Leuze

Technical data sheet Light curtain receiver Part no.: 50118807 CML730i-R20-2550.A/L-M12



 Leuze electronic GmbH + Co. KG
 info@leuze.com • www.leuze.com
 changes

 The Sensor People
 In der Braike 1, D-73277 Owen/Germany
 Phone: +49 7021 573-0 • Fax: +49 7021 573-199
 eng • 2025-04-03

1/8

Technical data

Leuze

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	0.3 9.5 m
Operating range	Guaranteed operating range
Operating range, transparent media	0.3 3.5 m
Operating range limit	0.2 12 m
Operating range limit	Typical operating range
Measurement field length	2,550 mm
Number of beams	128 Piece(s)
Beam spacing	20 mm
Measurement data	
Minimum object diameter	30 mm
-	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	$0 \dots 435 \text{ mA}$, The specified values refer
	to the entire package consisting of trans mitter and receiver.
Inputs/outputs selectable	
Output current, max.	100 mA
Input resistance	6,000 Ω
Number of inputs/outputs selectable	4 Piece(s)
Туре	Inputs/outputs selectable
Voltage type, outputs	DC
Switching voltage, outputs	Typ. U _B / 0 V
Voltage type, inputs	DC
Switching voltage, inputs	high: ≥6V Iow: ≤ 4 V
Input/output 1	
Activation/disable delay	0 1 ms
Time behavior	
Readiness delay	450 ms
Cycle time	1.43 ms
Response time per beam	10 µs
Interface	
-	IO-Link
Туре	IO-LIIIK

	IO Link				
	IO-Link COM mode	COM2			
	Min. cycle time	COM2 = 2.3 ms			
	Specification	V1.0.1			
		V1.1			
	ervice interface				
50					
Ту	pe	IO-Link			
	IO-Link				
	Function	Configuration via software			
		Service			
C	onnection				
	umber of connections	2 Piece(s)			
PI	ug outlet	Axial			
	Connection 1				
	Function	Configuration interface			
		Signal IN			
		Signal OUT			
		Voltage supply			
	Type of connection	Connector			
	Thread size	M12			
	Type	Male			
	Material	Metal			
	No. of pins	8 -pin			
	Encoding	A-coded			
	Encouning	A coded			
	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			
	5				
Μ	echanical data				
De	esign	Cubic			
Di	mension (W x H x L)	29 mm x 35.4 mm x 2,635 mm			
Ho	ousing material	Metal			
M	etal housing	Aluminum			
Le	ens cover material	Plastic			
Ne	et weight	2,600 g			
Ho	ousing color	Silver			
Ту	pe of fastening	Groove mounting			
		Via optional mounting device			
0	peration and display				
_					
Ту	pe of display	LED			
		OLED display			
	umber of LEDs	2 Piece(s)			
Ту	pe of configuration	Software			
		Teach-in			
0	perational controls	Membrane keyboard			
E-	nvironmental data				
_					
	nbient temperature, operation	-30 60 °C			
Ar	nbient temperature, storage	-40 70 °C			

-

Technical data

Certifications

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

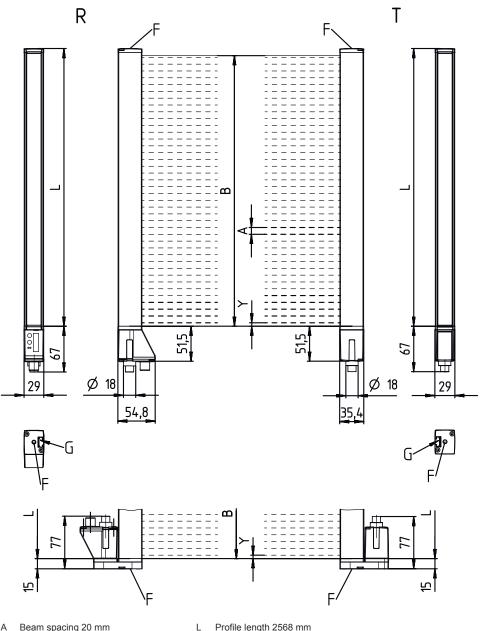
Classification

Customs tariff number	90314990
ECLASS 5.1.4	27270910
ECLASS 8.0	27270910
ECLASS 9.0	27270910
ECLASS 10.0	27270910
ECLASS 11.0	27270910
ECLASS 12.0	27270910
ECLASS 13.0	27270910
ECLASS 14.0	27270910
ECLASS 15.0	27270910
ETIM 5.0	EC002549
ETIM 6.0	EC002549
ETIM 7.0	EC002549
ETIM 8.0	EC002549
ETIM 9.0	EC002549
ETIM 10.0	EC002549



