Technical data sheet Light curtain transmitter Part no.: 50129008 CSL710-T05-2640.A-M12



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We reserve the right to make technical changes

eng • 2023-02-03

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Technical data

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Basic 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	
Optical data		
Dperating range	Guaranteed operating range	
Operating range	0.1 3.5 m	
Operating range limit	Typical operating range	
Dperating range limit	0.1 4.5 m	
leasurement field length	2,640 mm	
lumber of beams	528 Piece(s)	
Beam spacing	5 mm	
.ight source	LED, Infrared	
Vavelength	940 nm	
Measurement data		
Ainimum 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	
Open-circuit current	 435 mA, The specified values refer to the entire package consisting of trans- mitter and receiver. 	
Time behavior		
Readiness delay	400 ms	
Cycle time	16.24 ms	
Connection		
Number of connections	1 Piece(s)	
Plug outlet	Axial	
Connection 1	Opener ation to an ation	
Function	Connection to receiver	
	Sync-input	
Type of connection	Voltage supply	

Connector

M12

Male

Metal

5 -pin

A-coded

Mechanical data

Design	Cubic
Dimension (W x H x L)	29 mm x 35.4 mm x 2,713 mm
Housing material	Metal
Metal housing	Aluminum
Lens cover material	Plastic / PMMA
Net weight	2,650 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
	10 70.00
Ambient temperature, storage	-40 70 °C
	-40 70 °C
Ambient temperature, storage	-40 70 °C IP 65
Ambient temperature, storage	
Ambient temperature, storage Certifications Degree of protection	IP 65
Ambient temperature, storage Certifications Degree of protection Protection class	IP 65 III
Ambient temperature, storage Certifications Degree of protection Protection class Certifications	IP 65 III c CSA US
Ambient temperature, storage Certifications Degree of protection Protection class Certifications Standards applied	IP 65 III c CSA US
Ambient temperature, storage Certifications Degree of protection Protection class Certifications Standards applied Classification	IP 65 III c CSA US IEC 60947-5-2
Ambient temperature, storage Certifications Degree of protection Protection class Certifications Standards applied Classification Customs tariff number	IP 65 III c CSA US IEC 60947-5-2 90314990
Ambient temperature, storage Certifications Degree of protection Protection class Certifications Standards applied Classification Customs tariff number ECLASS 5.1.4	IP 65 III c CSA US IEC 60947-5-2 90314990 27270910
Ambient temperature, storage Certifications Degree of protection Protection class Certifications Standards applied Classification Customs tariff number ECLASS 5.1.4 ECLASS 8.0	IP 65 III c CSA US IEC 60947-5-2 90314990 27270910 27270910
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Ambient temperature, storage Certifications Degree of protection Protection class Certifications Standards applied Classification Customs tariff number ECLASS 5.1.4 ECLASS 9.0 ECLASS 10.0	IP 65 III c CSA US IEC 60947-5-2 90314990 27270910 27270910 27270910 27270910 27270910
Ambient temperature, storage Certifications Degree of protection Protection class Certifications Standards applied Classification Customs tariff number ECLASS 5.1.4 ECLASS 5.1.4 ECLASS 9.0 ECLASS 10.0 ECLASS 11.0	IP 65 III c CSA US IEC 60947-5-2 90314990 27270910 27270910 27270910 27270910 27270910 27270910 27270910
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Ambient temperature, storage Certifications Degree of protection Protection class Certifications Standards applied Classification Customs tariff number ECLASS 5.1.4 ECLASS 9.0 ECLASS 10.0 ECLASS 11.0 ECLASS 12.0 ECLASS 13.0	IP 65 III c CSA US IEC 60947-5-2 90314990 27270910 27270910 27270910 27270910 27270910 27270910 27270910 27270910 27270910
Ambient temperature, storage Certifications Degree of protection Protection class Certifications Standards applied Classification Customs tariff number ECLASS 5.1.4 ECLASS 9.0 ECLASS 10.0 ECLASS 11.0 ECLASS 12.0 ECLASS 13.0 ETIM 5.0	IP 65 III c CSA US IEC 60947-5-2 90314990 27270910 27270910 27270910 27270910 27270910 27270910 27270910 27270910 27270910 27270910 EC002549

Type of connection

Thread size

Туре

Material

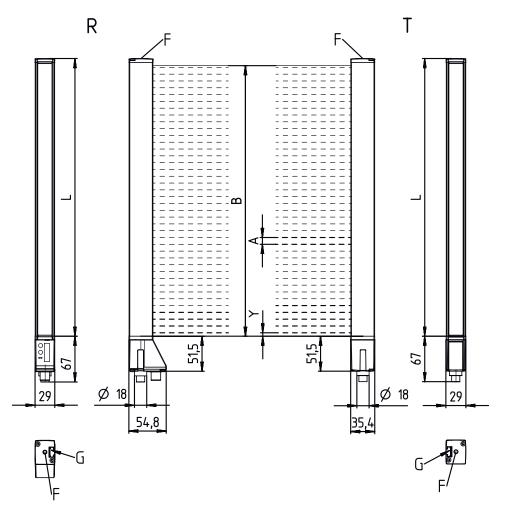
No. of pins

Encoding

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Dimensioned drawings

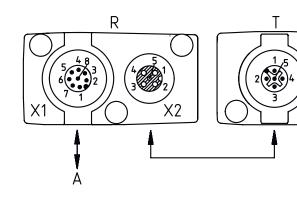
All dimensions in millimeters



- A Beam spacing 5 mm
- B Measurement field length 2640 mm
- F M6 thread
- G Fastening groove
- L Profile length 2648 mm

X3

- T Transmitter
- R Receiver
- Y



A PWR / SW IN / OUT

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Electrical connection

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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

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
50128920	CSL710-R05-2640.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 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
2222	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	

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:

b 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.