

# **Technical data sheet** Light curtain receiver Part no.: 50123214 CML730i-R40-610.A/PB-M12



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## **Technical data**

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### Rasic data

Basic data			
Series	730		
Operating principle	Throughbeam principle		
Device type	Receiver		
Contains	2x BT-NC sliding block		
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	610 mm		
Number of beams	15 Piece(s)		
Beam spacing	40 mm		
Boamopaomy			
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	0 165 mA, The specified values refer to the entire package consisting of trans- mitter and receiver.		
Inputs/outputs soloctable			
Inputs/outputs selectable Output current, max.	100 mA		
Input resistance	6,000 Ω		
Number of inputs/outputs selectable			
	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: ≤ 4 V		
Input/output 1			
Activation/disable delay	1 ms		
Time behavior			
Cycle time	1 ms		
Response time per beam	10 µs		
	· r -		
Interface			
Туре	PROFIBUS DP		

PROFIBUS DP Function	Process
Service interface	
Туре	IO-Link
IO-Link	
Function	Configuration via software
	Service
Connection	
Number of connections	2 Diago(a)
Plug outlet	2 Piece(s) Axial
Connection 1	
Function	Configuration interface
	Connection to transmitter
	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	DUCIN
Function	BUS IN
Time of commention	BUS OUT
Type of connection	Connector
Thread size	M12
Type Material	Female Metal
No. of pins	5 -pin
Encoding	B-coded
Encouning	D-coded
Mechanical data	
Design	Cubic
Dimension (W x H x L)	29 mm x 35.4 mm x 715 mm
Housing material	Metal
Metal housing	Aluminum
	Plastic
Net weight	850 g
Net weight Housing color	850 g Silver
Net weight Housing color	850 g Silver Groove mounting
Net weight Housing color	850 g Silver
Net weight Housing color Type of fastening	850 g Silver Groove mounting
Net weight Housing color Type of fastening Operation and display	850 g Silver Groove mounting
Net weight Housing color Type of fastening Operation and display	850 g Silver Groove mounting Via optional mounting device
Net weight Housing color Type of fastening Operation and display Type of display	850 g Silver Groove mounting Via optional mounting device
Net weight Housing color Type of fastening Operation and display Type of display Number of LEDs	850 g Silver Groove mounting Via optional mounting device
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Net weight Housing color Type of fastening Operation and display Type of display Number of LEDs Type of configuration	850 g Silver Groove mounting Via optional mounting device LED OLED display 2 Piece(s) Software
Net weight Housing color Type of fastening Operation and display Type of display Number of LEDs Type of configuration Operational controls	850 g Silver Groove mounting Via optional mounting device LED OLED display 2 Piece(s) Software Teach-in
Net weight Housing color Type of fastening Operation and display Type of display Number of LEDs Type of configuration Operational controls Environmental data	850 g Silver Groove mounting Via optional mounting device LED OLED display 2 Piece(s) Software Teach-in
Lens cover material Net weight Housing color Type of fastening Operation and display Type of display Number of LEDs Type of configuration Operational controls Environmental data Ambient temperature, operation Ambient temperature, storage	850 g Silver Groove mounting Via optional mounting device LED OLED display 2 Piece(s) Software Teach-in Membrane keyboard

## **Technical data**

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### Certifications

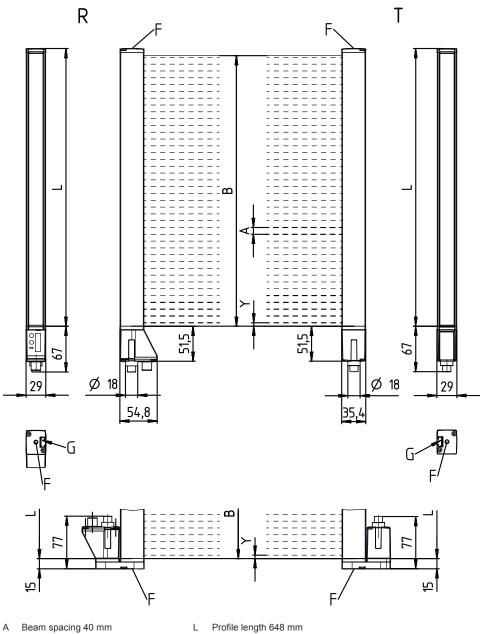
Degree of protection	IP 65
Protection class	III
Certifications	c UL US
Standards applied	IEC 60947-5-2

### 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



В Measurement field length 610 mm

M6 thread

Fastening groove

F

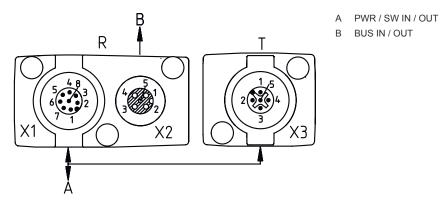
G

- Transmitter Т
  - Receiver
  - R
  - Υ 5 mm

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### **Dimensioned drawings**





## **Electrical connection**

**Connection 1** 

Function	Configuration interface
	Connection to transmitter
	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	RS 485 Tx+		
7	RS 485 Tx+		
8	FE/SHIELD		



### **Connection 2**

Function	BUS IN
	BUS OUT
Type of connection	Connector
Thread size	M12
Туре	Female
Material	Metal
No. of pins	5 -pin
Encoding	B-coded

## **Electrical connection**

# Pin Pin assignment 2 1 V+ 1 2 Tx 3 3 PB GND 4 Tx+ 5 FE/SHIELD



LED	Display	Meaning
1	Green, continuous light	Operational readiness
	Green, flashing	Teach / error
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
50118648	CML730i-T40-610.A- M12	Light curtain transmitter	Operating range: 0.3 9.5 m Connection: Connector, M12, Axial, 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
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



### Part number code



DDD	Special equipment -PS: Power Setting
EEE	Electrical connection M12: M12 connector
FFF	-EX: Explosion protection
	Note
A	∜ A list with all available device types can be found on the Leuze website at www.leuze.com.

### Notes

Observe intended use!
<ul> <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>



### 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
50132079	KD U-M12-5A-V1- 050	Connection cable	Connection 1: Connector, M12, Axial, Female, A-coded, 5 -pin Connector, LED: No Connection 2: Open end Shielded: No Cable length: 5.000 mm Sheathing material: PVC

### Connection technology - Y distribution cables

	Part no.	Designation	Article	Description
	50118183	K-Y1 M12A-5m- M12A-S-PUR	Interconnection cable	Connection 1: Connector, M12, Axial, Female, A-coded, 5 -pin Connection 2: Connector, M12, Axial, Male, A-coded, 5 -pin Connection 3: Connector, M12, Axial, Female, A-coded, 8 -pin Shielded: Yes Cable length fork 1: 5,000 mm Cable length fork 2: 150 mm Sheathing material: PUR

### Accessories

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# 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

### 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
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

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