# SMART SENSOR BUSINESS

## Leuze electronic
the sensor people

Part no.: 50118628
CML730i-T10-2880.A-M12
Light curtain transmitter

Figure can vary

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# Part no.: 50118628 – CML730i-T10-2880.A-M12 – Light curtain transmitter

## Technical data

| *Basic data* | |
|---|---|
| Series | 730 |
| Operating principle | Throughbeam principle |
| Device type | Transmitter |
| Contains | 2x BT-NC sliding block |
| Application | Detection of transparent objects<br>Object measurement |

| *Optical data* | |
|---|---|
| Operating range | Guaranteed operating range |
| Operating range | 0.3 ... 9.5 m |
| Operating range, transparent media | 0.3 ... 3.5 m |
| Operating range limit | Typical operating range |
| Operating range limit | 0.2 ... 12 m |
| Measurement field length | 2,880 mm |
| Number of beams | 288 Piece(s) |
| Beam spacing | 10 mm |
| Light source | LED , Infrared |
| LED light wavelength | 940 nm |

| *Measurement data* | |
|---|---|
| Minimum object diameter | 20 mm |

| *Electrical data* | | |
|---|---|---|
| Protective circuit | | Polarity reversal protection<br>Short circuit protected<br>Transient protection |
| | *Performance data* | |
| | Supply voltage $U_B$ | 18 ... 30 V , DC |
| | Residual ripple | 0 ... 15 % , From $U_B$ |
| | Open-circuit current | 0 ... 600 mA , The specified values refer to the entire package consisting of transmitter and receiver. |

| *Timing* | |
|---|---|
| Readiness delay | 450 ms |
| Cycle time | 3.08 ms |

| *Connection* | | |
|---|---|---|
| Number of connections | | 1 Piece(s) |
| Plug outlet | | Axial |
| | *Connection 1* | |
| | Function | Connection to receiver |
| | 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 2,955 mm |
| Housing material | Metal , Aluminum |
| Lens cover material | Plastic |
| Net weight | 2,850 g |
| Housing color | Silver |
| Type of fastening | Groove mounting<br>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

All dimensions in millimeters

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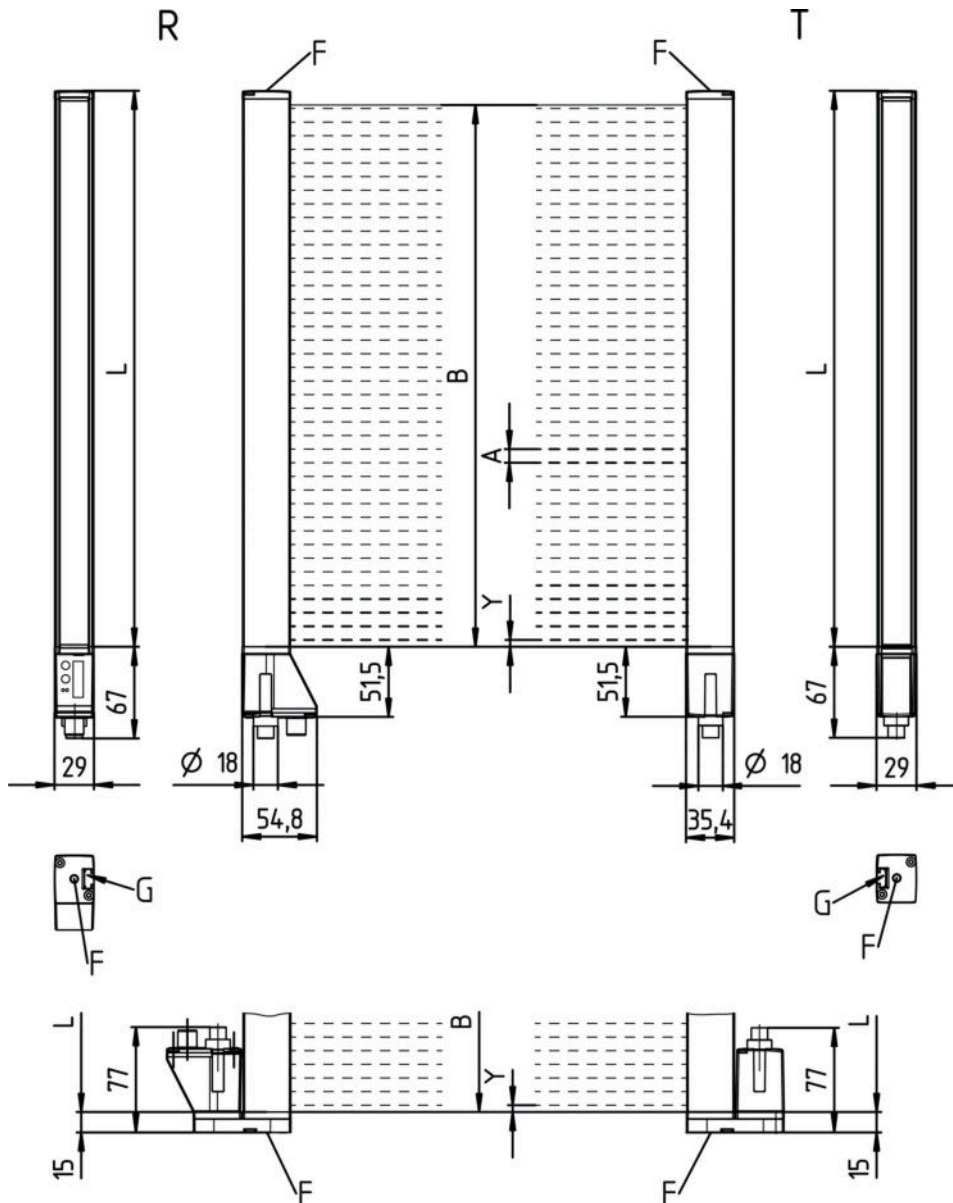


