



AZM400Z-ST2-I1-2P2P-T-E

- Individual coding with RFID technology
- Coding level "High" according to ISO 14119
- 2 Connector M12, 8- and 5-poles
- Guard locking monitored
- 2 Diagnostic outputs
- Emergency exit
- Electric manual release with auxiliary voltage
- Bistable, motor-driven system
- Clamping force 10.000
- Release possible against lateral forces up to 300 N
- PL e / cat. 4 / SIL 3 for interlocking and guard locking function
- Two-channel input signal of the guard locking function
- Operation on P/P- and P/N-switching outputs
- High tolerance to door misalignment

Data

Ordering data

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|-------------------------------|---------------|
| EAN (European Article Number) | 4030661472669 |
| eCl@ss number, Version 9.0 | 27-27-26-03 |
| eCl@ss number, Version 11.0 | 27-27-26-03 |

Approval - Standards

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| Certificates | TÜV cULus EAC FCC IC |
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General data

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| Standards | IEC 60947-5-1 EN ISO 13849-1 IEC 61508 EN ISO 14119 |
| general information | Individual coding |
| Coding level according to ISO 14119 | High |
| Active principle | Magnetic field RFID |
| Enclosure material | Light alloy die-casting |
| Gross weight | 774 g |
| Time to readiness, maximum | 1,500 ms |
| Reaction time, maximum | 100 ms |

General data - Features

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| Guard locking monitored | Yes |
| Emergency exit | Yes |
| Electronic manual release | Yes |
| Short circuit detection | Yes |
| Short-circuit recognition | Yes |
| Safety functions | Yes |
| Integral System Diagnostics, status | Yes |
| Number of diagnostic signals | 2 |
| Number of safety contacts | 2 |

Safety appraisal

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| Standards | IEC 61508 EN ISO 13849-1 |
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Safety appraisal - Interlocking

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|--|--------------------------|
| Performance level, up to | e |
| Control category | 4 |
| PFH-value | 1.00×10^{-9} /h |
| PFD value | 9.00×10^{-5} |
| Safety Integrity Level (SIL), suitable for applications in | 3 |
| Mission Time | 20 Year(s) |

Safety appraisal - Guard locking

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|--|--------------------------|
| Performance level, up to | e |
| Control category | 4 |
| PFH-value | 1.80×10^{-9} /h |
| PFD value | 1.60×10^{-4} |
| Safety Integrity Level (SIL), suitable for applications in | 3 |
| Mission Time | 20 Year(s) |

Mechanical data

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| Interlocking principle | bistable |
| Mechanical life, minimum | 1,000,000 Operations |
| Note (Mechanical lifetime) | Which have a lateral force $F_{trans} = 100$ N: 100.000 operations |
| Minimum distance devices | 30 mm |
| Clamping force in accordance with ISO14119 F_{zh} | 10,000 N |
| Clamping force, maximum F_{max} | 13,000 N |
| Lateral force at bolt return, maximal (against locked door) | 300 N |
| Note (Lateral force at bolt return) | Does not apply to emergency exit, Bowden cable and manual release |
| Tightening torque of the screw | 8 Nm |

Mechanical data - Connection technique

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| Terminal Connector | 2 connector M12, 8 and 5 pin |
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Mechanical data - Dimensions

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| Length of sensor | 65.3 mm |
| Width of sensor | 77.8 mm |
| Height of sensor | 166.7 mm |

Ambient conditions

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| Degree of protection | IP66 to EN 60529 IP67 to EN 60529 |
| Ambient temperature, minimum | -20 °C |
| Ambient temperature, maximum | +55 °C |
| Storage and transport temperature, minimum | -40 °C |
| Storage and transport temperature, maximum | +85 °C |
| 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

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|---|--------|
| Rated insulation voltage U_i | 32 VDC |
| Rated impulse withstand voltage U_{imp} | 0.8 kV |
| Overvoltage category | III |
| Degree of pollution to VDE 0100 | 3 |

Electrical data

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| Operating Current | 100 mA |
| Current consumption, maximum | 600 mA |

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| Current consumption at 24V, minimum | 10 mA |
| Current consumption at 24V, maximum | 15 mA |
| No-load supply current I_0 | 100 mA |
| Rated operating voltage | 24 VDC |
| Rated operating voltage | 24 VDC |
| Operating current | 50 mA |
| Required rated short-circuit current to EN 60947-5-1 | 100 A |
| Switching frequency, approx. | 0.3 Hz |
| Open / close cycle (Motor), minimum | 3 |
| Minimal average cycle time (with continuous operation) | 20 s |

Electrical data - Control inputs

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| Switching thresholds of the control inputs | -3 V ... 5 V (Low) 15 V ... 30 V (High) |
| Allowable discrepancy time (input), maximum | 10 s |
| Classification ZVEI CB24I, Sink | C0 |
| Classification ZVEI CB24I, Source | C1 C2 C3 |

Electrical data - Fail-safe digital inputs

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| Classification ZVEI CB24I, Sink | C1 |
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Electrical data - Fail-safe digital outputs

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|--|--------|
| Rated operating current (safety outputs) | 250 mA |
| Voltage drop U_d , maximum | 2 V |
| Current leakage I_r | 1.5 mA |
| Voltage, Utilisation category DC12 | 24 VDC |
| Current, Utilisation category DC12 | 0.25 A |

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| Voltage, Utilisation category DC13 | 24 VDC |
| Current, Utilisation category DC13 | 0.25 A |
| Classification ZVEI CB24I, Source | C2 |
| Classification ZVEI CB24I, Sink | C1 C2 |

Electrical data - Diagnostic output

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|------------------------------------|--|
| Versions | short-circuit proof, p-type |
| Voltage drop U_d , maximum | 2 V |
| Voltage, Utilisation category DC12 | 24 VDC |
| Current, Utilisation category DC12 | 0.05 A |
| Voltage, Utilisation category DC13 | 24 VDC |
| Current, Utilisation category DC13 | 0.05 A |
| Note | The diagnostic output are not safety relevant outputs! |

Status indication

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| Note (LED switching conditions display) | Operating condition: LED green Error / functional defect: LED red Supply voltage UB: LED green |
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Pin assignment

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| Connection | Connector 1 |
| PIN 1 | OUT2 Diagnostic output 2 |
| PIN 2 | E1 Control input 1 |
| PIN 3 | n.c. |
| PIN 4 | Y1 Safety output 1 |
| PIN 5 | OUT1 Diagnostic output 1 |
| PIN 6 | E3 Control input 3 |
| PIN 7 | Y2 Safety output 2 |
| PIN 8 | E2 Control input 2 |

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| Connection | Connector 2 |
| PIN 1 | A1 Supply voltage UB |
| PIN 2 | H2 GND |
| PIN 3 | A2 GND |
| PIN 4 | H1 Auxiliary voltage Uhe |
| PIN 5 | FE (functional earth connection) |

Scope of delivery

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| Included in delivery | Actuators must be ordered separately. |
| Delivery scope of Mounting material | 2 x M6 (10.9) |

Accessory

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| Recommendation (actuator) | AZM400-B1 |
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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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