



## AZM201Z-I1-ST-T-AS-A-P

- 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 interlock with integrated AS-i Safety Interface
- Universal repeatedly teachable or individual coding because of the RFID technology
- I-variants with coding level HIGH to ISO 14119

## Data

### Ordering data

|                               |               |
|-------------------------------|---------------|
| EAN (European Article Number) | 4030661524245 |
| eCl@ss number, Version 9.0    | 27-27-26-03   |
| eCl@ss number, Version 11.0   | 27-27-26-03   |

### Approval - Standards

|              |         |
|--------------|---------|
| Certificates | TÜV     |
|              | cULus   |
|              | ASi-SaW |
|              | EAC     |
|              | FCC     |
|              | IC      |

### General data

|                                     |                                                                                         |
|-------------------------------------|-----------------------------------------------------------------------------------------|
| Standards                           | EN ISO 13849-1<br>IEC 61508<br>IEC 60947-5-3<br>EN ISO 14119<br>IEC 62061<br>EN 62026-2 |
| general information                 | Individual coding                                                                       |
| Coding level according to ISO 14119 | High                                                                                    |
| Active principle                    | RFID                                                                                    |
| Enclosure material                  | Glass-fibre, reinforced thermoplastic                                                   |
| Gross weight                        | 540.9 g                                                                                 |
| Time to readiness, maximum          | 4,000 ms                                                                                |
| Reaction time, maximum              | 100 ms                                                                                  |
| Duration of risk, maximum           | 200 ms                                                                                  |

### General data - Features

|                                     |     |
|-------------------------------------|-----|
| Power to lock                       | Yes |
| Guard locking monitored             | Yes |
| Latching                            | Yes |
| Manual release                      | Yes |
| Safety functions                    | Yes |
| Integral System Diagnostics, status | Yes |
| Number of actuating directions      | 2   |

### Safety appraisal

|           |                                          |
|-----------|------------------------------------------|
| Standards | IEC 62061<br>IEC 61508<br>EN ISO 13849-1 |
|-----------|------------------------------------------|

### Safety appraisal - Interlocking

|                          |   |
|--------------------------|---|
| Performance level, up to | e |
|--------------------------|---|

|                                                            |                          |
|------------------------------------------------------------|--------------------------|
| Control category                                           | 4                        |
| PFH-value                                                  | $1.81 \times 10^{-9}$ /h |
| PFD value                                                  | $1.59 \times 10^{-4}$    |
| Safety Integrity Level (SIL), suitable for applications in | 3                        |
| Mission Time                                               | 20 Year(s)               |

## Mechanical data

|                                                        |                      |
|--------------------------------------------------------|----------------------|
| Mechanical life, minimum                               | 1,000,000 Operations |
| Clamping force in accordance with ISO14119<br>$F_{zh}$ | 2,000 N              |
| Clamping force, maximum $F_{max}$                      | 2,600 N              |
| Latching force                                         | 30 N                 |
| Actuating speed, maximum                               | 0.2 m/s              |
| Tightening torque for the fixing screws, maximum       | 8 Nm                 |

## Mechanical data - Connection technique

|                    |                                        |
|--------------------|----------------------------------------|
| Terminal Connector | Connector plug M12, 4-pole, (A-coding) |
|--------------------|----------------------------------------|

## Mechanical data - Dimensions

|                  |        |
|------------------|--------|
| Length of sensor | 50 mm  |
| Width of sensor  | 40 mm  |
| Height of sensor | 220 mm |

## Ambient conditions

|                              |                                      |
|------------------------------|--------------------------------------|
| Degree of protection         | IP66 to EN 60529<br>IP67 to EN 60529 |
| Ambient temperature, minimum | -25 °C                               |
| Ambient temperature, maximum | +60 °C                               |

|                                            |                                  |
|--------------------------------------------|----------------------------------|
| Storage and transport temperature, minimum | -25 °C                           |
| Storage and transport temperature, maximum | +85 °C                           |
| Relative humidity, minimum                 | 10 %                             |
| Relative humidity, maximum                 | 95 %                             |
| Note (Relative humidity)                   | non-condensing<br>non-icing      |
| Resistance to vibrations to EN 60068-2-6   | 10 ... 150 Hz, amplitude 0.35 mm |
| Resistance to shock                        | 30 g / 11 ms                     |
| Protection rating                          | III                              |

