Dimensions

40 114

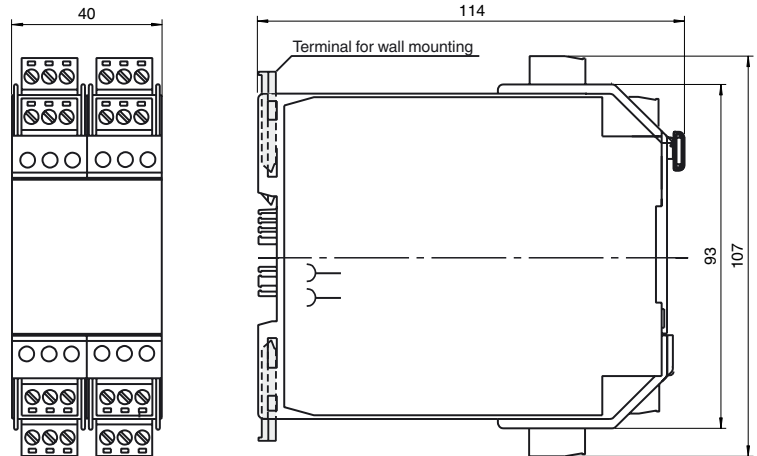Terminal for wall mounting

93 107

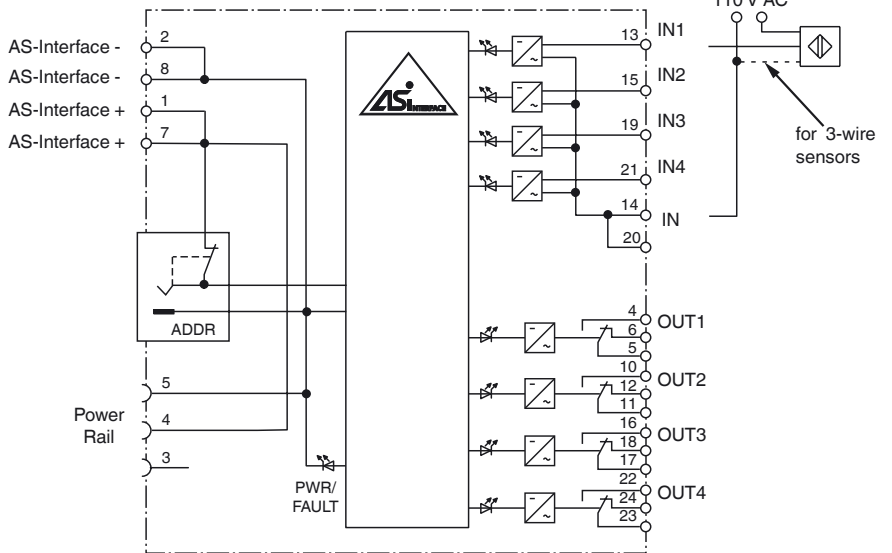## Electrical connection

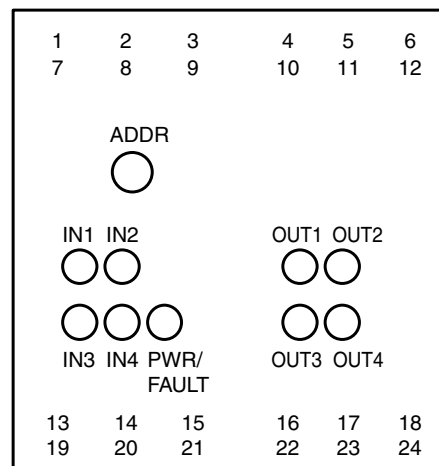## Model number

VAA-4EA-KF-WS/R

Cabinet module
4 inputs (sensor for alternating voltage)
and 4 relay outputs

Features

- Housing with removable, coded terminals
- AS-Interface connection via Power Rail
- Communication monitoring, turn-off
- Outputs loadable up to 8 A (per module)
- Inputs for 110 V AC sensors
- Addressing jack
- External power supply of sensors
- Function display for bus, inputs and outputs
- 4 potential-free switch-contacts

