## SMART SENSOR BUSINESS

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Part no.: 50119251 CML730i-R10-800.R/CV-M12 Light curtain receiver



Figure can vary

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## Part no.: 50119251 – CML730i-R10-800.R/CV-M12 – Light curtain receiver

#### **Technical data**

Basic data			
Series	730		
Operating principle	Throughbeam principle		
Device type	Receiver		
Contains	Accessories for the use of the BT-2R1		
Application	Detection of transparent objects Object measurement		
Optical data			
Operating range	Guaranteed operating range		
Operating range	0.3 9.5 m		
Operating range, transparent media	0.3 3.5 m		
Operating range limit	Typical operating range		
Operating range limit	0.2 12 m		
Measurement field length	800 mm		
Number of beams	80 Piece(s)		
Beam spacing	10 mm		
Measurement data			
Minimum object diameter	20 mm		
Electrical data			
Protective circuit	Polarity reversal protection Short circuit protected Transient protection		
Performance data			
Supply voltage UB	18 30 V , DC		
Supply voltage U <sub>B</sub> Residual ripple	18 30 V , DC 0 15 % , From U <sub>B</sub>		
Residual ripple	0 15 % , From U <sub>B</sub> 0 215 mA , The specified values refer to the entire package con-		
Residual ripple Open-circuit current	0 15 % , From U <sub>B</sub> 0 215 mA , The specified values refer to the entire package con-		
Residual ripple Open-circuit current Outputs	<ul> <li>0 15 % , From U<sub>B</sub></li> <li>0 215 mA , The specified values refer to the entire package consisting of transmitter and receiver.</li> </ul>		
Residual ripple Open-circuit current Outputs Number of analog outputs	<ul> <li>0 15 % , From U<sub>B</sub></li> <li>0 215 mA , The specified values refer to the entire package consisting of transmitter and receiver.</li> </ul>		
Residual ripple Open-circuit current Outputs Number of analog outputs Analog outputs	0 15 % , From U <sub>B</sub> 0 215 mA , The specified values refer to the entire package con- sisting of transmitter and receiver. 2 Piece(s)		
Residual ripple Open-circuit current Outputs Number of analog outputs Analog outputs Current	0 15 % , From U <sub>B</sub> 0 215 mA , The specified values refer to the entire package con- sisting of transmitter and receiver. 2 Piece(s) 0 24 mA		
Residual ripple Open-circuit current Outputs Number of analog outputs Analog outputs Current Voltage	0 15 % , From U <sub>B</sub> 0 215 mA , The specified values refer to the entire package con- sisting of transmitter and receiver. 2 Piece(s) 0 24 mA		
Residual ripple Open-circuit current Outputs Number of analog outputs Analog outputs Current Voltage Analog output 1	0 15 % , From UB 0 215 mA , The specified values refer to the entire package con- sisting of transmitter and receiver. 2 Piece(s) 0 24 mA 0 11 V		

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Inputs/outputs selectable					
Output current, max.	100 mA				
Input resistance	6,000 Ω				
Number of inputs/outputs selectable	2 Piece(s)				
Туре	Inputs/outputs selectable				
Voltage type, outputs	DC				
Switching voltage, outputs	Typ. U <sub>B</sub> / 0 V				
Voltage type, inputs	DC				
Switching voltage, inputs	high: ≥6V low: ≤4V				
Input/output 1					
Activation/disable delay	1 ms				
ïming					
eadiness delay	450 ms				
ycle time	1 ms				
esponse time per beam	10 µs				
ervice interface					
уре	IO-Link				
IO-Link					
Function	Configuration via software Service				
connection umber of connections	2 Piece(s)				
lug outlet	Rear side				
Connection 1					
Function	Configuration interface				
	Signal IN Signal OUT Voltage supply				
Type of connection	Connector				
Thread size	M12				
Туре	Male				
Material	Metal				
No. of pins	8 -pin				
Encoding	A-coded				
Connection 2					
Function	Connection to transmitter				
Type of connection	Connector				
Thread size	M12				
Туре	Female				
Material	Metal				
No. of pins	5 -pin				
Encoding	A-coded				
lechanical data					
<b>lechanical data</b> esign	Cubic				
	Cubic 29 mm x 35.4 mm x 823 mm				

