



## AZM40B-ST-1P2P-PH

- 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) 4030661543727

### Approval - Standards

Certificates TÜV  
cULus

### General data

Standards IEC 61508  
EN 60947-5-3  
EN ISO 13849-1  
EN ISO 14119

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	304.1 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

Actuator 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
Control category	4
PFH-value	$1.10 \times 10^{-9}$ /h

PFD value	8.90 x 10 <sup>-5</sup>
Safety Integrity Level (SIL), suitable for applications in	3
Mission Time	20 Year(s)

### Mechanical data

Interlocking principle	bistable
Mechanical life, minimum	200,000 Operations
Clamping force in accordance with ISO14119 F <sub>zh</sub>	2,000 N
Clamping force, maximum F <sub>max</sub>	2,600 N
Latching force	40 N
Actuating speed, maximum	0.5 m/s
Type of the fixing screws	DESIGN_MOUNTING_SCREWS111111111111111112

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

Ensured switch distance "ON" S <sub>ao</sub>	1 mm
Ensured switch distance "OFF" S <sub>ar</sub>	8 mm

### Mechanical data - Connection technique

Terminal Connector	Connector M12, 8-pole, A-coded
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### 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

## Accessory

Recommendation (actuator)	AZM 40-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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