

Technical data sheet

Throughbeam photoelectric sensor receiver

Part no.: 50150339

LE35CPP/LG-M12

Contents

- Technical data
- Dimensioned drawings
- Electrical connection
- Suitable transmitters
- Part number code
- Notes
- Further information
- Accessories



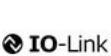
IP 67



IP 68



IP 69K



For illustration purposes only

Technical data

Basic data

Series	35C
Operating principle	Throughbeam principle
Device type	Receiver

Optical data

Operating range	see transmitter
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Electrical data

Protective circuit	Polarity reversal protection Short circuit protected
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Performance data

Supply voltage U_B	10 ... 30 V, DC, Incl. residual ripple
Residual ripple	0 ... 15 %, From U_B
Open-circuit current	0 ... 20 mA

Outputs

Number of digital switching outputs	2 Piece(s)
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Switching outputs

Type	Digital switching output
Voltage type	DC
Switching current, max.	100 mA
Switching voltage	high: $\geq (U_B - 2.5V)$ low: $\leq 2.5 V$

Switching output 1

Assignment	Connection 1, pin 4
Switching element	Transistor, Push-pull
Switching principle	IO-Link / light switching (PNP)/dark switching (NPN)

Switching output 2

Assignment	Connection 1, pin 2
Switching element	Transistor, Push-pull
Switching principle	Dark switching (PNP)/light switching (NPN)

Time behavior

Switching frequency	1,500 Hz
Response time	0.33 ms
Readiness delay	300 ms

Interface

Type	IO-Link
IO-Link	
COM mode	COM2
Profile	Smart sensor profile
Min. cycle time	COM2 = 2.3 ms
Frame type	2.5
Specification	V1.1
Device ID	6118
SIO-mode support	Yes

Connection

Number of connections	1 Piece(s)
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Connection 1

Function	Signal IN Signal OUT Voltage supply
Type of connection	Connector
Thread size	M12
Type	Male
Material	Stainless steel
No. of pins	4 -pin
Encoding	A-coded

Mechanical data

Dimension (W x H x L)	18.8 mm x 55.3 mm x 32.4 mm
Housing material	Stainless steel
Material of operational control	Plastic (POM Hostafoma C9021, copolyester Tritan TX1001), non-diffusive
Housing roughness	$R_a \leq 0.8$, Typical value for the stainless steel housing
Stainless steel housing	AISI 316L, DIN X2CrNiMo17132, W. No1.4404
Lens cover material	Plastic (PMMA+) with scratch-resistant Indium protective coating
Net weight	120 g
Housing color	Silver
Type of fastening	Through-hole mounting Via optional mounting device
Compatibility of materials	CleanProof+ ECOLAB Johnson Diversey

Environmental data

Ambient temperature, operation	-40 ... 60 °C, (70 °C \leq 15min)
Ambient temperature, storage	-40 ... 70 °C

