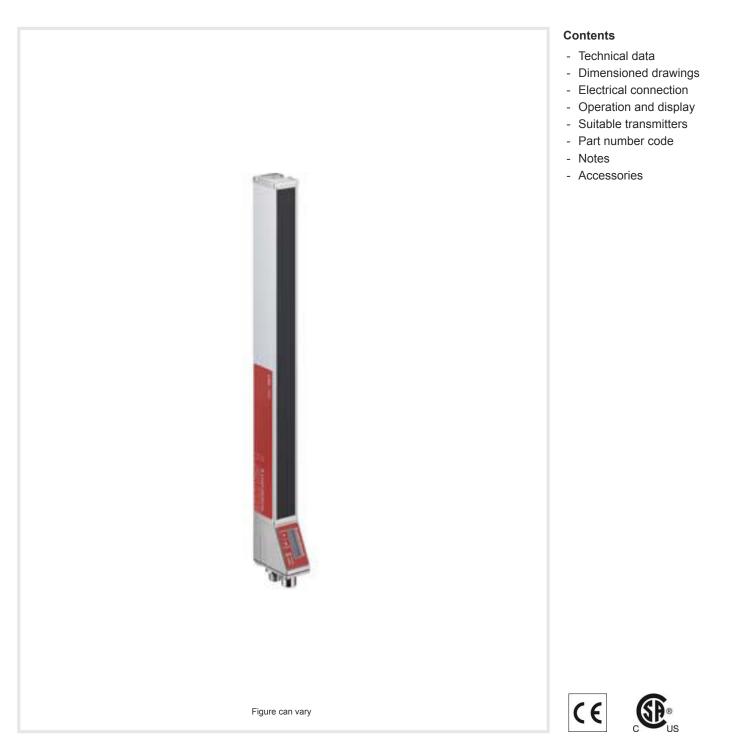


Technical data sheet Light curtain receiver Part no.: 50133769 CML730i-R05-640.A/CV-PS-M12



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Technical data

Basic data

| Basic data | |
|--|--|
| Series | 730 |
| Operating principle | Throughbeam principle |
| Device type | Receiver |
| Contains | 2x BT-NC sliding block |
| Application | Detection of transparent films |
| | Detection of transparent objects |
| | Object detection in film tube |
| | Object measurement |
| | Radiation of semi-transparent media |
| Optical data | |
| Operating range | Guaranteed operating range |
| | 0.1 4.5 m |
| | 0.1 1.75 m |
| | Typical operating range |
| | 0.1 6 m |
| | 640 mm |
| • | 128 Piece(s) |
| | 5 mm |
| | |
| Measurement data | |
| Minimum object diameter | 10 mm |
| Electrical data | |
| | Delarity reversal protection |
| | Polarity reversal protection |
| | Short circuit protected |
| | Transient protection |
| Performance data | |
| | 18 30 V, DC |
| | 0 15 %, From U _B |
| | 0 215 mA, The specified values refer |
| | to the entire package consisting of trans |
| | mitter and receiver. |
| Outputs | |
| | 1 Piece(s) |
| | |
| Analog outputs | |
| Current | 0 24 mA |
| Voltage | 0 11 V |
| | |
| | |
| Analog output 1 | Freely configurable |
| - · · | Freely configurable |
| Туре | Freely configurable |
| Type Inputs/outputs selectable | Freely configurable 100 mA |
| Type Inputs/outputs selectable Output current, max. | |
| Type Inputs/outputs selectable Output current, max. | 100 mA 6,000 Ω |
| Type Inputs/outputs selectable Output current, max. Input resistance Number of inputs/outputs selectable | 100 mA 6,000 Ω |
| Type Inputs/outputs selectable Output current, max. Input resistance Number of inputs/outputs selectable Type | 100 mA 6,000 Ω 3 Piece(s) |
| Type Inputs/outputs selectable Output current, max. Input resistance Number of inputs/outputs selectable Type Voltage type, outputs | 100 mA 6,000 Ω 3 Piece(s) Inputs/outputs selectable |
| Type Inputs/outputs selectable Output current, max. Input resistance Number of inputs/outputs selectable Type Voltage type, outputs Switching voltage, outputs | 100 mA 6,000 Ω 3 Piece(s) Inputs/outputs selectable DC |
| Type Inputs/outputs selectable Output current, max. Input resistance Number of inputs/outputs selectable Type Voltage type, outputs Switching voltage, outputs Voltage type, inputs | 100 mA 6,000 Ω 3 Piece(s) Inputs/outputs selectable DC Typ. U _B / 0 V |
| Type Inputs/outputs selectable Output current, max. Input resistance Number of inputs/outputs selectable Type Voltage type, outputs Switching voltage, outputs Voltage type, inputs Switching voltage, inputs | 100 mA 6,000 Ω 3 Piece(s) Inputs/outputs selectable DC Typ. U _B / 0 V DC |
| Type Inputs/outputs selectable Output current, max. Input resistance Number of inputs/outputs selectable Type Voltage type, outputs Switching voltage, outputs Voltage type, inputs Switching voltage, inputs | 100 mA 6,000 Ω 3 Piece(s) Inputs/outputs selectable DC Typ. U _B / 0 V DC high: \geq 6V |
| Type Inputs/outputs selectable Output current, max. Input resistance Number of inputs/outputs selectable Type Voltage type, outputs Switching voltage, outputs Voltage type, inputs Switching voltage, inputs Input/output 1 | 100 mA 6,000 Ω 3 Piece(s) Inputs/outputs selectable DC Typ. U _B / 0 V DC high: \geq 6V |

