

Datasheet - \$missingName\$

Solenoid interlock / AZM201



(Minor differences between the printed image and the original product may exist!)

- Thermoplastic enclosure
- RFID-technology for needs-based protection against tampering
- Max. length of the sensor chain 200 m
- Self-monitoring series-wiring of 31 sensors
- 3 LEDs to show operating conditions
- Sensor technology permits an offset between actuator and interlock of ± 5 mm vertically and ± 3 mm horizontally
- Suitable for hinged and sliding guards
- Intelligent diagnosis
- Manual release
- Repeated individual coding with RFID technology
- Coding level "High" according to ISO 14119
- Power to unlock
- Guard locking monitored

Ordering details

Product type description	AZM201Z-I2-CC-T-1P2PW
Article number	103013487
EAN Code	4030661493305
eCl@ss	27-27-26-03

Approval

Approval



Classification


Interlocking function:

Standards	EN ISO 13849-1, IEC 61508, IEC 62061
PL	e
Control category	4
PFH value	1.9×10^{-9} / h
PFD value	1.6×10^{-4}
SIL	Suitable for SIL 3 applications
Mission time	20 Years

Guard locking function:

Standards	ISO 13849-1, IEC 61508, IEC 62061
PL	d
Control category	2
PFH value	$1.0 \times 10^{-8} / h$
PFD value	8.9×10^{-4}
SIL	Suitable for SIL 3 applications
Mission time	20 Years

Global Properties

Permanent light	AZM201
Standards	IEC 60947-5-1, IEC 60947-5-3, ISO 14119, ISO 13849-1, IEC 61508, IEC 62061
Compliance with the Directives (Y/N) 	Yes
Suitable for safety functions (Y/N)	Yes
Protection rating	III
Series-wiring	up to 31 components
Length of the sensor chain	200 m
Active principle	RFID
Duty cycle	100
Coding levels according to ISO 14119	High
Coding	Individual coding, multiple teaching
Materials	
- Material of the housings	Plastic, glass-fibre reinforced thermoplastic
Housing coating	None
Weight	590
Guard locking monitored (Y/N)	Yes
Actuator monitored (Y/N)	No
Idle assignable pushbutton and LED (Y/N)	No
Response time	
Actuator	≤ 100
Duration of risk	< 200
Time to readiness	< 4000
Recommended actuator	AZ/AZM201-B1, AZ/AZM201-B30
- Actuator	≤ 100 ms
- Inputs	$\leq 0,5$ ms

Mechanical data

Design of electrical connection	Spring pulley connection
Cable section	
- Min. Cable section	0,25 mm ²
- Max. Cable section	1.5 mm ²
AWG-Number	23 – 15
Mechanical life	$\geq 1.000.000$ operations
notice	All indications about the cable section are including the conductor ferrules.
resistance to shock	30 / 11
Resistance to vibration	10 ... 150 HZ, Amplitude 0,35 mm
Emergency unlocking device (Y/N)	No
Manual release (Y/N)	Yes
Emergency release (Y/N)	No
Latching force	30
Clamping force	2000
Max. Actuating speed	$\leq 0,2$

Ambient conditions

Ambient temperature	
- Min. environmental temperature	-25
- Max. environmental temperature	+60
Storage and transport temperature	
- Min. Storage and transport temperature	-25
- Max. Storage and transport temperature	+85
Relative humidity	30... 95
- non-condensing	
Protection class	IP66, IP67 to IEC 60529
Air clearances and creepage distances To IEC/EN 60664-1	
- Rated impulse withstand voltage	0,8
- Overvoltage category	III
- Degree of pollution	3

Electrical data

Number of auxiliary contacts	0
Number of safety contacts	2
Cross circuit/short circuit recognition possible (Y/N)	Yes
Power to unlock	Yes
Power to lock	No
Supply voltage	
- Min. supply voltage	20.4 V DC
- Max. supply voltage	26.4 V DC
Switch frequency	1
Rated insulation voltage	32 V DC
Operating current	1.2 A
Utilisation category	DC-13
No-load current	0,6 A
Device insulation	≤ 4 A if used in accordance with UL 508

