

**Model number**

**VAA-4E4A-CB2-Z/E2**

Printed circuit board module  
encapsulated in housing  
4 inputs/4 outputs

**Features**

- Integrated communication monitoring function
- Inputs and outputs short-circuit and overload proof
- Power supply of the inputs and outputs from the external auxiliary voltage
- Function display for bus, ext. auxiliary voltage, inputs and outputs
- Connection via removable screw terminals

**Function**

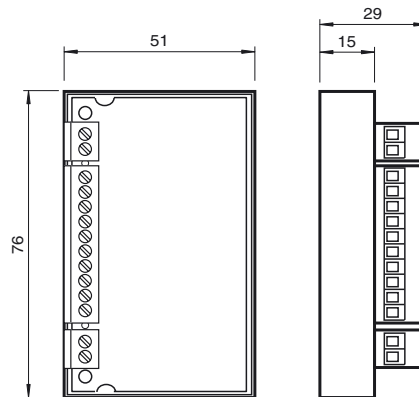
The AS-Interface module is ideal for integrating customer-specific electronics, for example light sensors or LED lights. The external auxiliary power supplies all the inputs and outputs, which are short-circuit proof and protected from overload. The connection between display and control elements and the AS-Interface circuit board can be made with screw plug terminals. The connection on the AS-Interface and external auxiliary power supply are also implemented with plug-in screw terminals.

An output overload is reported by the "periphery error" to the AS-Interface master. Communication over the AS-Interface remains in effect.

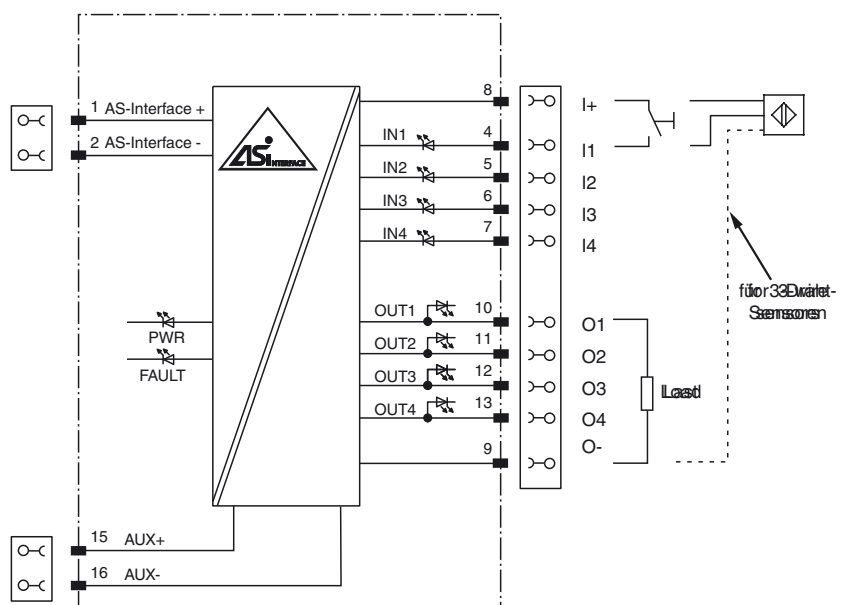
**Note:**

Communication monitoring is integrated to switch the outputs to no current if there is no communication on the AS-Interface line.

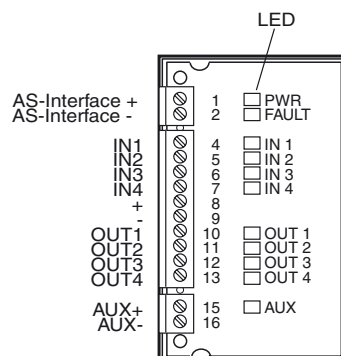
**Dimensions**



**Electrical connection**



**Indicating / Operating means**



Release date: 2011-09-12 14:26 Date of issue: 2014-01-13 128259\_eng.xml

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

Slave type	Standard slave
AS-Interface specification	V2.0
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 outputs
LED PWR	AS-Interface voltage; LED green
LED AUX	ext. auxiliary voltage $U_{AUX}$ ; LED green
LED IN	switching state (input); 4 LED yellow
LED OUT	Switching state (output); 4 LED yellow

**Electrical specifications**

Rated operating voltage	$U_e$	26.5 ... 31.6 V from AS-Interface
Rated operating current	$I_e$	≤ 30 mA
Protection class		III
Surge protection		$U_{AUX}$ , $U_{in}$ : Over voltage category III, safe isolated power supplies (PELV)

**Input**

Number/Type	4 inputs for 2- or 3-wire sensors (PNP), DC
Supply	from external auxiliary voltage $U_{AUX}$
Voltage	20 ... 30 V DC PELV
Input current	5 mA (typically)
Switching point	according to EN 61131-2 Typ 1
0 (unattenuated)	≤ 0.5 mA
1 (attenuated)	≥ 2 mA
Signal delay	< 2 ms (input/AS-Interface)
Signal frequency	≤ 250 Hz

**Output**

Number/Type	4 electronic outputs, PNP
Supply	from external auxiliary voltage $U_{AUX}$
Current	≤ 100 mA per output, ≤ 140 mA total
Voltage	20 ... 30 V DC PELV

**Programming instructions**

Profile	S-7.0
IO code	7
ID code	0
ID1 code	F
ID2 code	E

Data bits (function via AS-Interface)	input	output
D0	IN1	OUT1
D1	IN2	OUT2
D2	IN3	OUT3
D3	IN4	OUT4

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

P0	not used
P1	not used
P2	not used
P3	not used

**Ambient conditions**

Ambient temperature	-25 ... 60 °C (-13 ... 140 °F)
Storage temperature	-40 ... 85 °C (-40 ... 185 °F)

**Mechanical specifications**

Connection	screw terminals, removable
Mass	90 g
Mounting	Self-adhesive velcro for mounting enclosed

**Compliance with standards and directives**

Directive conformity	
EMC Directive 89/336/EEC	EN 61000-6-2:2001, EN 61000-6-4:2001, EN 50295:1999
Standard conformity	
Noise immunity	EN 61000-6-2:2001
Emitted interference	EN 61000-6-4:2001
Input	EN 61131-2
Fieldbus standard	EN 50295:1999