# Leuze

# **Technical data sheet Light curtain transmitter** Part no.: 50133772 CML730i-T05-800.A-PS-M12



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We reserve the right to make technical changes eng • 2020-12-26

# **Technical data**

#### Basic data

Plug outlet

|                                    |  | Evention          |
|------------------------------------|--|-------------------|
| Series                             | 730  | Function          |
| Operating principle                | Throughbeam principle  | Type of conne     |
| Device type                        | Transmitter  | Thread size       |
| Contains                           | 2x BT-NC sliding block   | Туре              |
| Application                        | Detection of transparent films   | Material          |
|                                    | Detection of transparent objects   | No. of pins       |
|                                    | Object detection in film tube  | Encoding          |
|                                    | Object measurement   | Mechanical dat    |
|                                    | Radiation of semi-transparent media  |                   |
|                                    |  | Design            |
| Optical data                       |  | Dimension (W x H  |
| Operating range                    | Guaranteed operating range   | Housing material  |
| Operating range                    | 0.1 4.5 m  | Metal housing     |
| Operating range, transparent media | 0.1 1.75 m   | Lens cover mater  |
| Operating range limit              | Typical operating range  | Net weight        |
| Operating range limit              | 0.1 6 m  | Housing color     |
| Measurement field length           | 800 mm   | Type of fastening |
| Number of beams                    | 160 Piece(s)   |                   |
| Beam spacing                       | 5 mm   | Operation and     |
| Light source                       | LED, Infrared  |                   |
| LED light wavelength               | 940 nm   | Type of display   |
| Measurement data                   |  | Number of LEDs    |
| Minimum object diameter            | 10 mm  | Environmental     |
|                                    |  | Ambient tempera   |
| Electrical data                    |  | Ambient tempera   |
| Protective circuit                 | Polarity reversal protection   | Certifications    |
|                                    | Short circuit protected  |                   |
|                                    | Transient protection   | Degree of protect |
|                                    |  | Protection class  |
| Performance data                   |  | Certifications    |
| Supply voltage U <sub>B</sub>      | 18 30 V, DC  | Standards applie  |
| Residual ripple                    | 0 15 %, From U <sub>B</sub>  | Cleasification    |
| Open-circuit current               | 0 215 mA, The specified values refer<br>to the entire package consisting of trans- | Classification    |
|                                    | mitter and receiver.   | Customs tariff nu |
|                                    |  | eCl@ss 5.1.4      |
| Timing                             |  | eCl@ss 8.0        |
| Readiness delay                    | 450 ms   | eCl@ss 9.0        |
| Cycle time                         | 1.8 ms   | eCl@ss 10.0       |
|                                    |  | eCl@ss 11.0       |
| Connection                         |  | ETIM 5.0          |
| Number of connections              | 1 Piece(s)   | ETIM 6.0          |
| Number of connections              | 1 Piece(s)   | ETIM 7.0          |

Axial

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|-------|--|
|-------|--|

| Connection 1       |                        |
|--------------------|------------------------|
| Function           | Connection to receiver |
| Type of connection | Connector              |
| Thread size        | M12                    |
| Туре               | Male                   |
| Material           | Metal                  |
| No. of pins        | 5 -pin                 |
| Encoding           | A-coded                |
| lochanical data    |                        |

#### ata

| Design                | Cubic                        |
|-----------------------|------------------------------|
| Dimension (W x H x L) | 29 mm x 35.4 mm x 875 mm     |
| Housing material      | Metal                        |
| Metal housing         | Aluminum                     |
| Lens cover material   | Plastic                      |
| Net weight            | 950 g                        |
| Housing color         | Silver                       |
| Type of fastening     | Groove mounting              |
|                       | Via optional mounting device |
|                       |                              |

#### display

| Type of display | LED        |
|-----------------|------------|
| Number of LEDs  | 1 Piece(s) |

#### I data

| Ambient temperature, operation | -30 60 °C |
|--------------------------------|-----------|
| Ambient temperature, storage   | -40 70 °C |