Electrical data - Safety inputs

Safety inputs	X1 and X2
Rated operating voltage	-3 ... 5 (Low) 15 ... 30 (High)
Operating current	typically 2 at 24

Electrical data - Safety outputs

Safety outputs	Y1 and Y2
Fuse rating	short-circuit proof, p-type
Rated operating voltage	0 ... 4 under
Residual current	≤ 0,5
Operating current	max. each 0,25 A
Utilisation category	DC-13

Electrical data - Diagnostic output

Serial diagnostics (Y/N)	No
Fuse rating	p-type, short-circuit proof

Operating current	0,05 A
Utilisation category	DC-13: 24 V / 0,05 A
Wiring capacitance for serial diagnostics	-
diagnostic signals	guard door closed and interlocking device locked
Operating principle of the diagnostic output	The short-circuit proof diagnostic output OUT can be used for central visualisation or control tasks, e.g. in a PLC.
notice	The diagnostic output is not a safety-relevant output!

Electrical data - Solenoid control IN

Rated operating voltage U_e	-3 V ... 5 V (Low) 15 V ... 30 V (High)
Operating current I_e	typically 10 mA at 24 V, dynamically 20 mA
Control command	-

LED switching conditions display

LED switching conditions display (Y/N)	Yes
LED switching conditions display	
- Supply voltage	green LED
- switching condition	yellow LED
- Error functional defect	red LED

ATEX

Explosion protection categories for gases	None
Explosion protected category for dusts	None

Dimensions

Dimensions of the sensor	
- Width of sensor	40 mm
- Height of sensor	220
- Length of sensor	50

notice

As long as the actuating unit remains inserted in the solenoid interlock, the unlocked safety guard can be relocked. The safety outputs then will be enabled again; opening the safety guard therefore is not required.

Included in delivery

Included in delivery	AZM201 Triangular key
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Actuators must be ordered separately.

Ordering code

AZM201(1)-(2)-(3)-T-(4)-(5)

(1)

Z

B

(2)

<i>without</i>	Included in standard version Coding
I1	Individual coding
I2	Individual coding,
(3)	
SK	Screw terminals
CC	Cage clamps
ST2	connector plug M12, 8-pole
(4)	
1P2PW	1 Diagnostic output, p-type and 2 Safety outputs, p-type (combined diagnostic signal: guard door closed and interlocking device locked)
SD2P	serial diagnostic output and 2 Safety outputs, p-type
(5)	
<i>without</i>	Power to unlock
A	Power to lock

