

AS-Interface actuator module

VAA-4A-G12-EA2L



- One-piece housing with stainless steel base
- Installation without tools
- Metal threaded inserts with SPEEDCON 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

G12 compact module, 4 outputs (PNP)



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).

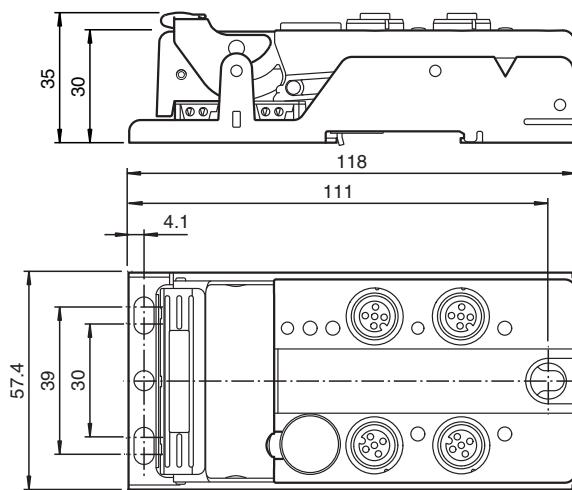
To indicate the current switching state, there is a LED for each channel fitted onto the top of the module. The outputs are protected against overload and short circuit, an output overload is indicated via one LED per channel.

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 gateway via the function "periphery fault". The communication with the AS-Interface remains intact.

Dimensions



Technical Data

General specifications

Node type	Standard node
AS-Interface specification	V3.0
Required gateway specification	≥ V2.1
Profile	S-8.1

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

Technical Data

IO code	8
ID code	1
ID1 code	F
ID2 code	E
UL File Number	E223772
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 $\pm 15\%$ 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}
Voltage	$\geq (U_{AUX} - 0.5$ V)
Current	2 A per output 6 A total ($T_B \leq 40$ °C) 4 A total ($T_B \leq 70$ °C)
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
Ambient conditions	
Ambient temperature	-25 ... 70 °C (-13 ... 158 °F)
Storage temperature	-25 ... 85 °C (-13 ... 185 °F)
Relative humidity	85 %, noncondensing
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
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

Technical Data

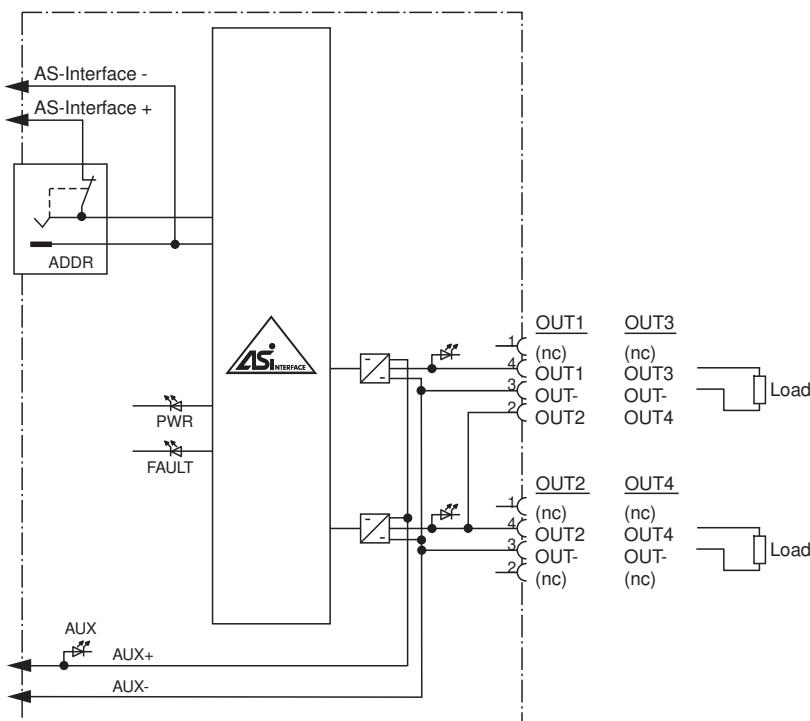
Tightening torque, cable gland

0.4 Nm

Mounting

Mounting plate

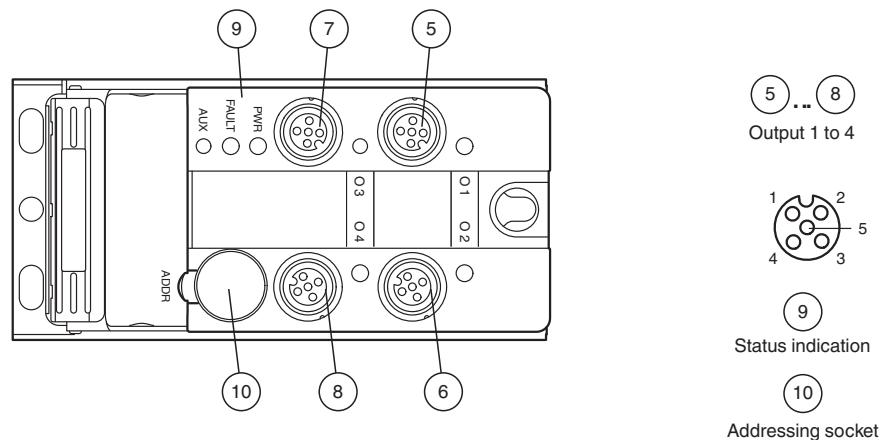
Connection



Connection

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.

Assembly



Programming

Data bit

(function via AS-Interface)

Data bit	Input	Output
D0	-	OUT1

Programming

Data bit	Input	Output
D1	-	OUT2
D2	-	OUT3
D3	-	OUT4

Parameter bits

(programmable via AS-Interface)

Parameter bit	Function
P0	Communication monitoring P0=0 monitoring off, the outputs maintain the status if communication fails P0=1 monitoring on, if communication fails, the outputs are deenergised, default setting
P1	not used
P2	Synchronous mode P2=0 Synchronous mode on P2=1 Synchronous mode off, default setting
P3	not used

Accessories

	VBP-HH1-V3.0-KIT	AS-Interface Handheld with accessory
	VAZ-V1-B3	Blind plug for M12 sockets
	VAZ-PK-1,5M-V1-G	Adapter cable module/hand-held programming device
	VAZ-CLIP-G12	lock for G12 module