

Datasheet - MS-AZM 200D-ST3-T-1P2P2P-2568

Solenoid interlock / AZM 200D



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

- **NOTICE: Available until 2020.12.31 (substitute: AZM201D)**
- Thermoplastic enclosure
- Electronic contact-free, coded system
- Max. length of the sensor chain 200 m
- 3 LEDs to show operating conditions
- Sensor technology permits an offset between actuator and interlock of ± 5 mm vertically and ± 3 mm horizontally
- Intelligent diagnosis
- Manual release
- Guard locking monitored

Ordering details

Product type description	MS-AZM 200D-ST3-T-1P2P2P-2568
Article number	103006851
EAN Code	
eCl@ss	27-27-26-03

Approval

Approval



Classification


Safety guard monitoring Y1 and Y2

Standards	EN ISO 13849-1, IEC 61508, IEC 60947-5-3
PL	bis e
Control category	bis 4
PFH value	4.0×10^{-9} /
SIL	bis 3
Mission time	20 Years
Classification	PDF-M
Classification	PDF-M

Locking monitoring Y3 and Y4

Standards	EN ISO 13849-1, IEC 61508, IEC 60947-5-3
PL	up d
Control category	bis 3
PFH value	1.0×10^{-7}
SIL	up 2
Mission time	20 Years

Global Properties

Permanent light	AZM 200D
Standards	EN 60947-5-1, IEC 61508, EN ISO 13849-1, IEC 60947-5-3
Compliance with the Directives (Y/N) 	Yes
Suitable for safety functions (Y/N)	Yes
Active principle	inductive
Duty cycle	100
Materials	
- Material of the housings	Plastic, glass-fibre reinforced thermoplastic
Housing coating	None
Weight	590
Guard locking monitored (Y/N)	Yes (Sicherheitsausgänge Y3, Y4)
Actuator monitored (Y/N)	Yes (Sicherheitsausgänge Y1, Y2)
Idle assignable pushbutton and LED (Y/N)	No
Reaction time	≤ 60
Duration of risk	< 120
Time to readiness	< 4000
Recommended actuator	AZ/AZM 200-B1

Mechanical data

Design of electrical connection	Connector M23, 12-pole
Cable section	
- Min. Cable section	0,25
- Max. Cable section	1.5
AWG-Number	23 - 15
Mechanical life	$\geq 1.000.000$ operations
notice	All indications about the cable section are including the conductor ferrules.
restistance to shock	30 / 11
Resistance to vibration	10 ... 55 HZ, Amplitude 1 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	$\leq 0,2$
Cable length	200

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

Protection class	IP67 to IEC/EN 60529
Protection rating	II
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	4
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-12, DC-13
No-load current	0,5 A
Device insulation	
- screw or spade terminals	≤ 4 A if used in accordance with UL 508
- Connector M12	≤ 2 A
- Connector M23	≤ 4 A

Electrical data - Safety outputs

Safety outputs	Y1, Y2, Y3, Y4
Fuse rating	short-circuit proof, p-type
Rated operating voltage	0 ... 4 under Supply voltage
Residual current	≤ 0,5
Operating current	Y1, Y2: 0,25 A Y3, Y4: 0,1 A
Utilisation category	DC-13

Electrical data - Diagnostic output

Serial diagnostics (Y/N)	No
Fuse rating	p-type, short-circuit proof
Operating current	0,1 A
Utilisation category	DC-13: 24 V / 0,05 A
Wiring capacitance for serial diagnostics	-
diagnostic signals	guard door closed
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!
Residual current through outputs Y3, Y4, OUT:	$I_{Y3} + I_{Y4} + I_{OUT} \leq 0,1 \text{ A}$

Electrical data - Solenoid control IN

Rated operating voltage	- 3 ... 5 (Low) 15 ... 30 (High)
Operating current	typically 10 / 24 , dynamically 20

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
- 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	AZM 200 Triangular key
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Actuators must be ordered separately.

Ordering code

AZM 200D(1)-T-1P2P2P(2)

(1)

SK	Screw connection
CC	Spring pulley connection
ST1	connector M23, (8+1-pole)
ST2	connector M12, 8-pole
ST3	connector plug M23, 12-pole

(2)

<i>without</i>	Power to unlock
A	Power to lock

Documents

Operating instructions and Declaration of conformity (en) 353 kB, 23.11.2017

Code: mrl_azm200d_en

Operating instructions and Declaration of conformity (de) 303 kB, 23.11.2017

Code: mrl_azm200d_de

Operating instructions and Declaration of conformity (es) 354 kB, 26.04.2018

Code: mrl_azm200d_es

Operating instructions and Declaration of conformity (pt) 357 kB, 03.05.2018

Code: mrl_azm200d_pt

Operating instructions and Declaration of conformity (jp) 416 kB, 16.12.2011

Code: mrl_azm200d_jp

Operating instructions and Declaration of conformity (nl) 352 kB, 13.08.2018

Code: mrl_azm200d_nl

Operating instructions and Declaration of conformity (fr) 356 kB, 02.05.2018

Code: mrl_azm200d_fr

Operating instructions and Declaration of conformity (pl) 374 kB, 08.06.2018

Code: mrl_azm200d_pl

Brochure (de) 6 MB, 15.02.2018

Code: b_css_brosch09_de

Brochure (en) 6 MB, 15.02.2018

Code: b_css_brosch09_en

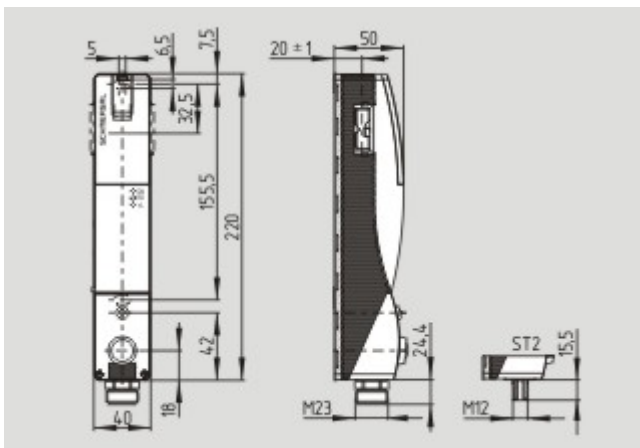
TÜV certification (de, en) 848 kB, 09.08.2017

Code: z_azmp04

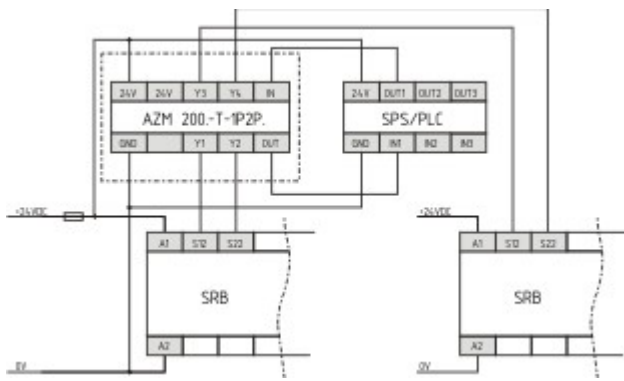
notice (de, en) 803 kB, 18.06.2015

Code: mrl_az-azm200-d_sk_de-en

Images



Dimensional drawing (basic component)



Wiring example

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