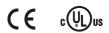
AS-Interface sensor-/actuator module







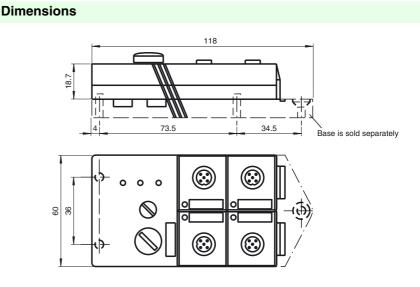
Model Number

VAA-2*EA-G2-ZE/E2

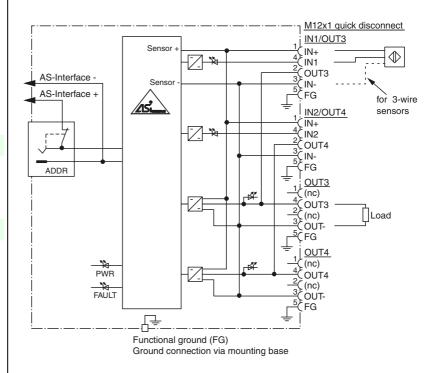
G2 flat module for motor starter 2 inputs/2 electronic outputs

Features

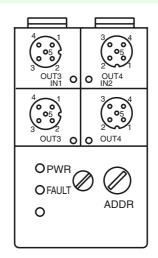
- AS-Interface certificate
- Protection degree IP67
- · Addressing jack
- Flat cable connection with cable piercing technique, variable flat cable guide
- Communication monitoring, turn-off
- Two MOVISWITCH, controllable by SEW
- · Inputs for 2- and 3-wire sensors
- Power supply of inputs and outputs from the module
- Ground connection (PE) possible
- Function display for bus, inputs and outputs
- Monitoring of sensor overloads



Electrical connection



Indicating / Operating means



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AS-Interface sensor-/actuator module

