# Datasheet - AZM201Z-I1-SK-T-1P2PW

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
- Individual coding with RFID technology
- Coding level "High" according to ISO 14119
- Power to unlock
- Guard locking monitored

## Ordering details

| | |
|---|---|
| Product type description | AZM201Z-I1-SK-T-1P2PW |
| Article number | 103013483 |
| EAN Code | 4030661493268 |
| eCl@ss | 27-27-26-03 |

## Approval

| | |
|---|---|
| Approval | TÜV<br>USA/CAN<br>EAC |

## Classification

**Interlocking function:**

| | |
|---|---|
| Standards | EN ISO 13849-1, IEC 61508, IEC 62061 |
| PL | e |
| Control category | 4 |
| PFH value | 1.9 x $10^{-9}$ / h |
| PFD value | 1.6 x $10^{-4}$ |
| 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 x $10^{-8}$ / h |
| PFD value | 8.9 x $10^{-4}$ |
| 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) CE | 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 |
| 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 | ≤ 0,5 ms |

## Mechanical data

| | |
|---|---|
| Design of electrical connection | Screw connection |
| Cable section | |
| - Min. Cable section | 0,25 mm² |
| - Max. Cable section | 1.5 mm² |
| AWG-Number | 23 - 15 |
| Mechanical life | ≥ 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 … 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 | ≤ 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)<br>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)<br>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 lons 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<br>Triangular key |

Actuators must be ordered separately.

## Ordering code

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

**(1)**

**Z**

**B**

**(2)**

| | |
|---|---|
| *without* | 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<br>2 Safety outputs, p-type<br>(combined diagnostic signal: guard door closed and interlocking device locked) |
| **SD2P** | serial diagnostic output and 2 Safety outputs, p-type |
| **(5)** | |
| *without* | 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

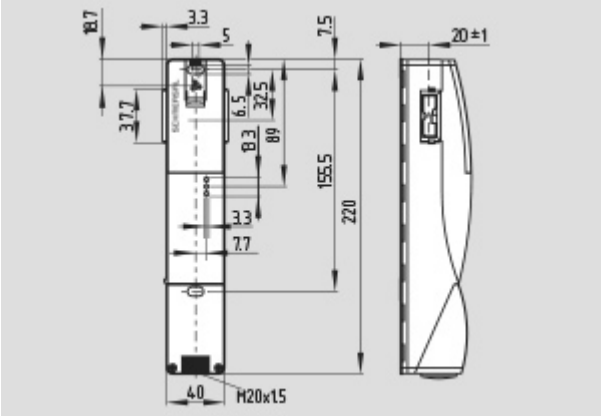
**Wiring example** (99) 21 kB, 12.01.2009
Code: kazm2l26

**Brochure** (de) 6 MB, 15.02.2018
Code: b_css_brosch09_de

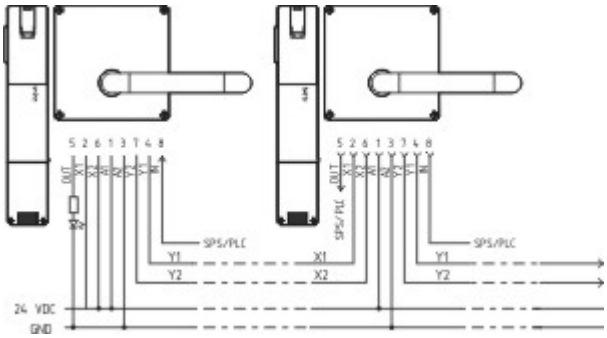
**Brochure** (en) 6 MB, 15.02.2018
Code: b_css_brosch09_en

**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

Generiert am 13.02.2019 - 14:50:39h Kasbase 3.3.0.F.64I