Indicating / Operating means

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

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Technical data

General specifications

Slave type	Standard slave
UL File Number	E87056

Indicators/operating means

LED PWR/FAULT	dual-LED green/red green: AS-Interface voltage, normal operation red: communication error or address 0
LED IN	switching state (input); 4 LED yellow
LED OUT	Switching state (output); 4 LED yellow

Electrical specifications

Rated operating voltage	U_e	26.5 ... 31.6 V from AS-Interface
Rated operating current	I_e	≤ 100 mA

Input

Number/Type	4 sensors, V AC
Supply	external AC 110 V
Switching point	
0 (unattenuated)	≤ 2 mA
1 (attenuated)	≥ 20 mA

Output

Number/Type	4 relay outputs
Galvanic isolation	AS-Interface - Outputs: Safe isolation according to EN 50178 (250 V AC) Output - Output: Safe isolation according to EN 50178 (250 V AC)
Contact loading	2 A/30 V DC per output 2 A/250 V AC per output
Life span	mechanical: 30×10^6 switching cycles electrical: 1×10^6 operations (30 V DC, 2 A, ohmic) 5×10^6 operations (250 V AC, 2 A, $\cos\phi = 1$) 4.5×10^6 switching cycles (250 V AC, 2 A, $\cos\phi = 0.7$)

Programming instructions

Profile	S-7.F
IO code	7
ID code	F

Data bits (function via AS-Interface)	**input**	**output**
D0	IN1	OUT1
D1	IN2	OUT2
D2	IN3	OUT3
D3	IN4	OUT4
Parameter bits (programmable via AS-i)	**function**	
P0	communication monitoring P0 = 1 (default settings), monitoring = ON, i.e. if communication fails, the outputs are de-energised P0 = 0, monitoring = OFF, if communication fails, the outputs maintain their condition	
P1	not used	
P2	not used	
P3	not used	

Ambient conditions

Ambient temperature	-25 ... 70 °C (-13 ... 158 °F)
Storage temperature	-25 ... 85 °C (-13 ... 185 °F)

Mechanical specifications

Degree of protection	IP20 according to EN 60529
Connection	removable coded terminals, Power Rail
Mass	170 g
Mounting	DIN mounting rail

Function

The VAA-4EA-KF-WS/R AS-Interface coupling module is a cabinet module with 4 inputs for AC sensors and 4 relay outputs. Its design, only 40 mm wide, occupies little space in a cabinet installation. The VAA-4EA-KF-WS/R is installed by snapping it onto the 35 mm DIN Rail, according to EN 50022, with the integrated Power Rail.

When an AS-Interface master/gateway is used in the cabinet housing, the AS-Interface signal is automatically transmitted via the Power Rail. The connection of the module to the AS-Interface cable is accomplished by simply snapping it onto the DIN Rail.

The plug-in coded terminals of the inputs and outputs allow "online" maintenance, i. e. while the system is under power. The terminals are coded to prevent incorrect connections.

If a master/gateway other than the one in the cabinet housing is used, the connection to the AS-Interface cable is established via the same terminals. Once the AS-Interface cable has been connected to the terminals, the AS-Interface signal is automatically transferred to the Power Rail.

Power to the module is supplied by the AS-Interface cable, and the inputs and outputs are powered externally (see connection diagram). A programming jack is available for address configuration.

Note:

The outputs are de-energised by means of an integrated watchdog, whenever communication on the AS-Interface cable is interrupted for more than 80 ms. The watchdog can be disabled by the parameter bit P0.

Accessories

VBP-HH1-V3.0-KIT
AS-Interface Handheld with accessory

VBP-HH1
Handheld programming device

VAZ-PK-1,5M-V1-G
Adapter cable module/hand-held programming device

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

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