Dimensions
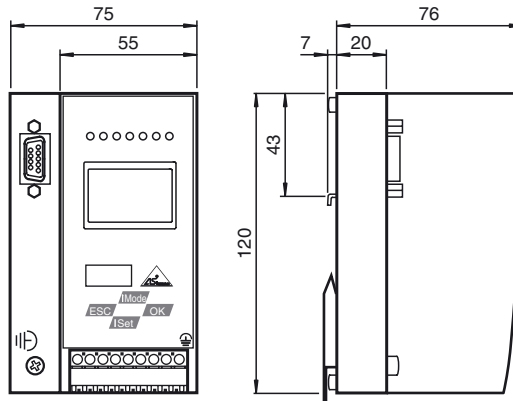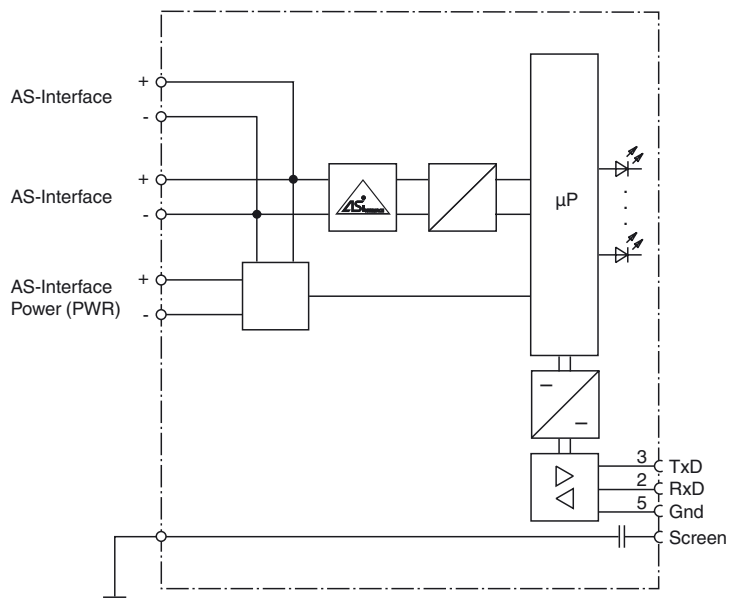

Electrical connection

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.

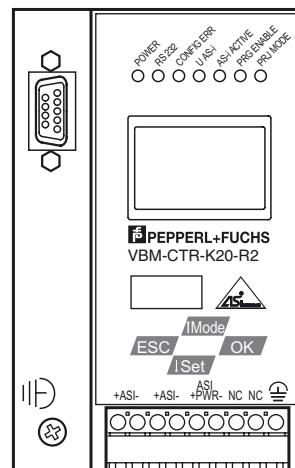## Indicating / Operating means

Model number

VBM-CTR-K20-R2-ACT32

Packet from the VBM-CTR-K20-R2 master and the VAZ-SW-ACT32 software

Features

- Stand alone master with PLC functionality and RS 232 interface
- Large, graphic LCD
- RS 232 diagnosis interface
- Easy commissioning and fault diagnosis via LEDs and graphic display
- Earth fault detection
- AS-Interface noise detection
- AS-i Control Tools Software included as standard

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

Pepperl+Fuchs Group   USA: +1 330 486 0001   Germany: +49 621 776 4411   Singapore: +65 6779 9091
www.pepperl-fuchs.com   fa-info@us.pepperl-fuchs.com   fa-info@de.pepperl-fuchs.com   fa-info@sg.pepperl-fuchs.com

PEPPERL+FUCHS
SENSING YOUR NEEDS

1

Technical data

General specifications

AS-Interface specification		V3.0
PLC-Functionality		integrated
Earth fault detection	EFD	integrated
EMC monitoring		integrated
Diagnostics function		Extended function via display

Functional safety related parameters

$MTTF_d$	180 a at 30 °C

Indicators/operating means

Display	Illuminated graphical LC display for addressing and error messages
LED RS 232	interface in operation; 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_i	$\geq$ 500 V
Rated operating voltage	U_e	from AS-Interface
Rated operating current	I_e	$\leq$ 150 mA

Interface

Interface type	RS 232
Transfer rate	1200, 2400, 4800, 9600, 19200, 28800, 38400, 57600 or 11500 Bit/s , Automatic baud rate detection
Cable length	max. 30 m

Connection

AS-Interface	spring terminals, removable
Serial interfaces	9-pin Sub-D socket

Ambient conditions

Ambient temperature	0 ... 55 °C (32 ... 131 °F)
Storage temperature	-15 ... 75 °C (5 ... 167 °F)

Mechanical specifications

Protection degree	IP20
Mass	460 g
Construction type	Low profile housing , Stainless steel

General information

Scope of delivery	1 VBM-CTR-K20-R2 1x AS-I Control Tools software

Compliance with standards and directives

Standard conformity	
Electromagnetic compatibility	EN 61326
AS-Interface	EN 50295
Protection degree	EN 60529

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 VBM-CTR-K20-R2 is a stand-alone master in AS-Interface specification 3.0 with IP20. The construction type is especially suited for use in a switch cabinet.

Address allocation, acceptance of the target configuration and setting the baud rate can be managed via buttons. There are 7 LEDs on the front panel, showing the current status of the AS-Interface line.

In the AS-Interface master with graphical display the commissioning of the AS-Interface circuit and the test of the connected periphery devices can be separated completely overriding bus systems and from programming. The on-site operation via the graphic display and the four push buttons make it possible to show all of the functions on the display, which, for all other AS-Interface masters, are covered by the software AS-Interface control tools.

PLC Functionality

For PLC functionality the VBM-CTR-K20-R2 provides 16 kB program memory, 8 kB data memory, 1024 counters and 1024 timers. This is sufficient capacity to process all data arriving at the AS-Interface. The master can, therefore, also be operated as "stand-alone". The programm processing for 1000 word commands is approx. 2 ms. The programming language is based on STEP5. In the extended mode the AS-Interface CTRL functions (upload, download, start, stop, read and write marker) can be utilized.

Software

The AS-i Control Tools software is supplied as full version together with the documentation. The software performs addressing, programming and monitoring of the AS-Interface network. In addition, it contains an editor that creates programs for the integrated PLC functionality. The full version features an expanded diagnostics monitor as well as a large program memory for AS-Interface Control which makes it possible to detect faulty telegrams of slaves.

One connecting cable for the RS 232 interface is also included in delivery.

Accessories

USB-0,8M-PVC ABG-SUBD9
Interface converter USB/RS 232

Matching system components

VBG-RIO-KHD2-R2
Bus Coupler for Allen Bradley Remote I/O

PEPPERL+FUCHS
SENSING YOUR NEEDS