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Timing

| Readiness delay | 450 ms |
|---|---------------------------------------|
| Cycle time | 430 ms |
| Response time per beam | 10 µs |
| Service interface | - 1 - |
| | IO-Link |
| 1900 | |
| IO-Link | |
| Function | Configuration via software Service |
| | Service |
| Connection | |
| Number of connections | 2 Piece(s) |
| Plug outlet | Axial |
| Connection 1 | |
| Function | Configuration interface |
| | Signal IN |
| | Signal OUT |
| | Voltage supply |
| Type of connection | Connector |
| Thread size | M12 |
| Туре | Male |
| Material | Metal |
| No. of pins | 8 -pin |
| Encoding | A-coded |
| | |
| Connection 2 | |
| Function | Connection to transmitter |
| Type of connection | Connector |
| Thread size | M12 |
| Туре | Female |
| 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 715 mm |
| Housing material | Metal |
| Metal housing | Aluminum |
| Lens cover material | Plastic |
| Net weight | 850 g |
| Housing color | Silver |
| Type of fastening | Groove mounting |
| | Via optional mounting device |
| Operation and display | |
| | LED |
| Type of display | |
| Type of display | OLED display |
| Type of display Number of LEDs | OLED display 2 Piece(s) |
| | |
| Number of LEDs | 2 Piece(s) |
| Number of LEDs | 2 Piece(s) Software |
| Number of LEDs Type of configuration | 2 Piece(s) Software Teach-in |
| Number of LEDs Type of configuration Operational controls | 2 Piece(s) Software Teach-in |

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Technical data

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Certifications

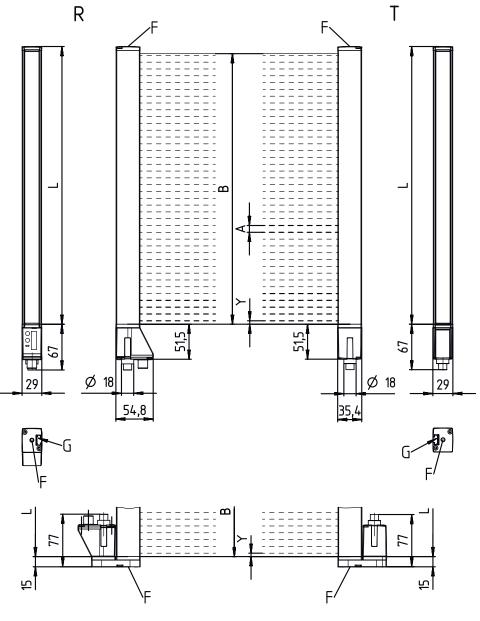
| Degree of protection | IP 65 |
|----------------------|---------------|
| Protection class | III |
| Certifications | c CSA US |
| Standards applied | IEC 60947-5-2 |

