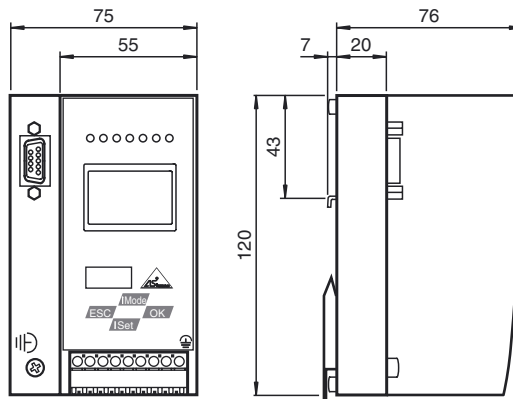




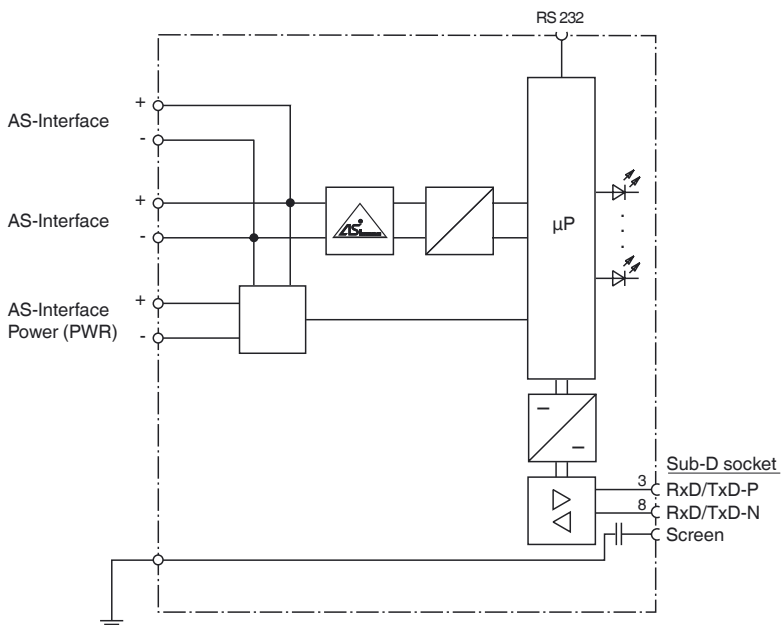
**Model number**  
**VBG-PB-K20-D**  
 PROFIBUS gateway

- Features**
- Connection to PROFIBUS DP
  - Easy commissioning and fault diagnosis via LEDs and graphic display
  - PROFIBUS DP V1 support
  - Duplicate addressing detection
  - Earth fault detection
  - AS-Interface noise detection
  - RS 232 diagnosis interface

**Dimensions**

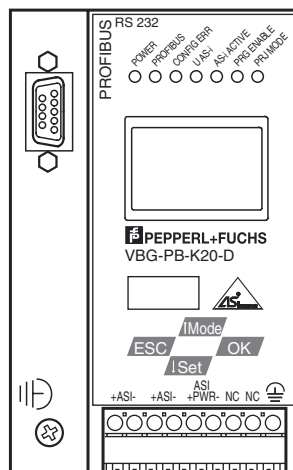


**Electrical connection**



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

AS-Interface specification	V3.0
PLC-Functionality	activateable
Duplicate address detection	from AS-Interface slaves
Earth fault detection	EFD integrated
EMC monitoring	integrated
Diagnostics function	Extended function via display
UL File Number	E223772

**Functional safety related parameters**

MTTF <sub>d</sub>	80 a at 30 °C
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**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
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 <sub>i</sub>	≥ 500 V
Rated operating voltage	U <sub>e</sub>	from AS-Interface
Rated operating current	I <sub>e</sub>	≤ 180 mA from AS-Interface

**Interface 1**

Interface type	RS 485
Protocol	PROFIBUS DP V1
Transfer rate	9.6 kBit/s / 12 MBit/s , Automatic baud rate detection

**Interface 2**

Interface type	RS 232, serial Diagnostic Interface
Transfer rate	19,2 kBit/s

**Connection**

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

**Ambient conditions**

Ambient temperature	0 ... 55 °C (32 ... 131 °F)
Storage temperature	-15 ... 75 °C (5 ... 167 °F)

**Mechanical specifications**

Protection degree	IP20
Mass	420 g
Construction type	Low profile housing , Stainless steel

**Compliance with standards and directives**

Standard conformity	
Electromagnetic compatibility	EN 61326:2003
AS-Interface	EN 50295:1999
Protection degree	EN 60529:2000

**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.

**Function**

The VBG-PB-K20-D is a PROFIBUS Gateway in accordance with AS-Interface specification 3.0 in IP20. The design is especially suitable for use in the switch cabinet.

The VBG-PB-K20-D is a modular PROFIBUS slave. This means that the user can use the PROFIBUS configuration tool to specify what data will be transferred via the PROFIBUS. This makes it possible to adjust the amount of data to be transferred via PROFIBUS.

In addition, this gateway supports acyclical communication of the PROFIBUS DP V1. These acyclical services can be used to access a mailbox in the gateway that provides access to all the data made available by the AS-Interface/PROFIBUS Gateway.

A push button can be used to accept the target configuration and to adjust the PROFIBUS address and baud rate. There are 7 LEDs on the front panel, showing the current status of the AS-Interface line.

In the case of the AS-Interface Gateway with graphical display, the AS-Interface circuit can be placed in service and the test of the connected periphery can be kept entirely separate from the commissioning of the PROFIBUS and the programming. On-site operation with the aid of the graphical display and 4 push buttons makes it possible to show all functions on the display that are covered by the AS-i Control Tools software for other AS-Interface masters. An additional RS 232-socket offers the option of reading data via gateway, network and function as part of advanced local diagnostics directly from the gateway.

**PLC functionality**

Optionally the gateway is also available with PLC-functionality. Therefore you can order a code key VAZ-CTR additionally.

**Software**

The device is supplied with the configuration data files (GSD) as well as a restricted version of the AS-i Control Tools software. The software performs the addressing, programming and monitoring of the AS-Interface network. The full version of the AS-i Control Tool is available as an accessory and features an expanded diagnostics monitor as well as a larger program memory for AS-Interface Control which makes it possible to detect faulty telegrams of slaves.

A GSD file can be easily created for the PROFIBUS DP using the GSD assistant, whereby the size of the I/O windows can be conveniently adapted to the AS-Interface circuit's load and the AS-Interface configuration can be stored within the GSD file. A text file is also created, which documents the status of AS-Interface data in the gateway's I/O window.

**Note:**

The VAZ-PB-SIM accessory is required for the AS-i Control Tool.

**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

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

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