

## Technical data sheet

### Safety sensor/receiver set

Part no.: 426435

MLD510-R3-UDC-1300-S2-P

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For illustration purposes only



## Set consists of

	Quantity	Part no.	Designation	Article	Description
	1	66533200	MLD510-R3	Multiple light beam safety device receiver	Number of beams: 3 Piece(s) Beam spacing: 400 mm Response time: 25 ms Connection: Connector, M12, Metal, 5 -pin
	1	426187	PSC-1300-S2	Protective screen	Suitable for: UDC-S2, DC-S2 device columns Dimensions: 1,280 mm Material: PMMA, gray
	1	549852	UDC-1300-S2	Device column	Functions: Mounting and protection of light curtains and multiple light beam devices, Adjustable, 3 directions Dimensions: 160 mm x 1,360 mm x 149 mm Column height without foot: 1,300 mm

## Technical data

### Basic data

Series	MLD-UDC
Device type	Receiver

### Special version

Special version	Protective screen
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### Functions

Functions	Automatic restart
Reflective element for laser alignment aid	No
Integrated muting indicator	No
Integrated status indicator	No

### Characteristic parameters

Type	4, IEC/EN 61496
SIL	3, IEC 61508
SILCL	3, IEC/EN 62061
Performance Level (PL)	e, EN ISO 13849-1
MTTF <sub>d</sub>	204 years, EN ISO 13849-1
PFH <sub>D</sub>	6.6E-09 per hour
Mission time T <sub>M</sub>	20 years, EN ISO 13849-1
Category	4, EN ISO 13849

### Optical data

Number of beams	3 Piece(s)
Beam spacing	400 mm

### Electrical data

Protective circuit	Overvoltage protection Short circuit protected
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### Performance data

Supply voltage U <sub>B</sub>	24 V, DC, -20 ... 20 %
Current consumption, max.	150 mA, Without external load
Fuse	External with max. 3 A

### 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.	18.2 V
Switching voltage low, max.	2.5 V
Switching voltage, type.	23 V
Voltage type	DC
Current load, max.	380 mA
Load inductivity	2,200,000 µH
Load capacity	0.3 µF
Residual current, max.	0.2 mA
Residual current, type.	0.002 mA
Voltage drop	1 V

### Safety-related switching output 1

Assignment	Connection 1, pin 2
Switching element	Transistor, PNP

### Safety-related switching output 2

Assignment	Connection 1, pin 4
Switching element	Transistor, PNP

### Time behavior

Response time	25 ms
Restart delay time	100 ms

### Connection

Number of connections	1 Piece(s)
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## Technical data

### Connection 1

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

### Cable properties

Permissible conductor cross section, type.	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)	160 mm x 1,360 mm x 149 mm
Housing material	Metal
Metal housing	Aluminum
Lens cover material	Plastic / PMMA
Material of end caps	Diecast zinc
Housing color	Yellow, RAL 1021
Type of fastening	Groove mounting Swivel mount
With device column	Yes
Column height without foot	1,300 mm

### Operation and display

Type of display	LED
Number of LEDs	1 Piece(s)

### Environmental data

Ambient temperature, operation	-30 ... 55 °C
Ambient temperature, storage	-40 ... 75 °C
Relative humidity (non-condensing)	0 ... 95 %

### Certifications

Degree of protection	IP 67
Protection class	III
Approvals	c CSA US c TÜV NRTL US TÜV Süd
US patents	US 6,418,546 B US 7,741,595 B

### Classification

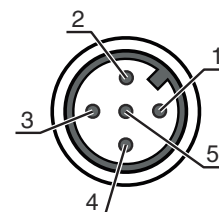
Customs tariff number	85365019
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ECLASS 12.0	27272703
ECLASS 13.0	27272703
ECLASS 14.0	27272703
ECLASS 15.0	27272703
ETIM 5.0	EC001832
ETIM 6.0	EC001832
ETIM 7.0	EC001832
ETIM 8.0	EC001832
ETIM 9.0	EC001832
ETIM 10.0	EC001832

## Electrical connection

### Connection 1

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


Pin	Pin assignment	Conductor color
1	+24 V	Brown
2	OSSD1	White
3	0 V	Blue
4	OSSD2	Black
5	n.c.	Gray



# Operation and display



LED	Display	Meaning
1	Red, continuous light	OSSD off
	Green, continuous light	OSSD on
	Red, flashing, 1 Hz	External error
	Red, flashing, 10 Hz	Internal error
	Green, flashing, 1 Hz	Weak signal, device not optimally aligned or soiled.

## Suitable transmitters

	Part no.	Designation	Article	Description
	426354	MLD500-T3-UDC-1300-S2-P	Safety sensor/transmitter set	Special version: Protective screen Operating range: 0.5 ... 50 m Beam spacing: 400 mm

## 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 Connector, LED: No Connection 2: Open end Shielded: Yes Cable length: 5.000 mm Sheathing material: PUR
	50133861	KD S-M12-5A-P1-100	Connection cable	Connection 1: Connector, M12, Axial, Female, A-coded, 5 -pin Connector, LED: No Connection 2: Open end Shielded: Yes Cable length: 10.000 mm Sheathing material: PUR

#### Note



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