



the sensor people





Figure can vary

Part no.: 50118833 CML730i-R05-1280.A/CV-M12 Light curtain receiver





Contents

- Technical data
- . 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	1,280 mm
Number of beams	256 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	0 270 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	
	Current



nputs/outputs selectable output current, max.	100 mA	
nput resistance	6,000 Ω	
<u>·</u>		
Number of inputs/outputs selectable	2 Piece(s)	
Type	Inputs/outputs selectable	
Voltage type, outputs	DC	
Switching voltage, outputs	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	2.71 ms	
esponse time per beam	10 µs	
ervice interface		
pe	IO-Link	
IO-Link		
IO-Link Function	Configuration via software Service	
	Configuration via software Service 2 Piece(s)	
Function pnnection	Service	
Function Onnection Imber of connections	Service 2 Piece(s)	
Function pnnection imber of connections ug outlet	Service 2 Piece(s)	
Punction Connection under of connections ug outlet Connection 1	Service 2 Piece(s) Axial Configuration interface Signal IN Signal OUT	
Function Connection umber of connections ug outlet Connection 1 Function	Service 2 Piece(s) Axial Configuration interface Signal IN Signal OUT Voltage supply	
Function onnection imber of connections ug outlet Connection 1 Function Type of connection	Service 2 Piece(s) Axial Configuration interface Signal IN Signal OUT Voltage supply Connector	
Function Connection Important of connections In goutlet Connection 1 Function Type of connection Thread size	Service 2 Piece(s) Axial Configuration interface Signal IN Signal OUT Voltage supply Connector M12	
Function Onnection Imber of connections ag outlet Connection 1 Function Type of connection Thread size Type	2 Piece(s) Axial Configuration interface Signal IN Signal OUT Voltage supply Connector M12 Male	
Function Innection Important of connections Ing outlet Connection 1 Function Type of connection Thread size Type Material	Service 2 Piece(s) Axial Configuration interface Signal IN Signal OUT Voltage supply Connector M12 Male Metal	
Function Connection Imper of connections Ing outlet Connection 1 Function Type of connection Thread size Type Material No. of pins	Service 2 Piece(s) Axial Configuration interface Signal IN Signal OUT Voltage supply Connector M12 Male Metal 8 -pin	
Function Connection Imber of connections Ing outlet Connection 1 Function Type of connection Thread size Type Material No. of pins Encoding	Service 2 Piece(s) Axial Configuration interface Signal IN Signal OUT Voltage supply Connector M12 Male Metal 8 -pin	
Function Innection Important of connections Ing outlet Connection 1 Function Type of connection Thread size Type Material No. of pins Encoding Connection 2	Service 2 Piece(s) Axial Configuration interface Signal IN Signal OUT Voltage supply Connector M12 Male Metal 8 -pin A-coded	
Function Connection Imber of connections ag outlet Connection 1 Function Type of connection Thread size Type Material No. of pins Encoding Connection 2 Function	Service 2 Piece(s) Axial Configuration interface Signal IN Signal OUT Voltage supply Connector M12 Male Metal 8 -pin A-coded Connection to transmitter	
Function Connection 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	Service 2 Piece(s) Axial Configuration interface Signal IN Signal OUT Voltage supply Connector M12 Male Metal 8 -pin A-coded Connection to transmitter Connector	
Function Innection 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	Service 2 Piece(s) Axial Configuration interface Signal IN Signal OUT Voltage supply Connector M12 Male Metal 8 -pin A-coded Connection to transmitter Connector M12	
Function Innection 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	Service 2 Piece(s) Axial Configuration interface Signal IN Signal OUT Voltage supply Connector M12 Male Metal 8 -pin A-coded Connection to transmitter Connector M12 Female	

Cubic

Metal , Aluminum

29 mm x 35.4 mm x 1,355 mm

Design

Dimension (W x H x L)

Housing material



Lens cover material	Plastic	
Net weight	1,450 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)	
Type of configuration	Software Teach-in	
Operational controls	Membrane keyboard	

Environmental data	
Ambient temperature, operation	-30 60 °C
Ambient temperature, storage	-40 70 °C

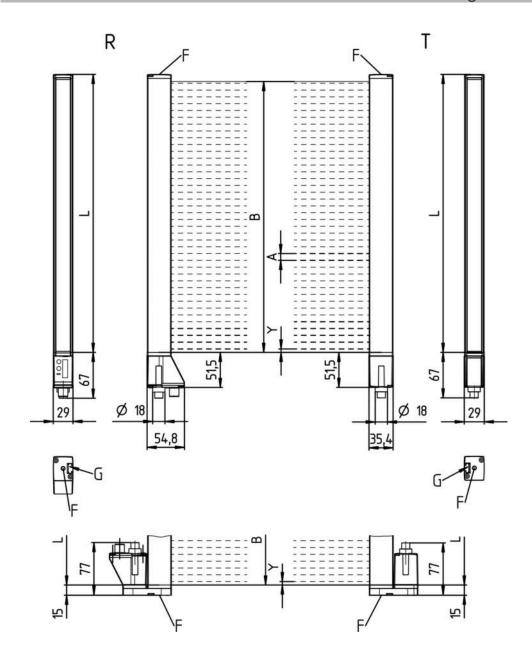
Certifications	
Degree of protection	IP 65
Protection class	III
Certifications	c CSA US
Standards applied	IEC 60947-5-2

Classification		
Customs tariff number	90314990	
eCl@ss 8.0	27270910	
eCl@ss 9.0	27270910	
ETIM 5.0	EC002549	
ETIM 6.0	EC002549	

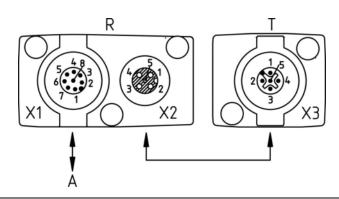
Dimensioned drawings

All dimensions in millimeters





- A Beam spacing 5 mm B Measurement field length 1280 mm
- F M6 thread
- G Fastening groove
- L Profile length 1288 mm
- T Transmitter
- R Receiver
- Y 2.5 mm



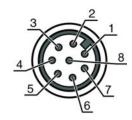


APWR / SW IN/OUT

Electrical connection

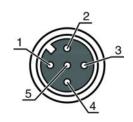
Connection 1		
Function	Configuration interface Signal IN Signal OUT Voltage supply	
Type of connection	Connector	
Thread size	M12	
Туре	Male	
Material	Metal	
No. of pins	8 -pin	
Encoding	A-coded	

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
50118591	CML730i- T05-1280.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
Υ	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	_	40
14	U	LC

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
166	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.