



AZM40Z-ST-1P2P

- Compact, flat design
- 119,5 mm x 40 mm x 20 mm
- High holding force 2000
- Latching force 40 N
- RFID-technology for needs-based protection against tampering
- Individually coded version with coding level "High" according to ISO 14119
- Only one version for hinged and sliding doors
- Actuator can approach interlock continuously within a 180 degree angle.
- Symmetrical mounting, can be bolted on either side

Data

Ordering data

EAN (European Article Number)	4030661535128
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
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General data

Standards	IEC 61508 EN 60947-5-3 EN ISO 13849-1 EN ISO 14119
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general information	Universal coding
Coding level according to ISO 14119	Low
Active principle	RFID
Enclosure material	Glass-fibre, reinforced thermoplastic and light-alloy diecast
Gross weight	300.5 g
Time to readiness, maximum	4,000 ms
Reaction time, maximum	100 ms
Duration of risk, maximum	200 ms
Response time safety outputs in case of switch-off by safety inputs, maximum	1.5 ms

General data - Features

Guard locking monitored	Yes
Latching	Yes
Manual release	Yes
Short circuit detection	Yes
Short-circuit recognition	Yes
Series-wiring	Yes
Safety functions	Yes
Integral System Diagnostics, status	Yes
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	1.10×10^{-9} /h
PFD value	8.90×10^{-5}
Safety Integrity Level (SIL), suitable for applications in	3
Mission Time	20 Year(s)

Safety appraisal - Guard locking

Performance level, up to	d
Control category	2
PFH-value	3.00×10^{-9} /h
PFD value	2.40×10^{-4}
Safety Integrity Level (SIL), suitable for applications in	2
Mission Time	20 Year(s)

Mechanical data

Interlocking principle	bistable
Mechanical life, minimum	200,000 Operations
Clamping force in accordance with ISO14119 F_{zh}	2,000 N
Clamping force, maximum F_{max}	2,600 N
Latching force	40 N
Actuating speed, maximum	0.5 m/s
Type of the fixing screws	2 x M5 (Counter sunk screw)

Mechanical data - Switching distances according IEC 60947-5-3

Ensured switch distance "ON" S_{ao}	1 mm
Ensured switch distance "OFF" S_{ar}	8 mm

Mechanical data - Connection technique

Mechanical data - Dimensions

Length of sensor	119.5 mm
Width of sensor	40 mm
Height of sensor	20 mm

Ambient conditions

Degree of protection	IP66 to EN 60529 IP67 to EN 60529
Ambient temperature, minimum	+0 °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 ... 55 Hz, amplitude 1 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

No-load supply current I_0	100 mA
Rated operating voltage	24 VDC - 15 % / + 10 % (stabilised PELV)
Operating current	1,200 mA
Required rated short-circuit current to EN 60947-5-1	100 A

Note	Cable length and cable section alter the voltage drop depending on the output current
Switching frequency, maximum	0.3 Hz
Current consumption solenoid at switching moment, peak	600 mA / 100ms

Electrical data - Solenoid control	
Switching thresholds	-3 V ... 5 V (Low) 5 V ... 30 V (High)
Current consumption at 24V	15 mA
Classification ZVEI CB24I, Sink	C0
Classification ZVEI CB24I, Source	C1 C2 C3

Electrical data - Fail-safe digital inputs	
Switching thresholds	-3 V ... 5 V (Low) 15 V ... 30 V (High)
Current consumption at 24V	5 mA
Classification ZVEI CB24I, Sink	C1
Classification ZVEI CB24I, Source	C1 C2 C3

Electrical data - Fail-safe digital outputs	
Rated operating current (safety outputs)	250 mA
Versions	short-circuit proof, p-type
Voltage drop U_d , maximum	2 V
Current leakage I_r	0.5 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	X1 Safety input 1
PIN 3	A2 GND
PIN 4	Y1 Safety output 1
PIN 5	OUT Diagnostic output
PIN 6	X2 Safety input 2
PIN 7	Y2 Safety output 2
PIN 8	IN Solenoid control

Accessory

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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