## SMART SENSOR BUSINESS

## Leuze electronic

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Part no.: 50131722 CML730i-R05-2560.A/PN-M12 Light curtain receiver





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### Part no.: 50131722 – CML730i-R05-2560.A/PN-M12 – Light curtain receiver

#### **Technical 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			
Optical data				
Operating range	Guaranteed operating range			
Operating range	0.1 4.5 m			
Operating range, transparent media	0.1 1.75 m			
Operating range limit	Typical operating range			
Operating range limit	0.1 6 m			
Measurement field length	2,560 mm			
Number of beams	512 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	0 435 mA , The specified values refer to the entire package con- sisting of transmitter and receiver.			
Inputs/outputs selectable				
Output current, max.	100 mA			
Input resistance	6,000 Ω			
Number of inputs/outputs selectable	2 Piece(s)			
Туре	Inputs/outputs selectable			
Voltage type, outputs	DC			
Switching voltage, outputs	Тур. U <sub>B</sub> / 0 V			
Voltage type, inputs	DC			
Switching voltage, inputs	high: ≥6V Iow: ≤4V			
Input/output 1				
Activation/disable delay	1 ms			
Timing				
Readiness delay	1,500 ms			
	5.27 ms			
Cycle time				

Interface

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Туре	PROFINET
Profinet	
Function	Process
Conformance class	В
Protocol	PROFINET RT
Switch functionality	Integrated
Transmission speed	10 Mbit/s
	100 Mbit/s
Service interface	
Туре	IO-Link
IO-Link	
Function	Configuration via software Service
Connection	
Number of connections	3 Piece(s)
Plug 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
Type of connection	Connector
Thread size	M12
Туре	Female
Material	Metal
No. of pins	4 -pin
Encoding	D-coded
Connection 3	
Function	BUS OUT
Type of connection	Connector
Thread size	M12
Туре	Female
Material	Metal
No. of pins	4 -pin
Encoding	D-coded
Mechanical data	
Design	Cubic
Dimension (W x H x L)	29 mm x 35.4 mm x 2,635 mm
Housing material	Metal , Aluminum
	Plastic

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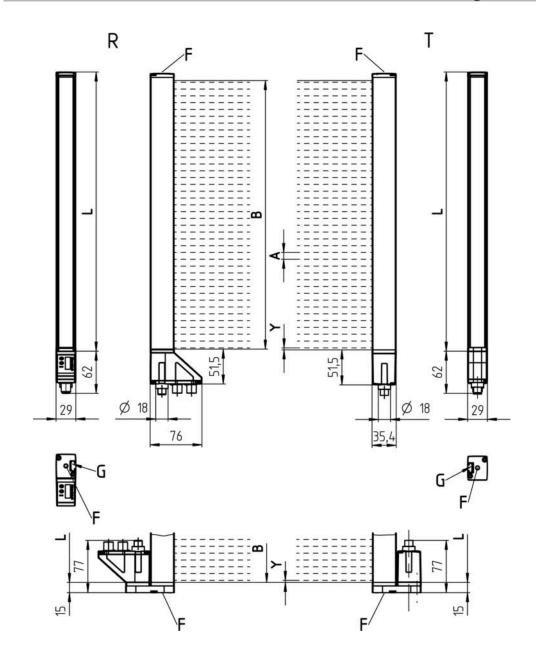
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Net weight	2,600 g			
Housing color	Silver			
Type of fastening	Groove mounting Via optional mounting device			
Operation and display				
Type of display	LED OLED display			
Number of LEDs	4 Piece(s)			
Type of configuration	Software Teach-in			
Operational controls	Membrane keyboard			
Environmental data				
Ambient temperature, operation	-30 60 °C			
Ambient temperature, storage	-40 70 °C			
Certifications				
Degree of protection	IP 65			
Protection class	III			
Certifications	c CSA US			
Standards applied	IEC 60947-5-2			
Classification				
Customs tariff number	90314990			
eCl@ss 8.0	27270910			
eCl@ss 9.0	27270910			
ETIM 5.0	EC002549			
ETIM 6.0	EC002549	EC002549		

