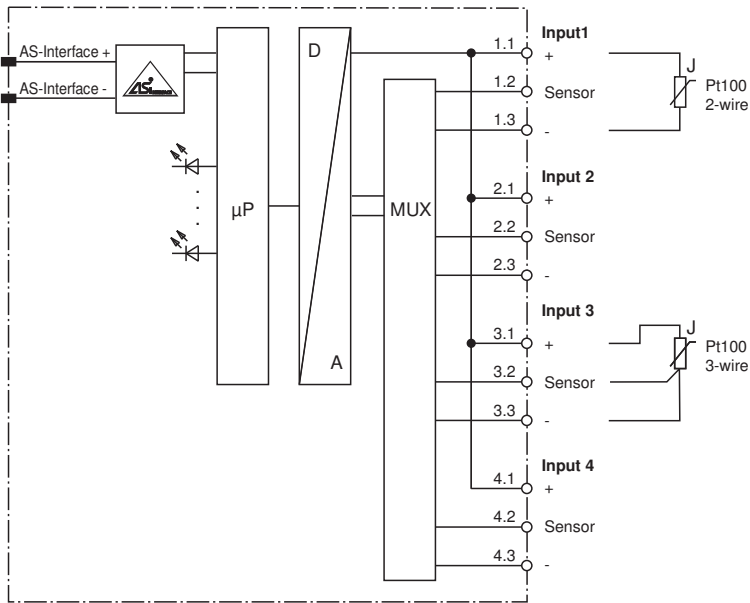fa-info@de.pepperl-fuchs.com
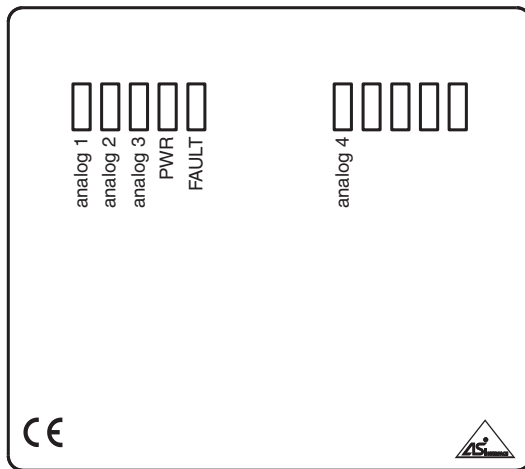Singapore: +65 6779 9091
fa-info@sg.pepperl-fuchs.com

PEPPERL+FUCHS

1

Technical Data

Indicators/operating means		
LED FAULT		error display; LED red red: communication error red flashing: peripheral error
LED PWR		AS-Interface voltage; LED green
LED ANALOG		status of input signal; LED green off: not connected (peripheral error) green: signal within measurement range green flashing: signal outside of measurement range (peripheral error)
Electrical specifications		
Rated operating voltage	U_e	26.5 ... 31.6 V from AS-Interface
Rated operating current	I_e	≤ 80 mA
Protection class		III
Input		
Number/Type		4 inputs for Pt100, 2- or 3-wire connection
Supply		from AS-Interface
Resolution		16 Bit / 0.1 °C
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.E
IO code		7
ID code		3
ID2 code		E
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		mains power frequency filter P0=1, 50 Hz filter active P0=0, 60 Hz filter active
P1/P2		Communication of the peripheral fault on measuring channels 1 to 4: [*PD-Z02313A*]
P3		configuration Pt100 P3=1, 2-wire connection P3=0, 3-wire connection
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 or standard round cable inputs: M12 x 1.5 cable gland and cage tension spring terminals
Material		
Housing		PA 6 GF30
Mass		350 g
Mounting		DIN mounting rail

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

Pepperl+Fuchs Group   USA: +1 330 486 0001   Germany: +49 621 776 1111   Singapore: +65 6779 9091
www.pepperl-fuchs.com   fa-info@us.pepperl-fuchs.com   fa-info@de.pepperl-fuchs.com   fa-info@sg.pepperl-fuchs.com

PEPPERL+FUCHS   2

Connection

Assembly

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-G1F	AS-Interface module mounting base for connection to flat cable (AS-Interface)
	U-G1FA	AS-Interface module mounting base with adressing jack for connection to flat cable (AS-Interface)
	U-G1P	AS-Interface module mounting base for connection to round cable (AS-Interface)

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

PEPPERL+FUCHS

Accessories

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

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

Pepperl+Fuchs Group
www.pepperl-fuchs.com

USA: +1 330 486 0001
fa-info@us.pepperl-fuchs.com

Germany: +49 621 776 1111
fa-info@de.pepperl-fuchs.com

Singapore: +65 6779 9091
fa-info@sg.pepperl-fuchs.com

PEPPERL+FUCHS

4