Technical data sheet Light curtain transmitter Part no.: 50118920 CML730i-T05-720.R-M12





Leuze electronic GmbH + Co. KG

We reserve the right to make technical changes

Technical data

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Basic data

| Series | 730 |
|---------------------|---------------------------------------|
| Operating principle | Throughbeam principle |
| Device type | Transmitter |
| Contains | Accessories for the use of the BT-2R1 |
| Application | Detection of transparent objects |
| | Object measurement |

Crossed-beam scanning Diagonal-beam scanning Parallel-beam scanning

Special version

Special version

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 | 720 mm |
| Number of beams | 144 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
 Supply voltage U_B

 Residual ripple
 0... 15 %, From U_B

 Open-circuit current
 0... 215 mA, The specified values refer to the entire package consisting of transmitter and receiver.

Time behavior

| Readiness delay | 450 ms |
|-----------------|---------|
| Cycle time | 1.64 ms |

Connection

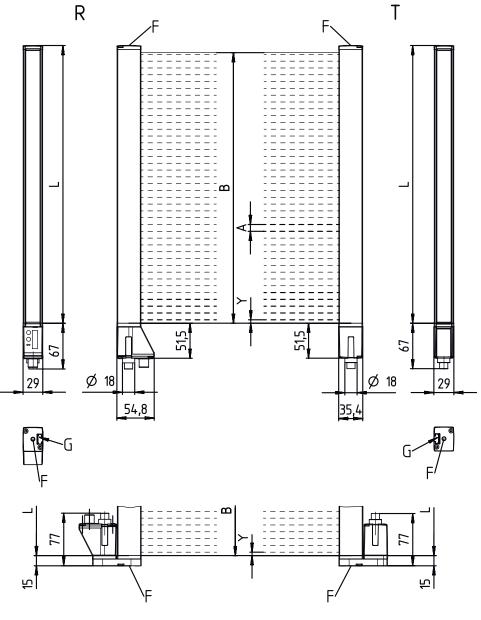
| Number of connections | | 1 Piece(s) |
|-----------------------|------------|------------------------|
| Plug outlet | | Rear side |
| Connection 1 | | |
| Functio | | Connection to receiver |
| Type of | connection | Connector |
| Thread | size | M12 |
| Туре | | Male |
| Materia | I | Metal |
| No. of p | oins | 5 -pin |
| Encodi | ng | A-coded |

Mechanical data

| Design | Cubic |
|--------------------------------|------------------------------|
| Dimension (W x H x L) | 29 mm x 35.4 mm x 743 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 |
| 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 |
| Approvals | 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 |
| ECLASS 15.0 | 27270910 |
| ETIM 5.0 | EC002549 |
| ETIM 6.0 | EC002549 |
| ETIM 7.0 | EC002549 |
| ETIM 8.0 | EC002549 |
| ETIM 9.0 | EC002549 |
| ETIM 10.0 | EC002549 |
| | |

Dimensioned drawings

All dimensions in millimeters



Beam spacing 5 mm А В

- Measurement field length 720 mm
- F M6 thread
- G Fastening groove
- Profile length 728 mm L Т
- Transmitter
- R Receiver
- 2.5 mm Υ





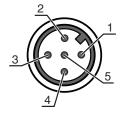
Electrical connection

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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

| Suitable le | Part no. | Designation | Article | Description |
|-------------|----------|------------------------------|------------------------|---|
| | 50119001 | CML730i-R05-720.R/ CN-M12 | Light curtain receiver | Operating range: 0.1 4.5 m Interface: CANopen Connection: Connector, M12, Rear side, 8 -pin |
| | 50119218 | CML730i-R05-720.R/ CV-M12 | Light curtain receiver | Operating range: 0.1 4.5 m Analog outputs: 2 Piece(s), Voltage, Current Connection: Connector, M12, Rear side, 8 -pin |
| | 50123361 | CML730i-R05-720.R/ D3-M12 | Light curtain receiver | Operating range: 0.1 4.5 m Interface: RS 485 Modbus Connection: Connector, M12, Rear side, 8 -pin |
| | 50119138 | CML730i-R05-720.R/ L-M12 | Light curtain receiver | Operating range: 0.1 4.5 m Interface: IO-Link Connection: Connector, M12, Rear side, 8 -pin |

Suitable receivers

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|-------|

| Part no. | Designation | Article | Description |
|--------------|------------------------------|------------------------|---|
| 50123136 | CML730i-R05-720.R/ PB-M12 | Light curtain receiver | Operating range: 0.1 4.5 m Interface: PROFIBUS DP Connection: Connector, M12, Rear side, 8 -pin |
| 50131745 | CML730i-R05-720.R/ PN-M12 | Light curtain receiver | Operating range: 0.1 4.5 m Interface: PROFINET Connection: Connector, M12, Rear side, 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 |
| Y | Device type T: transmitter R: receiver |
| 22 | 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 |
| Note | |
| | |
| A list wi | th 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.

 ${\ensuremath{\,\textcircled{\tiny \ensuremath{\,\Downarrow}}}}$ 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: | |
|---|--|-----------------------|
| 9 | ^t> For UL applications, use is only permitted in Class 2 circuits in accordance with the NEC (National Electric Code). ^t> These proximity switches shall be used with UL Listed Cable assemblies rated 30V, 0.5A min, in the field installation, or equivalent of the second seco | nt (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: 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 |
| R. C. | 429393 | BT-2HF | Mounting bracket set | Fastening, at system: Through-hole mounting Mounting bracket, at device: Clampable Type of mounting device: Turning, 360° Material: Metal, Plastic |

Mounting technology - Swivel mounts

| | Part no. | Designation | Article | Description |
|-----|----------|-------------|----------------------|---|
| ęł. | 429029 | BT-2RG | Mounting bracket set | Fastening, at system: Through-hole mounting Mounting bracket, at device: Clampable Type of mounting device: Turning, 360° Material: Metal, Plastic |

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Accessories

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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 |
|----|----------|-------------|------------------|--|
| ц. | 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 | No A list with all available accessories can be found on the Leuze website in the Download tab of the article detailed page. |