Technical data		
Technical data		
General specifications		
Slave type		Standard slave
AS-Interface specification		V2.1
Required master specification		≥ V2.0
UL File Number		E87056
Indicators/operating means		
LED FAULT		error display; LED red red: communication error or address is 0 red flashing: overload of sensor supply
LED PWR		AS-Interface voltage; LED green
LED IN		switching state (input); 2 LED yellow
LED OUT		switching state (output); 2 LED yellow
Electrical specifications		
Protection class		
· -	U _e I _e	26.5 31.6 V from AS-Interface ≤ 30 mA (without sensors) / max. 180 mA
	e	
Input		0 inpute for 0, or 0 wire concerts (DND), DC
Number/Type		2 inputs for 2- or 3-wire sensors (PNP), DC from AS-Interface
Supply Voltage		21 31 V
Current loading capacity		\leq 150 mA (T _B \leq 40 °C),
carron loading oupdoily		\leq 120 mA (T _B \leq 40 °C), \leq 120 mA (T _B \leq 60 °C), short-circuit proof
Input current		\leq 8 mA (limited internally)
Switching point		
0 (unattenuated)		≤ 1.5 mA
1 (attenuated)		\geq 4.5 mA
Output		
Number/Type		2 electronic outputs, PNP
Supply		from AS-Interface
Current		limited by the current loading capacity of the module
Programming instructions		
Profile		S-3.F
IO code		3
ID code		F
Data bits (function via AS-Interface	e)	input output
DO		IN1 -
D1		IN2 - - OUT3
D2		- 0013
D2		
D3 Parameter bits (programmable via	AS-i)	- OUT4 function
Parameter bits (programmable via P0	AS-i)	
Parameter bits (programmable via P0 P1	AS-i)	$\label{eq:second} \begin{array}{l} \mbox{function} \\ \mbox{communication monitoring} \\ \mbox{P0} = 1 \mbox{ (basic setting), monitoring = ON, i.e. if communication} \\ \mbox{fails, the outputs are de-energised} \\ \mbox{P0} = 0, \mbox{ monitoring = OFF, if communication fails, the outputs} \\ \mbox{maintain their condition} \\ \mbox{not used} \end{array}$
Parameter bits (programmable via P0 P1 P2	AS-i)	$\begin{tabular}{lllllllllllllllllllllllllllllllllll$
Parameter bits (programmable via P0 P1 P2 P3	AS-i)	$\label{eq:second} \begin{array}{l} \mbox{function} \\ \mbox{communication monitoring} \\ \mbox{P0} = 1 \mbox{ (basic setting), monitoring = ON, i.e. if communication} \\ \mbox{fails, the outputs are de-energised} \\ \mbox{P0} = 0, \mbox{ monitoring = OFF, if communication fails, the outputs} \\ \mbox{maintain their condition} \\ \mbox{not used} \end{array}$
Parameter bits (programmable via P0 P1 P2 P3 Ambient conditions	AS-i)	function 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 not used not used not used
Parameter bits (programmable via P0 P1 P2 P3 Ambient conditions Ambient temperature	AS-i)	function 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 not used not used not used -25 60 °C (248 333 K)
Parameter bits (programmable via P0 P1 P2 P3 Ambient conditions Ambient temperature Storage temperature	AS-i)	function 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 not used not used not used
Parameter bits (programmable via P0 P1 P2 P3 Ambient conditions Ambient temperature Storage temperature Storage temperature	AS-i)	function 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 not used not used not used -25 60 °C (248 333 K) -25 85 °C (248 358 K)
Parameter bits (programmable via P0 P1 P2 P3 Ambient conditions Ambient temperature Storage temperature Mechanical specifications Protection degree	AS-i)	function 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 not used not used not used -25 60 °C (248 333 K) -25 85 °C (248 358 K) IP67
Parameter bits (programmable via P0 P1 P2 P3 Ambient conditions Ambient temperature Storage temperature Mechanical specifications Protection degree Connection	AS-i)	function 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 not used not used not used rot used rot sed rot sed
Parameter bits (programmable via P0 P1 P2 P3 Ambient conditions Ambient temperature Storage temperature Storage temperature Mechanical specifications Protection degree Connection	AS-i)	function 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 not used not used not used not used rot used rot sed rot se
Parameter bits (programmable via P0 P1 P2 P3 Ambient conditions Ambient temperature Storage temperature Mechanical specifications Protection degree Connection		function 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 not used not used not used rot used rot sed rot sed
Parameter bits (programmable via P0 P1 P2 P3 Ambient conditions Ambient temperature Storage temperature Storage temperature Mechanical specifications Protection degree Connection Mass Mounting Compliance with standards and di		function 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 not used not used not used not used rot used rot sed rot se
Parameter bits (programmable via P0 P1 P2 P3 Ambient conditions Ambient temperature Storage temperature Mechanical specifications Protection degree Connection Mass Mounting Compliance with standards and di		function 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 not used not used not used not used rot used rot sed rot se
Parameter bits (programmable via P0 P1 P2 P3 Ambient conditions Ambient temperature Storage temperature Mechanical specifications Protection degree Connection Mass Mounting Compliance with standards and di tives		function 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 not used not used not used not used -25 60 °C (248 333 K) -25 85 °C (248 358 K) IP67 cable piercing method flat cable yellow/flat cable black inputs/outputs: M12 round connector 100 g Mounting base
Parameter bits (programmable via P0 P1 P2 P3 Ambient conditions Ambient temperature Storage temperature Storage temperature Mechanical specifications Protection degree Connection Mass Mounting Compliance with standards and di tives Directive conformity EMC Directive 89/336/EEC		function 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 not used not used not used not used -25 60 °C (248 333 K) -25 85 °C (248 358 K) IP67 cable piercing method flat cable yellow/flat cable black inputs/outputs: M12 round connector 100 g Mounting base
Parameter bits (programmable via P0 P1 P2 P3 Ambient conditions Ambient temperature Storage temperature Mechanical specifications Protection degree Connection Mass Mounting Compliance with standards and di tives Directive conformity EMC Directive 89/336/EEC Standard conformity		functioncommunication 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 not used not used .not used not used-25 60 °C (248 333 K) -25 85 °C (248 358 K)IP67 cable piercing method flat cable yellow/flat cable black inputs/outputs: M12 round connector100 g Mounting baseEN 61000-6-2:2001, EN 61000-6-4:2001, EN 50295:1999
Parameter bits (programmable via P0 P1 P2 P3 Ambient conditions Ambient temperature Storage temperature Mechanical specifications Protection degree Connection Mass Mounting Compliance with standards and di tives Directive conformity EMC Directive 89/336/EEC Standard conformity Interference rejection		function 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 not used not used not used not used not used not sed not se
Parameter bits (programmable via P0 P1 P2 P3 Ambient conditions Ambient temperature Storage temperature Storage temperature Mechanical specifications Protection degree Connection Mass Mounting Mass Mounting Directive conformity EMC Directive 89/336/EEC Standard conformity Interference rejection Emitted interference		function 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 not used not used not used not used -25 60 °C (248 333 K) -25 60 °C (248 358 K) IP67 cable piercing method flat cable yellow/flat cable black inputs/outputs: M12 round connector 100 g Mounting base EN 61000-6-2:2001, EN 61000-6-4:2001, EN 50295:1999 EN 61000-6-4:2001

Function

The VAA-2*EA-G2-ZE/E2 is an AS-Interface coupling module with 2 inputs and 2 outputs. The inputs and outputs are available via a M12 x 1 socket. Mechanical contacts and 2-and 3-wire sensors can be connected to the inputs. The outputs are powered via the internal sensor supply.

The module is used to drive motors with decentralised motor controllers (MOVIS-WITCH from SEW corporation). Each drive requires a 24 V input and a 24 V output. Connection to the sensors/actuators is provided via M12 x 1 screw connections.

The IP67 flat module features an integrated addressing jack and is ideal for applications in the field. The current switching state of each channel is indicated by an LED located on the module's top side. The supply of the inputs and outputs is monitored for short circuits. Similarly, an LED is provided to monitor the AS-Interface communication and to indicate that the module has the address 0. If an AS-Interface communication error occurs, the outputs are de-energised.

The U-G3FF mounting base is used as a standard connection to the AS-Interface flat cable. The specially designed base enables users to connect flat cables from both sides. This means, for example, that 90° curves can be laid with very tight radii (variable flat cable guide).

Note:

The mounting base for the module is sold separately.

Accessories

VBP-HH1

AS-Interface handheld

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

VAZ-FK-ED-G2 AS-Interface end seal

Matching system components U-G3FF

AS-Interface module mounting base

Subject to reasonable modifications due to technical advances

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