

Technical data sheet Light curtain receiver Part no.: 50123347 CML730i-R40-1250.A/D3-M12



The Sensor People In der Braike 1, 73277 Owen

Leuze electronic GmbH + Co. KG info@leuze.com • www.leuze.com In der Braike 1, 73277 Owen Phone: +49 7021 573-0 • Fax: +49 7021 573-199

We reserve the right to make technical changes eng • 2020-12-21

Technical data

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Rasic 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
Special version	
Special version	Crossed-beam scanning
	Diagonal-beam scanning
	Parallel-beam scanning
Optical data	
Operating range	Guaranteed operating range
Operating range	0.3 9.5 m
Operating range, transparent media	0.3 3.5 m
Operating range limit	Typical operating range
Operating range limit	0.2 12 m
Measurement field length	1,250 mm
Number of beams	31 Piece(s)
Beam spacing	40 mm
Measurement data	
Minimum object diameter	50 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 trans- mitter and receiver.
Inputs/outputs selectable	
Number of inputs/outputs selectable	
Туре	Inputs/outputs selectable
Voltage type, outputs	DC
Switching voltage, outputs	Typ. U _B / 0 V
Switching voltage, inputs	high: ≥6V
	low: ≤4V
Input/output 1	
Timing	
Cycle time	1 ms
Response time per beam	10 µs
Interface	
Туре	RS 485 Modbus
RS 485	
Function	Process
Service interface	
Туре	IO-Link

	IO-Link	
	Function	Configuration via software
		Service
С	onnection	
NI	umber of connections	2 Biogg(g)
	under of connections	2 Piece(s) 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
	Function	BUS OUT
	Type of connection	Connector
	Thread size	M12
	Туре	Female
	Material	Metal
	No. of pins	5 -pin
	Encoding	B-coded
Μ	echanical data	
_		Cubic
D	esign	Cubic 29 mm x 35.4 mm x 1,355 mm
De Di		Cubic 29 mm x 35.4 mm x 1,355 mm Metal
De Di He	esign mension (W x H x L)	29 mm x 35.4 mm x 1,355 mm
Di Di He M	esign mension (W x H x L) ousing material	29 mm x 35.4 mm x 1,355 mm Metal
Di Di He M	esign mension (W x H x L) busing material etal housing	29 mm x 35.4 mm x 1,355 mm Metal Aluminum
Di Di Hi M Le	esign mension (W x H x L) ousing material etal housing ens cover material et weight ousing color	29 mm x 35.4 mm x 1,355 mm Metal Aluminum Plastic 1,450 g Silver
Di Di Hi M Le	esign mension (W x H x L) ousing material etal housing ens cover material et weight	29 mm x 35.4 mm x 1,355 mm Metal Aluminum Plastic 1,450 g Silver Groove mounting
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De Di He M Le Ne He Ty	esign imension (W x H x L) ousing material etal housing ens cover material et weight ousing color rpe of fastening peration and display	29 mm x 35.4 mm x 1,355 mm Metal Aluminum Plastic 1,450 g Silver Groove mounting Via optional mounting device
De Di He M Le Ne He Ty	esign imension (W x H x L) ousing material etal housing ens cover material et weight ousing color rpe of fastening	29 mm x 35.4 mm x 1,355 mm Metal Aluminum Plastic 1,450 g Silver Groove mounting Via optional mounting device
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Da Di Ha La Na Ha Ty Na	esign imension (W x H x L) ousing material etal housing ens cover material et weight ousing color rpe of fastening peration and display rpe of display umber of LEDs	29 mm x 35.4 mm x 1,355 mm Metal Aluminum Plastic 1,450 g Silver Groove mounting Via optional mounting device
	esign imension (W x H x L) ousing material etal housing ens cover material et weight ousing color rpe of fastening peration and display rpe of display umber of LEDs	29 mm x 35.4 mm x 1,355 mm Metal Aluminum Plastic 1,450 g Silver Groove mounting Via optional mounting device LED OLED display 2 Piece(s) Software
	esign imension (W x H x L) ousing material etal housing ens cover material et weight ousing color rpe of fastening peration and display rpe of display umber of LEDs rpe of configuration perational controls	29 mm x 35.4 mm x 1,355 mm Metal Aluminum Plastic 1,450 g Silver Groove mounting Via optional mounting device LED OLED display 2 Piece(s) Software Teach-in
	esign imension (W x H x L) ousing material etal housing ens cover material etal weight ousing color rpe of fastening peration and display rpe of display umber of LEDs rpe of configuration perational controls nvironmental data	29 mm x 35.4 mm x 1,355 mm Metal Aluminum Plastic 1,450 g Silver Groove mounting Via optional mounting device LED OLED display 2 Piece(s) Software Teach-in Membrane keyboard
	esign mension (W x H x L) busing material etal housing ens cover material etal weight busing color rpe of fastening peration and display rpe of display umber of LEDs rpe of configuration perational controls nvironmental data mbient temperature, operation	29 mm x 35.4 mm x 1,355 mm Metal Aluminum Plastic 1,450 g Silver Groove mounting Via optional mounting device LED OLED display 2 Piece(s) Software Teach-in Membrane keyboard
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	esign imension (W x H x L) ousing material etal housing ens cover material et weight ousing color rpe of fastening peration and display rpe of display umber of LEDs rpe of configuration perational controls nvironmental data mbient temperature, operation mbient temperature, storage ertifications	29 mm x 35.4 mm x 1,355 mm Metal Aluminum Plastic 1,450 g Silver Groove mounting Via optional mounting device LED OLED display 2 Piece(s) Software Teach-in Membrane keyboard
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	esign imension (W x H x L) ousing material etal housing ens cover material et weight ousing color repe of fastening peration and display repe of display umber of LEDs repe of configuration perational controls nvironmental data mbient temperature, operation mbient temperature, storage ertifications egree of protection rotection class	29 mm x 35.4 mm x 1,355 mm Metal Aluminum Plastic 1,450 g Silver Groove mounting Via optional mounting device LED OLED display 2 Piece(s) Software Teach-in Membrane keyboard -30 60 °C -40 70 °C

