

Technical data sheet Light curtain receiver Part no.: 50119098 CML730i-R10-2080.R/CN-M12



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We reserve the right to make technical changes

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 Number of beams	2,080 mm 208 Piece(s)
Beam spacing	206 Piece(s) 10 mm
Beam spacing	10 mm
Measurement data	
Minimum object diameter	20 mm
	Polarity reversal protection
	Polarity reversal protection Short circuit protected
Protective circuit	Short circuit protected
Electrical data Protective circuit Performance data Supply voltage U _p	Short circuit protected
Protective circuit	Short circuit protected Transient protection
Protective circuit Performance data Supply voltage U _B	Short circuit protected Transient protection 18 30 V, DC
Protective circuit Performance data Supply voltage U _B Residual ripple Open-circuit current	Short circuit protected Transient protection 18 30 V, DC 0 15 %, From U _B 0 435 mA, The specified values refer to the entire package consisting of trans-
Protective circuit Performance data Supply voltage U _B Residual ripple Open-circuit current Inputs/outputs selectable	Short circuit protected Transient protection 18 30 V, DC 0 15 %, From U _B 0 435 mA, The specified values refer to the entire package consisting of trans-
Protective circuit Performance data Supply voltage U _B Residual ripple Open-circuit current Inputs/outputs selectable Output current, max.	Short circuit protected Transient protection 18 30 V, DC 0 15 %, From U _B 0 435 mA, The specified values refer to the entire package consisting of trans- mitter and receiver.
Protective circuit Performance data Supply voltage U _B Residual ripple Open-circuit current Inputs/outputs selectable Output current, max. Input resistance	Short circuit protected Transient protection 18 30 V, DC 0 15 %, From U _B 0 435 mA, The specified values refer to the entire package consisting of trans- mitter and receiver.
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Protective circuit Performance data Supply voltage U _B Residual ripple Open-circuit current Inputs/outputs selectable Output current, max. Input resistance Number of inputs/outputs selectable Type Voltage type, outputs Switching voltage, outputs Voltage type, inputs Switching voltage, inputs Input/output 1 Activation/disable delay	Short circuit protected Transient protection 18 30 V, DC 0 15 %, From U _B 0 435 mA, The specified values refer to the entire package consisting of trans- mitter and receiver. 100 mA 6,000 Ω 2 Piece(s) Inputs/outputs selectable DC Typ. U _B / 0 V DC high: \geq 6V
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Туре

CANopen

CANopen Function		Process	
S	ervice interface		
Туре		IO-Link	
	IO-Link		
	Function	Configuration via software	
		Service	
С	onnection		
N	umber of connections	2 Piece(s)	
P	ug outlet	Rear side	
	Connection 1 Function	Configuration interface	
	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 Function	BUS IN	
	Function	BUS OUT	
	Type of connection	Connector	
	Thread size	M12	
	Туре	Female	
	Material	Metal	
	No. of pins	5 -pin	
	Encoding	A-coded	
M	echanical data		
D	esign	Cubic	
Di	imension (W x H x L)	29 mm x 35.4 mm x 2,103 mm	
H	ousing material	Metal	
Μ	etal housing	Aluminum	
Le	ens cover material	Plastic	
	et weight	2,250 g	
	ousing color	Silver	
IJ	vpe of fastening	Groove mounting Via optional mounting device	
		via optional mounting device	
0	peration and display		
Ту	/pe of display	LED	
		OLED display	
N	umber of LEDs	2 Piece(s)	
Ту	/pe of configuration	Software	
		Teach-in	
0	perational controls	Membrane keyboard	
E	nvironmental data		
A	mbient temperature, operation	-30 60 °C	
Ambient temperature, storage		-40 70 °C	

Technical data

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Certifications

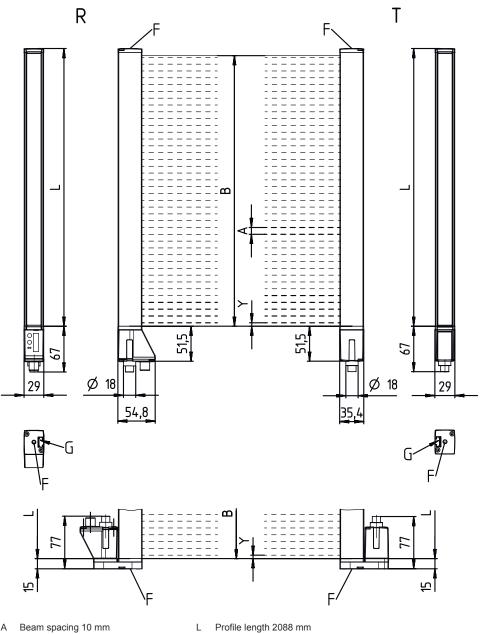
Degree of protection	IP 65
Protection class	III
Certifications	c UL US
Standards applied	IEC 60947-5-2

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



- Beam spacing 10 mm А
- В Measurement field length 2080 mm
- F M6 thread G Fastening groove
- Т R Receiver
 - 5 mm Υ

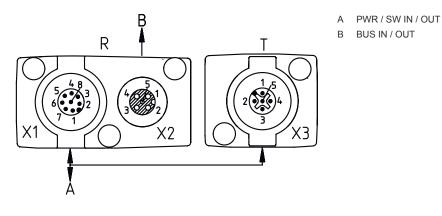
Transmitter



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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	A-coded

Electrical connection

Pin	Pin assignment	
1	FE/SHIELD	
2	n.c.	
3	CAN GND	
4	CAN H	
5	CAN L	

Operation and display

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
50118960	CML730i-T10- 2080.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 - Interconnection cables

 Part no.	Designation	Article	Description
50129781	KDS DN-M12-5A- M12-5A-P3-050	Interconnection cable	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

Accessories

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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
	50118185	K-YCN M12A-M12A- S-PUR	Interconnection cable	Suitable for interface: CANopen Connection 1: Connector, M12, Axial, Male, A-coded, 5 -pin Connection 2: Connector, M12, Axial, Female, A-coded, 5 -pin Connection 3: Connector, M12, Axial, Male, A-coded, 5 -pin Shielded: Yes Cable length fork 1: 250 mm Cable length fork 2: 350 mm Sheathing material: PUR

Connection technology - Terminating resistors

 Part no.	Designation	Article	Description
50040099	TS 01-5-SA	Terminator plug	Suitable for: DeviceNet, CANopen Function: Bus termination Connection 1: Connector, M12, Axial, Male, A-coded, 5 -pin

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
ęę.	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

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.

Accessories

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Part no. Designation Article Description \$981005 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	No A list with all available accessories can be found on the Leuze website in the Download tab of the article detailed page.

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