



the sensor people





Figure can vary

Part no.: 50118853 CML730i-R05-2880.A/CV-M12 Light curtain receiver





Contents

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- . Dimensioned drawings
- Electrical connection
- · Operation and display
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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	2,880 mm
Number of beams	576 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 _B	18 30 V , DC
Residual ripple	0 15 % , From U _B
Open-circuit current	0 600 mA , The specified values refer to the entire package consisting of transmitter and receiver.
Outputs	
Number of analog outputs	2 Piece(s)
Analog outputs	
Current	0 24 mA
Voltage	0 11 V
Analog output 1	
Туре	Voltage
Analog output 2	
Туре	Current



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	Typ. U _B / 0 V	Typ. U _B / 0 V		
Voltage type, inputs	DC			
Switching voltage, inputs	high: ≥6V low: ≤4V			
Input/output 1				
Activation/disable delay	1 ms			
ming				
eadiness delay	450 ms			
rcle time	5.91 ms			
esponse time per beam	10 μs			
ervice interface				
ре	IO-Link			
IO-Link				
Function	Configuration via software Service	Configuration via software Service		
annaction				
onnection	2 Piere(s)			
umber of connections	2 Piece(s)			
umber of connections ug outlet	2 Piece(s) Axial			
umber of connections ug outlet Connection 1	Axial			
umber of connections ug outlet				
umber of connections ug outlet Connection 1	Axial Configuration interface Signal IN Signal OUT			
umber of connections ug outlet Connection 1 Function	Axial Configuration interface Signal IN Signal OUT Voltage supply			
umber of connections ug outlet Connection 1 Function Type of connection	Axial Configuration interface Signal IN Signal OUT Voltage supply Connector			
umber of connections ug outlet Connection 1 Function Type of connection Thread size	Axial Configuration interface Signal IN Signal OUT Voltage supply Connector M12			
Imber of connections Ing outlet Connection 1 Function Type of connection Thread size Type	Configuration interface Signal IN Signal OUT Voltage supply Connector M12 Male			
Type of connection Type Material	Configuration interface Signal IN Signal OUT Voltage supply Connector M12 Male Metal			
Imber of connections Ing outlet Connection 1 Function Type of connection Thread size Type Material No. of pins	Configuration interface Signal IN Signal OUT Voltage supply Connector M12 Male Metal 8 -pin			
Imber of connections Ing outlet Connection 1 Function Type of connection Thread size Type Material No. of pins Encoding	Configuration interface Signal IN Signal OUT Voltage supply Connector M12 Male Metal 8 -pin			
Imber of connections Ing outlet Connection 1 Function Type of connection Thread size Type Material No. of pins Encoding Connection 2	Configuration interface Signal IN Signal OUT Voltage supply Connector M12 Male Metal 8 -pin A-coded			
Imber of connections Ing outlet Connection 1 Function Type of connection Thread size Type Material No. of pins Encoding Connection 2 Function	Configuration interface Signal IN Signal OUT Voltage supply Connector M12 Male Metal 8 -pin A-coded Connection to transmitter			
Type of connection Type Material No. of pins Encoding Connection 2 Function	Configuration interface Signal IN Signal OUT Voltage supply Connector M12 Male Metal 8 -pin A-coded Connection to transmitter Connector			
Imber of connections Ig outlet Connection 1 Function Type of connection Thread size Type Material No. of pins Encoding Connection 2 Function Type of connection Type of connection	Configuration interface Signal IN Signal OUT Voltage supply Connector M12 Male Metal 8 -pin A-coded Connection to transmitter Connector M12			
Imber of connections Ing outlet Connection 1 Function Type of connection Thread size Type Material No. of pins Encoding Connection 2 Function Type of connection Type of connection Type of connection Type of connection Thread size Type	Configuration interface Signal IN Signal OUT Voltage supply Connector M12 Male Metal 8 -pin A-coded Connection to transmitter Connector M12 Female			
Imber of connections Ing outlet Connection 1 Function Type of connection Thread size Type Material No. of pins Encoding Connection 2 Function Type of connection Type of connection Type of connection Type of connection Type Material	Configuration interface Signal IN Signal OUT Voltage supply Connector M12 Male Metal 8 -pin A-coded Connection to transmitter Connector M12 Female Metal			



Lens cover material	Plastic	
Net weight	2,900 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 2 Piece(s)		

Operational controls	Membrane keyboard	Membrane keyboard	
Environmental data			
Ambient temperature, operation	-30 60 °C		

Software Teach-in

-40 ... 70 °C

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

90314990	
27270910	
27270910	
EC002549	
EC002549	
	27270910 27270910 EC002549

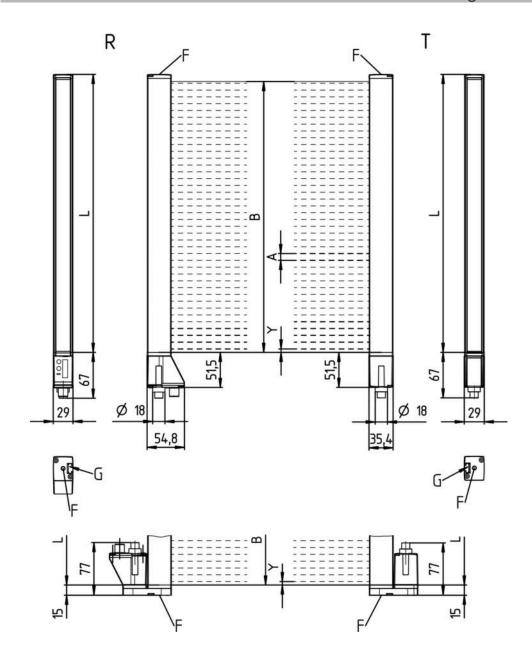
Dimensioned drawings

All dimensions in millimeters

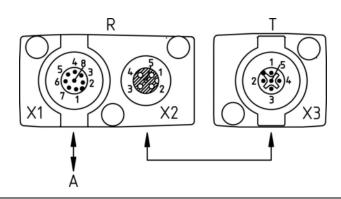
Type of configuration

Ambient temperature, storage





- A Beam spacing 5 mm B Measurement field length 2880 mm
- F M6 thread
- G Fastening groove L Profile length 2888 mm
- T Transmitter
- R Receiver
- Y 2.5 mm



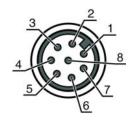


APWR / SW IN/OUT

Electrical connection

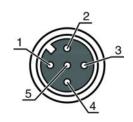
Connection 1		
Function	Configuration interface Signal IN Signal OUT Voltage supply	
Type of connection	Connector	
Thread size	M12	
Туре	Male	
Material	Metal	
No. of pins	8 -pin	
Encoding	A-coded	

Pin	Pin assignment
1	V+
2	I/O 1
3	GND
4	IO-Link
5	I/O 2
6	OUT V
7	OUT mA
8	AGND



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

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

Suitable transmitters

Part no.	Designation	Article	Description
50118611	CML730i- T05-2880.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			
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:			

N	_	4	c
14	v	·	C

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
50135128	KD S-M12-8A- P1-050	Connection cable	Connection 1: Connector, M12, Axial, Female, A-coded, 8 -pin Connection 2: Open end Shielded: Yes Cable length: 5,000 mm Sheathing material: PUR

Connection technology - Interconnection cables

Part no.	Designation	Article	Description
	KDS DN-M12-5A- M12-5A-P3-050	Interconnection cable	Suitable for interface: IO-Link, 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

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

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Mounting technology - Swivel mounts

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

Note

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