

## Technical data sheet

### Light curtain transmitter

Part no.: 50129047  
CSL710-T20-2710.A-M12

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For illustration purposes only



## Technical data

### Basic data

Series	710
Operating principle	Throughbeam principle
Device type	Transmitter
Application	Precise object detection

### Special version

Special version	Crossed-beam scanning
	Diagonal-beam scanning
	Parallel-beam scanning

### Characteristic parameters

#### Optical data

Operating range	0.3 ... 7 m
Operating range	Guaranteed operating range
Operating range limit	0.2 ... 9 m
Operating range limit	Typical operating range
Measurement field length	2,710 mm
Number of beams	136 Piece(s)
Beam spacing	20 mm
Light source	LED, Infrared
Wavelength	940 nm
Transmitted-signal shape	Pulsed

#### Measurement data

Minimum object diameter	30 mm
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#### 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 ... 435 mA, The specified values refer to the entire package consisting of transmitter and receiver.

#### Time behavior

Readiness delay	400 ms
Cycle time	4.48 ms

#### 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
Type	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 2,793 mm
Housing material	Metal
Metal housing	Aluminum
Lens cover material	Plastic / PMMA
Net weight	2,700 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 UL US
Standards applied	IEC 60947-5-2

### Classification

Customs tariff number	90314990
ECLASS 5.1.4	27270910
ECLASS 8.0	27270910
ECLASS 9.0	27270910
ECLASS 10.0	27270910
ECLASS 11.0	27270910
ECLASS 12.0	27270910
ECLASS 13.0	27270910
ECLASS 14.0	27270910
ETIM 5.0	EC002549
ETIM 6.0	EC002549
ETIM 7.0	EC002549
ETIM 8.0	EC002549
ETIM 9.0	EC002549

# Dimensioned drawings

All dimensions in millimeters



- |   |                                  |   |                        |
|---|----------------------------------|---|------------------------|
| A | Beam spacing 20 mm               | L | Profile length 2728 mm |
| B | Measurement field length 2710 mm | T | Transmitter            |
| F | M6 thread                        | R | Receiver               |
| G | Fastening groove                 | Y |                        |



## Electrical connection

### Connection 1

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

### Pin Pin assignment


1	FE/SHIELD
2	V+
3	GND
4	RS 485 Tx+
5	RS 485 Tx-



## 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
	50128964	CSL710-R20-2710.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-XXY-ZZZZ.A/B-CCC**

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

## Part number code

<b>A</b>	<b>Equipment</b> A: Axial connector outlet
<b>B</b>	<b>Interface</b> L: IO-Link
<b>CCC</b>	<b>Electrical connection</b> M12: M12 connector

Note	
	A list with all available device types can be found on the Leuze website at <a href="http://www.leuze.com">www.leuze.com</a> .

## Notes

⚠ Observe intended use!	
	<ul style="list-style-type: none"> <li>This product is not a safety sensor and is not intended as personnel protection.</li> <li>The product may only be put into operation by competent persons.</li> <li>Only use the product in accordance with its intended use.</li> </ul>

For UL applications:	
	<ul style="list-style-type: none"> <li>For UL applications, use is only permitted in Class 2 circuits in accordance with the NEC (National Electric Code).</li> <li>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)</li> </ul>

## 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.