

## 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



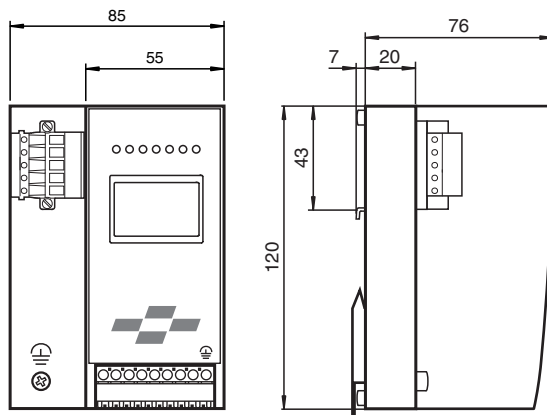
### Function

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

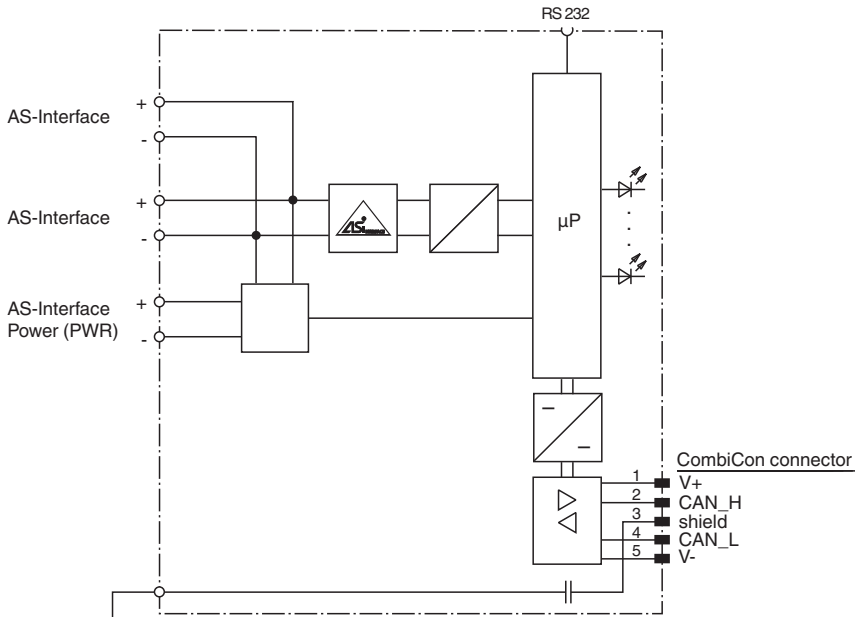
#### General specifications

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

## Technical Data

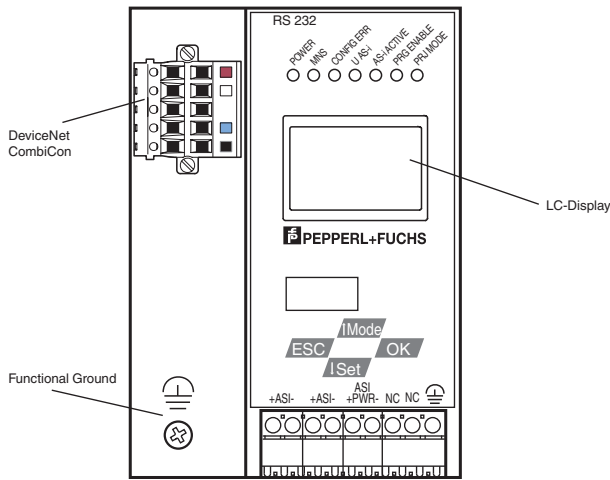
EMC monitoring	integrated	
Diagnostics function	Extended function via display	
UL File Number	E223772 only from low voltage, limited energy source (SELV or PELV) or listed Class 2 source	
<b>Indicators/operating means</b>		
Display	Illuminated graphical LC display for addressing and error messages	
LED 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	
<b>Electrical specifications</b>		
Insulation voltage	$U_i$	$\geq 500$ V
Rated operating voltage	$U_e$	from AS-Interface
Rated operating current	$I_e$	$\leq 200$ mA from AS-Interface
<b>Interface 1</b>		
Protocol	DeviceNet	
<b>Interface 2</b>		
Interface type	RS 232, serial Diagnostic Interface	
Transfer rate	19,2 kBit/s	
<b>Connection</b>		
AS-Interface	spring terminals, removable	
DeviceNet	5-pin CombiCon connector according to DeviceNet specification	
<b>Directive conformity</b>		
Electromagnetic compatibility		
Directive 2014/30/EU	EN 62026-2:2013	
<b>Standard conformity</b>		
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	
<b>Approvals and certificates</b>		
UL approval	An isolated source with a secondary open circuit voltage of $\leq 30$ V <sub>DC</sub> 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.	
<b>Ambient conditions</b>		
Ambient temperature	0 ... 55 °C (32 ... 131 °F)	
Storage temperature	-25 ... 85 °C (-13 ... 185 °F)	
<b>Mechanical specifications</b>		
Degree of protection	IP20	
Mass	520 g	
Construction type	Low profile housing , Stainless steel	

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

	<p><b>VAZ-SW-ACT32</b></p>	<p>Full version of the AS-I Control Tools including connection cable</p>
	<p><b>USB-0,8M-PVC ABG-SUBD9</b></p>	<p>Interface converter USB/RS 232</p>

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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.