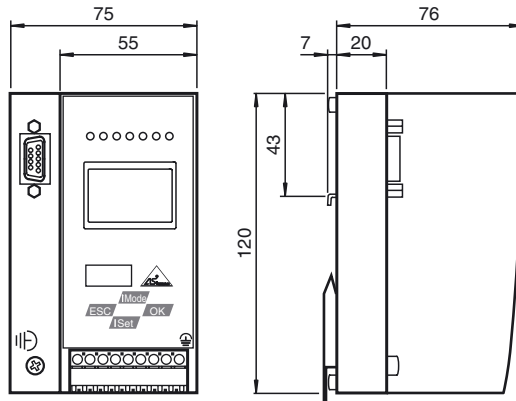
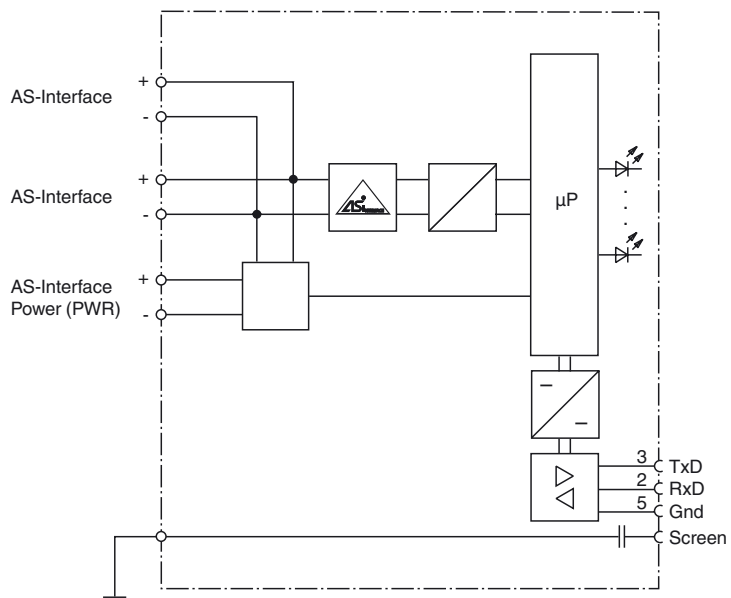




Dimensions



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

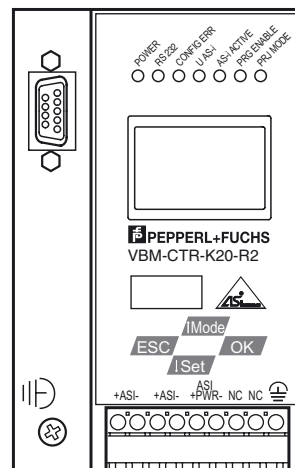
VBM-CTR-K20-R2

AS-Interface master RS 232 cabinet module

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

Indicating / Operating means



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

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**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 |
| UL File Number             | E223772                       |

**Functional safety related parameters**

|                   |                |
|-------------------|----------------|
| MTTF <sub>d</sub> | 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 <sub>i</sub> | ≥ 500 V           |
| Rated operating voltage | U <sub>e</sub> | from AS-Interface |
| Rated operating current | I <sub>e</sub> | ≤ 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 |

**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 program 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 restricted 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 of the AS-i Control Tool is available as an accessory and features an expanded diagnostics monitor as well as a larger program memory for AS-Interface Control which makes it possible to detect faulty telegrams of slaves.

**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

**Matching system components****VBG-RIO-KHD2-R2**

Bus Coupler for Allen Bradley Remote I/O