## Dimensions



60    114

Terminal for wall mounting

93    107

## Electrical connection



AS-Interface -    4
AS-Interface +    5
AS-Interface -    24
AS-Interface +    23
AS-Interface -    33
AS-Interface +    32

Power Rail    5
            4

Sub-D socket
5    VP
6    DGND
3    RxD/TxD-P
8    RxD/TxD-N

25    RxD/TxD-N
26    RxD/TxD-P

35    Screen
36
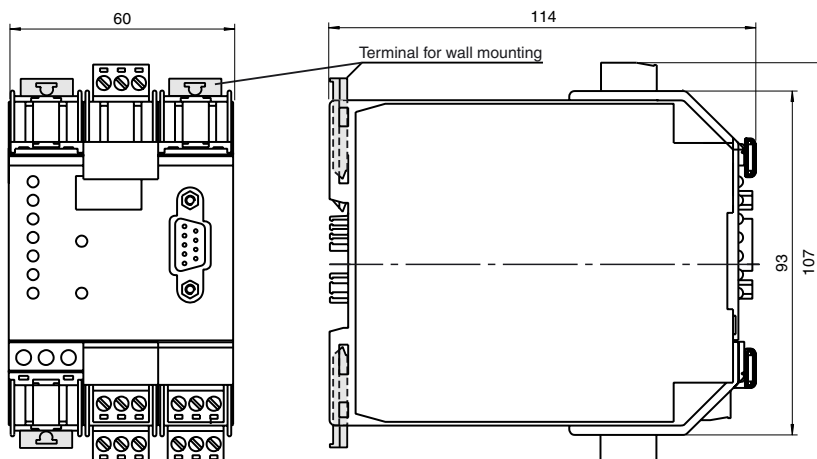
PROFIBUS

## Model number

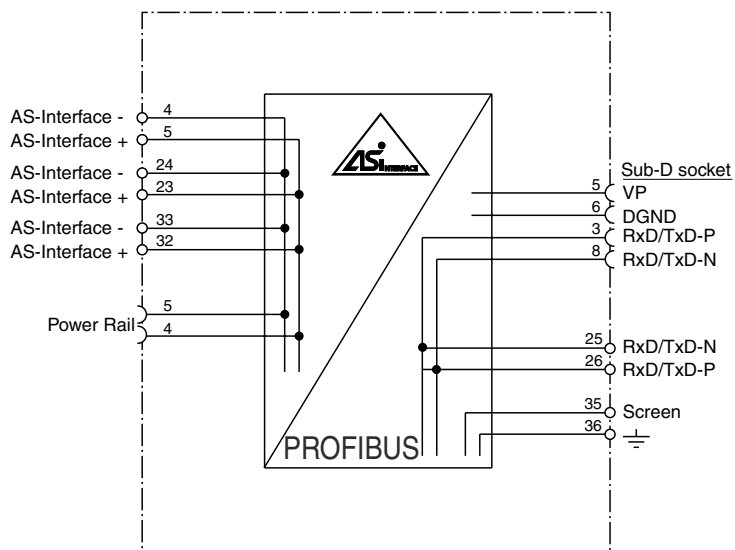**VAG-PB-KF-R4**

PROFIBUS gateway cabinet module

## Features

- Connection to PROFIBUS DP
- Commissioning, without PROFIBUS communication
- All AS-Interface functions possible via PROFIBUS
- PLC functionality
- Power supply from AS-Interface
- Coded, removable terminals
- Error diagnostics via LEDs and LCD
- Parameterization and monitor software
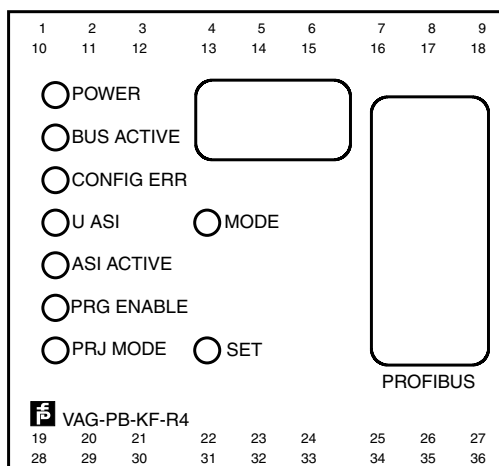- Power Rail connection

