

## Datasheet - MZM 100 B ST-AS REMAP

AS interface safety at work / Safety switchgear / Solenoid interlock / MZM 100 AS



Preferred typ



(Minor differences between the printed image and the original product may exist!)

- Solenoid interlock
- Thermoplastic enclosure
- Integrated AS-Interface
- 40 mm x 179 mm x 40 mm
- Solenoid interlocks (for the protection of man) with innovating and unique operating principle
- Electronic contact-free, coded system
- 3 LEDs to show operating conditions
- Automatic latching
- Sensor technology permits an offset between actuator and interlock of  $\pm 5$  mm vertically and  $\pm 3$  mm horizontally
- Intelligent diagnosis
- Power to lock
- Actuator monitored
- Permanent magnet

### Ordering details

Product type description	MZM 100 B ST-AS REMAP
Article number	101209551
EAN Code	4030661383200
eCl@ss	27-27-26-03

### Approval


Approval



### Classification

Standards	EN ISO 13849-1, IEC 61508, IEC 60947-5-3
PL	up e
Control category	up 4
PFH	$\leq 5 \times 10^{-9}/h$
SIL	up 3
Mission time	20 Years
Classification	PDF-M

### Global Properties

Permanent light	MZM 100 AS
Standards	EN 60947-5-1, IEC 61508, EN 50295, IEC 60947-5-3, EN ISO 13849-1
Compliance with the Directives (Y/N) 	Yes
Suitable for safety functions (Y/N)	Yes
Protection rating	III
Active principle	inductive
Coding	Universal coding
	low
Duty cycle ED	100 %
Materials	
- Material of the housings	Plastic, glass-fibre reinforced thermoplastic
Housing coating	None
Weight	631
Guard locking monitored (Y/N)	No
Actuator monitored (Y/N)	Yes
Response time	< 150 ms
Duration of risk	< 150 ms
Time to readiness	< 4000
Recommended actuator	MZM 100-B1.1

## Mechanical data

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Design of electrical connection	connector plug M12, 4-pole
Mechanical life	≥ 1.000.000 operations
notice - Mechanical life	operations for guards ≤ 5 kg; actuating speed ≤ 0,5 m/s
restistance to shock	30 g / 11 ms
Resistance to vibration	10 ... 150 HZ, Amplitude 0,35 mm
Latching (Y/N)	Yes
electrically adjustable latching force	30 ... 100
Permanent magnet	30
Clamping force F	500 N

## Ambient conditions

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Ambient temperature	
- Min. environmental temperature	-25
- Max. environmental temperature	+55
Storage and transport temperature	
- Min. Storage and transport temperature	-25
- Max. Storage and transport temperature	+85
Relative humidity	30... 95
- non-condensing	
- non-icing	
Protection class	IP67 to IEC/EN 60529
Protection rating	III
Air clearances and creepage distances To IEC/EN 60664-1	
- Rated impulse withstand voltage $U_{imp}$	0,8 kV
- Rated insulation voltage $U_i$	32 VDC
- Overvoltage category	III
- Degree of pollution	3

## Electrical data

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Power to lock Yes

## Electrical data - AS interface

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AS-i Supply voltage	26.5 ... 31.6 VDC, Protection against polarity reversal
AS-i operating current	≤ 100
AS-i Device insulation	internally short-circuit proof
AS-i Specification	
- version	V 2.1
- Profile	S-7.B.F.E
- IO-Code	0x7
- ID-Code	0xB
- ID-Code1	0xF
- ID-Code2	0xE
AS-i Inputs	
- Channel 1	Data bits DI 0/DI 1= dynamic code transmission
- Channel 2	Data bits DI 2/DI 3= dynamic code transmission
AS-i Outputs	
- DO 0	Solenoid control
- DO 1	for the variable setting of the latching force
- DO 2	for the variable setting of the latching force
- DO 3	for the variable setting of the latching force
AS-i Parameter bits	
- P0	Actuator in
- P1	Solenoid interlock locked
- P2	Auxiliary voltage in
- P3	device error (Error detected)
AS-i input module address	0
- Default on address 0, programmable via the AS-Interface Master or Hand-held programming device	

## Electrical data - Auxiliary voltage (Aux)

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Supply voltage $U_B$	24 VDC (-15 % / +10 %) stabilised PELV
Operating current	≤ 600
Device insulation	≤ 4 A (if used in accordance with UL 508)

## LED switching conditions display

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LED switching conditions display (Y/N)	Yes
AS-i LED switching conditions display	
(1) green/red LED (AS-i duo LED)	Supply voltage / Communication error / slave address = 0
(2) yellow LED	Device status
(3) red LED	device error

## ATEX

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Explosion protection categories for gases	None
Explosion protected category for dusts	None

## Dimensions

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Dimensions of the sensor	
- Width of sensor	40
- Height of sensor	179

## Pin assignment

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1	AS-i +
2	Aux - (P)
3	AS-i -
4	Aux + (P)

## notice

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As long as the actuating unit remains inserted in the solenoid interlock, the unlocked safety guard can be relocked. The safety outputs then will be enabled again; opening the safety guard therefore is not required.