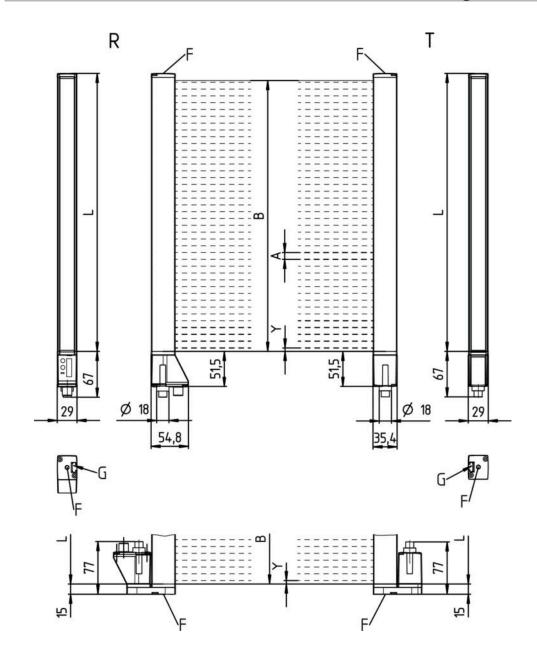
## Part no.: 50119251 – CML730i-R10-800.R/CV-M12 – Light curtain receiver

Lens cover material	Plastic
Net weight	1,050 g
Housing color	Silver
Type of fastening	Groove mounting Via optional mounting device
Operation and display	
Type of display	LED OLED display
Number of LEDs	2 Piece(s)
Type of configuration	Software Teach-in
Operational controls	Membrane keyboard
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 CSA US
Standards applied	IEC 60947-5-2
Classification	
Customs tariff number	90314990
eCl@ss 8.0	27270910
eCl@ss 9.0	27270910
ETIM 5.0	EC002549
ETIM 6.0	EC002549

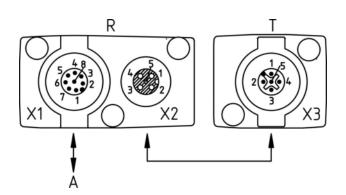
### **Dimensioned drawings**

All dimensions in millimeters

Part no.: 50119251 – CML730i-R10-800.R/CV-M12 – Light curtain receiver



- A Beam spacing 10 mm B Measurement field length 800 mm
- F M6 thread
- G Fastening groove L Profile length 808 mm
- T Transmitter
- R Receiver
- Y 5 mm



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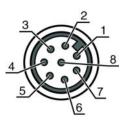
### Part no.: 50119251 – CML730i-R10-800.R/CV-M12 – Light curtain receiver

A PWR / SW IN/OUT

### **Electrical connection**

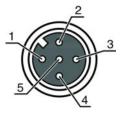
Connection 1		
Function	Configuration interface Signal IN Signal OUT Voltage supply	
Type of connection	Connector	
Thread size	M12	
Туре	Male	
Material	Metal	
No. of pins	8 -pin	
Encoding	A-coded	

Pin	Pin assignment
1	V+
2	I/O 1
3	GND
4	IO-Link
5	I/O 2
6	OUT V
7	OUT mA
8	AGND



Connection 2	
Function	Connection to transmitter
Type of connection	Connector
Thread size	M12
Туре	Female
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-



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#### **Operation and display**

#### LEDs

LED	Display	Meaning
1	Green, continuous light	Operational readiness
	Green, flashing	Teach / error
		Measurement frequency display
2	Yellow, continuous light	Light path free, with function reserve
	Yellow, flashing	No function reserve
	Off	Object detected

#### Suitable transmitters

Part no.	Designation	Article	Description
 50118953	CML730i- T10-800.R-M12	Light curtain transmitter	Operating range: 0.3 9.5 m Connection: Connector, M12, Rear side, 5 -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			
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: connector outlet, axial 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 with all available device types can be found on the Leuze electronic website at www.leuze.com.

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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).

 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 - Connection cables

Part no.	Designation	Article	Description
50135128	KD S-M12-8A- P1-050		Connection 1: Connector, M12, Axial, Female, A-coded, 8 -pin Connection 2: Open end Shielded: Yes Cable length: 5,000 mm Sheathing material: PUR

### Connection technology - Interconnection cables

Part no.	Designation	Article	Description
	KDS DN-M12-5A- M12-5A-P3-050	cable	Suitable for interface: IO-Link, 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	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

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## Mounting technology - Swivel mounts

	Part no.	Designation	Article	Description
ęł.	429046	BT-2R1	Mounting bracket set	Contains: 2x BT-R swivel mount, 1 cylinder 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

Part no.	Designation	Article	Description
50121098	SET MD12-US2-IL1.1 + Zub.		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. Restrictions: No mechanical (mounting) and electrical (wiring) work performed, no changes (attachments, wiring, programming) to third-party components in the nearby environment.
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. Restrictions: Travel costs and accommodation expenses charged separately and according to expenditure.

#### Note

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