



**Model number**

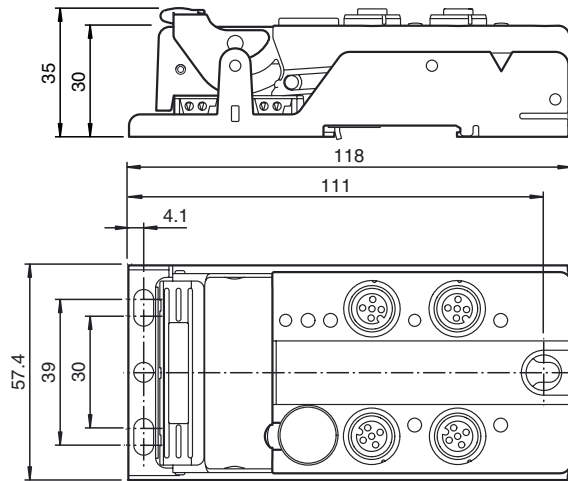
**VAA-4A-G12-EA2L**

G12 flat module  
4 electronic outputs (PNP)

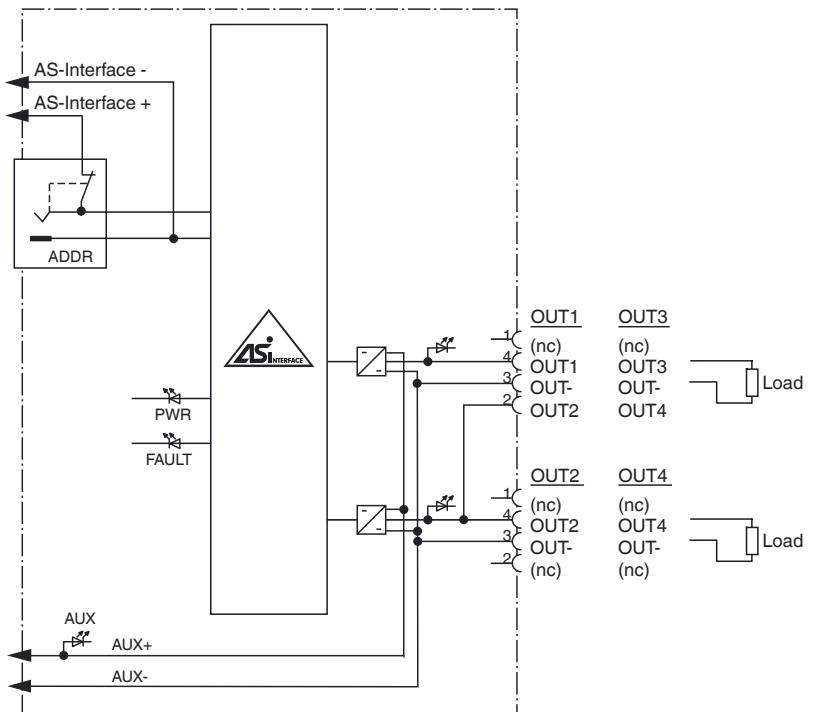
**Features**

- 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
- DIN rail mounting
- AS-Interface certificate

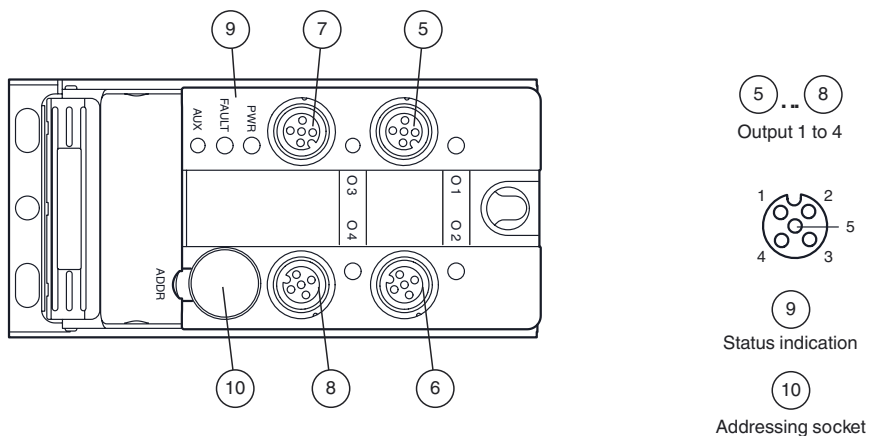
**Dimensions**



**Electrical connection**



**Indicating / Operating means**



Release date: 2011-07-11 08:45 Date of issue: 2015-02-05 194614\_eng.xml

**Technical data****General specifications**

Slave type	Standard slave
AS-Interface specification	V3.0
Required master specification	≥ V2.1
UL File Number	E87056

