Model number

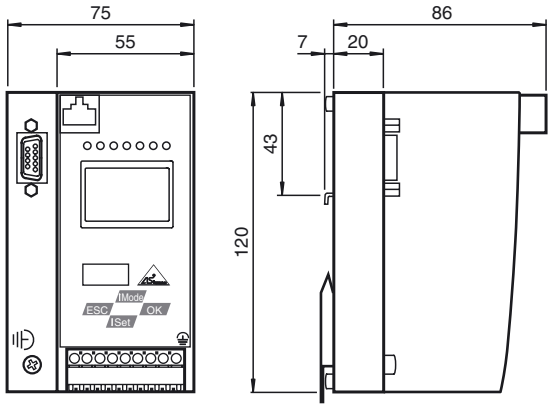
VBG-PB-K20-DMD-EV

PROFIBUS Power Hub gateway with data decoupling, double master for 2 AS-Interface networks

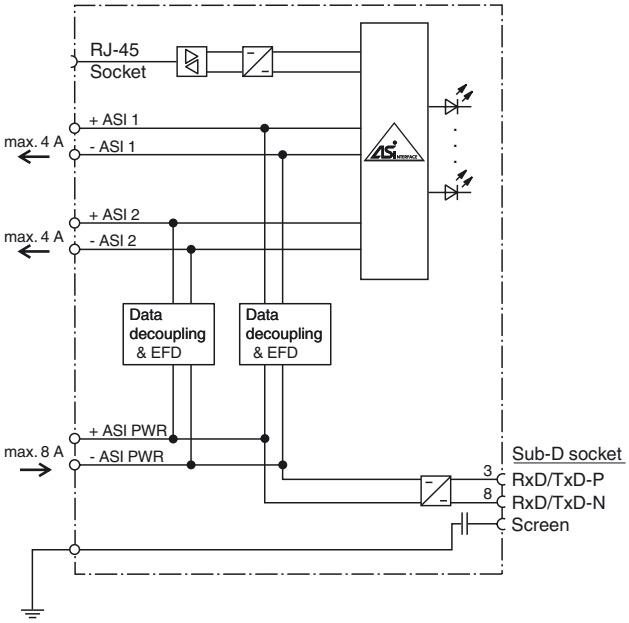
Features

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

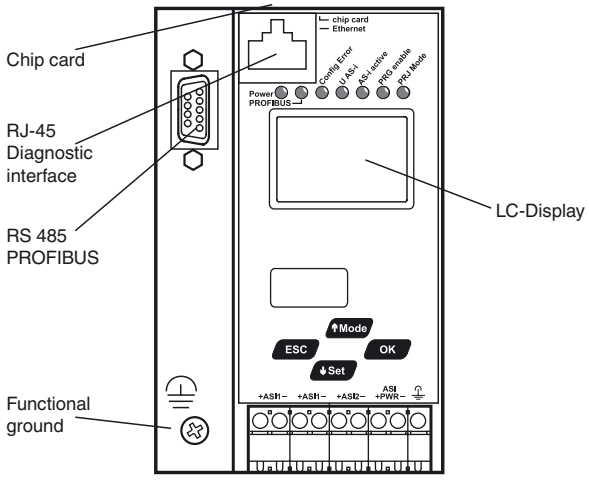
Dimensions



Electrical connection



Indicating / Operating means



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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
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
Button		4
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	approx. 250 mA PELV
Interface 1		
Interface type		RS-485
Protocol		PROFIBUS in accordance with IEC 61158/IEC 61784-1
Transfer rate		9.6 kBit/s / 12 MBit/s , Automatic baud rate detection
Interface 2		
Interface type		RJ-45 Ethernet Programming and diagnostics interface
Interface 3		
Interface type		Chip card slot
Connection		
PROFIBUS		Sub-D interface
Ethernet		RJ-45
AS-Interface		spring terminals, removable
Ambient conditions		
Ambient temperature		0 ... 55 °C (32 ... 131 °F)
Storage temperature		-25 ... 85 °C (-13 ... 185 °F)
Mechanical specifications		
Degree of protection		IP20
Material		
Housing		Stainless steel
Mass		460 g
Construction type		Low profile housing
Compliance with standards and directives		
Directive conformity		
EMC Directive 2004/108/EC		EN 61000-6-2:2005, EN 61000-6-4:2007
Standard conformity		
Electromagnetic compatibility		EN 61000-6-2:2005, EN 61000-6-4:2007
AS-Interface		EN 50295:1999
Degree of protection		EN 60529:2000
Shock and impact resistance		EN 61131-2:2004

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-EV is a PROFIBUS gateway with a double master 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.
Via the RJ-45 Ethernet diagnostic interface, up to 31 devices can establish a secure cross-communication.
The device has a card slot for a memory card for the storage of configuration data.
The integrated data decoupling allows to operate 2 AS-Interface circuits with just a standard power supply.
The redundant power supply guarantees that the double master remains in function and is diagnosticable, when a failure of a power supply unit in one of the two AS-interfaces circles occures. Also communication with the superior field bus is not disturbed by the failure of a power supply.

PLC Functionality

Optionally the gateway is also available with PLC functionality. Therefor 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

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