

Technical data sheet Light curtain receiver Part no.: 50123189 CML730i-R20-2390.A/PB-M12



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We reserve the right to make technical changes eng • 2020-12-21

Technical data

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Basic 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	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	2,390 mm
Number of beams	120 Piece(s)
Beam spacing	20 mm
Measurement data	
Minimum object diameter	30 mm
Electrical data	
Protective circuit	Polarity reversal protection
	Short circuit protected
	Transient protection
Performance data	40 2017 DO
Supply voltage U _B	18 30 V, DC
Residual ripple	0 15 %, From U _B 0 435 mA, The specified values refer
Open-circuit current	to the entire package consisting of trans- mitter and receiver.
Inputs/outputs selectable	100 ~ 0
Output current, max.	100 mA
Input resistance Number of inputs/outputs selectable	6,000 Ω
	Inputs/outputs selectable
Type Voltage type, outputs	
Voltage type, outputs	
Switching voltage, outputs	Typ. U _B / 0 V
Voltage type, inputs	DC high: ≥6V
Switching voltage, inputs	nign: ≥ov Iow: ≤4V
	10W. 24V
Input/output 1	
Activation/disable delay	1 ms
-	
Timing	
Cycle time	1.35 ms
Response time per beam	10 µs
Interface	
Туре	PROFIBUS DP

	nction	Process
ervi	ce interface	
уре		IO-Link
10	1 to b	
	Link	Configuration via software
Fui	leaon	Service
		Service
onn	ection	
lumb	er of connections	2 Piece(s)
lug o	outlet	Axial
Co	nnection 1	
	nction	Configuration interface
		Connection to transmitter
		Signal IN
		Signal OUT
		Voltage supply
Tvr	be of connection	Connector
	read size	M12
Тур		Male
	terial	Metal
	of pins	8 -pin
	coding	A-coded
-11		1.00000
Co	nnection 2	
Fur	nction	BUS IN
		BUS OUT
Тур	e of connection	Connector
Thr	ead size	M12
Тур	De	Female
Mat	terial	Metal
No.	. of pins	5 -pin
End	coding	B-coded
ech	anical data	
esig	n	Cubic
-	nsion (W x H x L)	29 mm x 35.4 mm x 2,475 mm
11110		
		Metal
ousi	ing material housing	Metal
ousi etal	housing	Aluminum
ousi etal ens (housing cover material	Aluminum Plastic
ousi etal ens e et w	housing cover material eight	Aluminum Plastic 2,450 g
ousi letal ens et w ousi	housing cover material eight ing color	Aluminum Plastic 2,450 g Silver
lousi letal ens o let wo lousi	housing cover material eight	Aluminum Plastic 2,450 g Silver Groove mounting
ousi letal ens o et wo ousi	housing cover material eight ing color	Aluminum Plastic 2,450 g Silver
ousi letal ens et w ousi ype o	housing cover material eight ing color	Aluminum Plastic 2,450 g Silver Groove mounting
ousi etal ens o et wo ousi ype o	housing cover material eight ing color of fastening	Aluminum Plastic 2,450 g Silver Groove mounting
ousi etal ens o et wo ousi ype o	housing cover material eight ing color of fastening ation and display	Aluminum Plastic 2,450 g Silver Groove mounting Via optional mounting device
ousi letal ens o ousi ype o per	housing cover material eight ing color of fastening ation and display	Aluminum Plastic 2,450 g Silver Groove mounting Via optional mounting device
ousi letal ens et w lousi ype ype ype	housing cover material eight ing color of fastening ation and display of display	Aluminum Plastic 2,450 g Silver Groove mounting Via optional mounting device LED OLED display
lousi letal let w lousi ype o Opera ype o	housing cover material eight ing color of fastening ation and display of display eer of LEDs	Aluminum Plastic 2,450 g Silver Groove mounting Via optional mounting device LED OLED display 2 Piece(s)
lousi letal ens let w lousi lousi yype o lumb	housing cover material eight ing color of fastening ation and display of display eer of LEDs	Aluminum Plastic 2,450 g Silver Groove mounting Via optional mounting device LED OLED display 2 Piece(s) Software
lousi Aetal Aetal ens o let w lousi Joper Joper Joper Dpera	housing cover material eight ing color of fastening ation and display of display her of LEDs of configuration	Aluminum Plastic 2,450 g Silver Groove mounting Via optional mounting device LED OLED display 2 Piece(s) Software Teach-in
lousi letal let w lousi lousi lousi lousi lousi yype o lumb yype o Dpera	housing cover material eight ing color of fastening ation and display of display her of LEDs of configuration ational controls	Aluminum Plastic 2,450 g Silver Groove mounting Via optional mounting device LED OLED display 2 Piece(s) Software Teach-in