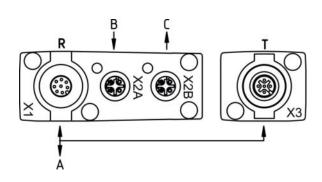
#### **Dimensioned drawings**

All dimensions in millimeters

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- A Beam spacing 5 mm B Measurement field length 2560 mm
- F M6 thread
- G Fastening groove
- L Profile length 2568 mm
- T Transmitter
- R Receiver
- Y 2.5 mm



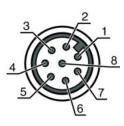
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A PWR / SW IN/OUT B BUS IN C BUS OUT

#### **Electrical connection**

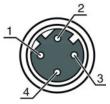
Connection 1	X1	
Function	Configuration interface Connection to transmitter Signal IN Signal OUT Voltage supply	
Type of connection	Connector	
Thread size	M12	
Туре	Male	
Material	Metal	
No. of pins	8 -pin	
Encoding	A-coded	

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	X2A	
Function	BUS IN	
Type of connection	Connector	
Thread size	M12	
Туре	Female	
Material	Metal	
No. of pins	4 -pin	
Encoding	D-coded	

Pin	Pin assignment			
1	TD0+			
2	RD0+			
3	TD0-			
4	RD0-			



Connection 3	X2B
Function	BUS OUT
Type of connection	Connector
Thread size	M12
Туре	Female

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Connection 3	Х2В
Material	Metal
No. of pins	4 -pin
Encoding	D-coded

Pin	Pin assignment			
1	TD0+			
2	RD0+			
3	TD0-			
4	RD0-			



#### **Operation and display**

#### LEDs

LED	Display	Meaning
1	Green, continuous light	Operational readiness
	Green, flashing	Teach / error
		Measurement frequency display
2	Yellow, continuous light	Light path free, with function reserve
	Yellow, flashing	No function reserve
	Off	Object detected
3	Green, continuous light (at the X2A / X2B connector)	Link
4	Yellow, continuous light (at the X2A / X2B connector)	Activity

#### Suitable transmitters

Part no.	Designation	Article	Description
50118607	CML730i- T05-2560.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

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ZZ	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
DDD	Special equipment: -PS: Power Setting
EEE	Electrical connection: M12: M12 connector
FFF	-EX: Explosion protection:

Note
A list with all available device types can be found on the Leuze electronic 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 1: Connector, M12, Axial, Female, A-coded, 5 -pin Connection 2: Open end Shielded: No Cable length: 5,000 mm Sheathing material: PVC

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Part no	Designation	Article	Description
50135074	KS ET-M12-4A- P7-050	Connection cable	Suitable for interface: Ethernet Connection 1: Connector, M12, Axial, Male, D-coded, 4 -pin Connection 2: Open end Shielded: Yes Cable length: 5,000 mm Sheathing material: PUR

### Connection technology - Interconnection cables

Part no.	Designation	Article	Description
	KSS ET-M12-4A- RJ45-A-P7-050		Suitable for interface: Ethernet Connection 1: Connector, M12, Axial, Male, D-coded, 4 -pin Connection 2: RJ45 Shielded: Yes Cable length: 5,000 mm Sheathing material: PUR

## Connection technology - Y distribution cables

Part no.	Designation	Article	Description
	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

## Mounting technology - Mounting brackets

Part no.	Designation	Article	Description
50142900	BT 700M.5-2SET	Mounting device set	Contains: 2x mounting brackets, 1 teach template, 4 M6 x 10 screws 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
ęr.	429046	BT-2R1	Mounting bracket set	Contains: 2x BT-R swivel mount, 1 cylinder for mounting on the light curtain Fastening, at system: Through-hole mounting Mounting bracket, at device: Clampable Type of mounting device: Turning, 360° Material: Metal, Plastic

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

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### 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.

Note

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