MZM100B-ST2-SD2PRE-A



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

Data

Ordering data	
	MZM 100 B ST2-SD2PRE-A
	101211156
EAN (European Article Number)	4030661389424
eCl@ss number, Version 9.0	27-27-26-03
Approval - Standards	
	TÜV cULus EAC
General data	
	MZM 100
	IEC 61508
general information	Universal coding
Coding level according to ISO 14119	Low

Active 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
Short-circuit recognition	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 appraisal	
	IEC 61508
Safety appraisal - Interlocking	
Performance level, up to	e
Control category	4
PFH-value	3.54×10^{-9} /h
Safety Integrity Level (SIL), applicable for	3
Mission Time	20 Year(s)
Mechanical data	
Mechanical life, minimum	1,000,000 Operations
Note (Mechanical lifetime)	Actuating speed < 0.5 m/s Operations for door weights ≤ 5 kg
Clamping force, typically	750 N
Clamping force, guaranteed	500 N
Latching force, minimum	30 N
Latching force, maximum	100 N

Mechanical data - Connection technique	
Terminal Connector	Connector M12, 8-pole
Mechanical data - Dimensions	
Height of sensor	179 mm
Length of sensor	40 mm
Width of sensor	40 mm
Ambient conditions	
Protection class	IP 65 to IEC/EN 60529 IP 67 to IEC/EN 60529
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 vibrations to EN 60068-2-6	10 ... 150 Hz, amplitude 0.35 mm
	30 g / 11 ms
	III
Ambient conditions - Insulation value	
Rated impulse withstand voltage	0.8 kV
	III
	3
Electrical data	
Operating voltage, minimum	20.4 VDC
Operating voltage, maximum	26.4 VDC
No-load current	600 mA
Operating current	50 mA
Required rated short-circuit current to EN 60947-5-1	100 A
Switching frequency, maximum	1 Hz

Note	Cable length and cable section alter the voltage drop depending on the output current
Electrical data - Solenoid control	
	-3 V ... 5 V (Low) 15 V ... 30 V (High)
	C0
	C1 C2 C3
Electrical data - Fail-safe digital inputs	
	−3 V ... 5 V (Low) 15 V ... 30 V (High)
	C1
	C1 C2 C3
Electrical data - Fail-safe digital outputs	
Rated operating current (safety outputs)	250 mA
Voltage drop U_d, maximum	1 V
Current leakage	0.5 mA
Voltage, Utilisation category DC13	24 VDC
Current, Utilisation category DC13	0.3 A
	C1
	C1
Electrical data - Diagnostic output	
Voltage drop U_d, maximum	2 V
Voltage, Utilisation category DC13	24 VDC
Current, Utilisation category DC13	0.1 A
Status indication	
Note (LED switching conditions display)	Operating condition: LED green Error / functional defect: LED red Supply voltage UB: LED green

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	
Included in delivery	Actuators must be ordered separately.
Accessory	
	MZM 100-B1.1
Notes	
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.
Ordering code	

Product type description:

MZM 100

(1)

ST Connector M23, (8+1 pole)

ST2 Connector M12, 8-pole

(2)

1P2PW 1 diagnostic output and 2 safety outputs, p-type, combined diagnostic signal: guard system closed and interlock locked

SD2P serial diagnostic output and 2 p-type safety outputs

(3)

without without latching force

RE electrically adjustable latching force 30 ... 100 N

(4)

M Permanent magnet approx. 30 N

(1)

ST Connector M23, (8+1 pole)

ST2 Connector M12, 8-pole

(2)

1P2PW2	1 diagnostic output and 2 safety outputs, all p-type and combined diagnostic signal: safety guard closed and solenoid interlock locked.
SD2P	serial diagnostic output and 2 p-type safety outputs

(3)

M	Permanent magnet approx. 30 N
NB, MBN, BN	Actuator monitored
RE	electrically adjustable latching force 30 ... 100 N
A	Power to lock

Pictures

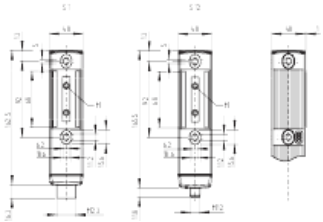
Photo/Product/Catalogue



ID: kmzm1f25

| 22,1 kB | .png | 74.083 x 100.189 mm - 210 x 284 Pixel - 72 dpi
| 273,6 kB | .jpg | 352.778 x 477.661 mm - 1000 x 1354 Pixel - 72 dpi

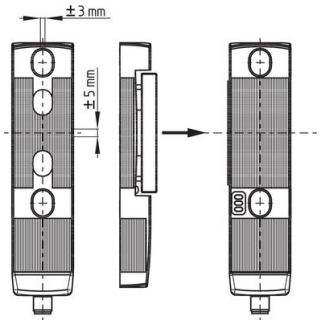
Dimension/Product/Basic



ID: 1mzm1g14

| 160,8 kB | .jpg | 352.778 x 242.358 mm - 1000 x 687 Pixel - 72 dpi
| 5,2 kB | .png | 74.083 x 50.8 mm - 210 x 144 Pixel - 72 dpi

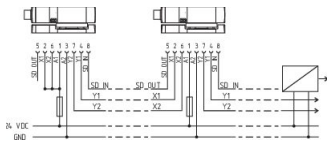
Dimension/Other



ID: 1mzm1g15

| 290,8 kB | .jpg | 352.425 x 362.656 mm - 999 x 1028 Pixel - 72 dpi

Graphic/Product/Wiring



ID: kmzm1l04

| 38,1 kB | .cdr |
| 83,1 kB | .jpg | 352.778 x 144.639 mm - 1000 x 410 Pixel - 72 dpi

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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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