Technical data

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Certifications

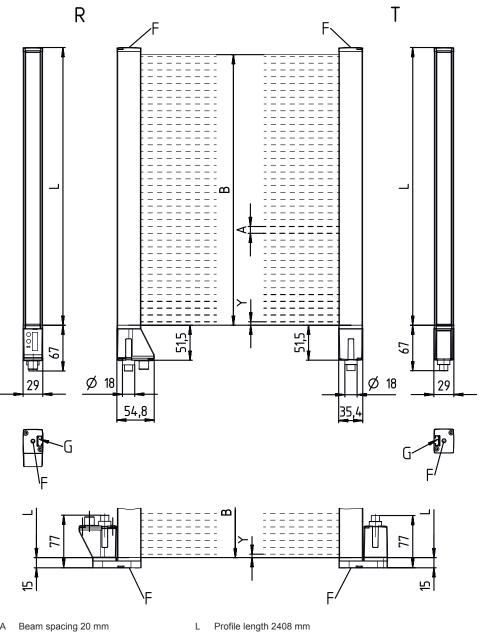
IP 65
III
c CSA US
IEC 60947-5-2

Classification

Customs tariff number	90314990
eCl@ss 5.1.4	27270910
eCl@ss 8.0	27270910
eCl@ss 9.0	27270910
eCl@ss 10.0	27270910
eCl@ss 11.0	27270910
ETIM 5.0	EC002549
ETIM 6.0	EC002549
ETIM 7.0	EC002549
Cl@ss 10.0 Cl@ss 11.0 FIM 5.0 FIM 6.0	27270910 27270910 EC002549 EC002549

Dimensioned drawings

All dimensions in millimeters

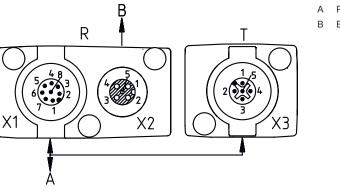


- Beam spacing 20 mm А
- В Measurement field length 2390 mm
- F M6 thread G Fastening groove
- Transmitter Т
- R Receiver
- 5 mm Υ

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Dimensioned drawings





A PWR / SW IN / OUTB BUS IN / OUT

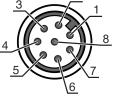
Electrical connection

Connection 1

Function	Configuration interface
Function	, C
	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

PinPin assignment1V+2Tx-3PB GND4Tx+5FE/SHIELD

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
50118643	CML730i-T20- 2390.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: 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

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Part number code



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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!
Image: Second



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 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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	Part no.	Designation	Article	Description
	50123265	K-YPB M12A-5m- M12A-S-PUR	Interconnection cable	Suitable for interface: PROFIBUS DP Connection 1: Connector, M12, Axial, Male, B-coded, 5 -pin Connection 2: Cable with connector, M12, Axial, Female, B-coded, 5 -pin Connection 3: Cable with connector, M12, Axial, Male, B-coded, 5 -pin Shielded: Yes Sheathing material: PUR

Mounting technology - Mounting brackets

	Part no.	Designation	Article	Description
1.1. 1.1	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.	429046	BT-2R1	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
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. 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.

Accessories





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