Certifications

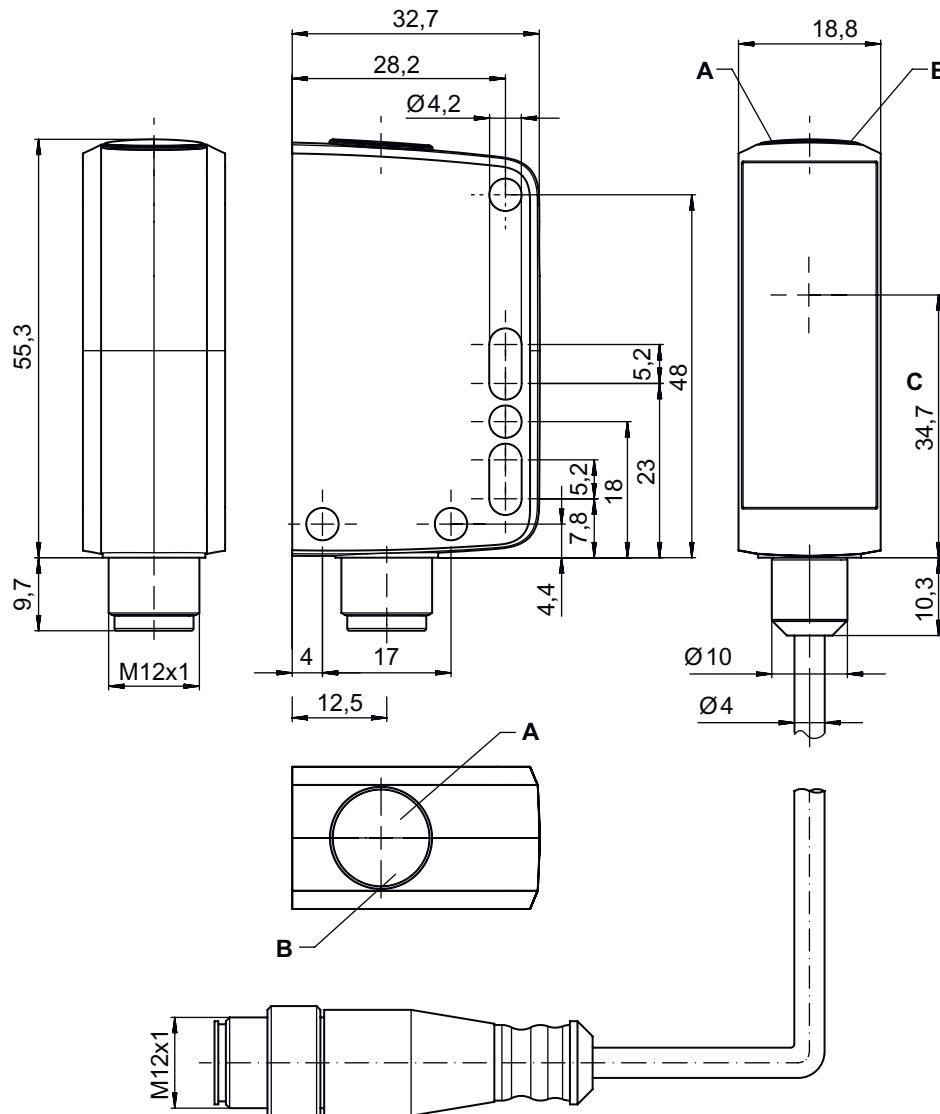
Degree of protection	IP 67 IP 68 IP 69K
Protection class	III
Approvals	c UL US
Standards applied	IEC 60947-5-2

Classification

Customs tariff number	85365019
ECLASS 5.1.4	27270901
ECLASS 8.0	27270901
ECLASS 9.0	27270901
ECLASS 10.0	27270901
ECLASS 11.0	27270901
ECLASS 12.0	27270901
ECLASS 13.0	27270901
ECLASS 14.0	27270901
ECLASS 15.0	27270901
ETIM 5.0	EC002716
ETIM 6.0	EC002716
ETIM 7.0	EC002716
ETIM 8.0	EC002716
ETIM 9.0	EC002716
ETIM 10.0	EC002716

Dimensioned drawings

All dimensions in millimeters



- A Green LED
- B Yellow LED
- C Optical axis

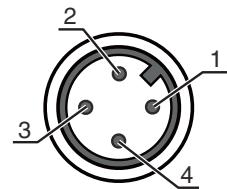
Electrical connection

Connection 1

Function	Signal IN
Type of connection	Signal OUT
Thread size	Voltage supply
Type	Connector
Material	M12
No. of pins	Male
Encoding	Stainless steel
	4-pin
	A-coded

Electrical connection

Pin	Pin assignment
1	V+
2	OUT 2
3	GND
4	IO-Link / OUT 1



Suitable transmitters

Part no.	Designation	Operating range Operating range limit	Description
	50150336 LS35CPP/8X-M12	0 ... 25 m 0 ... 30 m	Special version: Activation input Operating range limit: 0 ... 30 m Light source: Power PinPoint® LED, Red Supply voltage: DC Connection: Connector, M12, Stainless steel, 4 -pin

