

Technical data sheet

Safety light curtain transmitter

Part no.: 72000309

ELC100T30-900



Figure can vary

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Technical data

Basic data

Series	ELC100
Device type	Transmitter
Contains	2x sliding block
Application	Hand protection

Characteristic parameters

Type	4, IEC/EN 61496
SIL	3, IEC 61508
SILCL	3, IEC/EN 62061
Mission time T_M	20 years, EN ISO 13849-1

Protective field data

Resolution	30 mm
Protective field height	900 mm
Operating range	0.5 ... 6 m

Optical data

Synchronization	Optical between transmitter and receiver
Light source	LED, Infrared
Wavelength	940 nm
Transmitted-signal shape	Pulsed
LED risk group	Exempt group (in acc. with EN 62471:2008)

Electrical data

Protective circuit	Overvoltage protection Short circuit protected
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Performance data

Supply voltage U_B	24 V, DC, -20 ... 20 %
Current consumption, max.	50 mA

Connection

Number of connections	1 Piece(s)
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Connection 1

Function	Machine interface
Type of connection	Cable with connector
Cable length	200 mm
Sheathing material	PUR
Number of conductors	4 -wire
Thread size	M12
Material	Metal
No. of pins	4 -pin

Cable properties

Permissible conductor cross section, typ.	0.25 mm ²
Length of connection cable, max.	15 m
Permissible cable resistance to load, max.	20 Ω

Mechanical data

Dimension (W x H x L)	34.7 mm x 915 mm x 35.4 mm
Housing material	Metal
Metal housing	Aluminum
Lens cover material	Plastic / PMMA
Material of end caps	Diecast zinc
Net weight	1,310 g
Housing color	Yellow, RAL 1021
Type of fastening	Groove mounting Mounting bracket

Operation and display

Type of display	LED
Number of LEDs	2 Piece(s)

Environmental data

Ambient temperature, operation	0 ... 55 °C
Ambient temperature, storage	-30 ... 70 °C
Relative humidity (non-condensing)	0 ... 95 %

Certifications

Degree of protection	IP 65
Protection class	III
Certifications	c UL US TÜV Süd
Vibration resistance	50 m/s ²
Shock resistance, continuous shock	15 g, 6 ms IEC 60068-2-27
Shock resistance, single shock	40 m/s ² , 100,000 on each spatial axis
US patents	US 6,418,546 B

Classification

Customs tariff number	85365019
ECLASS 5.1.4	27272704
ECLASS 8.0	27272704
ECLASS 9.0	27272704
ECLASS 10.0	27272704
ECLASS 11.0	27272704
ECLASS 12.0	27272704
ECLASS 13.0	27272704
ETIM 5.0	EC002549
ETIM 6.0	EC002549
ETIM 7.0	EC002549
ETIM 8.0	EC002549

Dimensioned drawings

All dimensions in millimeters



Electrical connection

Connection 1

Function	Machine interface
Type of connection	Cable with connector
Cable length	200 mm
Sheathing material	PUR
Cable color	Black
Number of conductors	4 -wire
Wire cross section	0.2 mm ²
Thread size	M12
Type	Male
Material	Metal
No. of pins	4 -pin

Electrical connection

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



Circuit diagrams

Connection diagram transmitter



Operation and display

LED	Display	Meaning
1	Red, flashing	Error
	Flash sequence 2x ON/OFF (250 ms), followed by a pause (750 ms)	Connection error
	Red, flashing, 10 Hz	Device error
2	Off	Device switched off
	On	Device switched on

Suitable receivers

Part no.	Designation	Article	Description
72001309	ELC110R30-900	Safety light curtain receiver	Resolution: 30 mm Protective field height: 900 mm Response time: 7.5 ms Connection: Cable with connector, M12, Metal, 4 -pin, 200 mm, PUR

Part number code

Part designation: ELC1yyzaa-hhhh

ELC	Safety light curtain
x	1: ELC100
yy	00: transmitter 10: receiver – automatic restart
z	Device type T: transmitter R: receiver
a	Resolution 17: 17 mm 30: 30 mm
hhhh	Protective field height 300 ... 1500: from 300 mm to 1500 mm

Note



A list with all available device types can be found on the Leuze website at www.leuze.com.

Notes



Observe intended use!



- The product may only be put into operation by competent persons.
- Only use the product in accordance with its intended use.

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

Mounting technology - Other

	Part no.	Designation	Article	Description
	424432	BT-2SB05	Mounting bracket set	Design of mounting device: Mounting clamp Fastening, at system: Through-hole mounting Mounting bracket, at device: Clampable, On the lateral C-groove Type of mounting device: Swiveling Swivel range: -8 ... 8 ° Material: Metal

Accessories

Services

	Part no.	Designation	Article	Description
	S981050	CS40-I-140	Safety inspection	<p>Details: Checking of a safety light barrier application in accordance with current standards and guidelines. Inclusion of the device and machine data in a database, production of a test log per application.</p> <p>Conditions: It must be possible to stop the machine, support provided by customer's employees and access to the machine for Leuze employees must be ensured.</p> <p>Restrictions: Travel costs and accommodation expenses charged separately and according to expenditure.</p>
	S981046	CS40-S-140	Start-up support	<p>Details: For safety devices including stopping time measurement and initial inspection.</p> <p>Conditions: Devices and connection cables are already mounted, price not including travel costs and, if applicable, accommodation expenses.</p> <p>Restrictions: Max. 2 h., no mechanical (mounting) and electrical (wiring) work performed, no changes (attachments, wiring, programming) to third-party components in the nearby environment.</p>

Note



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