

## **Technical data sheet Light curtain receiver** Part no.: 50123081 CML730i-R05-1520.A/PB-M12



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### **Technical data**

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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	0.1 4.5 m
Operating range	Guaranteed operating range
Operating range, transparent media	0.1 1.75 m
Operating range limit	0.1 6 m
Operating range limit	Typical operating range
Measurement field length	1,520 mm
Number of beams	304 Piece(s)
Beam spacing	5 mm
Measurement data	
Minimum object diameter	10 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 consisting of trans mitter and receiver.
Inputs/outputs selectable	
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	Typ. U <sub>B</sub> / 0 V
Voltage type, inputs	DC
Switching voltage, inputs	high: ≥6V
	$low: \le 4 V$
In model and the set of the	
Input/output 1 Activation/disable delay	1 ms
Activation/disable delay	1 1113
Time behavior	
Cycle time	3.19 ms
Response time per beam	10 µs
Interface	

Туре	

PROFIBUS DP

Service interface				
vpe	IO-Link			
IO-Link				
Function	Configuration via software			
	Service			
Connection				
umber of connections	2 Piece(s)			
lug outlet	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				
Function	BUS IN			
	BUS OUT			
Type of connection	Connector			
Thread size	M12			
Туре	Female			
Material	Metal			
No. of pins	5 -pin			
Encoding	B-coded			
lechanical data				
	Cubic			
Design				
Vimension (W x H x L) Iousing material	29 mm x 35.4 mm x 1,595 mm Metal			
•	Aluminum			
lotal housing				
-	Diantia			
ens cover material	Plastic			
ens cover material let weight	1,650 g			
ens cover material let weight lousing color	1,650 g Silver			
ens cover material let weight lousing color	1,650 g Silver Groove mounting			
ens cover material et weight ousing color	1,650 g Silver			
ens cover material et weight ousing color ype of fastening	1,650 g Silver Groove mounting			
ens cover material et weight ousing color ype of fastening Operation and display	1,650 g Silver Groove mounting			
ens cover material let weight ousing color ype of fastening Operation and display	1,650 g Silver Groove mounting Via optional mounting device			
ens cover material let weight lousing color ype of fastening Operation and display ype of display	1,650 g Silver Groove mounting Via optional mounting device			
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ens cover material let weight lousing color ype of fastening Operation and display ype of display	1,650 g Silver Groove mounting Via optional mounting device			
Ateal housing Lens cover material Let weight Housing color Type of fastening Operation and display Type of display Humber of LEDs Type of configuration	1,650 g Silver Groove mounting Via optional mounting device LED OLED display 2 Piece(s) Software			
ens cover material let weight lousing color ype of fastening Operation and display ype of display lumber of LEDs ype of configuration	<ul> <li>1,650 g</li> <li>Silver</li> <li>Groove mounting</li> <li>Via optional mounting device</li> <li>LED</li> <li>OLED display</li> <li>2 Piece(s)</li> <li>Software</li> <li>Teach-in</li> </ul>			
ens cover material let weight lousing color ype of fastening Operation and display ype of display lumber of LEDs ype of configuration Operational controls	1,650 g Silver Groove mounting Via optional mounting device LED OLED display 2 Piece(s) Software Teach-in			

## **Technical data**

#### Certifications

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

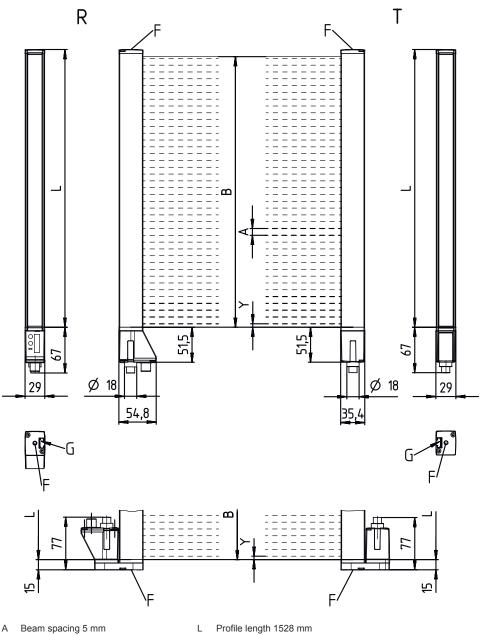
#### Classification

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

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#### **Dimensioned drawings**

All dimensions in millimeters

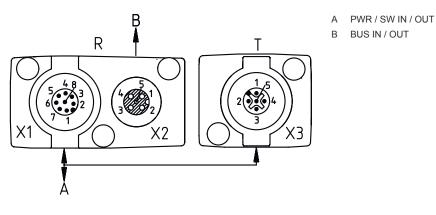


- Beam spacing 5 mm А
- В Measurement field length 1520 mm
- F M6 thread G Fastening groove
- Transmitter Т
- R Receiver
- 2.5 mm Υ

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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		

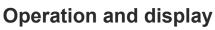


Function	BUS IN
	BUS OUT
Type of connection	Connector
Thread size	M12
Туре	Female
Material	Metal
No. of pins	5 -pin
Encoding	B-coded



## **Electrical connection**

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



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
50118594	CML730i-T05- 1520.A-M12	Light curtain transmitter	Operating range: 0.1 4 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

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#### 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.         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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## 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

**Accessories** 

	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

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