



the sensor people





Figure can vary

Part no.: 50118577 CML730i-T05-160.A-M12 Light curtain transmitter





Contents

- Technical data
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- Electrical connection
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Technical data

Basic data	
Series	730
Operating principle	Throughbeam principle
Device type	Transmitter
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 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	160 mm
Number of beams	32 Piece(s)
Beam spacing	5 mm
Light source	LED , Infrared
.ED light wavelength	940 nm
Measurement data	
Minimum object diameter	10 mm
Electrical data Protective circuit	Polarity reversal protection Short circuit protected
	Transient protection
Performance data	Transient protection
Performance data Supply voltage UB	Transient protection 18 30 V , DC
Supply voltage U _B	Transient protection
	Transient protection 18 30 V , DC
Supply voltage U _B Residual ripple Open-circuit current	Transient protection 18 30 V , DC 0 15 % , From U _B 0 135 mA , The specified values refer to the entire package con
Supply voltage UB Residual ripple Open-circuit current	Transient protection 18 30 V , DC 0 15 % , From UB 0 135 mA , The specified values refer to the entire package con sisting of transmitter and receiver.
Supply voltage UB Residual ripple Open-circuit current Timing Readiness delay	Transient protection 18 30 V , DC 0 15 % , From UB 0 135 mA , The specified values refer to the entire package consisting of transmitter and receiver.
Supply voltage UB Residual ripple Open-circuit current Fiming Readiness delay Cycle time	Transient protection 18 30 V , DC 0 15 % , From UB 0 135 mA , The specified values refer to the entire package consisting of transmitter and receiver.
Supply voltage UB Residual ripple Open-circuit current Timing Readiness delay Cycle time	Transient protection 18 30 V , DC 0 15 % , From UB 0 135 mA , The specified values refer to the entire package consisting of transmitter and receiver. 450 ms 1 ms
Supply voltage UB Residual ripple Open-circuit current Fiming Readiness delay Cycle time Connection Number of connections	Transient protection 18 30 V , DC 0 15 % , From UB 0 135 mA , The specified values refer to the entire package consisting of transmitter and receiver. 450 ms 1 ms
Supply voltage UB Residual ripple Open-circuit current Fiming Readiness delay Cycle time Connection Jumber of connections Plug outlet	Transient protection 18 30 V , DC 0 15 % , From UB 0 135 mA , The specified values refer to the entire package consisting of transmitter and receiver. 450 ms 1 ms
Supply voltage UB Residual ripple Open-circuit current Fiming Readiness delay Cycle time Connection Number of connections Plug outlet Connection 1	Transient protection 18 30 V , DC 0 15 % , From UB 0 135 mA , The specified values refer to the entire package consisting of transmitter and receiver. 450 ms 1 ms 1 Piece(s) Axial
Supply voltage UB Residual ripple Open-circuit current Fiming Readiness delay Cycle time Connection Number of connections Plug outlet Connection 1 Function	Transient protection 18 30 V , DC 0 15 % , From UB 0 135 mA , The specified values refer to the entire package consisting of transmitter and receiver. 450 ms 1 ms 1 Piece(s) Axial Connection to receiver
Supply voltage UB Residual ripple Open-circuit current Timing Readiness delay Cycle time Connection Number of connections Plug outlet Connection 1 Function Type of connection	Transient protection 18 30 V , DC 0 15 % , From UB 0 135 mA , The specified values refer to the entire package consisting of transmitter and receiver. 450 ms 1 ms 1 Piece(s) Axial Connection to receiver Connector
Supply voltage UB Residual ripple Open-circuit current Fiming Readiness delay Cycle time Connection Number of connections Plug outlet Connection 1 Function Type of connection Thread size	Transient protection 18 30 V , DC 0 15 % , From UB 0 135 mA , The specified values refer to the entire package consisting of transmitter and receiver. 450 ms 1 ms 1 Piece(s) Axial Connection to receiver Connector M12
Supply voltage UB Residual ripple Open-circuit current Timing Readiness delay Cycle time Connection Number of connections Plug outlet Connection 1 Function Type of connection Thread size Type	Transient protection 18 30 V , DC 0 15 % , From UB 0 135 mA , The specified values refer to the entire package consisting of transmitter and receiver. 450 ms 1 ms 1 Piece(s) Axial Connection to receiver Connector M12 Male
Supply voltage UB Residual ripple Open-circuit current Timing Readiness delay Cycle time Connection Number of connections Plug outlet Connection 1 Function Type of connection Thread size	Transient protection 18 30 V , DC 0 15 % , From UB 0 135 mA , The specified values refer to the entire package consisting of transmitter and receiver. 450 ms 1 ms 1 Piece(s) Axial Connection to receiver Connector M12



