CE   c(UL)us   ASi INTERFACE

Model number

VAG-PB-K5-R4-DM

PROFIBUS Gateway, double master for 2 AS-Interface networks

Features

- Connection to PROFIBUS DP
- 1 PROFIBUS address
- 2 AS-Interface networks
- Commissioning, locally on the gateway or via AS-i Control Tools software
- All AS-Interface functions possible via the PROFIBUS DP
- I/O window bytewise variable
- Extended AS-Interface diagnostics function can be called via PROFIBUS
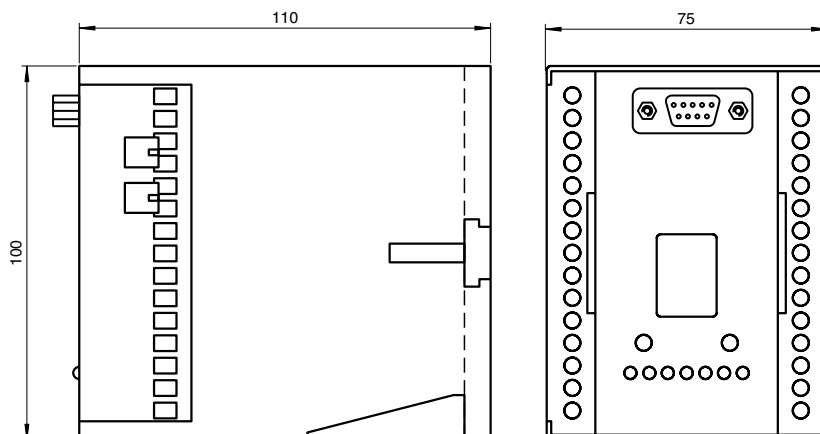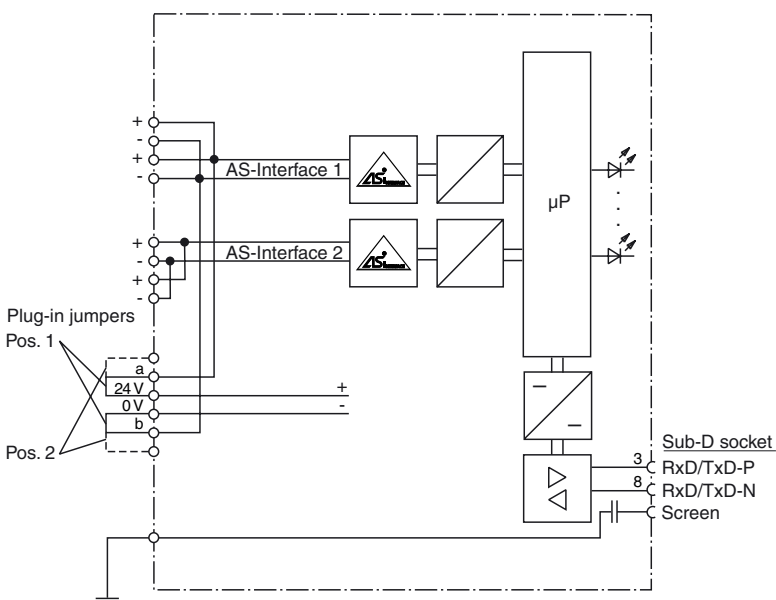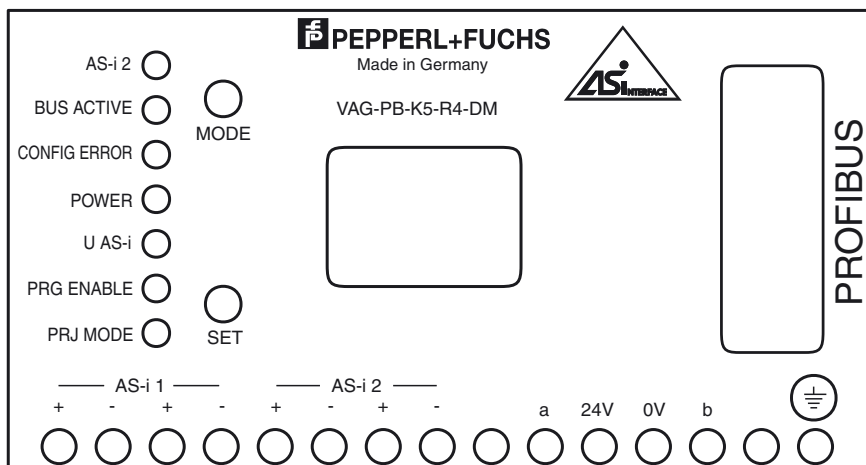- Saving the AS-Interface configuration in the GSD file
- GSD wizard

Dimensions

Electrical connection

Using plug-in jumpers, it is possible to choose whether the master shall be supplied by AS-Interface-1 circuit (pos.1) or via an own power pade (PELV) (pos. 2).

Indicating / Operating means

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Technical data

General specifications

AS-Interface specification	V2.0
PLC-Functionality	none
Diagnostics function	integrated

Indicators/operating means

LED AS-i 2	assignment of display to AS-Interface strand 2; LED green
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 operational voltage	U_e	from AS-Interface or separately
Rated operational 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
AS-Interface	screw terminals

Ambient conditions

Ambient temperature	0 ... 55 °C (32 ... 131 °F)
Storage temperature	-25 ... 85 °C (-13 ... 185 °F)

Mechanical specifications

Protection degree	IP40 (housing), IP20 (terminals)
Mass	420 g
Construction type	Low profile housing , plastic

Function

The VAG-PB-K5-R4-DM is a PROFIBUS gateway for 2 parallel AS-Interface lines. This means the data from 2 AS-Interface lines can be transmitted via a PROFIBUS slave.

The design of this master is ideal for use in a cabinet.

Two operating modes are available for the exchange of data across PROFIBUS DP: standard and professional. In standard mode the gateway uses a fixed I/O configuration so that it can be put into operation without additional parameter assignment. In professional mode the data structure can be optimised, enabling the user to define the data size sent to the PROFIBUS master. Owing to the reduction of required data, less I/O space is needed on the PLC.

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

Both AS-Interface lines can be controlled using the integrated PLC. The VAG-PB-K5-R4-DM provides 16 kBytes of program memory, 8 kBytes of main memory, 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 programming language is based on the STEP® 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
AS-Interface software

VAZ-PB-SIM
PROFIBUS master simulator

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