

## Technical data sheet

### Light curtain transmitter

Part no.: 50129021  
CSL710-T10-1440.A-M12



For illustration purposes only

#### Contents

- Technical data
- Dimensioned drawings
- Electrical connection
- Operation and display
- Suitable receivers
- Part number code
- Notes
- Accessories



## Technical data

### 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

### Characteristic parameters

#### Optical data

Operating range	0.3 ... 7 m, Guaranteed operating range
Operating range limit	0.2 ... 9 m
Operating range limit	Typical operating range
Measurement field length	1,440 mm
Number of beams	144 Piece(s)
Beam spacing	10 mm
Light source	LED, Infrared
Wavelength	940 nm
Transmitted-signal shape	Pulsed

#### Measurement data

Minimum object diameter	20 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 ... 350 mA, The specified values refer to the entire package consisting of transmitter and receiver.

#### Time behavior

Readiness delay	400 ms
Cycle time	4.72 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 1,513 mm
Housing material	Metal
Metal housing	Aluminum
Lens cover material	Plastic / PMMA
Net weight	1,550 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

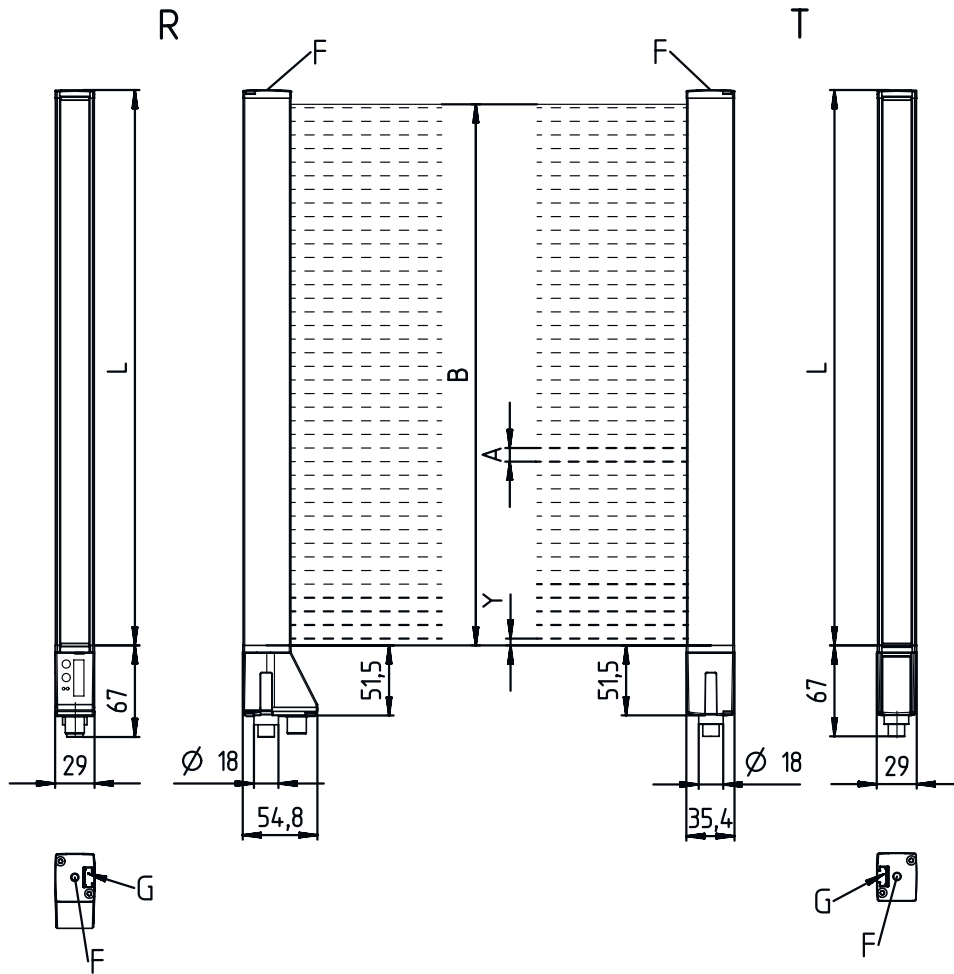
Degree of protection	IP 65
Protection class	III
Approvals	c UL US
Standards applied	IEC 60947-5-2

### Classification

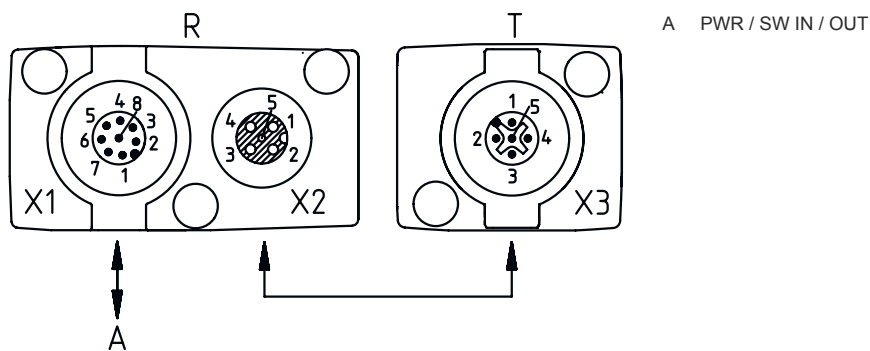
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ECLASS 12.0	27270910
ECLASS 13.0	27270910
ECLASS 14.0	27270910
ECLASS 15.0	27270910
ETIM 5.0	EC002549
ETIM 6.0	EC002549
ETIM 7.0	EC002549
ETIM 8.0	EC002549
ETIM 9.0	EC002549
ETIM 10.0	EC002549

## Dimensioned drawings

All dimensions in millimeters



- A Beam spacing 10 mm
- B Measurement field length 1440 mm
- F M6 thread
- G Fastening groove
- L Profile length 1448 mm
- T Transmitter
- R Receiver
- Y

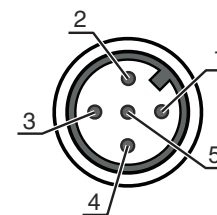


## Electrical connection

### Connection 1

<b>Function</b>	Connection to receiver
	Sync-input
	Voltage supply
<b>Type of connection</b>	Connector
<b>Thread size</b>	M12
<b>Type</b>	Male
<b>Material</b>	Metal
<b>No. of pins</b>	5 -pin
<b>Encoding</b>	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	Operating range Operating range limit	Description
	50128937	CSL710-R10-1440.A/ L-M12	0.3 ... 7 m 0.2 ... 9 m	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 [www.leuze.com](http://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.

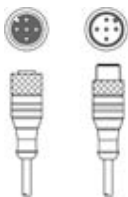
**For UL applications:**




- 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

### Mounting technology - Mounting brackets

	Part no.	Designation	Article	Description
	429393	BT-2HF	Mounting bracket set	Fastening, at system: Through-hole mounting Mounting bracket, at device: Clampable Type of mounting device: Turning, 360° Material: Metal, Plastic

## Accessories

### Note



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