Mechanical data	
Design	Cubic
Dimension (W x H x L)	29 mm x 35.4 mm x 235 mm
Housing material	Metal , Aluminum
Lens cover material	Plastic
Net weight	300 g
Housing color	Silver
Type of fastening	Groove mounting Via optional mounting device
Operation and display	
Type of display	LED
Number of LEDs	1 Piece(s)
Environmental data	
Ambient temperature, operation	-30 60 °C
Ambient temperature, storage	-40 70 °C
Certifications	
Degree of protection	IP 65
Protection class	III

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

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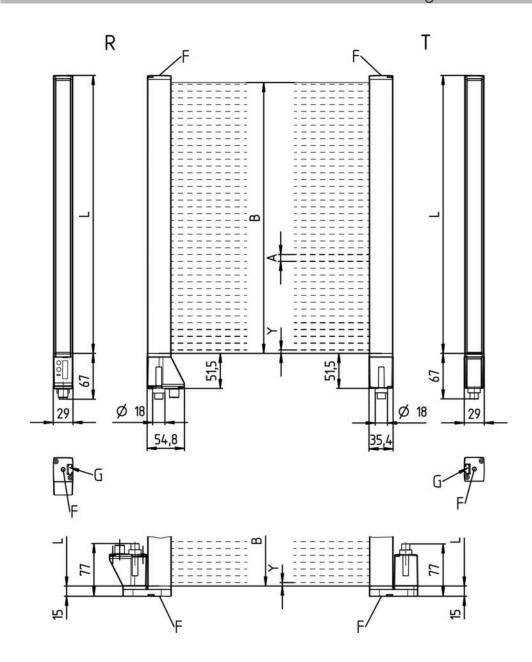
IEC 60947-5-2

Dimensioned drawings

All dimensions in millimeters

Certifications Standards applied





- A Beam spacing 5 mm B Measurement field length 160 mm
- F M6 thread
- G Fastening groove
- L Profile length 168 mm
- T Transmitter
- R Receiver
- Y 2.5 mm

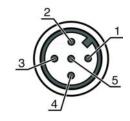




Electrical connection

Connection 1	
Function	Connection to receiver
Type of connection	Connector
Thread size	M12
Туре	Male
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	Continuous mode
	Off	No communication with the receiver / waiting for trigger
	green, flashing in sync with the measurement	Measurement frequency display

Suitable receivers

Part no.	Designation	Article	Description
50118656	CML730i- R05-160.A/CN- M12	Light curtain receiver	Operating range: 0.1 4.5 m Interface: CANopen Connection: Connector, M12, Axial, 8 -pin
50118819	CML730i- R05-160.A/CV- M12	Light curtain receiver	Operating range: 0.1 4.5 m Analog outputs: 2 Piece(s), Voltage, Current Connection: Connector, M12, Axial, 8 -pin
50123271	CML730i- R05-160.A/ D3-M12	Light curtain receiver	Operating range: 0.1 4.5 m Interface: RS 485 Connection: Connector, M12, Axial, 8 -pin



Part no.	Designation	Article	Description
50118738	CML730i- R05-160.A/L-M12	Light curtain receiver	Operating range: 0.1 4.5 m Interface: IO-Link Connection: Connector, M12, Axial, 8 -pin
50123082	CML730i- R05-160.A/PB- M12	Light curtain receiver	Operating range: 0.1 4.5 m Interface: PROFIBUS DP Connection: Connector, M12, Axial, 8 -pin
50131694	CML730i- R05-160.A/PN- M12	Light curtain receiver	Operating range: 0.1 4.5 m Interface: PROFINET Connection: Connector, M12, Axial, 8 -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
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
ССС	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:

Note	
A list with a	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 - Interconnection cables

Part no.	Designation	Article	Description
50129781	KDS DN-M12-5A- M12-5A-P3-050		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

Mounting technology - Swivel mounts

	Part no.	Designation	Article	Description
EE.	429046	BT-2R1	Mounting bracket 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

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	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.

Note

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