Technical data

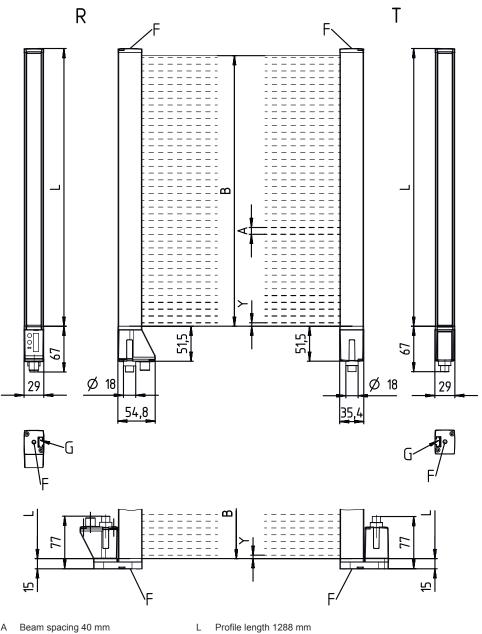
Customs tariff number	90314990
eCl@ss 5.1.4	27270910
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eCl@ss 9.0	27270910
eCl@ss 10.0	27270910
eCl@ss 11.0	27270910
ETIM 5.0	EC002549
ETIM 6.0	EC002549
ETIM 7.0	EC002549

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Dimensioned drawings

All dimensions in millimeters



- Beam spacing 40 mm А
- В Measurement field length 1250 mm
- F M6 thread G Fastening groove
- R Receiver Υ

Т

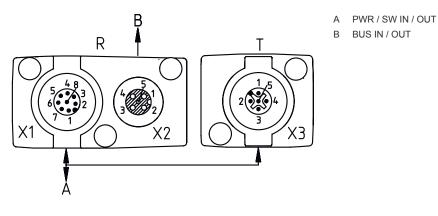
5 mm

Transmitter

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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		



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

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Electrical connection

Pin Pin assignment V+ 1 2 Tx-3 PB GND 4 Tx+ 5 FE/SHIELD

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

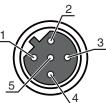
Suitable transmitters

 Part no.	Designation	Article	Description
50118650	CML730i-T40- 1250.A-M12	Light curtain transmitter	Operating range: 0.3 9.5 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: 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



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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. 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 cable	Connection 1: Connector, M12, Axial, Female, A-coded, 5 -pin 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

Accessories

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	Part no.	Designation	Article	Description
	50123265	K-YPB M12A-5m- M12A-S-PUR	Interconnection cable	Suitable for interface: PROFIBUS DP Connection 1: Connector, M12, Axial, Male, B-coded, 5 -pin Connection 2: Cable with connector, M12, Axial, Female, B-coded, 5 -pin Connection 3: Cable with connector, M12, Axial, Male, B-coded, 5 -pin Shielded: Yes Sheathing material: PUR

Mounting technology - Mounting brackets

	Part no.	Designation	Article	Description
1.1. 1.1	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

Mounting technology - Swivel mounts

	Part no.	Designation	Article	Description
ęę.	429046	BT-2R1	Mounting bracket set	Fastening, at system: Through-hole mounting Mounting bracket, at device: Clampable Type of mounting device: Turning, 360° Material: Metal, Plastic

Services

	Part no.	Designation	Article	Description
y;	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 website in the Download tab of the article detailed page.