







Model number

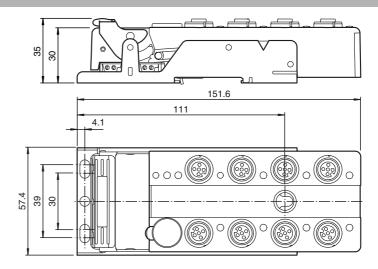
VAA-4E4A-G12-ZAJ/EA2L

G12 flat module 4 inputs (PNP) and 4 electronic outputs

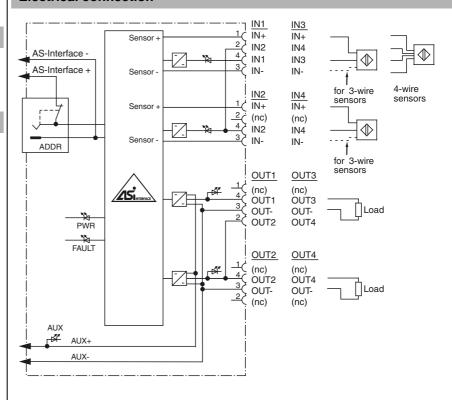
Features

- One-piece housing with stainless steel base
- Installation without tools
- Metal threaded inserts with SPEED-CON technology
- Flat cable connection with cable piercing technique, variable flat cable guide
- Red LED per channel, lights up in the event of output overload
- Communication monitoring, configurable
- Inputs for 2-, 3-, and 4-wire sensors
- DIN rail mounting
- AS-Interface certificate

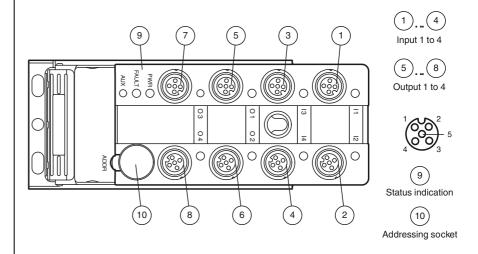
Dimensions



Electrical connection



Indicating / Operating means



Standard slave

error display; LED red

green: voltage OK flashing green: address 0

green: voltage OK

red: reverse voltage

Yellow: output active

Red: output overload

 U_{ALIX} 24 V DC ± 15 % PELV

from AS-Interface

≤ 8 mA (limited internally)

< 1 ms (input/AS-Interface)

21 ... 31 V

≤ 2 mA

≥ 6 mA

2 A per output

 \geq (U_{AUX} - 0.5 V)

S-7.F

7

F F

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6 A total (TB ≤ 40 °C) 4 A total (TB ≤ 70 °C)

input

IN1

IN2

IN3

IN4

communication monitoring

fails, the outputs are de-energised

P1 = 1 input filter off (basic setting)

Synchronous mode P2 = 0 synchronous mode on

-25 ... 70 °C (-13 ... 158 °F)

-25 ... 85 °C (-13 ... 185 °F)

not used

P1 = 0 input filter on, pulse suppression ≤ 2 ms

P2 = 1 synchronous mode off (basic setting)

30 g, 11 ms in 6 spatial directions 3 shocks

10 g, 16 ms in 6 spatial directions 1000 shocks 0.75~mm~10~...~57~Hz , 5g~57~...~50~Hz

 I_e

red: communication error or address is 0

ext. auxiliary voltage UAUX; dual LED green/red

Switching status (output); 4 yellow/red LEDs

≤ 40 mA (without sensors) / max. 240 mA

4 inputs for 2- or 3-wire sensors (PNP), DC

option 2 inputs for 4-wire sensors (PNP), DC

≤ 200 mA, overload and short-circuit protected

according to DIN EN 61131-2 (Type 2)

from external auxiliary voltage UAUX

AS-Interface voltage; green LED

switching state (input); 4 LED yellow

26.5 ... 31.6 V from AS-Interface

V3.0

≥ V2.1

190 a

20 a

0 %

E87056

Technical data

Slave type

 MTTF_d

LED FAULT

LED PWR

I FD AUX

LED IN

LED OUT

Electrical specifications

Auxiliary voltage (output)

