

Technical data sheet Light curtain transmitter

Part no.: 50118967

CML730i-T20-310.R-M12



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Technical data



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

Parallel-beam scanning

Optical data

| Operating range | 0.3 9.5 m |
|------------------------------------|----------------------------|
| Operating range | Guaranteed operating range |
| Operating range, transparent media | 0.3 3.5 m |
| Operating range limit | 0.2 12 m |
| Operating range limit | Typical operating range |
| Measurement field length | 310 mm |
| Number of beams | 16 Piece(s) |
| Beam spacing | 20 mm |
| Light source | LED, Infrared |
| Wavelength | 940 nm |
| | |

| 30 mm |
|----------------------------------------------------------------------------------------------------|
| |
| Polarity reversal protection |
| Short circuit protected |
| Transient protection |
| |
| 18 30 V, DC |
| 0 15 %, From U _B |
| 0 135 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 | Rear side | |
| Connection 1 | | |

| 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

| 3 mm |
|-----------|
| 10 111111 |
| |
| |
| |
| |
| |
| |
| 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 |

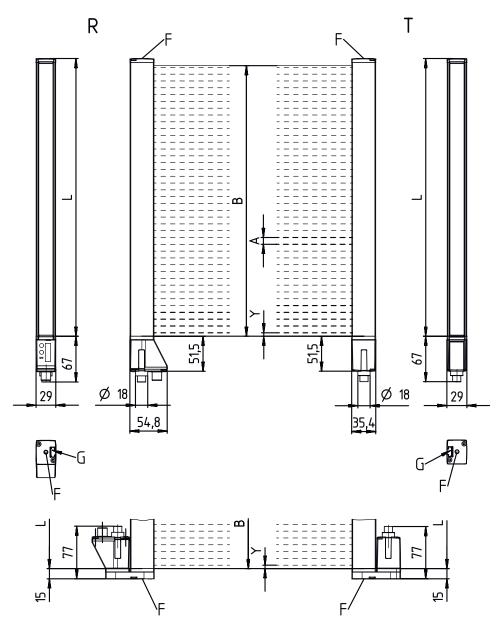
Classification

| 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 |
| | |

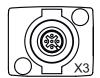
Dimensioned drawings



All dimensions in millimeters



- Beam spacing 20 mm
- В Measurement field length 310 mm
- M6 thread
- Fastening groove
- Profile length 328 mm
- Transmitter
- Receiver
- 5 mm



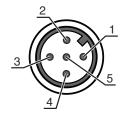
Electrical connection



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 |
|----------|------------------------------|------------------------|-----------------------------------------------------------------------------------------------------------------------|
| 50119105 | CML730i-R20-310.R/ CN-M12 | Light curtain receiver | Operating range: 0.3 9.5 m Interface: CANopen Connection: Connector, M12, Rear side, 8 -pin |
| 50119266 | CML730i-R20-310.R/ CV-M12 | Light curtain receiver | Operating range: 0.3 9.5 m Analog outputs: 2 Piece(s), Voltage, Current Connection: Connector, M12, Rear side, 8 -pin |
| 50123409 | CML730i-R20-310.R/ D3-M12 | Light curtain receiver | Operating range: 0.3 9.5 m Interface: RS 485 Modbus Connection: Connector, M12, Rear side, 8 -pin |
| 50119185 | CML730i-R20-310.R/ L-M12 | Light curtain receiver | Operating range: 0.3 9.5 m Interface: IO-Link Connection: Connector, M12, Rear side, 8 -pin |

Suitable receivers



| | Part no. | Designation | Article | Description |
|---|----------|------------------------------|------------------------|-------------------------------------------------------------------------------------------------------|
| | 50123218 | CML730i-R20-310.R/ PB-M12 | Light curtain receiver | Operating range: 0.3 9.5 m Interface: PROFIBUS DP Connection: Connector, M12, Rear side, 8 -pin |
| 4 | 50131815 | CML730i-R20-310.R/ PN-M12 | Light curtain receiver | Operating range: 0.3 9.5 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 | | | | | |
| Υ | Device type T: transmitter R: receiver | | | | | |
| 7 Z | 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



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: 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 |

Mounting technology - Swivel mounts

Leuze electronic GmbH + Co. KG

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

Accessories



Configuration devices

| | Part no. | Designation | Article | Description |
|-----|----------|------------------------------|-----------------|--------------------------------------------------------------------|
| 165 | 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 |
|-------|----------|-------------|------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ال ال | 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.