

Technical data sheet

Light curtain transmitter

Part no.: 50129057
CSL710-T40-2850.A-M12

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- Dimensioned drawings
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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	2,850 mm
Number of beams	72 Piece(s)
Beam spacing	40 mm
Light source	LED, Infrared
Wavelength	940 nm
Transmitted-signal shape	Pulsed

Measurement data

Minimum object diameter	50 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	2.56 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 2,953 mm
Housing material	Metal
Metal housing	Aluminum
Lens cover material	Plastic / PMMA
Net weight	2,850 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

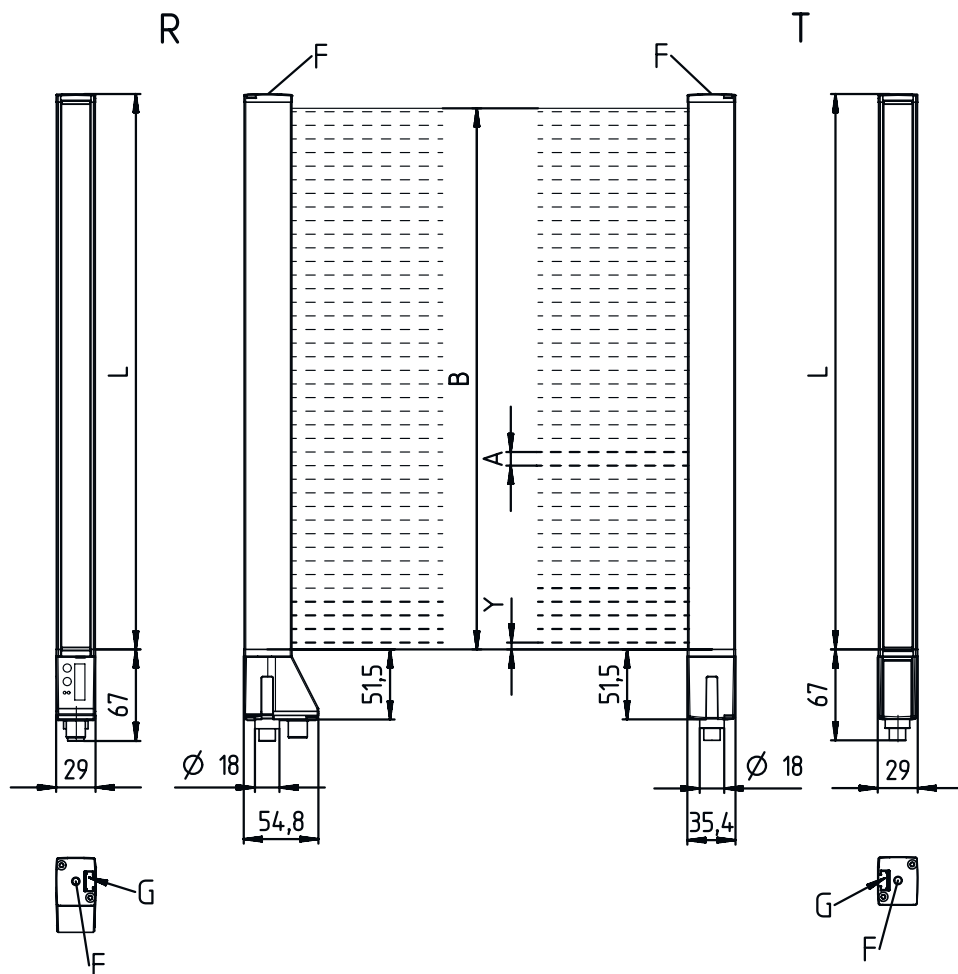
Degree of protection	IP 65
Protection class	III
Certifications	c UL US
Standards applied	IEC 60947-5-2

Classification

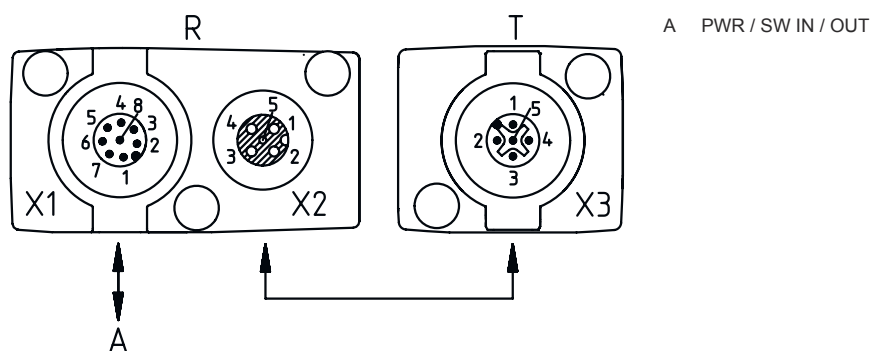
Customs tariff number	90314990
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ECLASS 12.0	27270910
ECLASS 13.0	27270910
ECLASS 14.0	27270910
ETIM 5.0	EC002549
ETIM 6.0	EC002549
ETIM 7.0	EC002549
ETIM 8.0	EC002549
ETIM 9.0	EC002549

Dimensioned drawings

All dimensions in millimeters



- | | | | |
|---|----------------------------------|---|------------------------|
| A | Beam spacing 40 mm | L | Profile length 2888 mm |
| B | Measurement field length 2850 mm | T | Transmitter |
| F | M6 thread | R | Receiver |
| G | Fastening groove | Y | |

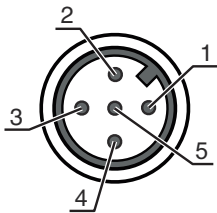


Electrical connection

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
	50128975	CSL710-R40-2850.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-XYX-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
ZZZZ	Measurement field length [mm], dependent on beam spacing Value, see technical data

Part number code

A	Equipment A: Axial connector outlet
B	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 .

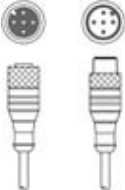
Notes

⚠ 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.

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.