Part number code

Part designation: AAA35C d EE.GGH/iJ-K

AAA35C	Operating principle LS35C: Throughbeam photoelectric sensor transmitter LE35C: Throughbeam photoelectric sensor receiver PRK35C: Retro-reflective photoelectric sensor with polarization filter HT35C: Diffuse reflection sensor with background suppression DRT35C: Dynamic reference diffuse sensor
d	Light type n/a: red light I: infrared light
EE	Light source n/a: LED PP: Power PinPoint® LED L1: laser class 1
GG	Equipment A: Autocollimation principle (single lens) D: Detection of stretch-wrapped objects X: extended model XL: Extra long light spot TT: autocollimation principle (single lens) for highly transparent bottles with tracking R: greater operating range XXR: super power transmitter
H	Operating range adjustment 1: 270° potentiometer 2: multiturn potentiometer 3: teach-in via button
i	Switching output/function OUT 1/IN: Pin 4 or black conductor X: pin not used 8: activation input (activation with high signal) L: IO-Link interface (SIO mode: PNP light switching, NPN dark switching) 4: PNP transistor output, light switching 6: push-pull switching output, PNP light switching, NPN dark switching 1: IO-Link / light switching (NPN) / dark switching (PNP)

Part number code

J	Switching output / function OUT 2/IN: pin 2 or white conductor T: teach-in via cable G: Push-pull switching output, PNP dark switching, NPN light switching X: pin not used P: PNP transistor output, dark switching 6: push-pull switching output, PNP light switching, NPN dark switching
K	Electrical connection n/a: cable, standard length 2000 mm, 4-wire 200-M12: cable, length 200 mm with M12 connector, 4-pin, axial (plug) M12: M12 connector, 4-pin (plug)

Note	
	↳ A list with all available device types can be found on the Leuze website at www.leuze.com .

Notes

	Observe intended use!
	<p>↳ This product is not a safety sensor and is not intended as personnel protection.</p> <p>↳ The product may only be put into operation by competent persons.</p> <p>↳ Only use the product in accordance with its intended use.</p>

Further information

- Ambient temperature, operation: +70 °C permissible only briefly (≤ 15min)
- IP 69K only in combination with connector
- Sum of the output currents for both outputs 100 mA

Accessories

Connection technology - Connection unit

Part no.	Designation	Article	Description
	50144900	MD 798i-11-82/L5-2222	IO-Link master Current consumption, max.: 11,000 mA Interface: IO-Link, Automatic protocol detection, EtherNet IP, Modbus TCP, PROFINET Connections: 12 Piece(s) Sensor connections: 8 Piece(s) Degree of protection: IP 67, IP 65, IP 69K

Accessories

Connection technology - Connection cables

Part no.	Designation	Article	Description
	50130657	KD U-M12-4A-P1-050	Connection cable Application: Oil and lubricant resistant Connection 1: Connector, M12, Axial, Female, A-coded, 4 -pin Connector, LED: No Connection 2: Open end Shielded: No Cable length: 5,000 mm Sheathing material: PUR
	50148350	KD U-M12-4A-T0-050 F+B	Connection cable Application: Chemical resistant, Hygienic and wet areas Connection 1: Connector, M12, Axial, Female, A-coded, 4 -pin Connector, LED: No Connection 2: Open end Shielded: No Cable length: 5,000 mm Sheathing material: TPE

Mounting technology - Mounting brackets

Part no.	Designation	Article	Description
	50118543	BT 300M.5	Mounting bracket Design of mounting device: Angle, L-shape Fastening, at system: Through-hole mounting Mounting bracket, at device: Screw type, Suited for M4 screws Type of mounting device: Adjustable Material: Stainless steel

Mounting technology - Rod mounts

Part no.	Designation	Article	Description
	50117252	BTU 300M-D12	Mounting system Contains: 2x M4 x 25 screw, 2x M4 x 20 screw, 4x position washers Design of mounting device: Mounting system Fastening, at system: For 12 mm rod, Sheet-metal mounting Mounting bracket, at device: Screw type, Suited for M4 screws Type of mounting device: Clampable, Adjustable, Turning, 360° Material: Metal
	50120425	BTU 300M.5-D12	Mounting system Contains: 2x M4 x 25 screw, 2x M4 mounting nut, 2x M4 x 20 screw, 2x position washers Design of mounting device: Mounting system Fastening, at system: For 12 mm rod, Sheet-metal mounting Mounting bracket, at device: Screw type, Suited for M4 screws Type of mounting device: Clampable, Adjustable, Turning, 360° Material: Stainless steel

Note

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