

## Datasheet - AZM 200 BZ ST-T-AS AP

AS interface safety at work / Safety switchgear / Solenoid interlock / AZM 200 AS



Preferred typ



- Solenoid interlock
- Thermoplastic enclosure
- High holding force 2000
- 40 mm x 244 mm x 50 mm
- Interlock with protection against incorrect locking.
- Double-insulated
- Long life
- Integrated AS-Interface
- Solenoid supply 24 VDC (Aux)
- Combined monitoring of actuator and solenoid interlock

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

### Ordering details

Product type description	AZM 200 BZ ST-T-AS AP
Article number	101194500
EAN Code	4030661364858
eCl@ss	27-27-26-03

### Approval

Approval




### Classification

Standards	EN ISO 13849-1, IEC 61508, IEC 60947-5-3
PL	up e
Control category	4
PFH	4 x 10 <sup>-9</sup> / h
SIL	up 3
Mission time	20 Years
Classification	PDF-M

## Global Properties

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Permanent light	AZM 200 AS
Standards	EN 50295, EN 60947-5-1, IEC 61508, EN ISO 13849-1, IEC 60947-5-3
Compliance with the Directives (Y/N) 	Yes
Number of actuating directions	1
Active principle	electromechanical
Duty cycle ED	Magnet 100 %
Materials	
- Material of the housings	Plastic, glass-fibre reinforced thermoplastic, self-extinguishing
Housing coating	None
Weight	520
Guard locking monitored (Y/N)	Yes
Actuator monitored (Y/N)	Yes
Response time	< 60
Duration of risk	< 120
Time to readiness	< 4000


## Mechanical data

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Design of electrical connection	connector plug M12, 4-pole
Mechanical life	> 1.000.000 operations
resistance to shock	30 g / 11 ms
Resistance to vibration	10 HZ ... 150 HZ, Amplitude 0,35 mm
Latching force	30
Clamping force F	2000 N
Tightening torque for cover screws	0,7 ... 1
Max. Actuating speed	≤ 2

## Ambient conditions

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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	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

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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	≤ 100
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	magnet voltage in tolerance range
- P3	Error
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
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/red LED (AS-i duo LED)	Supply voltage / Communication error / slave address = 0
(2) red LED	device error
(3) yellow LED	Device status

### ATEX

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

### Miscellaneous data

Applications	 sliding safety guard,  removable guard,  hinged safety guard
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## Dimensions

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### Dimensions of the sensor

- Width of sensor	40
- Height of sensor	244
- Length of sensor	50

## 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 200 (1) ST-T-AS (2)P

(1)

*without*

**B** Guard locking monitored

**BZ** Actuator monitored

(2)

*without*

**A** Power to unlock

Power to lock

## Documents

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**Operating instructions and Declaration of conformity (es)** 364 kB, 19.07.2016

Code: mrl\_azm200as\_es

**Operating instructions and Declaration of conformity (pl)** 373 kB, 28.10.2016

Code: mrl\_azm200as\_pl

**Operating instructions and Declaration of conformity (da)** 280 kB, 13.10.2015

Code: mrl\_azm200as\_da

**Operating instructions and Declaration of conformity (nl)** 399 kB, 05.07.2016

Code: mrl\_azm200as\_nl

**Operating instructions and Declaration of conformity (fr)** 359 kB, 20.07.2016

Code: mrl\_azm200as\_fr

**Operating instructions and Declaration of conformity (de)** 549 kB, 20.06.2016

Code: mrl\_azm200as\_de

**Operating instructions and Declaration of conformity** (jp) 394 kB, 22.02.2012

Code: mrl\_azm200as\_jp

**Operating instructions and Declaration of conformity** (cn) 474 kB, 26.07.2017

Code: mrl\_azm200as\_cn

**Operating instructions and Declaration of conformity** (en) 400 kB, 20.06.2016

Code: mrl\_azm200as\_en

**Operating instructions and Declaration of conformity** (pt) 344 kB, 03.02.2017

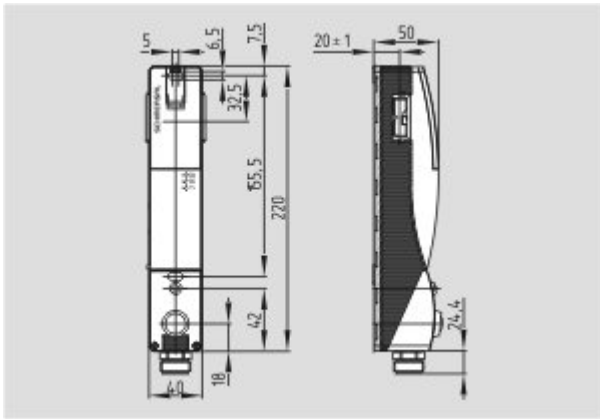
Code: mrl\_azm200as\_pt

**Operating instructions and Declaration of conformity** (it) 407 kB, 05.07.2016

Code: mrl\_azm200as\_it

## Images

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Dimensional drawing (miscellaneous)

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## System components

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### Actuator



#### 101183470 - AZ/AZM 200-B1-RTP0

- Actuators with return spring
  - Actuator for sliding guards
  - Tolerates up to max. 5 mm overtravel
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#### 101183469 - AZ/AZM 200-B1-RT

- Actuators with return spring
  - Actuator for sliding guards
  - Tolerates up to max. 5 mm overtravel
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#### 101183466 - AZ/AZM 200-B1-LTP0

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



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**101183465 - AZ/AZM 200-B1-LT**

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



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**101192104 - AZ/AZM 200-B30-RTAG2P25**

