

# **Technical data sheet Light curtain transmitter**

Part no.: 50118579

CML730i-T05-320.A-M12



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## **Technical data**



#### Basic data

| Series              | 730                              |
|---------------------|----------------------------------|
| Operating principle | Throughbeam principle            |
| Device type         | Transmitter                      |
| Contains            | 2x BT-NC sliding block           |
| Application         | Detection of transparent objects |
|                     | Object measurement               |
|                     |                                  |
| Special version     |                                  |
|                     |                                  |

| Special version | Crossed-beam scanning  |
|-----------------|------------------------|
|                 | Diagonal-beam scanning |
|                 | Parallel-beam scanning |

#### **Optical data**

| Operating range                    | 0.1 4 m                    |
|------------------------------------|----------------------------|
| Operating range                    | Guaranteed operating range |
| Operating range, transparent media | 0.1 1.75 m                 |
| Operating range limit              | 0.1 6 m                    |
| Operating range limit              | Typical operating range    |
| Measurement field length           | 320 mm                     |
| Number of beams                    | 64 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

| Performance data              |  |
|-------------------------------|--|
| Supply voltage U <sub>B</sub> | 18 30 V, DC  |
| Residual ripple               | 0 15 %, From U <sub>B</sub>  |
| Open-circuit current          | 0 165 mA, The specified values refer to the entire package consisting of transmitter and receiver. |

#### Time behavior

| Readiness delay | 450 ms |
|-----------------|--------|
| Cycle time      | 1 ms   |

#### Connection

| Number of connections | 1 Piece(s) |  |
|-----------------------|------------|--|
| Plug outlet           | Axial      |  |
| Composition 4         |            |  |

#### 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                |

#### Mechanical data

| Dimension (W x H x L) 29 mm x 35.4 mm x 395 mm  Housing material Metal  Material Aluminum | Design                | Cubic                        |
|---|-----------------------|------------------------------|
| Ţ   | Dimension (W x H x L) | 29 mm x 35.4 mm x 395 mm     |
| Motel berging   | Housing material      | Metal                        |
| Metal nousing Aluminum  | Metal housing         | Aluminum                     |
| Lens cover material Plastic   | Lens cover material   | Plastic                      |
| Net weight 500 g  | Net weight            | 500 g                        |
| Housing color Silver  | Housing color         | Silver                       |
| Type of fastening Groove mounting   | Type of fastening     | Groove mounting              |
| Via optional mounting device  |                       | 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 UL 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 |
| ECLASS 14.0           | 27270910 |
| ETIM 5.0              | EC002549 |
| ETIM 6.0              | EC002549 |
| ETIM 7.0              | EC002549 |
| ETIM 8.0              | EC002549 |
| ETIM 9.0              | EC002549 |
|                       |          |

## **Dimensioned drawings**



All dimensions in millimeters



- Beam spacing 5 mm
- В Measurement field length 320 mm
- M6 thread
- Fastening groove
- Profile length 328 mm
- Transmitter
- Receiver
- 2.5 mm



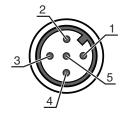
## **Electrical connection**



#### **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

| Part no. | Designation                  | Article                | Description   |
|----------|------------------------------|------------------------|---|
| 50118658 | CML730i-R05-320.A/<br>CN-M12 | Light curtain receiver | Operating range: 0.1 4.5 m<br>Interface: CANopen<br>Connection: Connector, M12, Axial, 8 -pin                     |
| 50118821 | CML730i-R05-320.A/<br>CV-M12 | Light curtain receiver | Operating range: 0.1 4.5 m Analog outputs: 2 Piece(s), Voltage, Current Connection: Connector, M12, Axial, 8 -pin |
| 50123273 | CML730i-R05-320.A/<br>D3-M12 | Light curtain receiver | Operating range: 0.1 4.5 m<br>Interface: RS 485 Modbus<br>Connection: Connector, M12, Axial, 8 -pin               |
| 50118740 | CML730i-R05-320.A/<br>L-M12  | Light curtain receiver | Operating range: 0.1 4.5 m<br>Interface: IO-Link<br>Connection: Connector, M12, Axial, 8 -pin                     |

### Suitable receivers



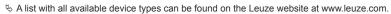
| Part no. | Designation                  | Article                | Description   |
|----------|------------------------------|------------------------|---|
| 50123124 | CML730i-R05-320.A/<br>PB-M12 | Light curtain receiver | Operating range: 0.1 4.5 m<br>Interface: PROFIBUS DP<br>Connection: Connector, M12, Axial, 8 -pin |
| 50131734 | CML730i-R05-320.A/<br>PN-M12 | Light curtain receiver | Operating range: 0.1 4.5 m<br>Interface: PROFINET<br>Connection: Connector, M12, Axial, 8 -pin    |

### Part number code

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

| CML  | Operating principle Measuring light curtain   |  |  |  |  |  |
|------|---|--|--|--|--|--|
| 7XXi | Series           720i: 720i series           730i: 730i series  |  |  |  |  |  |
| Υ    | 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: Axial connector outlet 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   |  |  |  |  |  |
|      |   |  |  |  |  |  |

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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).

\$\text{\text{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   |
|------------|----------|---------------------------------|-----------------------|---|
| <b>(1)</b> | 50129781 | KDS DN-M12-5A-<br>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 |

## Mounting technology - Mounting brackets

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

## Configuration devices

|     | Part no. | Designation                  | Article         | Description  |
|-----|----------|------------------------------|-----------------|--|
| 165 | 50121098 | SET MD12-US2-IL1.1<br>+ Zub. | Diagnostics set | Interface: USB Connections: 2 Piece(s) Degree of protection: IP 20 |

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## **Accessories**



## 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.  Conditions: Devices and connection cables are already mounted, price not including travel costs and, if applicable, accommodation expenses. |
| 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.   |

#### Note



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

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