

## Technical data sheet

### Light curtain transmitter

Part no.: 50118990  
CML730i-T40-2210.R-M12



For illustration purposes only

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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
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### Optical data

Operating range	0.3 ... 9.5 m
Operating range, transparent media	0.3 ... 3.5 m
Operating range limit	0.2 ... 12 m
Measurement field length	2,210 mm
Number of beams	56 Piece(s)
Beam spacing	40 mm
Light source	LED, Infrared
Wavelength	940 nm

### Measurement data

Minimum object diameter	50 mm
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### Electrical data

Protective circuit	Polarity reversal protection Short circuit protected Transient protection
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### Performance data

Supply voltage $U_B$	18 ... 30 V, DC
Residual ripple	0 ... 15 %, From $U_B$
Open-circuit current	0 ... 435 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

Function	Connection to receiver
Type of connection	Connector
Thread size	M12
Type	Male
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 2,263 mm
Housing material	Metal
Metal housing	Aluminum
Lens cover material	Plastic
Net weight	2,300 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

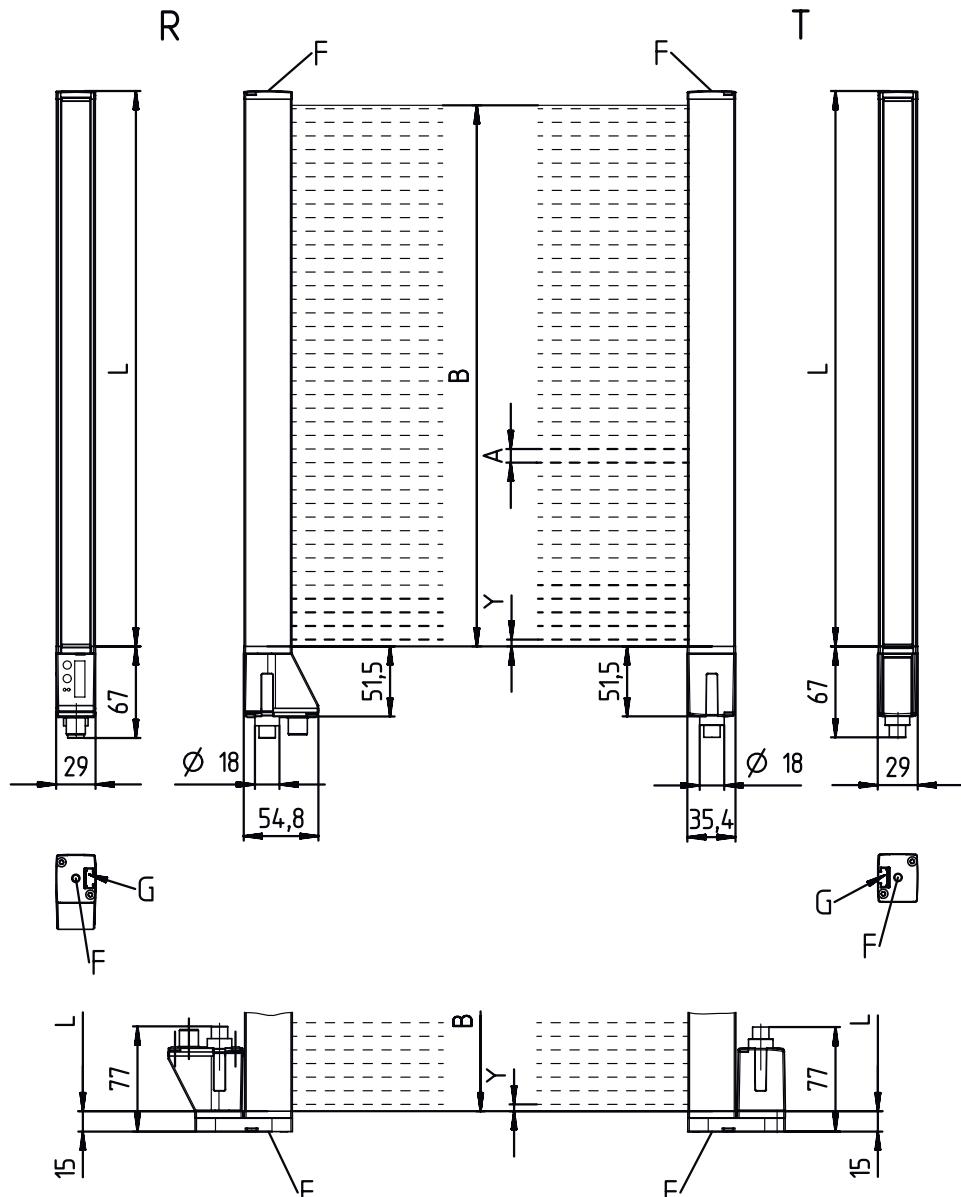
Degree of protection	IP 65
Protection class	III
Approvals	c UL US
Standards applied	IEC 60947-5-2