### Ambient conditions - Insulation value

|                                           |        |
|-------------------------------------------|--------|
| Rated insulation voltage $U_i$            | 32 VDC |
| Rated impulse withstand voltage $U_{imp}$ | 0.8 kV |
| Overvoltage category                      | III    |
| Degree of pollution to IEC/EN 60664-1     | 3      |

### Electrical data

|                              |      |
|------------------------------|------|
| Switching frequency, maximum | 1 Hz |
|------------------------------|------|

### Electrical data - AS Interface

|                                     |                                      |
|-------------------------------------|--------------------------------------|
| AS-i Operating voltage, minimum     | 26.5 VDC                             |
| AS-i Operating voltage AS-i maximum | 31.6 VDC                             |
| Note (AS-i Operating voltage)       | Protection against polarity reversal |
| AS-i Current consumption, maximum   | 100 mA                               |

### Electrical data - AS-Interface specification

|                    |              |
|--------------------|--------------|
| AS-i Specification | Safety-Slave |
| AS-i Version       | V 3.0        |

|                                  |                                                                                                     |
|----------------------------------|-----------------------------------------------------------------------------------------------------|
| AS-i Profile                     | S-7.B.F.E                                                                                           |
| AS-i, IO-Code                    | 0x7                                                                                                 |
| AS-i, ID-Code                    | 0xB                                                                                                 |
| AS-i, ID-Code1                   | 0xF                                                                                                 |
| AS-i, ID-Code2                   | 0xE                                                                                                 |
| AS-i Input, Channel 1            | Data bits DI 0 / DI 1 = dynamic code transmission                                                   |
| AS-i Input, Channel 2            | Data bits DI 2 / DI 3 = dynamic code transmission                                                   |
| AS-i Outputs, DO 0               | Solenoid control                                                                                    |
| AS-i Outputs, DO 1               | No Function                                                                                         |
| AS-i Outputs, DO 2               | No Function                                                                                         |
| AS-i Outputs, DO 3               | No Function                                                                                         |
| AS-i Parameter bits, P0          | Safety guard and actuator detected                                                                  |
| AS-i Parameter bits, P1          | Solenoid interlock locked                                                                           |
| AS-i Parameter bits, P2          | Magnet voltage in tolerance range                                                                   |
| AS-i Parameter bits, P3          | Internal device error (FID)                                                                         |
| Note (AS-i Parameter bits)       | FID: periphery error                                                                                |
| AS-i Input module address        | 0                                                                                                   |
| Note (AS-i Input module address) | Preset to address 0, can be changed through AS-interface bus master or hand-held programming device |

## Electrical data - Auxiliary voltage

|                         |                                      |
|-------------------------|--------------------------------------|
| Rated operating voltage | 24 VDC -15% / +10% (stabilised PELV) |
| Operating current       | 500 mA                               |

## Status indication

|                                         |                                                                                                                          |
|-----------------------------------------|--------------------------------------------------------------------------------------------------------------------------|
| Note (LED switching conditions display) | Status and diagnostics: Transmitter + receiver<br>(2) LED red: Internal device error<br>(3) LED yellow: Device condition |
|-----------------------------------------|--------------------------------------------------------------------------------------------------------------------------|

## Pin assignment

|       |                |
|-------|----------------|
| PIN 1 | AS-Interface + |
| PIN 2 | Aux - (P)      |
| PIN 3 | AS-Interface - |
| PIN 4 | Aux + (P)      |

## Scope of delivery

|                      |                                       |
|----------------------|---------------------------------------|
| Included in delivery | Actuators must be ordered separately. |
|----------------------|---------------------------------------|

## Accessory

|                           |                               |
|---------------------------|-------------------------------|
| Recommendation (actuator) | AZ/AZM201-B1<br>AZ/AZM201-B30 |
|---------------------------|-------------------------------|

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The details and data referred to have been carefully checked. Images may diverge from original. Further technical data can be found in the manual. Technical amendments and errors possible.

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