Interlocks with power to lock principle may only be used in special cases after a thorough evaluation of the accident risk, since the guarding device can immediately be opened on failure of the electrical power supply or when the main switch is opened.

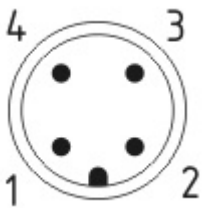
## Included in delivery

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

Actuators must be ordered separately.

## Diagram

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Note Diagram

-  positive break NC contact
-  active
-  no active
-  Normally-open contact
-  Normally-closed contact

## Ordering code

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MZM 100 (1) ST-AS (2)(3)AP

(1)

without

**B** Guard locking monitored

Actuator monitored

(2)

without

without latching ( Only for Guard locking monitored)

**RE** electrically adjustable latching force 30 N ... 100 N

(3)

without

without Permanent magnet

**M** Permanent magnet 30 N

## Documents

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Code: mrl\_mzm100as\_nl

**Operating instructions and Declaration of conformity (nl)** 348 kB, 31.08.2018

Code: mrl\_mzm100as\_nl

**Operating instructions and Declaration of conformity (en)** 373 kB, 28.08.2018

Code: mrl\_mzm100as\_en

**Operating instructions and Declaration of conformity (pt)** 363 kB, 31.08.2018

Code: mrl\_mzm100as\_pt

**Operating instructions and Declaration of conformity (jp)** 414 kB, 27.01.2012

Code: mrl\_mzm100as\_jp

**Operating instructions and Declaration of conformity (es)** 367 kB, 28.08.2018

Code: mrl\_mzm100as\_es

**Operating instructions and Declaration of conformity (da)** 359 kB, 28.08.2018

Code: mrl\_mzm100as\_da

**Operating instructions and Declaration of conformity (de)** 362 kB, 28.08.2018

Code: mrl\_mzm100as\_de

**Operating instructions and Declaration of conformity (pl)** 371 kB, 31.08.2018

Code: mrl\_mzm100as\_pl

**Operating instructions and Declaration of conformity (fr)** 357 kB, 31.08.2018

Code: mrl\_mzm100as\_fr

**Operating instructions and Declaration of conformity (fr)** 983 kB, 20.12.2010

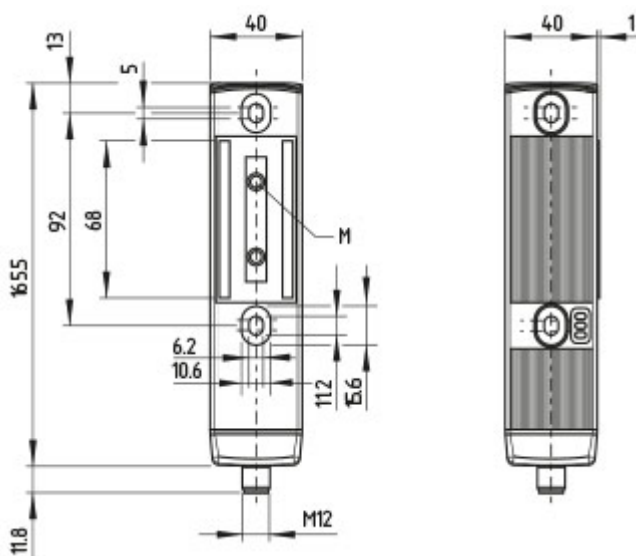
Code: mrl\_mzm100as\_fr

**Operating instructions and Declaration of conformity (it)** 356 kB, 31.08.2018

Code: mrl\_mzm100as\_it

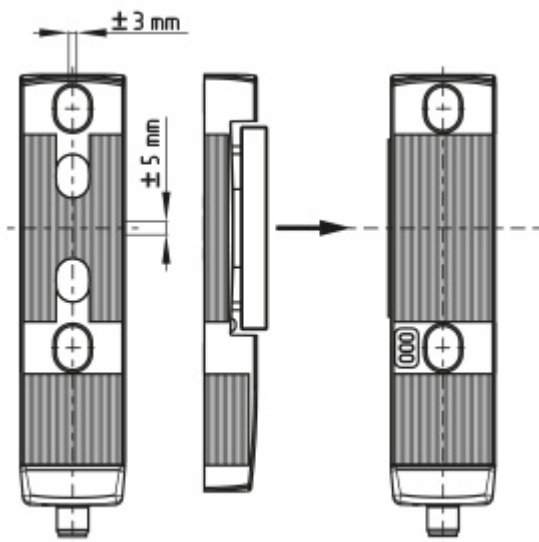
## Images

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Dimensional drawing (basic component)

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Dimensional drawing (miscellaneous)

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## System components

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### Actuator



**101204290 - MZM 100-B1.1**

- actuator free from play
  - neutralisation of undesired noises
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### Accessories



**101185510 - MS MZM 100-W**

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K.A. Schmersal GmbH & Co. KG, Möddinghofe 30, D-42279 Wuppertal

The data and values have been checked thoroughly. Technical modifications and errors excepted.

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