### Classification

Customs tariff number	90314990
ECCLASS 5.1.4	27270910
ECCLASS 8.0	27270910
ECCLASS 9.0	27270910
ECCLASS 10.0	27270910
ECCLASS 11.0	27270910
ECCLASS 12.0	27270910
ECCLASS 13.0	27270910
ECCLASS 14.0	27270910
ECCLASS 15.0	27270910
ECCLASS 16.0	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

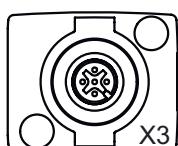
## Dimensioned drawings

All dimensions in millimeters



A Beam spacing 40 mm  
 B Measurement field length 2210 mm  
 F M6 thread  
 G Fastening groove

L Profile length 2248 mm  
 T Transmitter  
 R Receiver  
 Y 5 mm

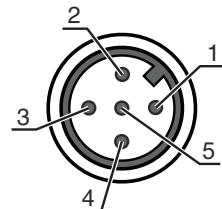


## Electrical connection

### Connection 1

Function	Connection to receiver
Type of connection	Connector
Thread size	M12
Type	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	Operating range Operating range limit	Description
 50119128	CML730i-R40-2210.R/CN-M12	0.3 ... 9.5 m 0.2 ... 12 m	Interface: CANopen Connection: Connector, M12, Rear side, 8 -pin
	50119289	0.3 ... 9.5 m 0.2 ... 12 m	Analog outputs: 2 Piece(s), Voltage, Current Connection: Connector, M12, Rear side, 8 -pin
	50123436	0.3 ... 9.5 m 0.2 ... 12 m	Interface: RS 485 Modbus Connection: Connector, M12, Rear side, 8 -pin
	50119208	0.3 ... 9.5 m 0.2 ... 12 m	Interface: IO-Link Connection: Connector, M12, Rear side, 8 -pin

## Suitable receivers

Part no.	Designation	Operating range Operating range limit	Description
	50123226 CML730i-R40-2210.R/PB-M12	0.3 ... 9.5 m 0.2 ... 12 m	Interface: PROFIBUS DP Connection: Connector, M12, Rear side, 8 -pin
	50131831 CML730i-R40-2210.R/PN-M12	0.3 ... 9.5 m 0.2 ... 12 m	Interface: PROFINET Connection: Connector, M12, Rear side, 8 -pin

## Part number code

Part designation: **CML7XXi-YZZ-AAAA.BCCCCDD-EEEFFF**

<b>CML</b>	<b>Operating principle</b> Measuring light curtain
<b>7XXi</b>	<b>Series</b> 720i: 720i series 730i: 730i series
<b>Y</b>	<b>Device type</b> T: transmitter R: receiver
<b>ZZ</b>	<b>Beam spacing</b> 05: 5 mm 10: 10 mm 20: 20 mm 40: 40 mm
<b>AAAA</b>	Measurement field length [mm], dependent on beam spacing
<b>B</b>	<b>Equipment</b> A: Axial connector outlet R: Rear connector outlet
<b>CCC</b>	<b>Interface</b> L: IO-Link /CN: CANopen /PB: PROFIBUS /PN: PROFINET /CV: Analog current and voltage output /D3: RS 485 Modbus
<b>DDD</b>	<b>Special equipment</b> -PS: Power Setting
<b>EEE</b>	<b>Electrical connection</b> M12: M12 connector
<b>FFF</b>	<b>-EX: Explosion protection</b>

### Note

↳ A list with all available device types can be found on the Leuze website at [www.leuze.com](http://www.leuze.com).

## Notes

	<b>Observe intended use!</b>
	<ul style="list-style-type: none"> <li>⚠ This product is not a safety sensor and is not intended as personnel protection.</li> <li>⚠ The product may only be put into operation by competent persons.</li> <li>⚠ Only use the product in accordance with its intended use.</li> </ul>

	<b>For UL applications:</b>
	<ul style="list-style-type: none"> <li>⚠ For UL applications, use is only permitted in Class 2 circuits in accordance with the NEC (National Electric Code).</li> <li>⚠ 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)</li> </ul>

## Accessories

### Connection technology - Interconnection cables

Part no.	Designation	Article	Description
	50129781	KDS DN-M12-5A-M12-5A-P3-050	<p>Interconnection cable</p> <p>Application: Oil and lubricant resistant 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</p>

### Mounting technology - Mounting brackets

Part no.	Designation	Article	Description
	50142900	BT 700M.5-2SET	<p>Mounting device set</p> <p>Contains: 2x mounting brackets, 1 teach template, 4 M6 x 10 screws 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</p>

### Mounting technology - Swivel mounts

Part no.	Designation	Article	Description
	429029	BT-2RG	<p>Mounting bracket set</p> <p>Contains: 2x BT-R swivel mount, 2 cylinders for mounting on the light curtain Fastening, at system: Through-hole mounting Mounting bracket, at device: Clampable Type of mounting device: Turning, 360° Material: Metal, Plastic</p>

## Accessories

### Configuration devices

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

### 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.