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

| Customs tariff number | 90314990 |  |
|-----------------------|----------|--|
| eCl@ss 5.1.4          | 27270910 |  |
| eCl@ss 8.0            | 27270910 |  |
| eCl@ss 9.0            | 27270910 |  |
| eCl@ss 10.0           | 27270910 |  |
| eCl@ss 11.0           | 27270910 |  |
| ETIM 5.0              | EC002549 |  |
| ETIM 6.0              | EC002549 |  |
| ETIM 7.0              | EC002549 |  |

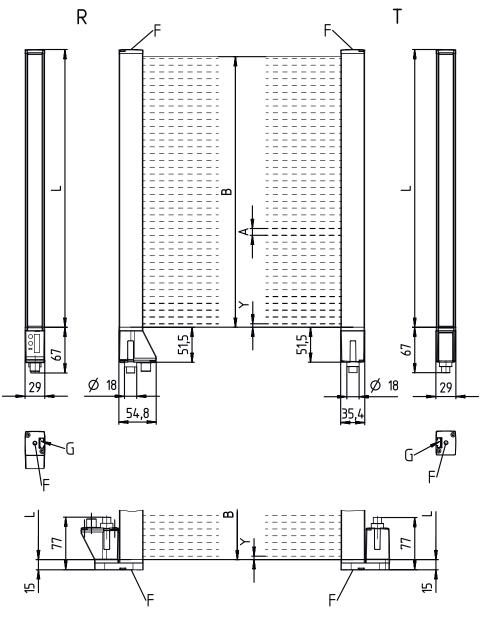
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# **Dimensioned drawings**

All dimensions in millimeters



Beam spacing 5 mm А В

- Measurement field length 800 mm
- F M6 thread
- G Fastening groove
- Profile length 808 mm L Т
- Transmitter
- R Receiver
- 2.5 mm Υ





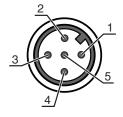
# **Electrical connection**

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### **Connection 1**

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

| <br>Part no. | Designation                     | Article                | Description  |
|--------------|---------------------------------|------------------------|--|
| 50133771     | CML730i-R05-800.A/<br>CV-PS-M12 | Light curtain receiver | Operating range: 0.1 4.5 m<br>Analog outputs: 1 Piece(s), Freely configurable<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           720i: 720i series           730i: 730i series      |
| Y    | Device type<br>T: transmitter<br>R: receiver                        |
| 22   | 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            |
| В    | Equipment<br>A: connector outlet, axial<br>R: rear connector outlet |

# Part number code



| ccc  | Interface<br>L: IO-Link<br>/CN: CANopen<br>/PB: PROFIBUS<br>/PN: PROFINET |  |  |  |
|--|---|--|--|--|
|  | /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 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-<br>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 |

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# Mounting technology - Mounting brackets

| <br>Part no. | Designation    | Article             | Description   |
|--------------|----------------|---------------------|---|
| <br>50142900 | BT 700M.5-2SET | Mounting device set | 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   |
|-----|----------|-------------|----------------------|---|
| ęł. | 429046   | BT-2R1      | Mounting bracket set | Fastening, at system: Through-hole mounting<br>Mounting bracket, at device: Clampable<br>Type of mounting device: Turning, 360°<br>Material: Metal, Plastic |

## Services

**Accessories** 

|         | Part no. | Designation | Article          | Description   |
|---------|----------|-------------|------------------|---|
| с.<br>С | S981001  | CS10-S-110  | Start-up support | Details: Performed at location of customer's choosing, duration: max. 10<br>hours.<br>Conditions: Devices and connection cables are already mounted, price not<br>including travel costs and, if applicable, accommodation expenses.<br>Restrictions: No mechanical (mounting) and electrical (wiring) work<br>performed, no changes (attachments, wiring, programming) to third-party<br>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<br>expenses.<br>Restrictions: Travel costs and accommodation expenses charged separately<br>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.