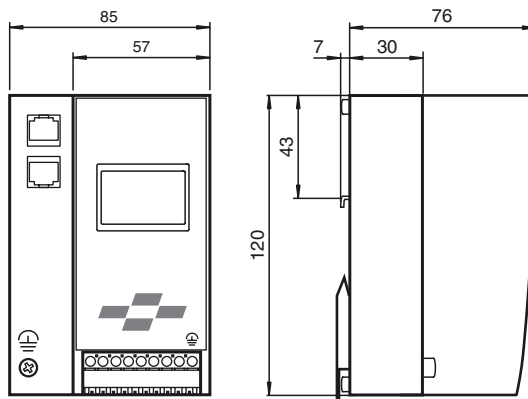
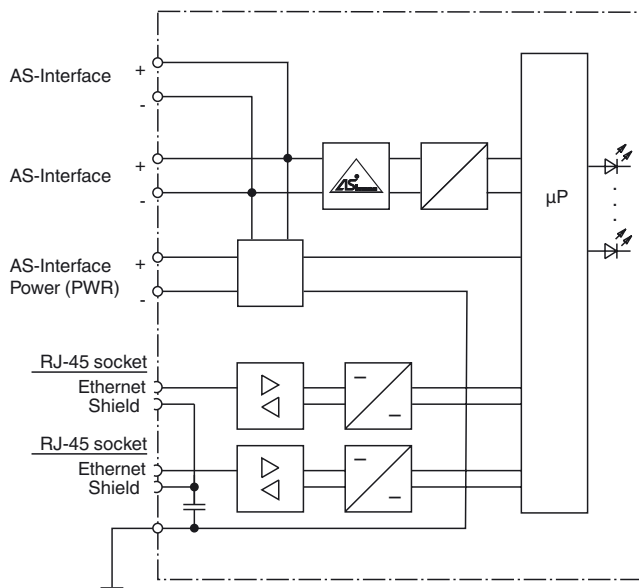




**Dimensions**



**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.

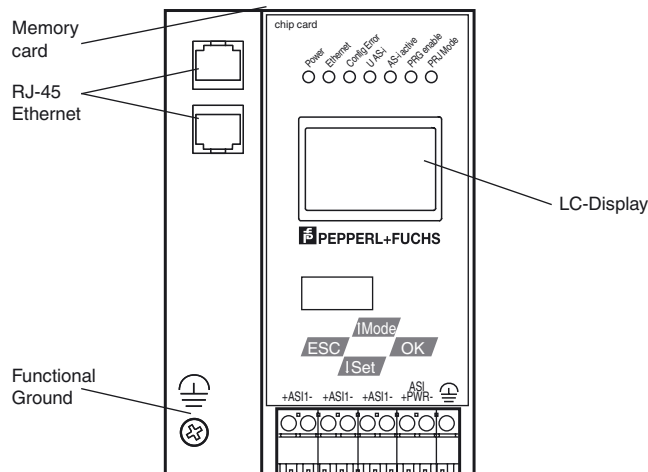
**Model number**

**VBG-ENX-K20-D-EV24**  
 EtherNet/IP + Modbus TCP Gateway

**Features**

- Connection to Ethernet Modbus TCP/IP
- Duplicate addressing detection
- Earth fault detection
- AS-Interface noise detection
- Ethernet diagnostic interface
- Integrated switch allows line topology
- DLR technology supports ring topology
- AS-Interface POWER24

**Indicating / Operating means**



Release date: 2019-11-26 15:12 Date of issue: 2019-11-26 274121\_Leng.xml

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

**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
Data decoupling	integrated
UL File Number	E223772 only from low voltage, limited energy source (SELV or PELV) or listed Class 2 source

**Functional safety related parameters**

MTTF <sub>d</sub>	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 <sub>i</sub>	≥ 500 V
Rated operating voltage	U <sub>e</sub>	24 V DC ( 20 ... 31.6 V ) safe isolated power supplies (PELV) <b>Note</b> 24 V power supply, max. segment length: 50 m Supply via AS-Interface power supply, max. segment length: 100 m
Rated operating current	I <sub>e</sub>	approx. 250 mA
Power supply		max. 4 A per AS-Interface circuit

**Interface 1**

Interface type	2 x RJ-45
Protocol	EtherNet/IP + MODBUS TCP/IP acc. to IEEE 802.3 supports device level ring protocol DLR
Transfer rate	100 MBit/s

**Interface 2**

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

**Connection**

Ethernet	RJ-45
AS-Interface	spring terminals, removable

**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
Shock resistance	EN 61131-2:2004
Standards	EN 61000-6-2:2005, EN 61000-6-4:2007 EN 954-1:1996 (up to Kategorie 4), IEC 61508:2001 and EN 62061:2005 (up to SIL3) EN 13849:2008 (PL e)

**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	500 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 <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.
-------------	---

**Function**

The VBG-ENX-K20-D-EV24 is an Ethernet/IP+Modbus TCP 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.

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.

The device level ring protocol DLR increases the reliability of a ring topology at the device level, thus optimizing the machine running times.

An integrated webserver allows to administrate the device and The AS-interface network without additional hard and/or software via a browser interface.

The device can be operated with a 24 V power supply according to PELV.

**Accessories****VAZ-SW-ACT32**

Full version of the AS-I Control Tools including connection cable

**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.

Release date: 2019-11-26 15:12 Date of issue: 2019-11-26 274121\_eng.xml

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

Pepperl+Fuchs Group  
www.pepperl-fuchs.com

USA: +1 330 486 0001  
fa-info@us.pepperl-fuchs.com

Germany: +49 621 776 4411  
fa-info@de.pepperl-fuchs.com

Singapore: +65 6779 9091  
fa-info@sg.pepperl-fuchs.com