



**Model number**

**VBG-PB-K20-D-BV**

PROFIBUS gateway

**Features**

- Connection to PROFIBUS DP
- PROFIBUS DP V1 support
- Easy commissioning and fault diagnosis via LEDs and graphic display
- Earth fault detection
- AS-Interface noise detection

**Function**

The VBG-PB-K20-D-BV is a PROFIBUS gateway according to AS-Interface specification 3.0.

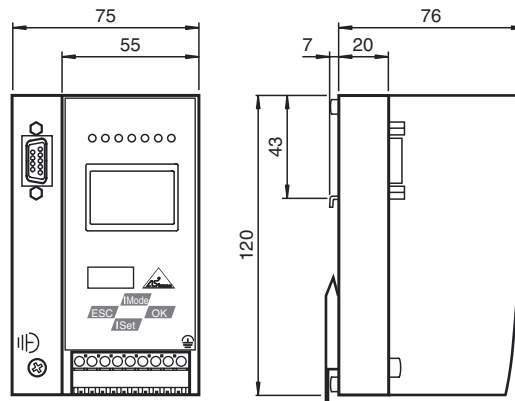
The design of the K20 in stainless steel with IP20 is particularly suited for use in switching cabinets for snap on mounting on the 35 mm mounting rail.

The gateway in accordance with the AS-Interface specification V 3.0 is used to connect AS-Interface systems to a higher-level net. It acts as a master for the AS-Interface segment and as a slave for the higher-level net. During cyclic data exchange, the digital data of an AS-Interface segment is transferred. Analog values as well as the complete command set of the new AS-Interface specification are transferred using a command interface.

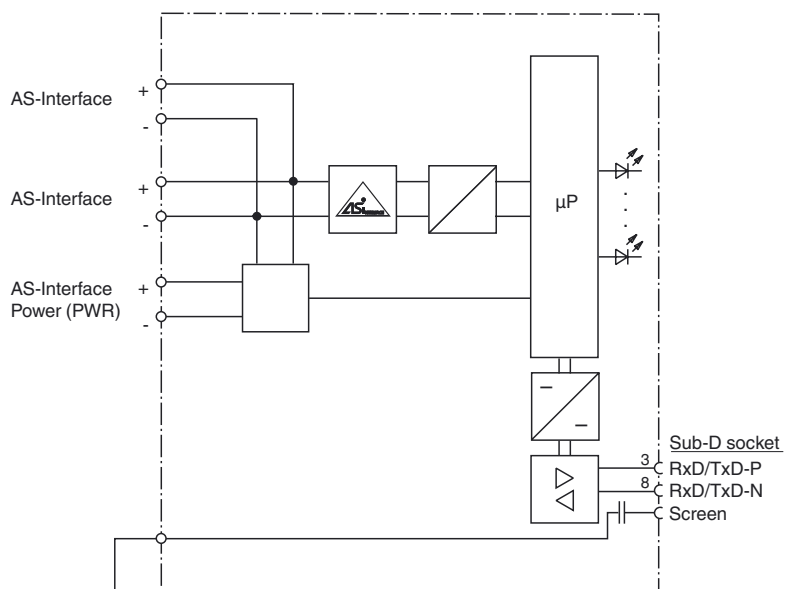
The address allocation and acceptance of the target configuration can be achieved via the keys. 7 LEDs fitted to the front panel indicate the actual state of the AS-Interface branch.

With the graphical display, the commissioning of the AS-Interface circuits and testing of the connected peripherals can take place completely separately from the commissioning of the higher-level network and the programming. With the 4 switches, all functions can be controlled and visualized on the display.

**Dimensions**

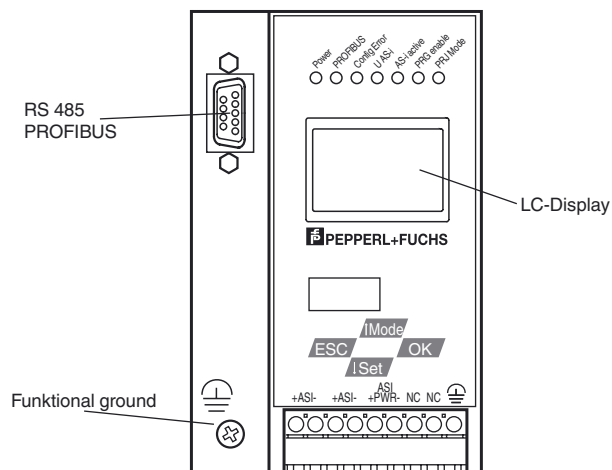


**Electrical connection**



At the cable for power supply no slaves or repeaters may be attached.  
At the cable for AS-Interface circuit no power supplies or further masters may be attached.

**Indicating / Operating means**



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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 4411  
fa-info@de.pepperl-fuchs.com

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

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

AS-Interface specification	V3.0
Earth fault detection	EFD integrated
EMC monitoring	integrated
Diagnostics function	Extended function via display
UL File Number	E223772

**Indicators/operating means**

Display	Illuminated graphical LC display for addressing and error messages
LED PROFIBUS	PROFIBUS master detected; LED green
LED AS-i ACTIVE	AS-Interface operation normal; LED green
LED CONFIG ERR	configuration error; LED red
LED PRG ENABLE	autom. programming; LED green
LED POWER	voltage ON; LED green
LED PRJ MODE	projecting mode active; LED yellow
LED U AS-i	AS-Interface voltage; LED green
Button	4
Switch SET	Selection and setting of a slave address
OK button	Mode selection traditional-graphical/confirmation
Button MODE	Mode selection PRJ-operation/save configuration/cursor
ESC button	Mode selection traditional-graphical/cancel

**Electrical specifications**

Insulation voltage	$U_i$	$\geq 500$ V
Rated operating voltage	$U_e$	from AS-Interface
Rated operating current	$I_e$	approx. 200 mA from AS-Interface

**Interface 1**

Interface type	RS 485
Protocol	PROFIBUS in accordance with IEC 61158/IEC 61784-1
Transfer rate	9.6 kBit/s / 12 MBit/s , Automatic baud rate detection

**Connection**

PROFIBUS	Sub-D interface
AS-Interface	spring terminals, removable

**Ambient conditions**

Ambient temperature	0 ... 55 °C (32 ... 131 °F)
Storage temperature	-25 ... 85 °C (-13 ... 185 °F)

**Mechanical specifications**

Degree of protection	IP20
Material	
Housing	Stainless steel
Mass	460 g
Construction type	Low profile housing , Stainless steel

**Compliance with standards and directives**

Directive conformity	
EMC Directive 2004/108/EC	EN 61000-6-2:2005, EN 61000-6-4:2007
Standard conformity	
AS-Interface	EN 50295:1999
Degree of protection	EN 60529:2000
Shock and impact resistance	EN 61131-2:2004

**Notes**

In an AS-Interface network only one device can be operated earth fault detection. If there are many devices in an AS-Interface network, this can lead to the earth fault monitoring response threshold becoming less sensitive.

**Accessories****VAZ-SW-ACT32**

Full version of the AS-I Control Tools including connection cable

**VAZ-PB-SIM**

PROFIBUS master simulator

**USB-0,8M-PVC ABG-SUBD9**

Interface converter USB/RS 232

**VAZ-PB-DB9-W**

PROFIBUS Sub-D Connector with switchable terminal resistance