Documents

Operating instructions and Declaration of conformity (pl) 480 kB, 26.11.2018

Code: mrl_azm201_pl

Operating instructions and Declaration of conformity (nl) 451 kB, 23.10.2018

Code: mrl_azm201_nl

Operating instructions and Declaration of conformity (de) 391 kB, 10.08.2018

Code: mrl_azm201_de

Operating instructions and Declaration of conformity (es) 459 kB, 23.08.2018

Code: mrl_azm201_es

Operating instructions and Declaration of conformity (fr) 423 kB, 03.05.2018

Code: mrl_azm201_fr

Operating instructions and Declaration of conformity (en) 458 kB, 10.08.2018

Code: mrl_azm201_en

Operating instructions and Declaration of conformity (it) 417 kB, 19.06.2018

Code: mrl_azm201_it

Operating instructions and Declaration of conformity (jp) 528 kB, 12.10.2017

Code: mrl_azm201_jp

Operating instructions and Declaration of conformity (pt) 461 kB, 15.08.2018

Code: mrl_azm201_pt

Operating instructions and Declaration of conformity (cn) 624 kB, 23.11.2018

Code: mrl_azm201_cn

Wiring example (99) 21 kB, 12.01.2009

Code: kazm2l26

Brochure (de) 6 MB, 15.02.2018

Code: b_css_brosch09_de

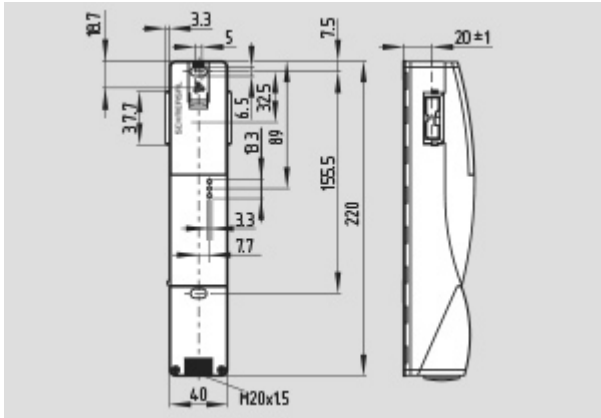
Brochure (en) 6 MB, 15.02.2018

Code: b_css_brosch09_en

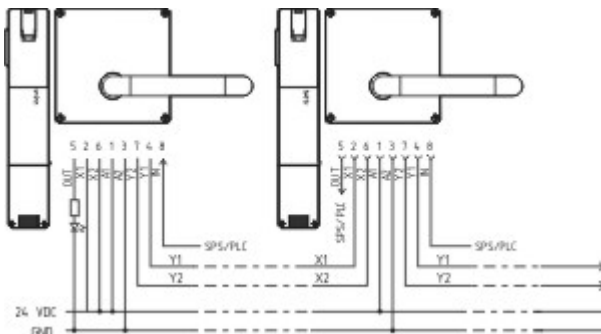
TÜV certification (de, en) 352 kB, 06.02.2018

Code: z_azmp07

Images



Dimensional drawing (miscellaneous)



Wiring example

System components

Actuator



103013499 - AZ/AZM201-B30-RTAG1P1-SZ

- Actuator for hinged guards
- Easy and intuitive operation
- No risk of injury from protruding actuator
- No supplementary door handles required
- Does not protrude into the door opening
- for right hinged doors
- with handle and Emergency exit handle
- with integrated lockout tag



103013497 - AZ/AZM201-B30-RTAG1P1

- Actuator for hinged guards
- Easy and intuitive operation
- No risk of injury from protruding actuator
- No supplementary door handles required
- Does not protrude into the door opening
- for right hinged doors
- with handle and Emergency exit handle



103013502 - AZ/AZM201-B30-RTAG1

- Actuator for hinged guards
- Easy and intuitive operation
- No risk of injury from protruding actuator
- No supplementary door handles required
- Does not protrude into the door opening
- for right hinged doors
- with handle



103013500 - AZ/AZM201-B30-LTAG1P1-SZ

- Actuator for hinged guards
- Easy and intuitive operation
- No risk of injury from protruding actuator
- No supplementary door handles required
- Does not protrude into the door opening
- for left hinged doors
- with handle and Emergency exit handle
- with integrated lockout tag



103013498 - AZ/AZM201-B30-LTAG1P1

- Actuator for hinged guards
- Easy and intuitive operation
- No risk of injury from protruding actuator
- No supplementary door handles required
- Does not protrude into the door opening
- for left hinged doors
- with handle and Emergency exit handle



103013501 - AZ/AZM201-B30-LTAG1

- Actuator for hinged guards
- Easy and intuitive operation
- No risk of injury from protruding actuator
- No supplementary door handles required
- Does not protrude into the door opening
- for left hinged doors
- with handle



103013495 - AZ/AZM201-B1-RTP0

- Actuators with return spring
- Actuator for sliding guards
- Tolerates up to max. 5 mm overtravel
- for right hinged doors
- with Emergency exit



103013494 - AZ/AZM201-B1-RT

- Actuators with return spring
- Actuator for sliding guards
- Tolerates up to max. 5 mm overtravel
- for right hinged doors



103013496 - AZ/AZM201-B1-LTP0

- Actuators with return spring
- Actuator for sliding guards
- Tolerates up to max. 5 mm overtravel
- for left hinged doors
- with Emergency exit



103013493 - AZ/AZM201-B1-LT

- Actuators with return spring
- Actuator for sliding guards
- Tolerates up to max. 5 mm overtravel
- for left hinged doors

K.A. Schmersal GmbH & Co. KG, Möddinghofe 30, D-42279 Wuppertal

The data and values have been checked thoroughly. Technical modifications and errors excepted.

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