



AS-Interface gateway

VBG-DN-K20-D

- Gateway compliant with AS-Interface specification 3.0
- Duplicate addressing detection
- Earth fault detection
- AS-Interface noise detection
- Easy commissioning by graphic display
- Commissioning, locally on the gateway or via AS-i Control Tools software
- Fault diagnosis via LEDs and graphic display
- AS-Interface monitor or extended AS-Interface diagnostic read via display
- Ethernet diagnostic interface

DeviceNet Gateway



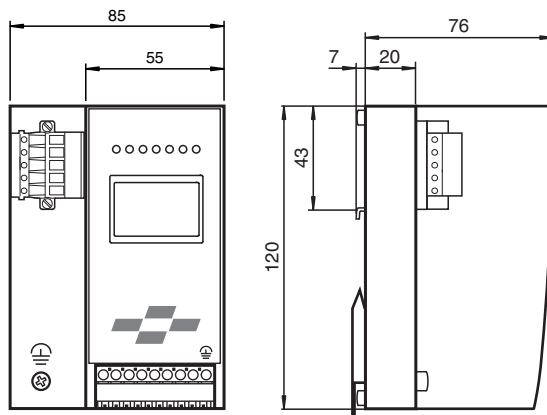
Function

The VBG-DN-K20-D is a DeviceNet gateway compliant with AS-Interface specification 3.0. The variant in an IP20 stainless steel housing is particularly suitable for use in the switching cabinet for snapping onto 35mm mounting rails. The gateway is a 100% DeviceNet slave (group 2 slave) and, as a listed product, directly addressable through the DeviceNet device manager. Communication between the ASInterface and DeviceNet is implemented by the gateway with no additional programming effort. For the AS-Interface gateway with graphic display, the commissioning of the AS-Interface circuit as well as the test of the connected periphery can be completely separated from the commissioning of the DeviceNet as well as the programming. On-site operation using the graphical display and the four buttons make it possible to perform all functions on the display. Address assignment and transfer of the expected configuration can be done with the buttons. There are 7 LEDs on the front panel, showing the current status of the AS-i line. An additional RS 232 socket is available with the option to read out data directly from the gateway via gateway, network and function within the scope of an enhanced on-site diagnosis. Using the AS-i Control Tools package (not included), many functions can be remotely controlled via PC. The gateway draws its power from the AS-interface cable. The connection of the AS-Interface gateway to the DeviceNet uses the 5pin CombiCon plug according to the DeviceNet specification. There are self-opening device terminals available for all other connections.

PLC Functionality

Furthermore, the gateway can optionally be delivered with PLC functionality. Therefore you can order a code key VAZ-CTR additionally.

Dimensions



Technical Data

General specifications

| | |
|-----------------------------|--------------------------|
| AS-Interface specification | V3.0 |
| PLC-Functionality | activateable |
| Duplicate address detection | from AS-Interface slaves |
| Earth fault detection | EFD integrated |

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

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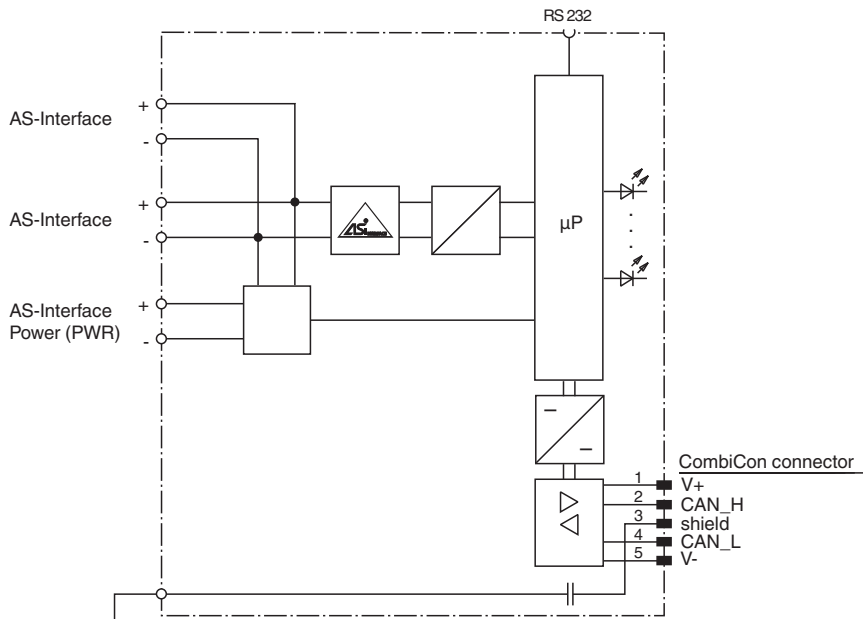
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Technical Data

| | | |
|-----------------------------------|--|---------------------------------|
| 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 | |
| Indicators/operating means | | |
| Display | Illuminated graphical LC display for addressing and error messages | |
| 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 | |
| LED MNS | Module/net status; LED green/red | |
| 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 | | |
| Protocol | DeviceNet | |
| Interface 2 | | |
| Interface type | RS 232, serial Diagnostic Interface | |
| Transfer rate | 19,2 kBit/s | |
| Connection | | |
| AS-Interface | spring terminals, removable | |
| DeviceNet | 5-pin CombiCon connector according to DeviceNet specification | |
| Directive conformity | | |
| Electromagnetic compatibility | | |
| Directive 2014/30/EU | EN 62026-2:2013 | |
| Standard conformity | | |
| Electromagnetic compatibility | EN 61000-6-2:2005, EN 61000-6-4:2001, EN 50295:1999 | |
| Degree of protection | EN 60529:2000 | |
| AS-Interface | EN 62026-2:2013 | |
| Shock resistance | EN 61131-2 | |
| 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. | |
| 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 | 520 g | |
| Construction type | Low profile housing , Stainless steel | |

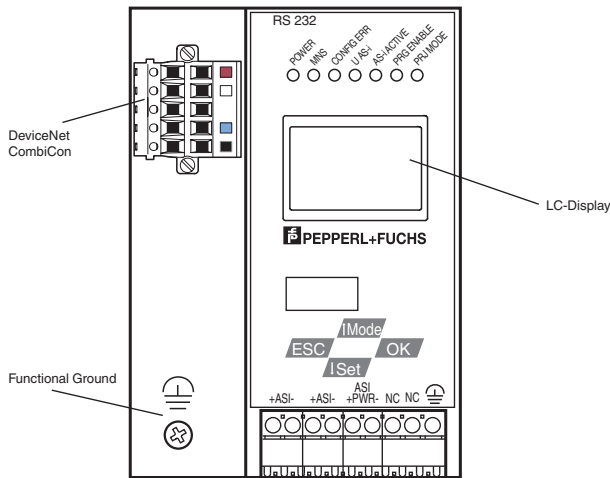
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Connection



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.

Assembly



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 |

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Connection

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.