**Functional safety related parameters**

MTTF <sub>d</sub>	230 a
Mission Time (T <sub>M</sub> )	20 a
Diagnostic Coverage (DC)	0 %

**Indicators/operating means**

LED FAULT	error display; LED red red: communication error or address is 0 red flashing: Output supply overload
LED PWR	AS-Interface voltage; green LED green: voltage OK flashing green: address 0
LED AUX	ext. auxiliary voltage U <sub>AUX</sub> ; dual LED green/red green: voltage OK red: reverse voltage
LED OUT	Switching status (output); 4 yellow/red LEDs Yellow: output active Red: output overload

**Electrical specifications**

Auxiliary voltage (output)	U <sub>AUX</sub>	24 V DC ± 15 % PELV
Rated operating voltage	U <sub>e</sub>	26.5 ... 31.6 V from AS-Interface
Rated operating current	I <sub>e</sub>	≤ 40 mA
Protection class		III

**Output**

Number/Type	4 electronic outputs, PNP
Supply	from external auxiliary voltage U <sub>AUX</sub>
Current	2 A per output 6 A total (TB ≤ 40 °C) 4 A total (TB ≤ 70 °C)
Voltage	≥ (U <sub>AUX</sub> - 0.5 V)

**Programming instructions**

Profile	S-8.1
IO code	8
ID code	1
ID1 code	F
ID2 code	E

Data bits (function via AS-Interface)	input	output
D0	-	OUT1
D1	-	OUT2
D2	-	OUT3
D3	-	OUT4

**Parameter bits (programmable via AS-i) function**

P0	communication monitoring P0 = 1 (basic setting), 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	Synchronous mode P2 = 0 synchronous mode on P2 = 1 synchronous mode off (basic setting)
P3	not used

**Ambient conditions**

Ambient temperature	-25 ... 70 °C (-13 ... 158 °F)
Storage temperature	-25 ... 85 °C (-13 ... 185 °F)
Shock and impact resistance	30 g, 11 ms in 6 spatial directions 3 shocks 10 g, 16 ms in 6 spatial directions 1000 shocks
Vibration resistance	0.75 mm 10 ... 57 Hz, 5 g 57 ... 150 Hz, 20 cycles

**Mechanical specifications**

Degree of protection	IP67
Connection	Cable piercing method flat cable yellow/flat cable black inputs/outputs: M12 round connector
Material	
Housing	PBT
Mass	200 g
Mounting	Mounting base

**Compliance with standards and directives**

Directive conformity	
EMC Directive 2004/108/EC	EN 61000-6-2:2005, EN 61000-6-4:2007, EN 50295:1999
Standard conformity	
Noise immunity	EN 61000-6-2:2005, EN 50295:1999

**Function**

The VAA-4A-G12-EA2L is an AS-Interface trigger module with 4 outputs. 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 type of protection.

The connection to the AS-Interface cable 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 2 orientations.

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

The supply of the outputs and the connected actuators is achieved via an external current source (AUX).

To indicate the current switching state, there is a LED for each channel fitted onto the top of the module. The outputs are protected against overload and short circuit, an output overload is indicated via one LED per channel.

A LED is available to indicate the AS-Interface voltage and that the module has an address 0. Another LED indicates errors in the AS-Interface communication, as well as periphery faults. A separate LED indicates the external power supply (AUX).

This module can be mounted in any position with 3 screws, or 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 communication with the AS-Interface remains intact.

**Accessories****VBP-HH1-V3.0-KIT**

AS-Interface Handheld with accessory

**VAZ-V1-B3**

Blind plug for M12 sockets

**VBP-HH1-V3.0**

AS-Interface Handheld

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

Adapter cable module/hand-held programming device

**VAZ-CLIP-G12**

lock for G12 module

Emitted interference	EN 61000-6-4:2007
Degree of protection	EN 60529
Fieldbus standard	EN 50295, IEC 62026-2

### Notes

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.