Rated operating voltage

Rated operating current

Current loading capacity

Programming instructions

Data bits (function via AS-Interface)

Parameter bits (programmable via AS-i) function

Protection class

Number/Type

Input current

Signal delay

Number/Type

Output

Supply

Current

Voltage

Profile

IO code

ID code

ID1 code ID2 code

DO

D1

D2

D3

P1

P2

P3

Ambient conditions

Ambient temperature

Storage temperature

Vibration resistance **Mechanical specifications**

Shock and impact resistance

Switching point

0 (unattenuated)

1 (attenuated)

Input

Supply

Voltage

UL File Number

Mission Time (T_M)

General specifications

AS-Interface specification

Diagnostic Coverage (DC)

Indicators/operating means

Required master specification

Functional safety related parameters

red flashing: overload of sensor power supply or outputs 4 electronic outputs, PNP, overload and short-circuit proof P0 = 1 (basic setting), monitoring = ON, i.e. if communication rans, the outputs are de-energised PO = 0, monitoring = OFF, if communication fails, the outputs maintain their condition

Function

The VAA-4E4A-G12-ZA/EA2L is an AS-Interface trigger module with 4 inputs and 4 outputs. 2- and 3-wire sensors as well as mechanical contacts can be connected to the plus switching electronic inputs. The outputs are electronic outputs which can be energized with max. 24 V DC and 2 A per output.

The solid housing permits fast mounting without tools as well as easy removal without tools. The stainless steel shell and the cast housing ensure durability and a high protection category.

The connection to the AS-Interface calbe and to the external power supply is achieved via penetration technology in the integrated flat cable. The insert for the flat cables can be turned in two orientations.

All connections to inputs and outputs are implemented via metal inserts for high stability. The connection to the sensors/actuators is achieved via a M12 x 1 circular connector with SPEEDCON quick locking option.

The inputs and the connected sensors are supplied from the internal power supply of the module (from AS-Interface), the outputs and the connected actuators via an external power source (AUX).

To indicate the current switching state there is an LED for each channel fitted to the top of the module. The outputs are protected against overload and short circuit, an output overload is indicated via an LED per channel. An LED to indicate the AS-Interface voltage and that the module has an address of 0 is available, another indicates errors in the AS-Interface communication as well as periphery faults. Another LED indicates the external power supply (AUX).

This module can be mounted in any position using three screws or can be snapped onto the DIN rail using the stainless steel holder.

An output overload is reported to the AS-Interface master via the function "periphery fault". The communcation with the AS-Interface remains intact.

Accessories

VBP-HH1-V3.0-KIT

AS-Interface Handheld with accessory

VBP-HH1-V3.0

AS-Interface Handheld

VAZ-PK-1,5M-V1-G

Adapter cable module/hand-held programming device

PEPPERL+FUCHS

VAZ-V1-B

Blind plug for M12 sockets

VAZ-CLIP-G12

lock for G12 module

output

OUT₁

OUT2

OUT3

OUT4

Degree of protection	IP67
Connection	Cable piercing method flat cable yellow/flat cable black inputs/outputs: M12 round connector
Material	
Housing	PBT
Mass	230 g
Mounting	Mounting base
Compliance with standards and directi	-
ves	
ves Directive conformity	
	EN 50295:1999
Directive conformity	EN 50295:1999
Directive conformity EMC Directive 2004/108/EC	EN 50295:1999 EN 61000-6-2:2005, EN 50295:1999
Directive conformity EMC Directive 2004/108/EC Standard conformity	
Directive conformity EMC Directive 2004/108/EC Standard conformity Noise immunity	EN 61000-6-2:2005, EN 50295:1999
Directive conformity EMC Directive 2004/108/EC Standard conformity Noise immunity Emitted interference	EN 61000-6-2:2005, EN 50295:1999 EN 61000-6-4:2007

Notes

For 4-wire sensors, it is only possible to use plug-in slot IN1 or IN3 for inputs 1+2 or 3+4 (jump-ered internally).

Do not connect inputs and outputs, which are supplied via the module from AS-interface or via auxiliary power, with power supply and signal circuits with external potentials.