

Technical data sheet Light curtain transmitter

Part no.: 50128982

CSL710-T05-560.A-M12



Figure can vary

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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 |

Optical data

| | |
|--------------------------|----------------------------|
| Operating range | Guaranteed operating range |
| Operating range | 0.1 ... 3.5 m |
| Operating range limit | Typical operating range |
| Operating range limit | 0.1 ... 4.5 m |
| Measurement field length | 560 mm |
| Number of beams | 112 Piece(s) |
| Beam spacing | 5 mm |
| Light source | LED, Infrared |
| Wavelength | 940 nm |

Measurement data

| | |
|-------------------------|-------|
| Minimum 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 | 0 ... 165 mA, The specified values refer to the entire package consisting of transmitter and receiver. |

Time behavior

| | |
|-----------------|---------|
| Readiness delay | 400 ms |
| Cycle time | 3.76 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 633 mm |
| Housing material | Metal |
| Metal housing | Aluminum |
| Lens cover material | Plastic / PMMA |
| Net weight | 750 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 |
| 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 |
| ETIM 5.0 | EC002549 |
| ETIM 6.0 | EC002549 |
| ETIM 7.0 | EC002549 |
| ETIM 8.0 | EC002549 |

Dimensioned drawings

All dimensions in millimeters



- | | | | |
|---|---------------------------------|---|-----------------------|
| A | Beam spacing 5 mm | L | Profile length 568 mm |
| B | Measurement field length 560 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 |
|---|----------|------------------------|------------------------|--|
|  | 50128894 | CSL710-R05-560.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-XXY-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.

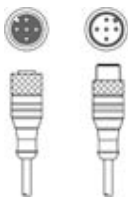
For UL applications:

 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.