

## Technical data sheet

### Safety sensor set

Part no.: 68052109

MLC100-14-900



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## Technical data

### Basic data

Series	MLC 100
Device type	Set (transmitter and receiver)
Application	Finger protection

### Functions

Functions	Automatic start/restart
	Range reduction
	Transmission channel changeover

### Characteristic parameters

Type	4, IEC/EN 61496
SIL	3, IEC 61508
SILCL	3, IEC/EN 62061
Performance Level (PL)	e, EN ISO 13849-1
PFH <sub>D</sub>	7.73E-09 per hour
Mission time T <sub>M</sub>	20 years, EN ISO 13849-1
Category	4, EN ISO 13849

### Protective field data

Resolution	14 mm
Protective field height	900 mm
Operating range	0 ... 4 m

### Optical data

Synchronization	Optical between transmitter and receiver
Light source	LED, Infrared
LED light wavelength	940 nm
Mean power of transmitter diode	50 µW
Transmitted-signal shape	Pulsed
LED group	1

### Electrical data

Protective circuit	Overvoltage protection
	Short circuit protected

#### Performance data

Supply voltage U <sub>B</sub>	24 V, DC, -20 ... 20 %
Fuse	2 A semi time-lag

#### Inputs

Number of digital switching inputs	1 Piece(s)
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#### Switching inputs

Type	Digital switching input
Switching voltage high, min.	18 V
Switching voltage low, max.	2.5 V
Switching voltage, typ.	22.5 V
Voltage type	DC

#### Digital switching input 1

Function	Control input range reduction
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#### Outputs

Number of safety-related switching outputs (OSSDs)	2 Piece(s)
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### Safety-related switching outputs

Type	Safety-related switching output OSSD
Switching voltage high, min.	18 V
Switching voltage low, max.	2.5 V
Switching voltage, typ.	22.5 V
Voltage type	DC
Current load, max.	380 mA
Load inductivity	2,000 µH
Load capacity	0.3 µF
Residual current, max.	0.2 mA
Residual current, typ.	0.002 mA
Voltage drop	1.5 V

#### Safety-related switching output 1

Switching element	Transistor, PNP
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#### Safety-related switching output 2

Switching element	Transistor, PNP
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### Timing

Response time	20 ms
Restart delay time	100 ms

### Connection

Number of connections	1 Piece(s)
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#### Connection 1

Function	Local interface
Type of connection	Connector
Thread size	M12
Material	Metal
No. of pins	5 -pin

#### Cable properties

Permissible conductor cross section, typ.	0.25 mm <sup>2</sup>
Length of connection cable, max.	100 m
Permissible cable resistance to load, max.	200 Ω

### Mechanical data

Dimension (W x H x L)	29 mm x 966 mm x 35.4 mm
Housing material	Metal
Metal housing	Aluminum
Lens cover material	Plastic / PMMA
Material of end caps	Diecast zinc
Net weight	1,050 g
Housing color	Yellow, RAL 1021
Type of fastening	Groove mounting
	Mounting bracket
	Mounting on Device Column
	Swivel mount

### Environmental data

Ambient temperature, operation	0 ... 55 °C
Ambient temperature, storage	-25 ... 70 °C
Relative humidity (non-condensing)	0 ... 95 %

## Technical data

### Certifications

Degree of protection	IP 65
Protection class	III
Certifications	c CSA US
	c TÜV NRTL US
	TÜV Süd
US patents	US 6,418,546 B

### Classification

Customs tariff number	85365019
eCl@ss 5.1.4	27272704
eCl@ss 8.0	27272704
eCl@ss 9.0	27272704
eCl@ss 10.0	27272704
eCl@ss 11.0	27272704
ETIM 5.0	EC002549
ETIM 6.0	EC002549
ETIM 7.0	EC002549


## Electrical connection

### Connection 1


Function	Local interface
Type of connection	Connector
Thread size	M12
Type	Male
Material	Metal
No. of pins	5 -pin
Encoding	A-coded

## Accessories

### Connection technology - Connection cables


	Part no.	Designation	Article	Description
	50133860	KD S-M12-5A-P1-050	Connection cable	Connection 1: Connector, M12, Axial, Female, A-coded, 5 -pin Connection 2: Open end Shielded: Yes Cable length: 5,000 mm Sheathing material: PUR

### Mounting technology - Swivel mounts

	Part no.	Designation	Article	Description
	429393	BT-2HF	Mounting bracket set	Fastening, at system: Through-hole mounting Mounting bracket, at device: Clampable Type of mounting device: Turning, 360° Material: Metal, Plastic

## Accessories

### Alignment aids

	Part no.	Designation	Article	Description
	520101	AC-ALM-M	Alignment aid	Housing material: Plastic

#### Note



↪ A list with all available accessories can be found on the Leuze website in the Download tab of the article detailed page.