Technical data sheet Light curtain receiver Part no.: 50119188 CML730i-R20-790.R/L-M12



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Technical data

asic data D

terface		
esponse time per beam	10 µs	
eadiness delay /cle time	1 ms	
-	450 ms	
	0 1 ms	
Input/output 1		
	high: ≥6V Iow: ≤4V	
Voltage type, inputs	DC	
	Typ. U _B / 0 V	
Voltage type, outputs	DC	
Туре	Inputs/outputs selectable	
Number of inputs/outputs selectable		
Input resistance	6,000 Ω	
Output current, max.	100 mA	
Inputs/outputs selectable		
Open-circuit current	0 215 mA, The specified values refer to the entire package consisting of trans mitter and receiver.	
	0 15 %, From U _B	
Supply voltage U _B	18 30 V, DC	
Performance data	· · · · · · · · · · · · · · · · · · ·	
	Transient protection	
otective circuit	Polarity reversal protection Short circuit protected	
ectrical data		
nimum object diameter	30 mm	
easurement data		
am spacing	20 mm	
-	40 Piece(s)	
	790 mm	
	0.2 12 m	
3 3 3 3 3 1	Typical operating range	
0 0	0.3 3.5 m	
	0.3 9.5 m	
perating range	Guaranteed operating range	
ntical data	Parallel-beam scanning	
	Diagonal-beam scanning	
ecial version	Crossed-beam scanning	
ecial version		
photon	Object measurement	
ontains	Accessories for the use of the BT-2R1 Detection of transparent objects	
	Receiver	
evice type		
perating principle	Throughbeam principle	

COM mode	COM2
Specification	V1.0.1
opeoneaten	V1.1
Min. cycle time	COM2 = 2.3 ms
ervice interface	
ре	IO-Link
-	
IO-Link Function	Configuration via software
	Service
onnection	
umber of connections	2 Piece(s)
ug outlet	Rear side
Connection 1 Function	Configuration interface
T unction	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
0	
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
echanical data	
esign	Cubic
imension (W x H x L)	29 mm x 35.4 mm x 823 mm
ousing material	Metal
letal housing	Aluminum
ens cover material	Plastic
et weight	1,050 g
ousing color	Silver
ype of fastening	Groove mounting
	Via optional mounting device
peration and display	
ype of display	LED
	OLED display
lumber of LEDs	2 Piece(s)
ype of configuration	Software
	Teach-in
perational controls	Membrane keyboard
nvironmental data	
mbient temperature, operation	-30 60 °C
	-40 70 °C

Technical data

Leuze

Certifications

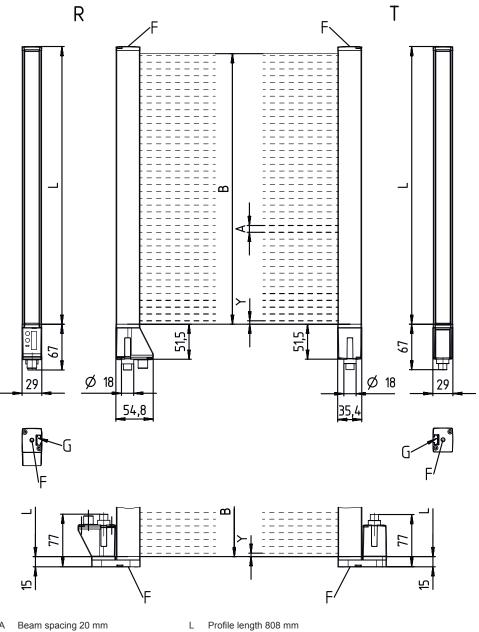
P 65
II
CSA US
EC 60947-5-2

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 20 mm А

Fastening groove

- В Measurement field length 790 mm
- F M6 thread

G

R Receiver

Т

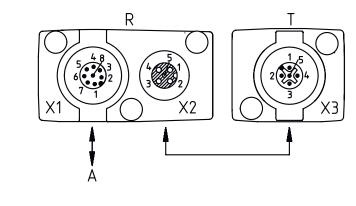
Υ 5 mm

Transmitter



Dimensioned drawings





A PWR / 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 IO1 3 GND 4 IO-Link 5 IO2 6 IO3 7 IO4		
3 GND 4 IO-Link 5 IO2 6 IO3	1	V+
4 IO-Link 5 IO2 6 IO3	2	IO1
5 IO2 6 IO3	3	GND
6 IO3	4	IO-Link
	5	IO2
7 104	6	IO3
1 104	7	IO4
8 GND	8	GND



Connection 2

Connection to transmitter
Connector
M12
Female
Metal
5 -pin
A-coded

Pin Pin assignment

1	FE/SHIELD
2	V+
3	GND
4	RS 485 Tx+
5	RS 485 Tx-



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
50118970	CML730i-T20-790.R- M12	Light curtain transmitter	Operating range: 0.3 9.5 m Connection: Connector, M12, Rear side, 5 -pin

Part number code

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

Note Image: Second se		
FFF	-EX: Explosion protection	
EEE	Electrical connection M12: M12 connector	
DDD	Special equipment -PS: Power Setting	
CCC	Interface L: IO-Link /CN: CANopen /PB: PROFIBUS /PN: PROFINET /CV: Analog current and voltage output /D3: RS 485 Modbus	
В	Equipment A: connector outlet, axial R: rear connector outlet	
AAAA	Measurement field length [mm], dependent on beam spacing	
ZZ	Beam spacing 05: 5 mm 10: 10 mm 20: 20 mm 40: 40 mm	
Y	Device type T: transmitter R: receiver	
7XXi	Series 720i: 720i series 730i: 730i series	
CML	Operating principle Measuring light curtain	

Notes

Observe intended use!

✤ This product is not a safety sensor and is not intended as personnel protection.

 ${\ensuremath{\,\textcircled{\tiny \ensuremath{\,\Downarrow}}}}$ The product may only be put into operation by competent persons.

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

	For UL applications:
A	 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
	50129781	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
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

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Accessories



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
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
y, U	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.