AS-Interface gateway

VBG-DN-K20-DMD

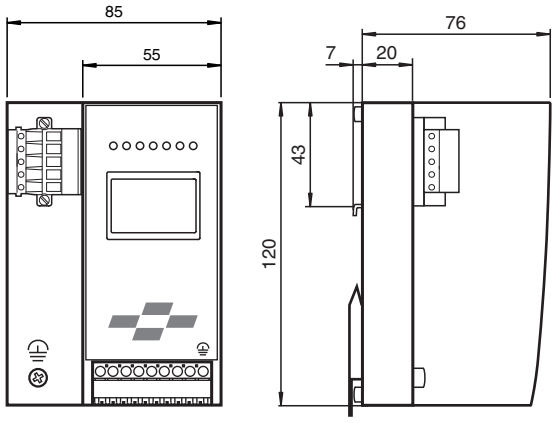
- Gateway compliant with AS-Interface specification 3.0
- 2 AS-Interface networks
- Dublicate addressing detection
- Earth fault detection
- AS-Interface noise detection
- Easy commissioning by graphic display
- Commissioning, locally on the gateway or via AS-i Control Tools software
- Fault diagnosis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

DeviceNet Gateway, double master for 2 AS-Interface networks

Function

The VBG-DN-K20-DMD is a DeviceNet gateway with two AS-Interface masters 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. Therefor 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

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Technical Data

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
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 circuit 1 ≤ 70 mA from AS-Interface segment 2
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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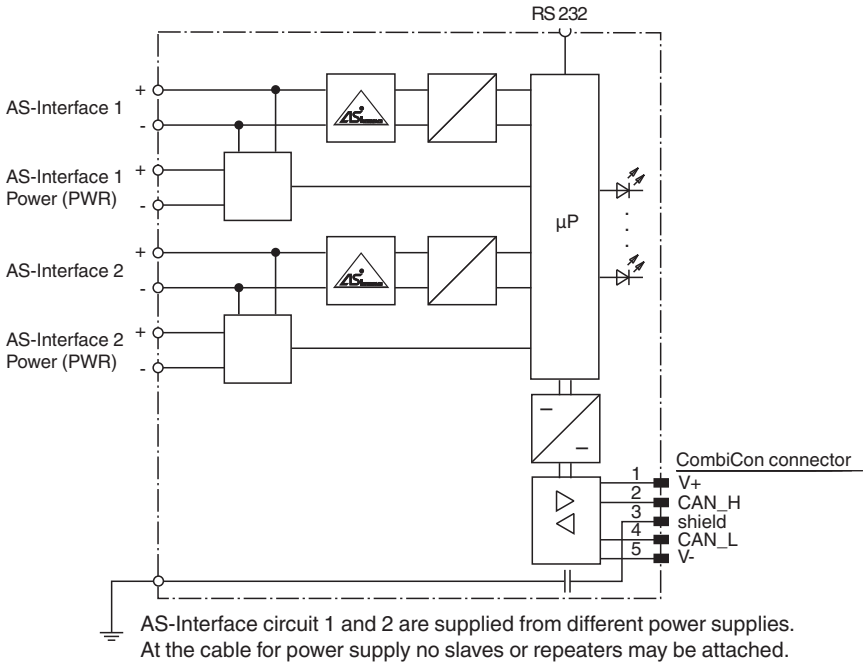
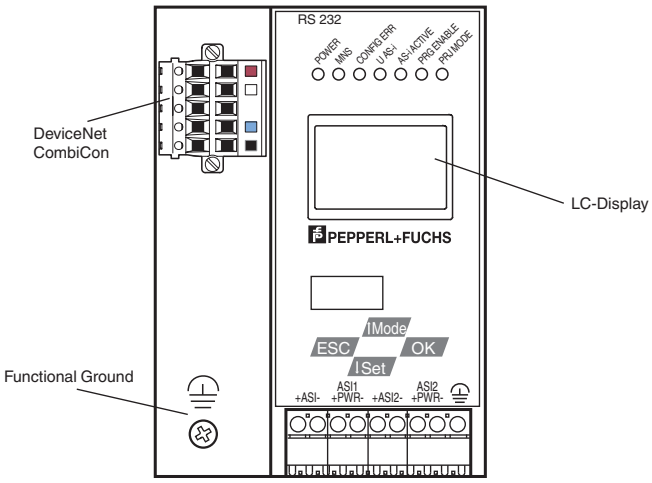
Connection



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

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