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

MODBUS

Sub-D socket
3 A
8 B

25 A
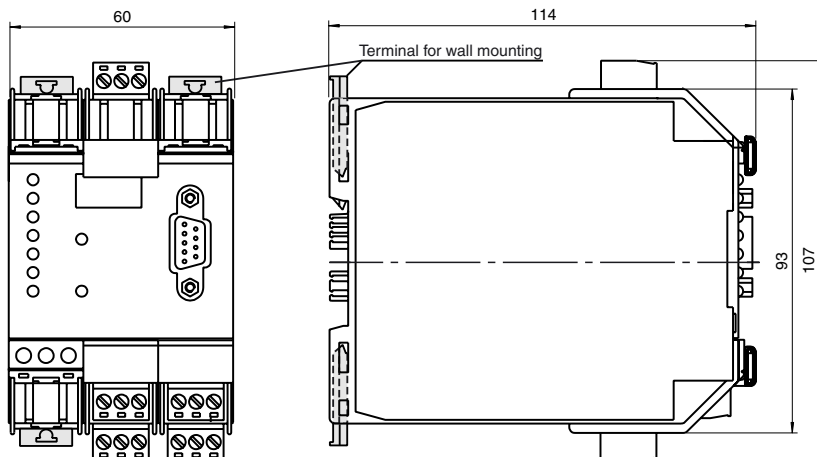26 B

35 screen
36

Model number

VAG-MOD-KF-R4

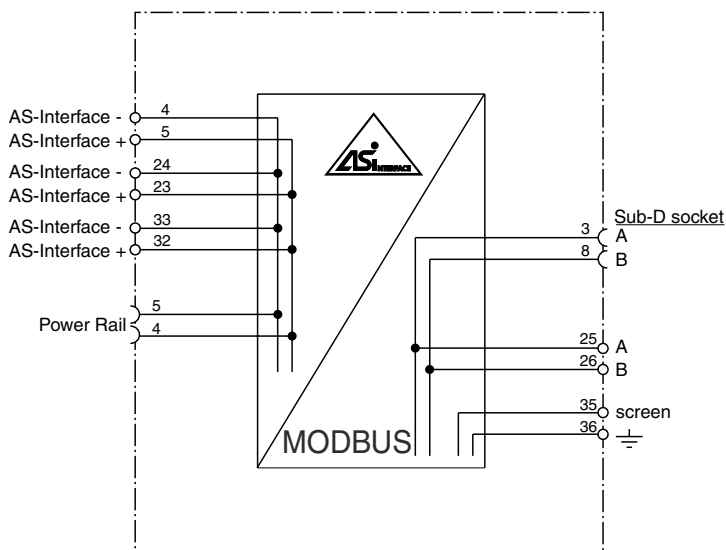MODBUS gateway cabinet module

Features

- Coded, removable terminals
- PLC functionality
- Two-digit LC display
- Power supply from MODBUS and AS-Interface
- Programmable slave addresses
- Display of detected slaves
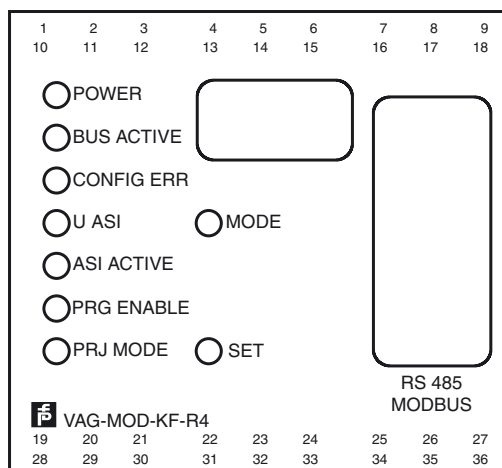- Fault diagnosis
- Power Rail connection

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

RS 485
MODBUS

VAG-MOD-KF-R4

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

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

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1

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	MODBUS 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 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	≥ 500 V
Rated operating voltage	U_e	from AS-Interface
Rated operating current	I_e	≤ 200 mA

Interface

Interface type	RS-485
Protocol	MODBUS

Connection

AS-Interface	removable coded terminals, Power Rail
MODBUS	RS 485 interface

Ambient conditions

Ambient temperature	0 ... 55 °C (32 ... 131 °F)
Storage temperature	-15 ... 70 °C (5 ... 158 °F)

Mechanical specifications

Degree of protection	IP20
Mass	420 g
Construction type	Low profile housing , plastic

Compliance with standards and directives

Standard conformity	
Degree of protection	EN 60529

Function

The VAG-MOD-KF-R4 is a MODBUS gateway with PLC functionality. The design of this master is ideal for use in a cabinet.Its housing, only 60 mm wide, occupies little space in a cabinet installation. The VAG-MOD-KF-R4 is installed by snapping it onto the 35 mm DIN Rail according to EN 50022, with the integrated Power Rail. The AS-Interface signal is transmitted via conductors, which are integrated in the Power Rail. Thus all cabinet modules in KF housing can be connected to the AS-Interface cable by simply snapping them onto the DIN Rail. The AS-Interface data can be accessed in a binary format (functions 1, 2, 5 and 15), or through the registers (functions 3, 4, 6 and 16). MODBUS diagnostic registers are supported.

The AS-Interface data can be used in various ways. Important data is available either packed or unpacked by means of the registers or in the binary format. Thus the AS-Interface masters with MODBUS slave interface can be accessed by different MODBUS masters and do not require large-scale adaptations. Power to the master is supplied by the AS-Interface cable.

Two push buttons are used for address assignment of the AS-Interface slaves and acceptance of the desired configuration. 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-MOD-KF-R4 has 16 kBytes of program memory, 8 kBytes of main memory, 1024 counters and 1024 timers for the 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.

Accessories

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

VAZ-R4-R2
RS 232C/RS 485 converter

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

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