Technical data sheet Light curtain transmitter Part no.: 50129016 CSL710-T10-640.A-M12





1/5

The Sensor People In der Braike 1, 73277 Owen

info@leuze.com • www.leuze.com Phone: +49 7021 573-0 • Fax: +49 7021 573-199

We reserve the right to make technical changes eng • 2023-02-03

Technical data

Leuze

Basic 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	0.3 7 m
Operating range limit	Typical operating range
Operating range limit	0.2 9 m
Measurement field length	640 mm
Number of beams	64 Piece(s)
Beam spacing	10 mm
Light source	LED, Infrared
Wavelength	940 nm
Measurement data	
Minimum object diameter	20 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
Open-circuit current	0 215 mA, The specified values refer to the entire package consisting of trans mitter and receiver.
Time behavior	
Time behavior Readiness delay	400 ms

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 713 mm
Housing material	Metal
Metal housing	Aluminum
Lens cover material	Plastic / PMMA
Net weight	800 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
Certifications Standards applied	c CSA US IEC 60947-5-2
Standards applied	
Standards applied Classification	IEC 60947-5-2
Standards applied Classification Customs tariff number	IEC 60947-5-2 90314990
Standards applied Classification Customs tariff number ECLASS 5.1.4	IEC 60947-5-2 90314990 27270910
Standards applied Classification Customs tariff number ECLASS 5.1.4 ECLASS 8.0	IEC 60947-5-2 90314990 27270910 27270910
Standards applied Classification Customs tariff number ECLASS 5.1.4 ECLASS 8.0 ECLASS 9.0	IEC 60947-5-2 90314990 27270910 27270910 27270910
Standards applied Classification Customs tariff number ECLASS 5.1.4 ECLASS 8.0 ECLASS 9.0 ECLASS 10.0	IEC 60947-5-2 90314990 27270910 27270910 27270910 27270910 27270910
Standards applied Classification Customs tariff number ECLASS 5.1.4 ECLASS 8.0 ECLASS 9.0 ECLASS 10.0 ECLASS 11.0	IEC 60947-5-2 90314990 27270910 27270910 27270910 27270910 27270910 27270910
Standards applied Classification Customs tariff number ECLASS 5.1.4 ECLASS 8.0 ECLASS 9.0 ECLASS 10.0 ECLASS 11.0 ECLASS 12.0	IEC 60947-5-2 90314990 27270910 27270910 27270910 27270910 27270910 27270910 27270910
Standards applied Classification Customs tariff number ECLASS 5.1.4 ECLASS 8.0 ECLASS 9.0 ECLASS 10.0 ECLASS 11.0 ECLASS 12.0 ECLASS 13.0	IEC 60947-5-2 90314990 27270910 27270910 27270910 27270910 27270910 27270910 27270910 27270910 27270910
Standards applied Classification Customs tariff number ECLASS 5.1.4 ECLASS 8.0 ECLASS 9.0 ECLASS 9.0 ECLASS 10.0 ECLASS 11.0 ECLASS 11.0 ECLASS 12.0 ECLASS 13.0 ETIM 5.0	IEC 60947-5-2 90314990 27270910 27270910 27270910 27270910 27270910 27270910 27270910 27270910 27270910 EC002549

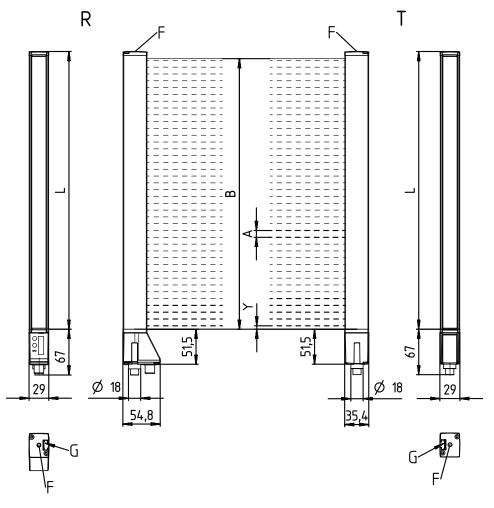
 Leuze electronic GmbH + Co. KG
 info@leuze.com • www.leuze.com

 The Sensor People
 In der Braike 1, 73277 Owen
 Phone: +49 7021 573-0 • Fax: +49

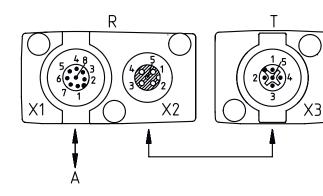
Phone: +49 7021 573-0 • Fax: +49 7021 573-199 eng • 2023-02-03

Dimensioned drawings

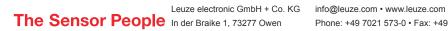
All dimensions in millimeters



- Beam spacing 10 mm А
- В Measurement field length 640 mm
- F M6 thread
- G Fastening groove
- Profile length 648 mm L
- Transmitter Т
- R Receiver
- Υ



PWR / SW IN / OUT А



Phone: +49 7021 573-0 • Fax: +49 7021 573-199

We reserve the right to make technical changes eng • 2023-02-03

Leuze

Electrical connection

Leuze

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	2
1	FE/SHIELD	
2	V+	
3	GND	3
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
Į	50128932	CSL710-R10-640.A/ L-M12	Light curtain receiver	Application: Precise object detection Special version: Parallel-beam scanning, Crossed-beam scanning, Diagonal- beam scanning Operating range: 0.3 7 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 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
<u>ZZZZ</u>	Measurement field length [mm], dependent on beam spacing Value, see technical data

Part number code



А	Equipment A: Axial connector outlet	
В	Interface L: IO-Link	
CCC	Electrical connection M12: M12 connector	
	Note	
	A list with all available device types can be found on the Leuze website at www.leuze.com.	

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.

1		
	H	
	Ц	
	-	

For UL applications:

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

th 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.