## SMART SENSOR BUSINESS

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Part no.: 50119207 CML730i-R40-1890.R/L-M12 Light curtain receiver



Figure can vary

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## Part no.: 50119207 – CML730i-R40-1890.R/L-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	1,890 mm				
Number of beams	47 Piece(s)				
Beam spacing	40 mm				
Measurement data					
Minimum object diameter	50 mm				
Electrical data					
Protective circuit	Polarity reversal protection Short circuit protected Transient protection				
Performance data					
Supply voltage U <sub>B</sub>	18 30 V , DC				
Residual ripple	0 15 % , From U <sub>B</sub>				
Open-circuit current	0 350 mA , The specified values refer to the entire package con- sisting of transmitter and receiver.				
Inputs/outputs selectable					
Output current, max.	100 mA				
Input resistance	6,000 Ω				
Number of inputs/outputs selectable	4 Piece(s)				
Туре	Inputs/outputs selectable				
Voltage type, outputs	DC				
Switching voltage, outputs					
Switching voltage, outputs	Typ. U <sub>B</sub> / 0 V				
Voltage type, inputs	Typ. U <sub>B</sub> / 0 V DC				
Voltage type, inputs Switching voltage, inputs	Typ. U <sub>B</sub> / 0 V				
Voltage type, inputs Switching voltage, inputs Input/output 1	Typ. U <sub>B</sub> / 0 V DC high: ≥6V				
Voltage type, inputs Switching voltage, inputs	Typ. U <sub>B</sub> / 0 V DC high: ≥6V				
Voltage type, inputs Switching voltage, inputs Input/output 1 Activation/disable delay	Typ. U <sub>B</sub> / 0 V DC high: ≥6V low: ≤4V				
Voltage type, inputs Switching voltage, inputs Input/output 1 Activation/disable delay Timing	Typ. U <sub>B</sub> / 0 V DC high: ≥6V low: ≤4V				
Voltage type, inputs Switching voltage, inputs Input/output 1 Activation/disable delay	Typ. U <sub>B</sub> / 0 V DC high: ≥6V low: ≤4V 0 1 ms				

Interface

### Part no.: 50119207 – CML730i-R40-1890.R/L-M12 – Light curtain receiver

IO-Link	
COM2	
V1.0.1 V1.1	
COM2 = 2.3 ms	
IO-Link	
Configuration via software Service	
2 Piece(s)	
Rear side	
Configuration interface Signal IN Signal OUT Voltage supply	
Connector	
M12	
Male	
Metal	
8 -pin	
A-coded	
Connection to transmitter	
Connector	
M12	
Female	
Metal	
5 -pin	
A-coded	
Cubic	
29 mm x 35.4 mm x 1,943 mm	
Metal , Aluminum	
Plastic	
2,100 g	
Silver	
Groove mounting Via optional mounting device	
LED OLED display	
2 Piece(s)	

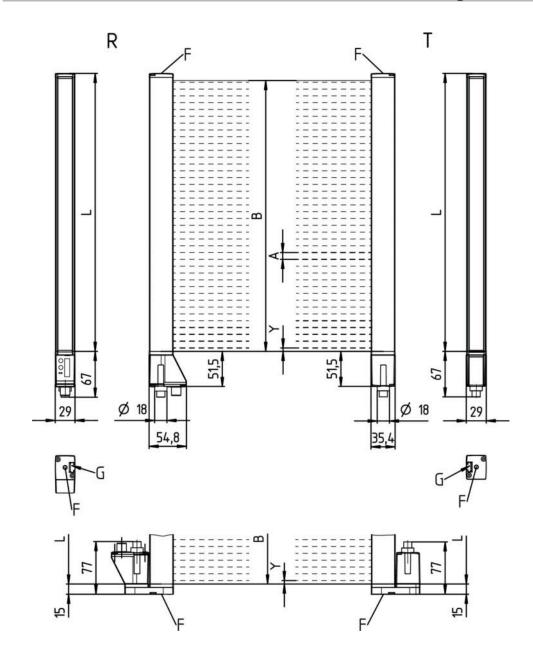
## Part no.: 50119207 – CML730i-R40-1890.R/L-M12 – Light curtain receiver

Membrane keyboard		
-30 60 °C		
-40 70 °C		
IP 65		
III		
c CSA US		
IEC 60947-5-2		
90314990		
27270910		
27270910		
EC002549		
EC002549		

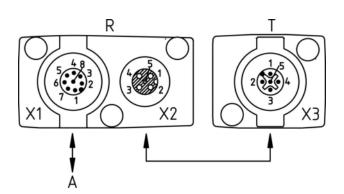
#### **Dimensioned drawings**

All dimensions in millimeters

Part no.: 50119207 – CML730i-R40-1890.R/L-M12 – Light curtain receiver



- A Beam spacing 40 mm B Measurement field length 1890 mm
- F M6 thread
- G Fastening groove
- L Profile length 1928 mm
- T Transmitter
- R Receiver
- Y 5 mm



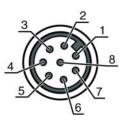
### Part no.: 50119207 – CML730i-R40-1890.R/L-M12 – Light curtain receiver

A PWR / SW IN/OUT

### **Electrical connection**

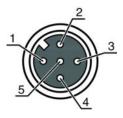
Connection 1		
Function	Configuration interface Signal IN Signal OUT Voltage supply	
Type of connection	Connector	
Thread size	M12	
Туре	Male	
Material	Metal	
No. of pins	8 -pin	
Encoding	A-coded	

Pin	Pin assignment
1	V+
2	101
3	GND
4	IO-Link
5	102
6	103
7	IO4
8	GND



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
50118989	CML730i- T40-1890.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
50129781	KDS DN-M12-5A- M12-5A-P3-050	Interconnection 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
RR.	429046	BT-2R1	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.