

Technical data sheet Light curtain transmitter

Part no.: 50128996

CSL710-T05-1680.A-M12



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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 design | |
| Special design | Crossed-beam scanning |

Diagonal-beam scanning Parallel-beam scanning

Optical data

| <u> </u> | |
|--------------------------|----------------------------|
| 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 | 1,680 mm |
| Number of beams | 336 Piece(s) |
| Beam spacing | 5 mm |
| Light source | LED, Infrared |
| LED light wavelength | 940 nm |

Measurement data

| Minimum object diameter | 10 mm |
|-------------------------|-------|

Electrical data

| Protective circuit | Polarity reversal protection |
|--------------------|------------------------------|
| | Short circuit protected |
| | Transient protection |
| | |

| Pei | forn | nance | data |
|-----|------|-------|------|
| | | | |

| Supply voltage U _B | 18 30 V, DC |
|-------------------------------|--|
| Residual ripple | 0 15 %, From U _B |
| Open-circuit current | 350 mA, The specified values refer to the entire package consisting of trans- mitter and receiver. |

Timing

| Readiness delay 4 | 00 ms |
|-------------------|---------|
| Cycle time 1 | 0.48 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 |
| Туре | 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 1,753 mm |
| Housing material | Metal, Aluminum |
| Lens cover material | Plastic / PMMA |
| Net weight | 1,750 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 |

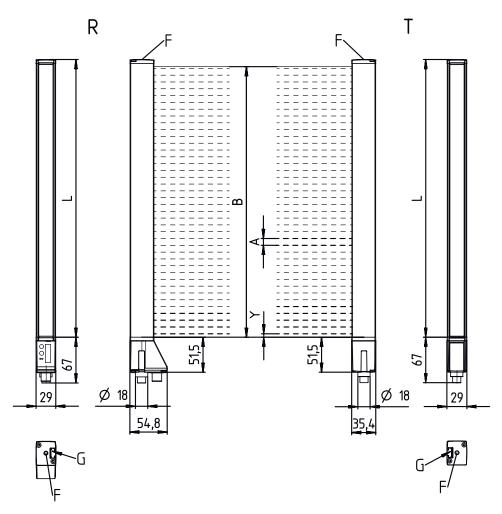
Classification

| Customs tariff number | 90314990 |
|-----------------------|----------|
| eCl@ss 8.0 | 27270910 |
| eCl@ss 9.0 | 27270910 |
| ETIM 5.0 | EC002549 |
| ETIM 6.0 | EC002549 |

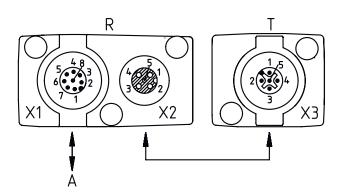
Dimensioned drawings

Leuze

All dimensions in millimeters



- Beam spacing 5 mm
- В Measurement field length 1680 mm
- M6 thread
- G Fastening groove
- Profile length 1688 mm
- Transmitter
- Receiver



PWR / SW IN/OUT

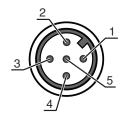
Electrical connection



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 | 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 |
|----------|-----------------------------|------------------------|---|
| 50128908 | CSL710-R05-1680.A/ L-M12 | Light curtain receiver | Application: Precise object detection Special design: 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 |
| ZZZZ | Measurement field length [mm], dependent on beam spacing Value, see technical data |
| | |

Part number code



A Equipment

A: connector outlet, axial

B Interface

CCC Electrical connection

M12: M12 connector

L: IO-Link

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.

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: IO-Link, 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 - Swivel mounts

| Part no. | Designation | Article | Description |
|----------|-------------|----------------------|---|
| 429046 | BT-2R1 | 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.