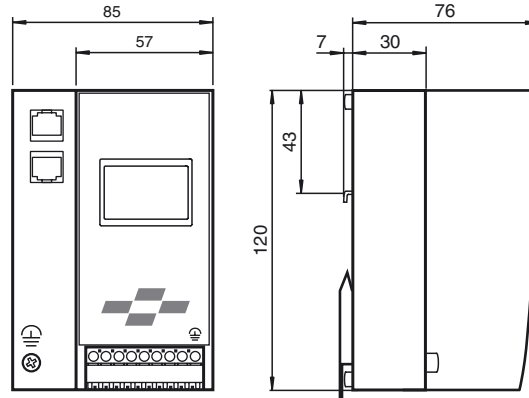
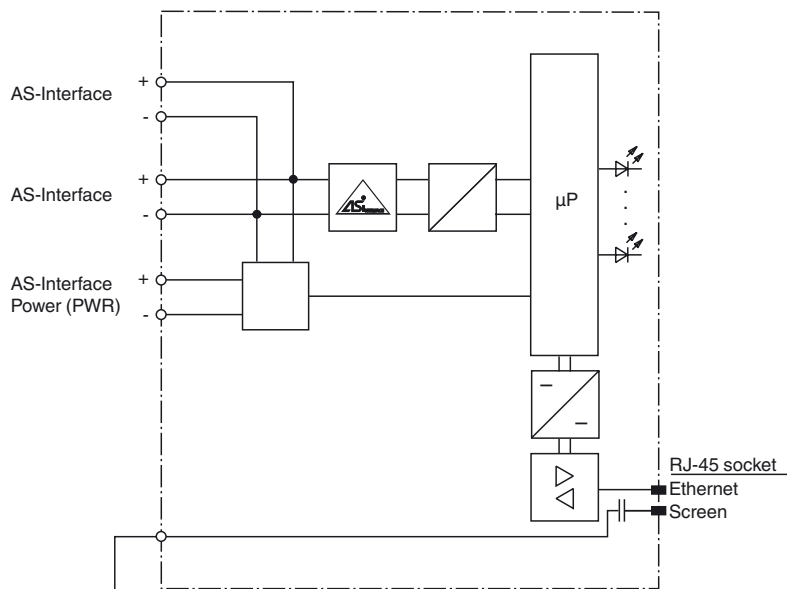




Dimensions



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.

Model number

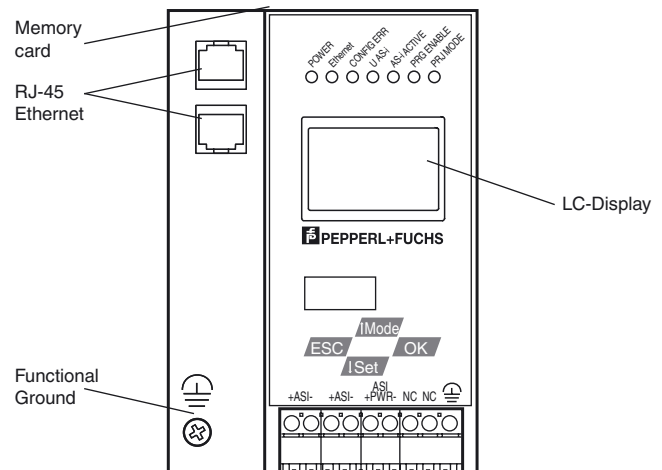
VBG-PN-K20-D-BV

PROFINET Gateway

Features

- Gateway compliant with AS-Interface specification 3.0
- Connection to PROFINET IO
- Earth fault detection
- Fault diagnosis via LEDs and graphic display
- Compact stainless steel housing

Indicating / Operating means



Release date: 2018-01-24 15:39 Date of issue: 2018-01-24 261676_eng.xml

Technical data**General specifications**

| | |
|----------------------------|--|
| AS-Interface specification | V3.0 |
| PLC-Functionality | activateable |
| Earth fault detection | EFD integrated |
| EMC monitoring | integrated |
| Diagnostics function | Extended function via display |
| UL File Number | E223772 only from low voltage, limited energy source (SELV or PELV) or listed Class 2 source |

Functional safety related parameters

| | |
|-------------------|----------------|
| MTTF _d | 105 a at 30 °C |
|-------------------|----------------|

Indicators/operating means

| | |
|-----------------|--|
| Display | Illuminated graphical LC display for addressing and error messages |
| LED ETHERNET | ethernet active; 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 | ≤ 200 mA from AS-Interface |

Interface 1

| | |
|----------------|--|
| Interface type | PROFINET I / O device (IRT) |
| Physical | 2 x RJ-45 |
| Protocol | Media Redundancy Protocol (MRP) |
| Transfer rate | 10 MBit/s / 100 MBit/s , Automatic baud rate detection |

Interface 2

| | |
|----------------|----------------|
| Interface type | Chip card slot |
|----------------|----------------|

Connection

| | |
|--------------|----------------------------------|
| PROFINET | RJ-45 |
| AS-Interface | removable spring clamp terminals |

Directive conformity

| | |
|-------------------------------|--|
| Electromagnetic compatibility | |
| Directive 2014/30/EU | EN 62026-2:2013 EN 61000-6-2:2005, EN 61000-6-4:2007 |

Standard conformity

| | |
|-------------------------------|--------------------------------------|
| Electromagnetic compatibility | EN 61000-6-2:2005, EN 61000-6-4:2007 |
| Degree of protection | EN 60529:2000 |
| AS-Interface | EN 62026-2:2013 |
| Standards | EN 61000-6-2:2005, EN 61000-6-4:2007 |

Ambient conditions

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

Mechanical specifications

| | |
|----------------------|---------------------------------------|
| Degree of protection | IP20 |
| Mass | approx. 460 g |
| Construction type | Low profile housing , Stainless steel |

Approvals and certificates

| | |
|-------------|--|
| UL approval | An isolated source with a secondary open circuit voltage of ≤ 30 V _{DC} with a 3 A maximum over current protection. Over current protection is not required when a Class 2 source is employed. UL mark does not provide UL certification for any functional safety rating or aspects of the device. |
|-------------|--|

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-PN-K20-D-BV is a PROFINET 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.

An RJ-45 Ethernet port provides a way of exporting data relating to the gateway, network and operation directly from the gateway for extended local diagnosis purposes.

The device has a card slot for a memory card for the storage of configuration data.

An integrated Switch and 2 RJ-45 sockets allow the design of a line topology without the use of an external Switch.

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

USB-0,8M-PVC ABG-SUBD9

Interface converter USB/RS 232