Dimensioned drawings

All dimensions in millimeters



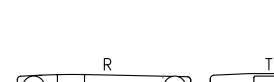
- Beam spacing 20 mm А
- В Measurement field length 2550 mm
- F M6 thread G
 - Fastening groove
- Profile length 2568 mm Т
 - Transmitter
- R Receiver
- 5 mm Υ

Leuze

X2

Dimensioned drawings





A PWR / SW IN / OUT

Electrical connection

Connection 1

À

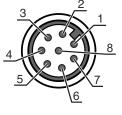
Function	Configuration interface
	Signal IN
	Signal OUT
	Voltage supply
Type of connection	Connector
Thread size	M12
Туре	Male
Material	Metal
No. of pins	8 -pin
Encoding	A-coded

2

X3

Pin Pin assignment

3 GND 4 IO-Link 5 IO2 6 IO3 7 IO4		
3 GND 4 IO-Link 5 IO2 6 IO3 7 IO4	1	V+
4 IO-Link 5 IO2 6 IO3 7 IO4	2	101
5 IO2 6 IO3 7 IO4	3	GND
6 103 7 104	4	IO-Link
7 104	5	IO2
	6	IO3
8 GND	7	IO4
	8	GND

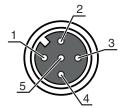


Connection 2

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

LED

1

2

ceiver • Part no.: 50118807 • CML730i-R20-2550.A/L-M12	Leuze
Display	Meaning
Green, continuous light	Operational readiness
Green, flashing	Teach / error
Yellow, continuous light	Light path free, with function reserve
Yellow, flashing	No function reserve

Object detected

Suitable transmitters

Off

Pa	rt no. I	Designation	Article	Description
501				Operating range: 0.3 9.5 m Connection: Connector, M12, Axial, 5 -pin

Part number code

Part designation: CML7XXi-YZZ-AAAA.BCCCDDD-EEEFFF

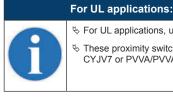
	Operating principle Measuring light curtain
	Series 720i: 720i series 730i: 730i series
	Device type T: transmitter R: receiver
	Beam spacing 05: 5 mm 10: 10 mm 20: 20 mm 40: 40 mm
AAAA	Measurement field length [mm], dependent on beam spacing
	Equipment A: Axial connector outlet R: Rear connector outlet
	Interface L: IO-Link /CN: CANopen /PB: PROFIBUS /PN: PROFINET /CV: Analog current and voltage output /D3: RS 485 Modbus
	Special equipment -PS: Power Setting
	Electrical connection M12: M12 connector
FFF	-EX: Explosion protection
Note	n 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.

 $\ensuremath{^{\ensuremath{\Downarrow}}}$ Only use the product in accordance with its intended use.



ų	For UL applications	, use is only permitted in	Class 2 circuits in accord	dance with the NEC (Na	ational 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 unit

	Part no.	Designation	Article	Description
C. LEATING	50144900	MD 798i-11-82/L5- 2222	IO-Link master	Type: IO-Link master Current consumption, max.: 11,000 mA Switching outputs for each sensor connection: 1 Piece(s) Switching output: Transistor, PNP Interface: IO-Link, Automatic protocol detection, EtherNet IP, Modbus TCP, PROFINET Connections: 12 Piece(s) Sensor connections: 8 Piece(s) Connections for voltage supply: 2 Piece(s) Interface connections: 2 Piece(s) Degree of protection: IP 67, IP 65, IP 69K

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 Connector, LED: No
Ŭ				Connection 2: Open end Shielded: Yes Cable length: 5.000 mm Sheathing material: PUR

Connection technology - Interconnection cables

	Part no.	Designation	Article	Description
	50129781	KDS DN-M12-5A- M12-5A-P3-050	Interconnection cable	Suitable for interface: 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

Leuze

Leuze

Accessories

Mounting technology - Mounting brackets

	Part no.	Designation	Article	Description
	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
P.G.	429393	BT-2HF	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
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
ц.	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.
	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.

