


Datasheet - AZM 170 BZ ST-AS RAP



AS interface safety at work / Safety switchgear / Solenoid interlock / AZM 170 AS

Preferred typ



- Solenoid interlock
- Integrated AS-Interface
- Thermoplastic enclosure
- 90 mm x 84 mm x 30 mm
- Double-insulated 
- High holding force
- Combined monitoring of actuator and solenoid interlock
- Power to lock



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

Ordering details

Product type description	AZM 170 BZ ST-AS RAP
Article number	101210929
EAN code	4030661390437

Approval

Approval




Classification

Standards	EN ISO 13849-1, IEC 61508
PL	up c
Control category	1
PFH	$1.16 \times 10^{-6} / h$
- notice	up to max. 100.000 switching cycles/year
SIL	up 1
Mission time	20 Years

If a fault exclusion for hazardous damage of the 1-channel mechanics is authorized and an adequate protection against tampering is ensured, suitable for use up to:

Standards	EN ISO 13849-1, IEC 61508
PL	up d
Control category	3
PFH value	1.01 x 10 ⁻⁷ / h
- notice	up to max. 100.000 switching cycles/year
SIL	up 2
Mission time	20 Years


Global Properties

Product name	AZM 170 AS
Standards	EN 50295, EN 60947-5-1, IEC 61508, EN ISO 13849-1
Compliance with the Directives (Y/N) 	Yes
Number of actuating directions	2 piece
Active principle	electromechanical
Duty cycle	Magnet 100 %
Materials	
- Material of the housings	glass-fibre reinforced thermoplastic, Plastic self-extinguishing,
Housing coating	None
Weight	300 g
Guard locking monitored (Y/N)	Yes
Actuator monitored (Y/N)	Yes
Response time	< 100 ms

Mechanical data

Design of electrical connection	connector plug M12, 4-pole
Mechanical life	> 1.000.000 operations
Manual release (Y/N)	No
Latching force	30 N
Clamping force F_{max}	1000 N
Max. Actuating speed	2 m/s

Ambient conditions

Ambient temperature	
- Min. environmental temperature	-25 °C
- Max. environmental temperature	+55 °C
Storage and transport temperature	
- Min. Storage and transport temperature	-25 °C
- Max. Storage and transport temperature	+85 °C
Relative humidity	30 % ... 95 %
- non-condensing	
- non-icing	
Protection class	IP67 to IEC/EN 60529
Protection rating	II 
Air clearances and creepage distances To IEC/EN 60664-1	
- Rated impulse withstand voltage U_{imp}	0,8 kV
- Rated insulation voltage U_i	32 VDC
- Overvoltage category	III
- Degree of pollution	3

Electrical data

Power to unlock	No
Power to lock	Yes

Electrical data - AS interface

AS-i Supply voltage	26.5 ... 31.6 VDC, Protection against polarity reversal
AS-i operating current	≤ 50 mA
AS-i Device insulation	internally short-circuit proof
AS-i Specification	
- version	V 2.1
- Profile	S-7.B.F.E
- IO-Code	0x7
- ID-Code	0xB
- ID-Code1	0xF
- ID-Code2	0xE
AS-i Inputs	
- Channel 1	Data bits DI 0/DI 1= dynamic code transmission
- Channel 2	Data bits DI 2/DI 3= dynamic code transmission
AS-i Outputs	
- DO 0	Solenoid control
- DO 1	not used
- DO 2	not used
- DO 3	not used
AS-i Parameter bits	
- P0	Safety guard and actuator detected
- P1	Solenoid interlock locked
- P2	not used
- P3	not used
AS-i input module address	0
- Default on address 0, programmable via the AS-Interface Master or Hand-held programming device	

Electrical data - Auxiliary voltage (Aux)

Supply voltage U_B	24 VDC (-15 % / +10 %) stabilised PELV
Operating current	≤ 500 mA
Device insulation	≤ 4 A (if used in accordance with UL 508)

LED switching conditions display

LED switching conditions display (Y/N)	Yes
AS-i LED switching conditions display	
(1) green LED	Supply voltage
(2) red LED	Communication error / slave address = 0
(3) yellow LED	Enabling status

ATEX

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

Dimensions

Dimensions of the sensor	
- Width of sensor	90 mm

- Height of sensor	75.5 mm
- Length of sensor	30 mm

Pin assignment

1	AS-i +
2	Aux - (P)
3	AS-i -
4	Aux + (P)

notice

Interlocks with power to lock principle may only be used in special cases after a thorough evaluation of the accident risk, since the guarding device can immediately be opened on failure of the electrical power supply or when the main switch is opened.

