

# **Technical data sheet Light curtain receiver** Part no.: 50118745 CML730i-R05-720.A/L-M12



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 changes

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## **Technical data**

730					
Throughbeam principle					
Receiver 2x BT-NC sliding block					
Object measurement					
Crossed-beam scanning					
Diagonal-beam scanning					
Parallel-beam scanning					
0.1 4.5 m					
Guaranteed operating range					
0.1 1.75 m					
0.1 6 m					
Typical operating range					
720 mm					
144 Piece(s)					
5 mm					
10 mm					
Polarity reversal protection					
Short circuit protected					
Transient protection					
··					
18 30 V, DC					
0 15 %, From U <sub>B</sub>					
0 215 mA, The specified values refer to the entire package consisting of trans mitter and receiver.					
100 mA					
6,000 Ω					
4 Piece(s)					
4 Piece(s) Inputs/outputs selectable					
Inputs/outputs selectable DC					
Inputs/outputs selectable DC Typ. U <sub>B</sub> / 0 V					
Inputs/outputs selectable DC Typ. U <sub>B</sub> / 0 V DC					
Inputs/outputs selectable DC Typ. U <sub>B</sub> / 0 V					
Inputs/outputs selectable DC Typ. U <sub>B</sub> / 0 V DC high: ≥6V					
Inputs/outputs selectable DC Typ. $U_B / 0 V$ DC high: $\geq 6V$ Iow: $\leq 4 V$					
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Inputs/outputs selectable DC Typ. $U_B / 0 V$ DC high: $\geq 6V$ Iow: $\leq 4 V$					
Inputs/outputs selectable DC Typ. $U_B / 0 V$ DC high: $\ge 6V$ low: $\le 4 V$ 0 1 ms					
Inputs/outputs selectable DC Typ. $U_B / 0 V$ DC high: $\geq 6V$ low: $\leq 4 V$ 0 1 ms 450 ms					
Inputs/outputs selectable DC Typ. $U_B / 0 V$ DC high: $\ge 6V$ low: $\le 4 V$ 0 1 ms 450 ms 1.59 ms					

COM mode	COM2
Min. cycle time	COM2 = 2.3 ms
Specification	V1.0.1
	V1.1
Service interface	
уре	IO-Link
IO-Link	
Function	Configuration via software
	Service
Connection	
lumber of connections	2 Piece(s)
Plug outlet	Axial
Connection 1 Function	Configuration interface
Function	
	Signal IN
	Signal OUT
Tune of connection	Voltage supply
Type of connection Thread size	Connector M12
Type Material	Male Metal
No. of pins	8 -pin
Encoding	A-coded
Connection 2	<b>0 1 1 1 1</b>
Function	Connection to transmitter
Type of connection	Connector
Thread size	M12 Female
Type Material	
	Metal
No. of pins	5 -pin A-coded
Encoding	A-coded
Mechanical data	
Design	Cubic
Dimension (W x H x L)	29 mm x 35.4 mm x 795 mm
Housing material	Metal
Metal housing	Aluminum
ens cover material	Plastic
Net weight	950 g
lousing color	Silver
Type of fastening	Groove mounting Via optional mounting device
Departies and disalay	,
Operation and display	
Гуре of display	LED OLED display
Number of LEDs	2 Piece(s)
Type of configuration	Software
.,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	Teach-in
Operational controls	Membrane keyboard
Environmental data	
Ambient temperature, operation	-30 60 °C
Ambient temperature, storage	-40 70 °C

## **Technical data**

#### Certifications

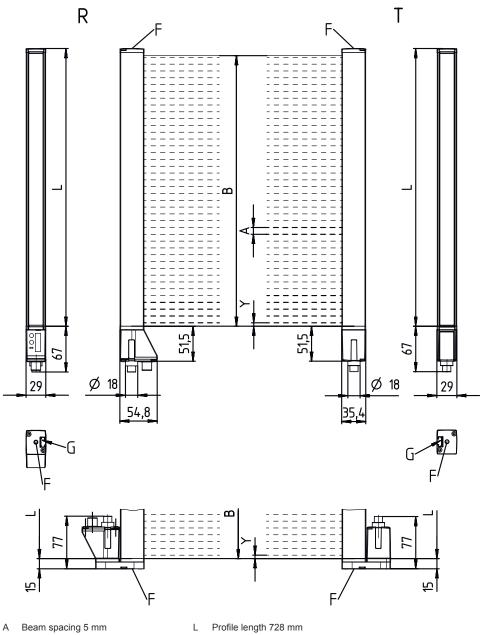
Degree of protection	IP 65
Protection class	III
Certifications	c UL US
Standards applied	IEC 60947-5-2

#### 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

### **Dimensioned drawings**

All dimensions in millimeters



В Measurement field length 720 mm

Fastening groove

M6 thread

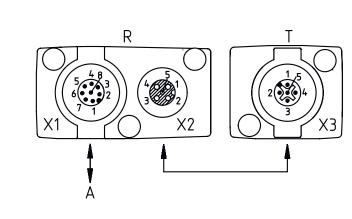
F

G

- Transmitter Т
- R Receiver
  - Υ 2.5 mm

### **Dimensioned drawings**





A PWR / SW IN / OUT

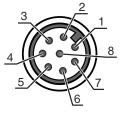
### **Electrical connection**

**Connection 1** 

Function	Configuration interface			
	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	IO1
3	GND
4	IO-Link
5	IO2
6	103
7	IO4
8	GND



#### **Connection 2**

Function	Connection to transmitter
Type of connection	Connector
Thread size	M12
Туре	Female
Material	Metal
No. of pins	5 -pin
Encoding	A-coded

#### Pin Pin assignment

1	FE/SHIELD
2	V+
3	GND
4	RS 485 Tx+
5	RS 485 Tx-



### **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
50118584	CML730i-T05-720.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				
DDD	Special equipment -PS: Power Setting				
EEE	Electrical connection M12: M12 connector				
FFF	-EX: Explosion protection				
Note           Note           Image: Second state of the second sta					

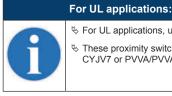
#### Notes

#### Observe intended use!

✤ This product is not a safety sensor and is not intended as personnel protection.

b The product may only be put into operation by competent persons.

 $\ensuremath{^{\ensuremath{\Downarrow}}}$  Only use the product in accordance with its intended use.



Ŕ,	> For UL a	pplicatior	ns, use	is only per	mitted in Class 2	circuits in a	ccordance v	vith the NEC	C (Natior	nal Ele	ctric C	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 unit

	Part no.	Designation	Article	Description
C. LEATER	50144900	MD 798i-11-82/L5- 2222	IO-Link master	Type: IO-Link master Current consumption, max.: 11,000 mA Switching outputs for each sensor connection: 1 Piece(s) Switching output: Transistor, PNP Interface: IO-Link, Automatic protocol detection, EtherNet IP, Modbus TCP, PROFINET Connections: 12 Piece(s) Sensor connections: 8 Piece(s) Connections for voltage supply: 2 Piece(s) Interface connections: 2 Piece(s) Degree of protection: IP 67, IP 65, IP 69K

#### Connection technology - Connection cables

	Part no.	Designation	Article	Description
	50135128	KD S-M12-8A-P1-050	Connection cable	Connection 1: Connector, M12, Axial, Female, A-coded, 8 -pin Connector, LED: No Connection 2: Open end
				Shielded: Yes Cable length: 5.000 mm Sheathing material: PUR

#### 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

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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

#### 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
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

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