


## Datasheet - AZM 170 BZ ST-AS RP-2197

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
- Manual release from side



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

### Ordering details

Product type description	AZM 170 BZ ST-AS RP-2197
Article number	101211516
EAN Code	4030661390468
eCl@ss	27-27-26-03

### Approval

Approval



### Classification

Standards	EN ISO 13849-1, IEC 61508
PL	up c
Control category	1
PFH	1.16 x 10 <sup>-6</sup> / 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 <sup>-7</sup> / h
- notice	up to max. 100.000 switching cycles/year
SIL	up 2
Mission time	20 Years

## Global Properties

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Permanent light	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
Active principle	electromechanical
Duty cycle ED	Magnet 100 %
Materials	
- Material of the housings	glass-fibre reinforced thermoplastic, Plastic self-extinguishing,
Housing coating	None
Weight	320
Guard locking monitored (Y/N)	Yes
Actuator monitored (Y/N)	Yes
Response time	< 100


## Mechanical data

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Design of electrical connection	connector plug M12, 4-pole
Mechanical life	> 1.000.000 operations
Manual release (Y/N)	Yes
Latching force	30
Clamping force F	1000 N
Max. Actuating speed	2

## Ambient conditions

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Ambient temperature	
- Min. environmental temperature	-25
- Max. environmental temperature	+55
Storage and transport temperature	
- Min. Storage and transport temperature	-25
- Max. Storage and transport temperature	+85
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 <sub>imp</sub>	0,8 kV
- Rated insulation voltage U <sub>i</sub>	32 VDC
- Overvoltage category	III
- Degree of pollution	3

## Electrical data

Power to unlock	Yes
Power to lock	No

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## Electrical data - AS interface

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AS-i Supply voltage	26.5 ... 31.6 VDC, Protection against polarity reversal
AS-i operating current	≤ 50
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	

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## Electrical data - Auxiliary voltage (Aux)

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

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## LED switching conditions display

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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

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## ATEX

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

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## Dimensions

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#### Dimensions of the sensor

- Width of sensor	108
- Height of sensor	75.5
- Length of sensor	30

#### Pin assignment

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

#### notice

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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

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Actuators must be ordered separately.

#### Ordering code

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

(1)

<b>B</b>	Actuator monitored
<b>BZ</b>	Combined monitoring of actuator and solenoid interlock

(2)

<b>ST</b>	male connector M12
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(3)

<i>without</i>	Latching force 5 N
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<b>R</b>	Latching force 30 N
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(4)

<i>without</i>	Power to unlock
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<b>A</b>	Power to lock
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(5)

<b>P</b>	Solenoid supply 24 VDC (Aux)
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(6)

<b>2197</b>	Manual release for Power to unlock
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#### Documents

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**Operating instructions and Declaration of conformity** (pt) 340 kB, 15.01.2018

Code: mrl\_azm170as\_pt

**Operating instructions and Declaration of conformity** (pl) 355 kB, 28.03.2018

Code: mrl\_azm170as\_pl

**Operating instructions and Declaration of conformity** (nl) 319 kB, 13.08.2018

Code: mrl\_azm170as\_nl

**Operating instructions and Declaration of conformity** (en) 341 kB, 22.11.2017

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 (de)** 320 kB, 22.11.2017

Code: mrl\_azm170as\_de

**Operating instructions and Declaration of conformity (da)** 242 kB, 13.10.2015

Code: mrl\_azm170as\_da

**Operating instructions and Declaration of conformity (fr)** 340 kB, 15.01.2018

Code: mrl\_azm170as\_fr

**Operating instructions and Declaration of conformity (it)** 340 kB, 15.01.2018

Code: mrl\_azm170as\_it

**Operating instructions and Declaration of conformity (es)** 343 kB, 15.01.2018

Code: mrl\_azm170as\_es

**TÜV certification (de, en)** 870 kB, 22.02.2010

Code: z\_azmp03

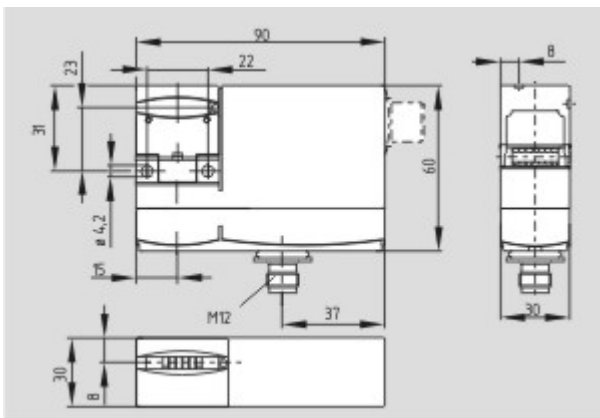
## Images

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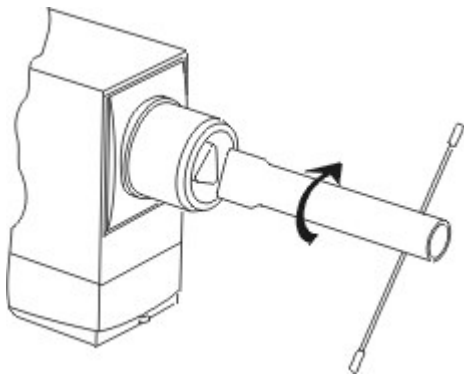
Product photo

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Dimensional drawing (basic component)

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Detail photo

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## System components

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### Actuator



#### **101122893 - AZ 17/170-B1**

- Particularly suitable for sliding doors



#### **101137406 - AZ 17/170-B1-2245**

- Particularly suitable for sliding doors
- Damps vibration on guard device



#### **101122895 - AZ 17/170-B5**

- Particularly suitable for sliding doors



#### **101123391 - AZM 170-B6**

- Particularly suitable for hinged guards
- For very small actuating radii
- The direction of actuation can be selected by applicable insertion of the insert



#### **101139788 - AZ 17/170-B11**

- Particularly suitable for sliding doors

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#### **101139789 - AZ 17/170-B15**

- Particularly suitable for sliding doors



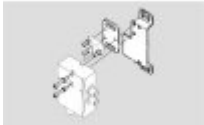
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## Accessories



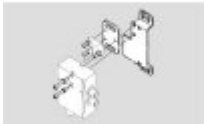
### 101208493 - AZM 170-B CENTERING GUIDE

- for AZ 17 and AZM 170



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### 101150367 - Mounting set MS AZM 170 P



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### 101149211 - Mounting set MS AZM 170 R/P



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### 101100887 - TRIANGULAR KEY TK-M5

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

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## 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