Included in delivery

Actuators must be ordered separately.

Ordering code

AZM 170 (1) (2)-AS(3)(4)(5)(6)

(1)	
B	Actuator monitored
BZ	Combined monitoring of actuator and solenoid interlock
(2)	
ST	male connector M12
(3)	
<i>without</i>	Latching force 5 N
R	Latching force 30 N
(4)	
<i>without</i>	Power to unlock
A	Power to lock
(5)	
P	Solenoid supply 24 VDC (Aux)
(6)	
2197	Manual release for Power to unlock

Documents

Operating instructions and Declaration of conformity (fr) 677 kB, 11.03.2010

Code: mrl_azm170as_fr

Operating instructions and Declaration of conformity (de) 1 MB, 11.03.2010

Code: mrl_azm170as_de

Operating instructions and Declaration of conformity (en) 678 kB, 11.03.2010

Code: mrl_azm170as_en

Operating instructions and Declaration of conformity (jp) 464 kB, 14.04.2011

Code: mrl_azm170as_jp

Operating instructions and Declaration of conformity (nl) 586 kB, 11.03.2010

Code: mrl_azm170as_nl

Operating instructions and Declaration of conformity (it) 990 kB, 11.03.2010

Code: mrl_azm170as_it

Operating instructions and Declaration of conformity (es) 672 kB, 11.03.2010

Code: mrl_azm170as_es

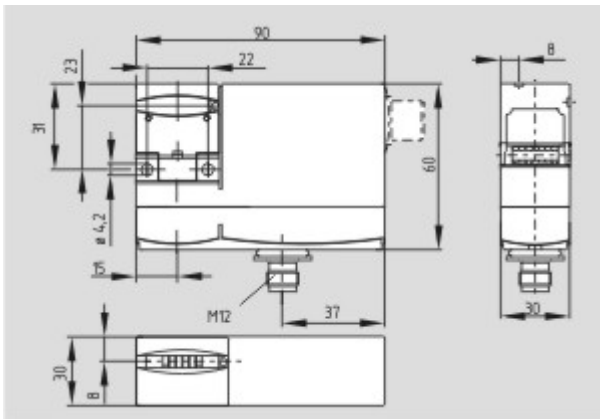
TÜV certification (de, en) 870 kB, 22.02.2010

Code: z_azmp03

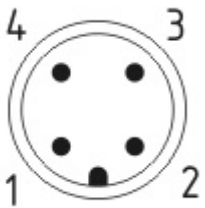
Images



Product photo



Dimensional drawing (basic component)



Contact arrangement

System components

Actuator



101122893 - AZ 17/170-B1

- Particularly suitable for sliding doors



1137406 - AZ 17/170-B1-2245

- Damps vibration on guard device



1122895 - AZ 17/170-B5

- Particularly suitable for hinged guards (front mounting)



101123391 - AZM 170-B6

- For very small actuating radii
- The direction of actuation can be selected by applicable insertion of the insert



1139788 - AZ 17/170-B11

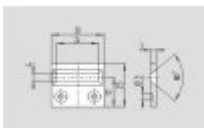
- Particularly suitable for sliding doors



1139789 - AZ 17/170-B15

- Particularly suitable for hinged guards (front mounting)

Accessories



1208493 - AZM 170-B CENTERING GUIDE

- for AZ 17 and AZM 170

101150367 - Mounting set MS AZM 170 P



101149211 - Mounting set MS AZM 170 R/P



101100887 - TRIANGULAR KEY M5



- For manual release using M5 triangular key, available as accessory
- For maintenance, installation, etc.

Mounting accessories

101147463 - TAMPERPROOF SCREWS M 4 x 8



- To mount the actuator
- Higher protection against tampering with interlock
- Protects against unauthorised removal of actuator
- Various lengths available

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

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