Technical data sheet Light curtain transmitter Part no.: 50128988 CSL710-T05-1040.A-M12



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eng • 2023-02-03

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Technical data

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Basic data

Dasie data			
Series	710		
Operating principle	Throughbeam principle		
Device type	Transmitter		
Contains	2x BT-NC sliding block		
Application	Precise object detection		
Special version			
Special version	Crossed-beam scanning		
	Diagonal-beam scanning		
	Parallel-beam scanning		
Optical data			
Operating range	Guaranteed operating range		
Operating range	0.1 3.5 m		
Operating range limit	Typical operating range		
Operating range limit	0.1 4.5 m		
Measurement field length	1,040 mm		
Number of beams	208 Piece(s)		
Beam spacing	5 mm		
Light source	LED, Infrared		
Wavelength	940 nm		
Measurement data			
Minimum object diameter	10 mm		
Electrical data			
Protective circuit	Polarity reversal protection		
	Short circuit protected		
	Transient protection		
Performance data			
Supply voltage U _B	18 30 V, DC		
Residual ripple	0 15 %, From U _B		
Residual ripple Open-circuit current	0 270 mA, The specified values refer		
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Open-circuit current	0 270 mA, The specified values refer to the entire package consisting of trans		

Connection

Number of connections	1 Piece(s)	
Plug outlet	Axial	
Connection 1		
Function	Connection to receiver	
	Sync-input	
	Voltage supply	
Type of connection	Connector	
Thread size	M12	
Туре	Male	
Material	Metal	
No. of pins	5 -pin	
Encoding	A-coded	

Mechanical data

Design	Cubic
Dimension (W x H x L)	29 mm x 35.4 mm x 1,113 mm
Housing material	Metal
Metal housing	Aluminum
Lens cover material	Plastic / PMMA
Net weight	1,200 g
Housing color	Red
Type of fastening	Groove mounting
	Via optional mounting device
Operation and display	
Type of display	LED
Number of LEDs	1 Piece(s)
Environmental data	
Ambient temperature, operation	-30 60 °C
Ambient temperature, storage	-40 70 °C
Certifications	
Degree of protection	IP 65
Protection class	III
Certifications	c CSA US
Standards applied	
	IEC 60947-5-2
Classification	
Classification Customs tariff number	
	IEC 60947-5-2
Customs tariff number	IEC 60947-5-2 90314990
Customs tariff number ECLASS 5.1.4	IEC 60947-5-2 90314990 27270910
Customs tariff number ECLASS 5.1.4 ECLASS 8.0	IEC 60947-5-2 90314990 27270910 27270910
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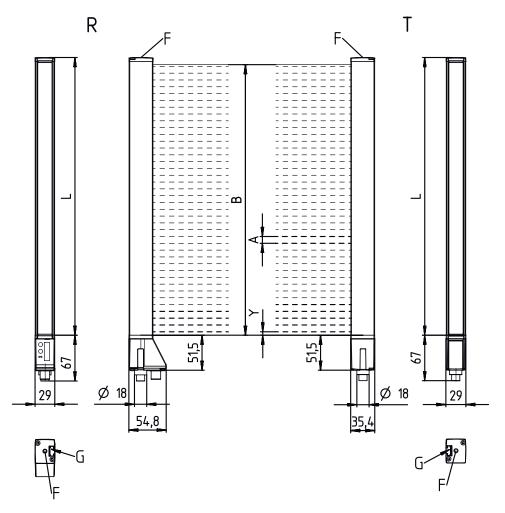
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We reserve the right to make technical changes

Dimensioned drawings

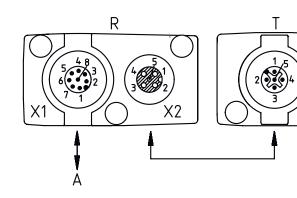
All dimensions in millimeters



- Beam spacing 5 mm А
- В Measurement field length 1040 mm
- F M6 thread
- G Fastening groove
- Profile length 1048 mm L

X3

- Transmitter Т
- R Receiver
- Y



PWR / SW IN / OUT А



Electrical connection

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Connection 1

Pin

Function	Connection to receiver
	Sync-input
	Voltage supply
Type of connection	Connector
Thread size	M12
Туре	Male
Material	Metal
No. of pins	5 -pin
Encoding	A-coded

Pin assignment

Pin	Pin assignment		$\frac{2}{2}$
1	FE/SHIELD		
2	V+		
3	GND	<u>3</u>	
4	RS 485 Tx+		
5	RS 485 Tx-		4

Operation and display

LED	Display	Meaning
1	Green, continuous light	Continuous mode
	Off	No communication with the receiver / waiting for trigger
	green, flashing in sync with the measurement	Measurement frequency display

Suitable receivers

 Part no.	Designation	Article	Description
50128900	CSL710-R05-1040.A/ L-M12	Light curtain receiver	Application: Precise object detection Special version: Parallel-beam scanning, Crossed-beam scanning, Diagonal- beam scanning Operating range: 0.1 3.5 m Selectable inputs/outputs: 4 Piece(s) Service interface: IO-Link Connection: Connector, M12, 8 -pin

Part number code

Part designation: CSL710-XYY-ZZZZ.A/B-CCC

CSL710	Operating principle
002/10	CSL: switching light curtain of the 710 series
x	Function classes T: transmitter R: receiver
YY	Beam spacing 05: 5 mm 10: 10 mm 20: 20 mm 40: 40 mm
ZZZZ	Measurement field length [mm], dependent on beam spacing Value, see technical data

Part number code



Α	Equipment A: Axial connector outlet		
В	Interface L: IO-Link		
CCC	Electrical connection M12: M12 connector		
	Note		
0			

Notes

Observe intended use!
✤ This product is not a safety sensor and is not intended as personnel protection.
✤ The product may only be put into operation by competent persons.
∜ Only use the product in accordance with its intended use.

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For UL applications:

✤ For UL applications, use is only permitted in Class 2 circuits in accordance with the NEC (National Electric Code).

These proximity switches shall be used with UL Listed Cable assemblies rated 30V, 0.5A min, in the field installation, or equivalent (categories: CYJV/ CYJV7 or PVVA/PVVA7)

Accessories

Connection technology - Interconnection cables

	Part no.	Designation	Article	Description
	50129781	KDS DN-M12-5A- M12-5A-P3-050	Interconnection cable	Suitable for interface: DeviceNet, CANopen Connection 1: Connector, M12, Axial, Female, A-coded, 5 -pin Connection 2: Connector, M12, Axial, Male, A-coded, 5 -pin Shielded: Yes Cable length: 5,000 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.