



Model number

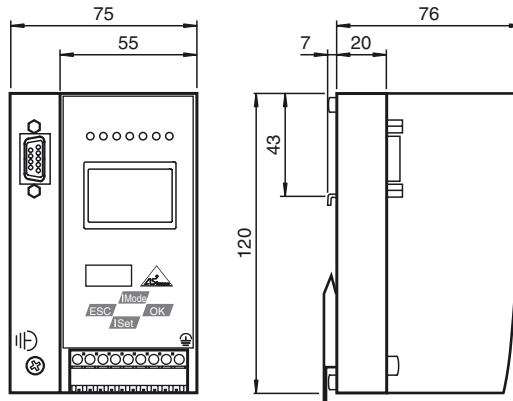
VBG-PB-K20-DMD

PROFIBUS Gateway, double master for 2 AS-Interface networks

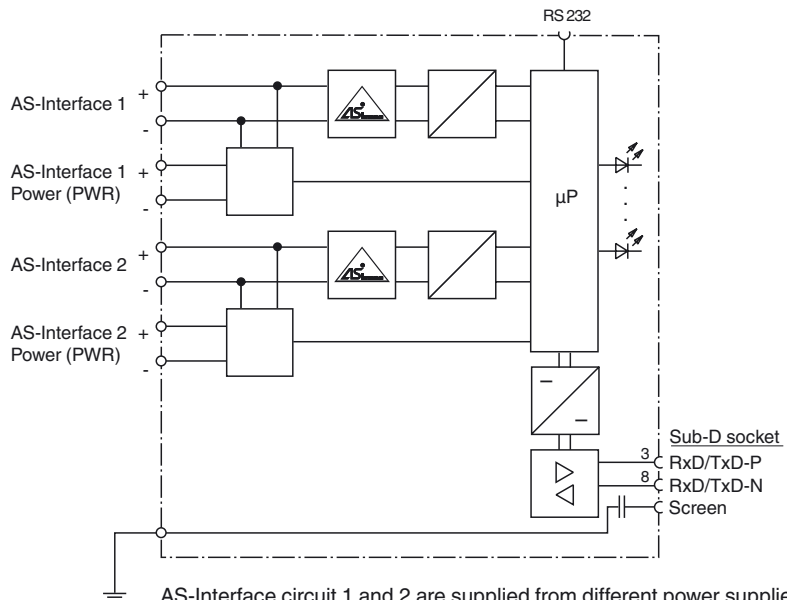
Features

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

Dimensions

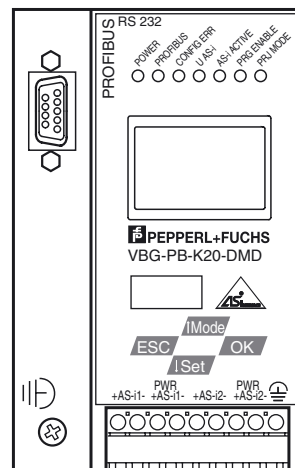


Electrical connection



AS-Interface circuit 1 and 2 are supplied from different power supplies. The gateway is supplied from circuit 1. 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

Indicating / Operating means



Release date: 2018-12-05 15:47 Date of issue: 2018-12-05 189978_eng.xml

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

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 _d | 80 a at 30 °C |
|-------------------|---------------|

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 _i | ≥ 500 V |
| Rated operating voltage | U _e | from AS-Interface |
| Rated operating current | I _e | ≤ 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 |

Directive conformity

| | |
|-------------------------------|-----------------|
| Electromagnetic compatibility | |
| Directive 2014/30/EU | EN 62026-2:2013 |

Standard conformity

| | |
|-------------------------------|-----------------|
| Electromagnetic compatibility | EN 61326:2003 |
| Degree of protection | EN 60529:2000 |
| AS-Interface | EN 62026-2:2013 |

Ambient conditions

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

Mechanical specifications

| | |
|----------------------|---------------------------------------|
| Degree of protection | IP20 |
| Mass | 420 g |
| Construction type | Low profile housing , Stainless steel |

Approvals and certificates

| | |
|----------------|----------------|
| EAC conformity | TR CU 020/2011 |
|----------------|----------------|

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-DMD is a PROFIBUS Gateway with 2 AS-Interface masters 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-DMD 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 PROFIBUSDP 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.

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