



MZM 100 B ST2-SD2PREM-A

- Actuator monitored
- Connector M12, 8-pole
- Power to lock
- serial diagnostic output
- Automatic latching
- Solenoid interlocks (for the protection of man) with innovating and unique operating principle
- 40 mm x 179 mm x 40 mm
- Electronic contact-free, coded system
- Thermoplastic enclosure
- Max. length of the sensor chain 200 m
- 3 LEDs to show operating conditions
- Sensor technology permits an offset between actuator and interlock of ± 5 mm vertically and ± 3 mm horizontally
- Intelligent diagnosis
- Self-monitoring series-wiring
- Patented

Data

Ordering data

Product type description	MZM 100 B ST2-SD2PREM-A
Article number (order number)	101211153
EAN (European Article Number)	4030661389431
eCl@ss number, version 9.0	27-27-26-03
eCl@ss number, version 11.0	27-27-26-03
eCl@ss number, version 12.0	27-27-26-03
ETIM number, version 7.0	EC002593
ETIM number, version 6.0	EC002593

Approvals - Standards

Certificates	TÜV cULus EAC
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General data

Standards	EN IEC 61508 EN ISO 13849-1 EN ISO 14119 EN IEC 60947-5-3
Coding	Universal coding
Coding level according to EN ISO 14119	Low
Working principle	inductive
Enclosure material	Glass-fibre, reinforced thermoplastic
Gross weight	620 g
Time to readiness, maximum	4,000 ms
Reaction time, maximum	150 ms
Duration of risk, maximum	150 ms

General data - Features

Power to lock	Yes
Actuator monitored	Yes
Serial diagnostics	Yes
Latching	Yes
Short circuit detection	Yes
Cross-circuit detection	Yes
Series-wiring	Yes
Safety functions	Yes
Integral system diagnostics, status	Yes
Number of safety contacts	2
Number of series-wiring of sensors	31

Safety classification

Standards	EN IEC 61508
	EN ISO 13849-1

Safety classification - Interlocking function

Performance Level, up to	e
Category	4
PFH value	$3.54 \times 10^{-9} /h$
Safety Integrity Level (SIL), suitable for applications in	3
Mission time	20 Year(s)

Mechanical data

Mechanical life, minimum	1,000,000 Operations
Note (Mechanical life)	Actuating speed Operations for door weights ≤ 5 kg
Holding force, typically	750 N
Holding force, guaranteed	500 N
Latching force, minimum	45 N
Latching force, maximum	115 N

Mechanical data - Connection technique

Termination	Connector M12, 8-pole
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Mechanical data - Dimensions

Length of sensor	40 mm
Width of sensor	40 mm
Height of sensor	179 mm

Ambient conditions

Degree of protection	IP67 IP65
Ambient temperature, minimum	-25 °C
Ambient temperature, maximum	+55 °C
Storage and transport temperature, minimum	-25 °C
Storage and transport temperature, maximum	+70 °C
Relative humidity, minimum	30 %
Relative humidity, maximum	95 %
Note (Relative humidity)	non-condensing non-icing
Resistance to vibration to EN 60068-2-6	10 ... 150 Hz, amplitude 0.35 mm
Resistance to shock	30 g / 11 ms
Protection class	III

Ambient conditions - Insulation values

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 voltage, minimum	20.4 VDC
Operating voltage, maximum	26.4 VDC
No-load supply current I_0 , maximum	600 mA
Operating current	50 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	1 Hz

Electrical data - Magnet control

Switching thresholds	-3 V ... 5 V (Low) 15 V ... 30 V (High)
Classification ZVEI CB24I, Sink	C0
Classification ZVEI CB24I, Source	C1 C2 C3

Electrical data - Safety digital inputs

Switching thresholds	-3 V ... 5 V (Low) 15 V ... 30 V (High)
Classification ZVEI CB24I, Sink	C1
Classification ZVEI CB24I, Source	C1 C2 C3

Electrical data - Safety digital outputs

Rated operating current (safety outputs)	250 mA
Voltage drop U_d , maximum	1 V
Leakage current I_r , maximum	0.5 mA
Voltage, Utilisation category DC-13	24 VDC
Current, Utilisation category DC-13	0.25 A
Classification ZVEI CB24I, Source	C1
Classification ZVEI CB24I, Sink	C1

Electrical data - Diagnostic outputs

Voltage drop U_d , maximum	2 V
Voltage, Utilisation category DC-13	24 VDC
Current, Utilisation category DC-13	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 serial diagnostic output
PIN 6	X2 Safety input 2
PIN 7	Y2 Safety output 2
PIN 8	IN serial diagnostic input

Scope of delivery

Scope of delivery	Actuators must be ordered separately.
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Accessory

Recommendation (actuator)	MZM 100-B1.1
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Note

Note (General)

As long as the actuating unit is applied to the solenoid interlock, the unlocked safety guard can be relocked. In this case, the safety outputs are re-enabled, so that the safety guard must not be opened.

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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.

Generated on: 26/08/2022, 08:32