- One-hand emergency exit, even in de-energised condition
  - Actuator for hinged guards
  - With door detection sensor T
  - Easy and intuitive operation
  - No risk of injury from protruding actuator
  - No supplementary door handles required
  - Does not protrude into the door opening
  - Various handles available
- Greater mechanical stability



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**101191659 - AZ/AZM 200-B30-RTAG2P20**

- One-hand emergency exit, even in de-energised condition
  - Actuator for hinged guards
  - With door detection sensor T
  - Easy and intuitive operation
  - No risk of injury from protruding actuator
  - No supplementary door handles required
  - Does not protrude into the door opening
  - Various handles available
- Greater mechanical stability



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**101181143 - AZ/AZM 200-B30-RTAG2P1**

- One-hand emergency exit, even in de-energised condition
  - Actuator for hinged guards
  - With door detection sensor T
  - Easy and intuitive operation
  - No risk of injury from protruding actuator
  - No supplementary door handles required
  - Does not protrude into the door opening
  - Various handles available
- Greater mechanical stability



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**101181139 - AZ/AZM 200-B30-RTAG2**

- Actuator for hinged guards
  - With door detection sensor T
  - Easy and intuitive operation
  - No risk of injury from protruding actuator
  - No supplementary door handles required
  - Does not protrude into the door opening
  - Various handles available
- Greater mechanical stability
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#### 101192106 - AZ/AZM 200-B30-LTAG2P25

- One-hand emergency exit, even in de-energised condition
  - Actuator for hinged guards
  - With door detection sensor T
  - Easy and intuitive operation
  - No risk of injury from protruding actuator
  - No supplementary door handles required
  - Does not protrude into the door opening
  - Various handles available
- Greater mechanical stability



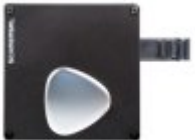
#### 101189020 - AZ/AZM 200-B30-LTAG2P20

- One-hand emergency exit, even in de-energised condition
  - Actuator for hinged guards
  - With door detection sensor T
  - Easy and intuitive operation
  - No risk of injury from protruding actuator
  - No supplementary door handles required
  - Does not protrude into the door opening
  - Various handles available
- Greater mechanical stability



#### 101181141 - AZ/AZM 200-B30-LTAG2P1

- One-hand emergency exit, even in de-energised condition
  - Actuator for hinged guards
  - With door detection sensor T
  - Easy and intuitive operation
  - No risk of injury from protruding actuator
  - No supplementary door handles required
  - Does not protrude into the door opening
  - Various handles available
- Greater mechanical stability



#### 101181137 - AZ/AZM 200-B30-LTAG2

- Actuator for hinged guards
  - With door detection sensor T
  - Easy and intuitive operation
  - No risk of injury from protruding actuator
  - No supplementary door handles required
  - Does not protrude into the door opening
  - Various handles available
- Greater mechanical stability



#### 101192103 - AZ/AZM 200-B30-RTAG1P25

- One-hand emergency exit, even in de-energised condition
  - Actuator for hinged guards
  - With door detection sensor T
  - Easy and intuitive operation
  - No risk of injury from protruding actuator
  - No supplementary door handles required
  - Does not protrude into the door opening
  - Various handles available
- Greater mechanical stability

#### 101192102 - AZ/AZM 200-B30-LTAG1P25

- One-hand emergency exit, even in de-energised condition
- Actuator for hinged guards



- With door detection sensor T
  - Easy and intuitive operation
  - No risk of injury from protruding actuator
  - No supplementary door handles required
  - Does not protrude into the door opening
  - Various handles available
- Greater mechanical stability

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**101186144 - AZ/AZM 200-B30-RTAG1P20**



- One-hand emergency exit, even in de-energised condition
  - Actuator for hinged guards
  - With door detection sensor T
  - Easy and intuitive operation
  - No risk of injury from protruding actuator
  - No supplementary door handles required
  - Does not protrude into the door opening
  - Various handles available
- Greater mechanical stability

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**101178738 - AZ/AZM 200-B30-RTAG1P1**



- One-hand emergency exit, even in de-energised condition
  - Actuator for hinged guards
  - With door detection sensor T
  - Easy and intuitive operation
  - No risk of injury from protruding actuator
  - No supplementary door handles required
  - Does not protrude into the door opening
  - Various handles available
- Greater mechanical stability

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**101178680 - AZ/AZM 200-B30-RTAG1**



- Actuator for hinged guards
  - With door detection sensor T
  - Easy and intuitive operation
  - No risk of injury from protruding actuator
  - No supplementary door handles required
  - Does not protrude into the door opening
  - Various handles available
- Greater mechanical stability

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**101186150 - AZ/AZM 200-B30-LTAG1P20**



- One-hand emergency exit, even in de-energised condition
  - Actuator for hinged guards
  - With door detection sensor T
  - Easy and intuitive operation
  - No risk of injury from protruding actuator
  - No supplementary door handles required
  - Does not protrude into the door opening
  - Various handles available
- Greater mechanical stability

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**101178668 - AZ/AZM 200-B30-LTAG1P1**

- One-hand emergency exit, even in de-energised condition
- Actuator for hinged guards





- With door detection sensor T
  - Easy and intuitive operation
  - No risk of injury from protruding actuator
  - No supplementary door handles required
  - Does not protrude into the door opening
  - Various handles available
- Greater mechanical stability



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**101178681 - AZ/AZM 200-B30-LTAG1**

- Actuator for hinged guards
  - With door detection sensor T
  - Easy and intuitive operation
  - No risk of injury from protruding actuator
  - No supplementary door handles required
  - Does not protrude into the door opening
  - Various handles available
- Greater mechanical stability

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

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