## Indicating / Operating means



| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 |

POWER
BUS ACTIVE
CONFIG ERR
U ASI    MODE
ASI ACTIVE
PRG ENABLE
PRJ MODE    SET

PROFIBUS

VAG-PB-KF-R4

| 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 |
| 28 | 29 | 30 | 31 | 32 | 33 | 34 | 35 | 36 |

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## Technical data

### General specifications

| | |
|---|---|
| AS-Interface specification | V2.0 |
| PLC-Functionality | integrated |
| Diagnostics function | integrated |

### Indicators/operating means

| | |
|---|---|
| Display | 2-digit LC Display for address and error message |
| LED BUS ACTIVE | 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 PRG MODE | projecting mode active; LED yellow |
| LED U AS-i | AS-Interface voltage; LED green |
| Switch SET | Selection and setting of a slave address |
| Button MODE | Mode selection/save configuration |

### Electrical specifications

| | | |
|---|---|---|
| Insulation voltage | $U_i$ | $\geq 500$ V |
| Rated operating voltage | $U_e$ | from AS-Interface |
| Rated operating current | $I_e$ | $\leq 180$ mA from AS-Interface |

### Interface

| | |
|---|---|
| Interface type | RS-485 |
| Protocol | PROFIBUS |
| Transfer rate | 9.6; 19.2; 44.44; 93.95; 187.5; 500; 1500 kBit/s self-synchronizing |

### Connection

| | |
|---|---|
| PROFIBUS | RS 485 Interface and removable coded terminals |
| AS-Interface | removable coded terminals, Power Rail |

### Ambient conditions

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

### Mechanical specifications

| | |
|---|---|
| Degree of protection | IP40 (housing), IP20 (terminals) |
| Mass | 420 g |
| Construction type | Low profile housing , plastic |

## Function

The VAG-PB-KF-R4 is a complete PROFIBUS master with an IP20 rating designed for use in cabinets. The KF cabinet housing of the PROFIBUS Gateway offers all the advantages of the serial master, such as Power Rail connections and coded, removable terminals. Two operating modes are available for the exchange of data across PROFIBUS DP: standard and expanded. In standard mode the gateway uses a fixed I/O configuration so that it can be put into operation without additional parameter assignment. In expanded mode the data structure can be optimised, enabling the user to define the data size sent to the PROFIBUS master.

Two push buttons are used for address assignment, acceptance of the desired configuration and for adjustment of the PROFIBUS address and baud rate. In configuration mode, all detected AS-Interface slaves are displayed on the 2-digit LCD. In normal operation, the LCD is blank unless the master detects a faulty AS-Interface slave. There are 7 LEDs on the front panel, showing the current status of the AS-Interface line.

### PLC Functionality

The VAG-PB-KF-R4 provides 16 kByte program memory, 8 kByte RAM, 1024 counters and 1024 timers for PLC functionality. These capacities suffice to process data on the AS-Interface. Thus the master can also be operated in "stand-alone" mode. The program processing time is 2 ms per 1000 word commands. The programming language is based on the STEP5® programming language. The AS-Interface CTRL functions (upload, download, start, stop, read and write internal memory) are available in expanded mode.

## Accessories

**VAZ-SW-ACT32**
Full version of the AS-I Control Tools including connection cable

**VAZ-PB-SIM**
PROFIBUS master simulator

**UPR-05**
Universal Power Rail with end caps and cover, 5 conductors, length: 2 m

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

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