Model number

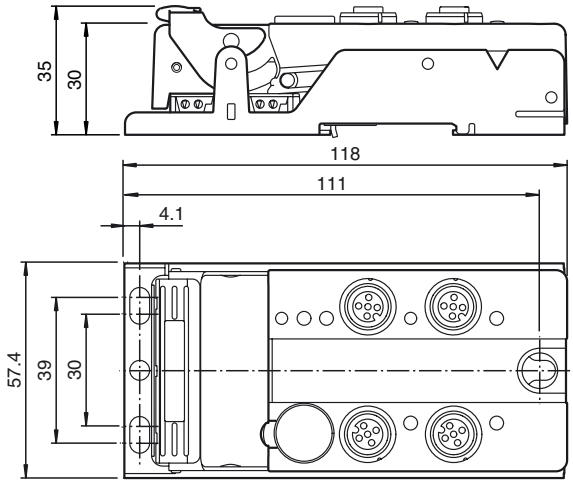
VAA-4A-G12-EA2L

G12 flat module
4 electronic outputs (PNP)

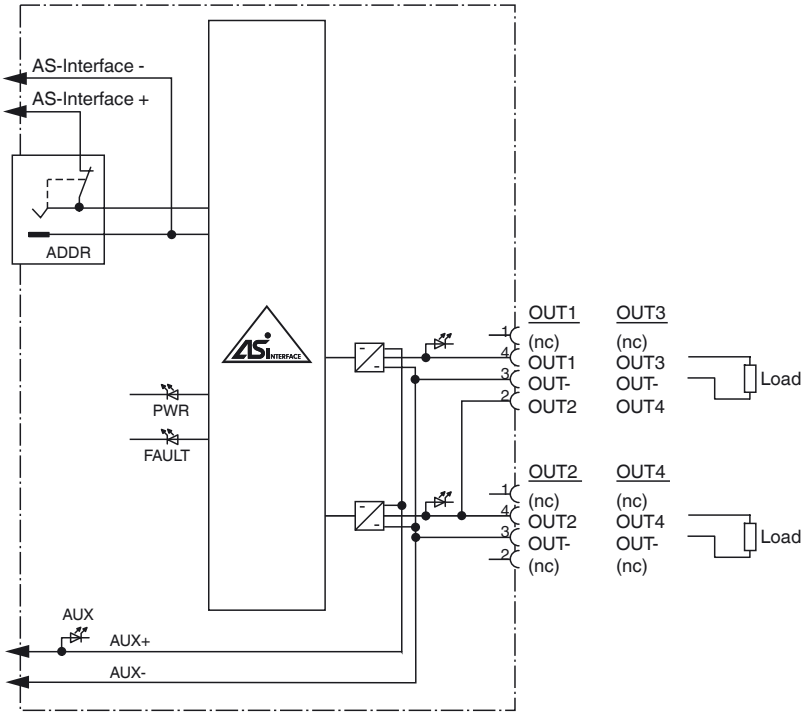
Features

- 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

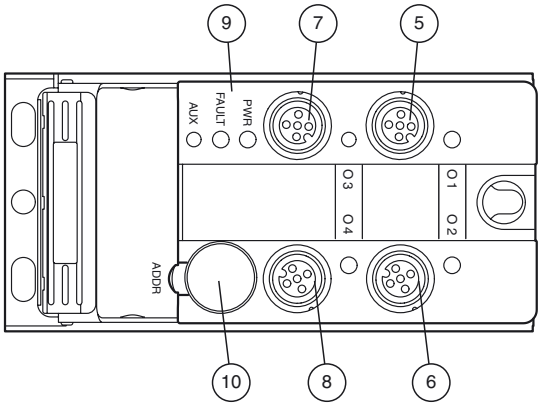
Dimensions



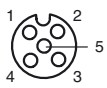
Electrical connection



Indicating / Operating means



5 .. 8
Output 1 to 4



9
Status indication

10
Addressing socket

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Technical data

General specifications		
Slave type		Standard slave
AS-Interface specification		V3.0
Required master specification		≥ V2.1
UL File Number		E223772
Functional safety related parameters		
$MTTF_d$		230 a
Mission Time (T_M)		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_{AUX}; 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_{AUX}	24 V DC ± 15 % PELV
Rated operating voltage	U_e	26.5 ... 31.6 V from AS-Interface
Rated operating current	I_e	≤ 40 mA
Protection class		III
Surge protection		U_{AUX}, U_{in}: Over voltage category III, safe isolated power supplies (PELV) derived from mains up to 300 V AC line-to-neutral
Output		
Number/Type		4 electronic outputs, PNP
Supply		from external auxiliary voltage U_{AUX}
Current		2 A per output 6 A total (TB ≤ 40 °C) 4 A total (TB ≤ 70 °C)
Voltage		≥ (U_{AUX} - 0.5 V)
Directive conformity		
Electromagnetic compatibility		
Directive 2014/30/EU		EN 62026-2:2013 EN 61000-6-2:2005 EN 61000-6-4:2007
Standard conformity		
Degree of protection		EN 60529:2000
Fieldbus standard		EN 62026-2:2013
Emitted interference		EN 61000-6-4:2007
AS-Interface		EN 62026-2:2013
Noise immunity		EN 61000-6-2:2005
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 (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		Synchronous mode P2 = 0 synchronous mode on P2 = 1 synchronous mode off (default settings)
P3		not used
Ambient conditions		
Ambient temperature		-25 ... 70 °C (-13 ... 158 °F)
Storage temperature		-25 ... 85 °C (-13 ... 185 °F)
Relative humidity		85 % , noncondensing
Climatic conditions		For indoor use only
Altitude		≤ 2000 m above MSL
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
Pollution degree		3

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

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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
Tightening torque, cable gland	0.4 Nm
Mounting	Mounting plate

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.

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