

Technical data sheet Light curtain receiver Part no.: 50123230 CML730i-R40-610.R/PB-M12



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Technical data

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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		
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		
Measurement data			
Minimum object diameter	50 mm		
Electrical data			
Protective circuit	Polarity reversal protection		
	Short circuit protected		
	Transient protection		
	Transient protection		
Performance data			
Supply voltage U _B	18 30 V, DC		
Residual ripple	0 15 %, From U _B		
Open-circuit current	0 165 mA, The specified values refer to the entire package consisting of trans- mitter and receiver.		
Inputs/outputs selectable	100 1		
Output current, max.	100 mA		
Input resistance	6,000 Ω		
Number of inputs/outputs selectable			
Туре	Inputs/outputs selectable		
Voltage type, outputs	DC		
Switching voltage, outputs	Тур. U _в / 0 V		
Voltage type, inputs	DC		
	5		
Voltage type, inputs	DC		
Voltage type, inputs Switching voltage, inputs	DC high: ≥6V		
Voltage type, inputs Switching voltage, inputs Input/output 1	DC high: ≥6V Iow: ≤ 4 V		
Voltage type, inputs Switching voltage, inputs	DC high: ≥6V		
Voltage type, inputs Switching voltage, inputs Input/output 1 Activation/disable delay Time behavior	DC high: ≥6V Iow: ≤ 4 V 1 ms		
Voltage type, inputs Switching voltage, inputs Input/output 1 Activation/disable delay Time behavior Cycle time	DC high: ≥6V low: ≤ 4 V 1 ms		
Voltage type, inputs Switching voltage, inputs Input/output 1 Activation/disable delay Time behavior	DC high: ≥6V Iow: ≤ 4 V 1 ms		
Voltage type, inputs Switching voltage, inputs Input/output 1 Activation/disable delay Time behavior Cycle time	DC high: ≥6V low: ≤ 4 V 1 ms		

ervice interface		
ре	IO-Link	
IO-Link		
Function	Configuration via software	
	Service	
onnection		
mber of connections	2 Piece(s)	
ug outlet	Rear side	
•		
Connection 1 Function	Configuration interface	
runction	Configuration interface Connection to transmitter	
	Signal IN	
	Signal OUT	
Tuno of connection	Voltage supply	
Type of connection	Connector	
Thread size	M12	
Туре	Male	
Material	Metal	
No. of pins	8 -pin	
Encoding	A-coded	
Connection 0		
Connection 2 Function	BUS IN	
i unction	BUS IN BUS OUT	
Type of connection	Connector	
Type of connection Thread size	M12	
	Female	
Type		
Material	Metal	
No. of pins	5 -pin	
Encoding	B-coded	
echanical data		
esign	Cubic	
mension (W x H x L)	29 mm x 35.4 mm x 663 mm	
ousing material	Metal	
etal housing	Aluminum	
ens cover material	Plastic	
et weight	900 g	
ousing color	Silver	
vpe of fastening	Groove mounting	
	Via optional mounting device	
peration and display		
peration and dispidy		
pe of display	LED	
	OLED display	
umber of LEDs	2 Piece(s)	
pe of configuration	Software	
	Teach-in	
perational controls	Membrane keyboard	
nvironmental data		
mbient temperature, operation	-30 60 °C	
mbient temperature, storage	-40 70 °C	

Technical data

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Certifications

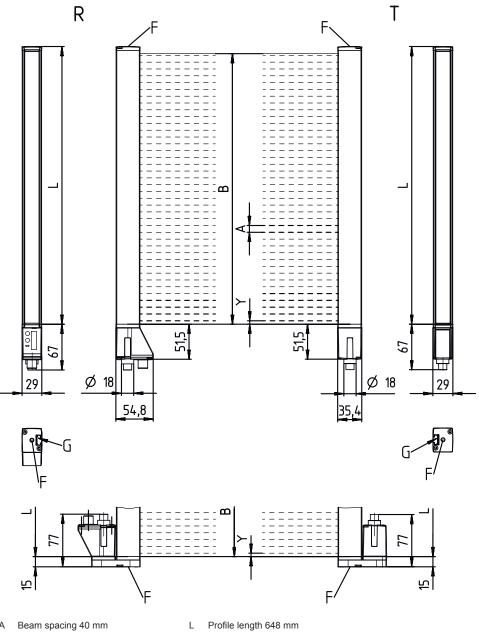
Degree of protection	IP 65
Protection class	III
Approvals	c UL US
Standards applied	IEC 60947-5-2

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
ECLASS 15.0	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



Beam spacing 40 mm А

Fastening groove

- В Measurement field length 610 mm
- F M6 thread

G

R Receiver

Т

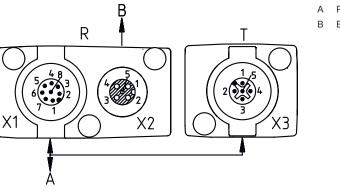
Transmitter

Υ 5 mm

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Dimensioned drawings





A PWR / SW IN / OUTB BUS IN / OUT

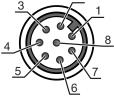
Electrical connection

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 1 V+ 2 Tx 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
50118985	CML730i-T40-610.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
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!
 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
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

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Accessories

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

	Part no.	Designation	Article	Description
R.	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

Configuration devices

 Part no.	Designation	Article	Description
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
y; U	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
6	S A list with all available accessories can be found on the Leuze website in the Download tab of the article detailed page.