



## AZM400Z-ST-I2-1P2P

- Repeated individual coding with RFID technology
- Coding level "High" according to ISO 14119
- Connector M12, 8-pole
- Guard locking monitored
- 1 Diagnostic output
- manual release
- 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

EAN (European Article Number)	4030661472614
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 EAC FCC IC
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## General data

Standards	IEC 60947-5-1 EN ISO 13849-1 IEC 61508 EN ISO 14119
general information	Individual coding, multiple teaching
Coding level according to ISO 14119	High
Active principle	Magnetic field RFID
Enclosure material	Light alloy die-casting
Gross weight	764 g
Time to readiness, maximum	1,500 ms
Reaction time, maximum	100 ms

## General data - Features

Guard locking monitored	Yes
Manual release	Yes
Short circuit detection	Yes
Short-circuit recognition	Yes
Safety functions	Yes
Integral System Diagnostics, status	Yes
Number of diagnostic signals	1
Number of safety contacts	2

## Safety appraisal

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

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

### Safety appraisal - Guard locking

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

### Mechanical data

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

Terminal Connector	Connector M12, 8-pole
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## Mechanical data - Dimensions

Length of sensor	46.7 mm
Width of sensor	77.8 mm
Height of sensor	166.7 mm

## Ambient conditions

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

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

Operating Current	100 mA
Current consumption, maximum	600 mA
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

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

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

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
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

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

## Status indication

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

PIN 1	A1 Supply voltage UB
PIN 2	E1 Control input 1
PIN 3	A2 GND
PIN 4	Y1 Safety output 1
PIN 5	OUT Diagnostic output
PIN 6	E3 Control input 3
PIN 7	Y2 Safety output 2
PIN 8	E2 Control input 2

## Scope of delivery

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

## **Accessory**

Recommendation (actuator)

AZM400-B1

Schmersal, Inc., 15 Skyline Drive, Hawthorne, NY 10532

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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