A Beam spacing 10 mm
B Measurement field length 2880 mm
F M6 thread
G Fastening groove
L Profile length 2888 mm
T Transmitter
R Receiver
Y 5 mm

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## Electrical connection

| Connection 1 | |
|---|---|
| Function | Connection to receiver |
| 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

### LEDs

| 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 |
|---|---|---|---|---|
| | 50118709 | CML730i-R10-2880.A/CN-M12 | Light curtain receiver | Operating range: 0.3 ... 9.5 m<br>Interface: CANopen<br>Connection: Connector, M12, Axial, 8 -pin |
| | 50118885 | CML730i-R10-2880.A/CV-M12 | Light curtain receiver | Operating range: 0.3 ... 9.5 m<br>Analog outputs: 2 Piece(s), Voltage, Current<br>Connection: Connector, M12, Axial, 8 -pin |
| | 50123325 | CML730i-R10-2880.A/D3-M12 | Light curtain receiver | Operating range: 0.3 ... 9.5 m<br>Interface: RS 485<br>Connection: Connector, M12, Axial, 8 -pin |

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| | | Part no. | Designation | Article | Description |
|---|---|---|---|---|---|
| | | 50118791 | CML730i-R10-2880.A/L-M12 | Light curtain receiver | Operating range: 0.3 ... 9.5 m<br>Interface: IO-Link<br>Connection: Connector, M12, Axial, 8 -pin |
| | | 50123169 | CML730i-R10-2880.A/PB-M12 | Light curtain receiver | Operating range: 0.3 ... 9.5 m<br>Interface: PROFIBUS DP<br>Connection: Connector, M12, Axial, 8 -pin |
| | | 50131776 | CML730i-R10-2880.A/PN-M12 | Light curtain receiver | Operating range: 0.3 ... 9.5 m<br>Interface: PROFINET<br>Connection: Connector, M12, Axial, 8 -pin |

## Part number code

Part designation: **CML7XXi-YZZ-AAAA.BCCCDDD-EEEFFF**

| CML | **Operating principle:**<br>Measuring light curtain |
|---|---|
| 7XXi | **Series:**<br>720i: 720i series<br>730i: 730i series |
| Y | **Device type:**<br>T: transmitter<br>R: receiver |
| ZZ | **Beam spacing:**<br>05: 5 mm<br>10: 10 mm<br>20: 20 mm<br>40: 40 mm |
| AAAA | Measurement field length [mm], dependent on beam spacing |
| B | **Equipment:**<br>A: connector outlet, axial<br>R: rear connector outlet |
| CCC | **Interface:**<br>L: IO-Link<br>/CN: CANopen<br>/PB: PROFIBUS<br>/PN: PROFINET<br>/CV: Analog current and voltage output<br>/D3: RS 485 Modbus |
| DDD | **Special equipment:**<br>-PS: Power Setting |
| EEE | **Electrical connection:**<br>M12: M12 connector |
| FFF | **-EX: Explosion protection:** |

| **Note** |
|---|
| A list with all available device types can be found on the Leuze electronic website at www.leuze.com. |

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## 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: IO-Link, DeviceNet, CANopen<br>Connection 1: Connector, M12, Axial, Female, A-coded, 5 -pin<br>Connection 2: Connector, M12, Axial, Male, A-coded, 5 -pin<br>Shielded: Yes<br>Cable length: 5,000 mm<br>Sheathing material: PUR |

## Mounting technology - Mounting brackets

| | Part no. | Designation | Article | Description |
| --- | --- | --- | --- | --- |
| | 50142900 | BT 700M.5-2SET | Mounting device set | Contains: 2x mounting brackets, 1 teach template, 4 M6 x 10 screws<br>Design of mounting device: Bracket mounting<br>Fastening, at system: Through-hole mounting, T slotted hole<br>Mounting bracket, at device: Screw type, Sliding block<br>Type of mounting device: Rigid<br>Material: Steel |

## Mounting technology - Swivel mounts

| | Part no. | Designation | Article | Description |
| --- | --- | --- | --- | --- |
| | 429046 | BT-2R1 | Mounting bracket set | Contains: 2x BT-R swivel mount, 1 cylinder for mounting on the light curtain<br>Fastening, at system: Through-hole mounting<br>Mounting bracket, at device: Clampable<br>Type of mounting device: Turning, 360°<br>Material: Metal, Plastic |

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| | Part no. | Designation | Article | Description |
|---|---|---|---|---|
| | 50121098 | SET MD12-US2-IL1.1 + Zub. | Diagnostics set | Interface: USB<br>Connections: 2 Piece(s)<br>Degree of protection: IP 20 |

## Services

| | Part no. | Designation | Article | Description |
|---|---|---|---|---|
| | S981001 | CS10-S-110 | Start-up support | Details: Performed at location of customer's choosing, duration: max. 10 hours.<br>Conditions: Devices and connection cables are already mounted, price not including travel costs and, if applicable, accommodation expenses.<br>Restrictions: No mechanical (mounting) and electrical (wiring) work performed, no changes (attachments, wiring, programming) to third-party components in the nearby environment. |
| | S981005 | CS10-T-110 | Product training | Details: Location and content to be agreed upon, duration: max. 10 hours.<br>Conditions: Price not including travel costs and, if applicable, accommodation expenses.<br>Restrictions: Travel costs and accommodation expenses charged separately and according to expenditure. |

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

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