

# **Technical data sheet Light curtain receiver** Part no.: 50123147 CML730i-R05-960.A/PB-M12

The Sensor People In der Braike 1, 73277 Owen



Phone: +49 7021 573-0 • Fax: +49 7021 573-199

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## **Technical data**

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#### Basic 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	0.1 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	960 mm
Number of beams	192 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	0 270 mA, The specified values refer to the entire package consisting of trans- mitter and receiver.
Inputs/outputs selectable	100 4
Output current, max.	100 mA
Input resistance	6,000 Ω
Number of inputs/outputs selectable	
Type	Inputs/outputs selectable
Voltage type, outputs	
Switching voltage, outputs	Typ. U <sub>B</sub> / 0 V
Voltage type, inputs	DC
Switching voltage, inputs	high: ≥6V
	low: ≤4V
Input/output 4	
Input/output 1 Activation/disable delay	1 ms
Timing	
Cycle time	2.07 ms
Response time per beam	10 µs
Interface	
Туре	PROFIBUS DP

	unction	Process
er	vice interface	
ур	e	IO-Link
	O-Link	
F	unction	Configuration via software
		Service
0	nnection	
un	nber of connections	2 Piece(s)
Plu	g outlet	Axial
0	Connection 1	
	Function	Configuration interface
		Connection to transmitter
		Signal IN
		Signal OUT
		Voltage supply
т	ype of connection	Connector
	hread size	M12
	ype	Male
	ype /aterial	Metal
	lo. of pins	8 -pin
	Encoding	A-coded
	incoding	A-00000
C	Connection 2	
	Function	BUS IN
		BUS OUT
Т	ype of connection	Connector
	hread size	M12
Т	уре	Female
	laterial	Metal
N	lo. of pins	5 -pin
Е	Incoding	B-coded
le	chanical data	
es	sign	Cubic
	nension (W x H x L)	29 mm x 35.4 mm x 1,035 mm
	using material	Metal
	al housing	Aluminum
	0	Plastic
et	s cover material	F Idoliu
et en		
let en et	weight	Plastic 1,150 g Silver
let en et ou	weight using color	1,150 g
let en et ou	weight	1,150 g Silver
let en et ou yp	weight using color e of fastening	1,150 g Silver Groove mounting
let en et ou /p	weight using color	1,150 g Silver Groove mounting
let en et ou yp	weight using color e of fastening	1,150 g Silver Groove mounting
let en et ou yp	weight using color e of fastening eration and display	1,150 g Silver Groove mounting Via optional mounting device
let let lou yp	weight using color e of fastening eration and display	1,150 g Silver Groove mounting Via optional mounting device LED
let en et ou yp	weight using color e of fastening eration and display e of display	1,150 g Silver Groove mounting Via optional mounting device LED OLED display
let en et ou yp	weight using color e of fastening eration and display e of display mber of LEDs	1,150 g Silver Groove mounting Via optional mounting device LED OLED display 2 Piece(s)
let let lou yp	weight using color e of fastening eration and display e of display mber of LEDs	1,150 g Silver Groove mounting Via optional mounting device LED OLED display 2 Piece(s) Software
Aet en let lou yp yp yp	weight using color e of fastening eration and display e of display nber of LEDs e of configuration	1,150 g Silver Groove mounting Via optional mounting device LED OLED display 2 Piece(s) Software Teach-in
Alet en let lou yp Dpo yp	weight using color e of fastening eration and display e of display mber of LEDs e of configuration erational controls	1,150 g Silver Groove mounting Via optional mounting device LED OLED display 2 Piece(s) Software Teach-in

## **Technical data**

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#### Certifications

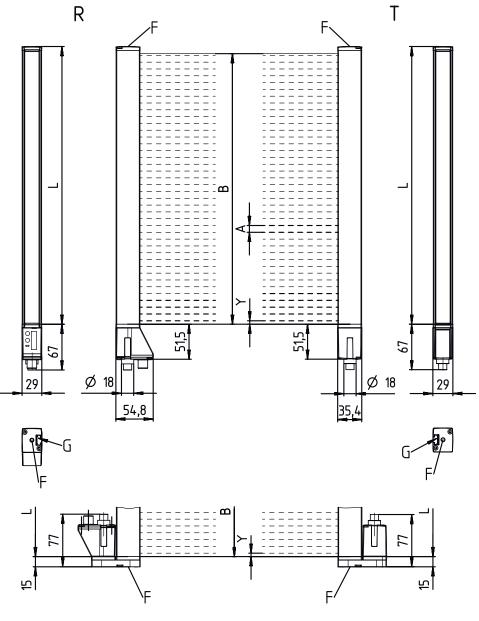
IP 65
III
c CSA US
IEC 60947-5-2
0

#### Classification

Customs tariff number	90314990
eCl@ss 5.1.4	27270910
eCl@ss 8.0	27270910
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

#### **Dimensioned drawings**

All dimensions in millimeters



Beam spacing 5 mm А

- В Measurement field length 960 mm
- F M6 thread

G

Fastening groove

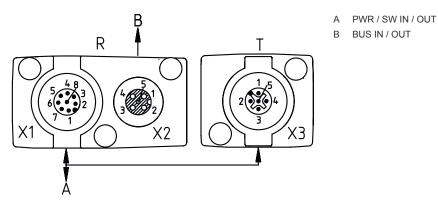
Profile length 968 mm L Т

- Transmitter
- R Receiver
- Υ 2.5 mm



#### **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		



Function	BUS IN
	BUS OUT
Type of connection	Connector
Thread size	M12
Туре	Female
Material	Metal
No. of pins	5 -pin
Encoding	B-coded

## **Electrical connection**

# Pin Pin assignment 1 V+ 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
50118587	CML730i-T05-960.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: 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!
<ul> <li>This product is not a safety sensor and is not intended as personnel protection.</li> <li>The product may only be put into operation by competent persons.</li> <li>Only use the product in accordance with its intended use.</li> </ul>



#### 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

## Configuration devices

	Part no.	Designation	Article	Description
165	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. 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.

#### Accessories

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