Classification

| 90314990 |
|----------|
| 27270910 |
| 27270910 |
| 27270910 |
| 27270910 |
| 27270910 |
| EC002549 |
| EC002549 |
| EC002549 |
| |

Dimensioned drawings

All dimensions in millimeters



Beam spacing 5 mm А

- В Measurement field length 640 mm
- F M6 thread

G

Fastening groove

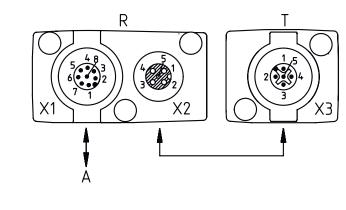
Profile length 648 mm L Т

- Transmitter
- R Receiver
- 2.5 mm Υ



Dimensioned drawings





A PWR / SW IN / OUT

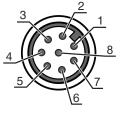
Electrical connection

Connection 1

| Function | Configuration interface |
|--------------------|-------------------------|
| | Signal IN |
| | Signal OUT |
| | Voltage supply |
| Type of connection | Connector |
| Thread size | M12 |
| Туре | Male |
| Material | Metal |
| No. of pins | 8 -pin |
| Encoding | A-coded |
| | |

Pin Pin assignment

| 1 | V+ |
|---|------------|
| 2 | I/O 1 |
| 3 | GND |
| 4 | IO-Link |
| 5 | I/O 2 |
| 6 | I/O 3 |
| 7 | OUT mA / V |
| 8 | AGND |
| | |

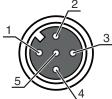


Connection 2

| Function | Connection to transmitter |
|--------------------|---------------------------|
| Type of connection | Connector |
| Thread size | M12 |
| Туре | Female |
| 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 | Operational readiness |
| | Green, flashing | Teach / error |
| 2 | Yellow, continuous light | Light path free, with function reserve |
| | Yellow, flashing | No function reserve |
| | Off | Object detected |

Suitable transmitters

| Part no. | Designation | Article | Description |
|--------------|------------------------------|------------------------------|---|
| 50133770 | CML730i-T05-640.A- PS-M12 | Light curtain transmitter | Operating range: 0.1 4.5 m Connection: Connector, M12, Axial, 5 -pin |

Part number code

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

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

 $\ensuremath{^{\ensuremath{\Downarrow}}}$ The product may only be put into operation by competent persons.

 $\ensuremath{^{\ensuremath{\Downarrow}}}$ Only use the product in accordance with its intended use.

| | For UL applications: |
|---|---|
| A | 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 - Connection cables

| | Part no. | Designation | Article | Description |
|--|----------|--------------------|------------------|--|
| | 50135128 | KD S-M12-8A-P1-050 | Connection cable | Connection 1: Connector, M12, Axial, Female, A-coded, 8 -pin Connection 2: Open end Shielded: Yes Cable length: 5,000 mm Sheathing material: PUR |

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 - Mounting brackets

| | Part no. | Designation | Article | Description |
|--|----------|----------------|---------------------|---|
| 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1 | 50142900 | BT 700M.5-2SET | Mounting device set | Design of mounting device: Bracket mounting Fastening, at system: Through-hole mounting, T slotted hole Mounting bracket, at device: Screw type, Sliding block Type of mounting device: Rigid Material: Steel |

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Accessories

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Mounting technology - Swivel mounts

| | Part no. | Designation | Article | Description |
|-----|----------|-------------|----------------------|---|
| ęł. | 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 |

Configuration devices

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

Services

| | Part no. | Designation | Article | Description |
|---------|----------|-------------|------------------|---|
| с. С | S981001 | CS10-S-110 | Start-up support | Details: Performed at location of customer's choosing, duration: max. 10 hours. Conditions: Devices and connection cables are already mounted, price not including travel costs and, if applicable, accommodation expenses. 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. Conditions: Price not including travel costs and, if applicable, accommodation expenses. 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 website in the Download tab of the article detailed page.