

## Technical data sheet

### Throughbeam photoelectric sensor receiver

Part no.: 50150368

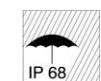
LE33CI.XR1/LG-M8



For illustration purposes only

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## Technical data

### Basic data

Series	33C
Operating principle	Throughbeam principle
Device type	Receiver
Application	Detection of products in bag packaging

### 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	100 Hz
Response time	5 ms
Readiness delay	300 ms

### Interface

Type	IO-Link
<b>IO-Link</b>	
COM mode	COM2
Profile	Smart sensor profile
Min. cycle time	COM2 = 2.3 ms
Frame type	2.5
Specification	V1.1
Device ID	6117
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	M8
Type	Male
Material	Stainless steel
No. of pins	4 -pin

### Mechanical data

Dimension (W x H x L)	18.8 mm x 52.8 mm x 32.4 mm
Housing material	Stainless steel
Material of operational control	Plastic (POM Hostaform C9021, copoly-ester 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	Housing fit
Compatibility of materials	CleanProof+ ECOLAB Johnson Diversey

### Operation and display

Operational controls	270° potentiometer
Function of the operational control	Sensitivity adjustment

### Environmental data

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

### Certifications

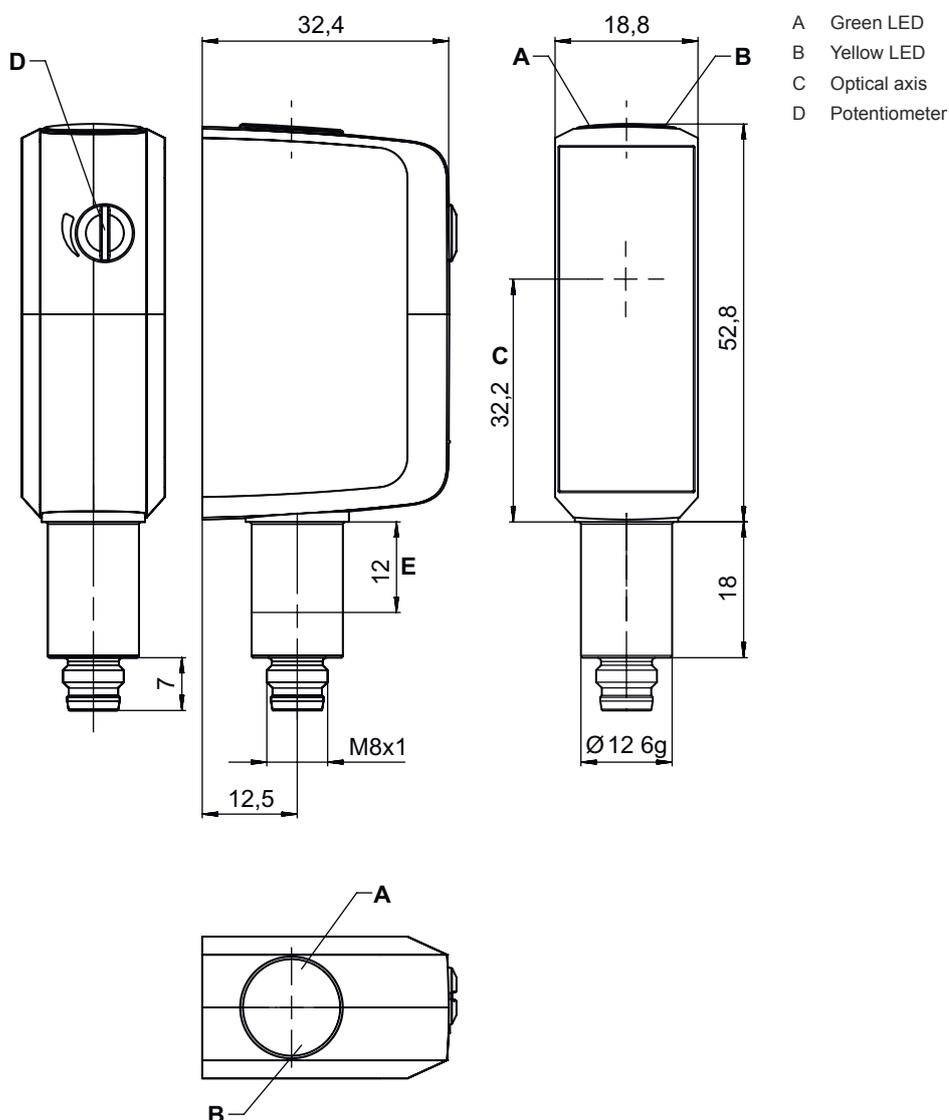
Degree of protection	IP 67 IP 68 IP 69K
Protection class	III
Approvals	c UL US
Standards applied	IEC 60947-5-2

## Technical data

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
ECLASS 16.0	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



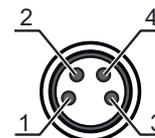
## Electrical connection

### Connection 1

Function	Signal IN
	Signal OUT
	Voltage supply
Type of connection	Connector
Thread size	M8
Type	Male
Material	Stainless steel
No. of pins	4 -pin

## 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
	50150369	LS33CI.XR1/XX-M8	0 ... 180 m 0 ... 220 m	Application: Detection of products in bag packaging Operating range limit: 0 ... 220 m Light source: LED, Infrared Supply voltage: DC Connection: Connector, M8, Stainless steel, 4 -pin Operational controls: 270° potentiometer
	50150367	LS33CI.XXR/XX-M8	0 ... 340 m 0 ... 400 m	Application: Detection of products in bag packaging Operating range limit: 0 ... 400 m Light source: LED, Infrared Supply voltage: DC Connection: Connector, M8, Stainless steel, 4 -pin

## Part number code

Part designation: AAA33C d EE.GGH/iJ-K

<b>AAA33C</b>	<b>Operating principle</b> LS33C: Throughbeam photoelectric sensor transmitter LE33C: Throughbeam photoelectric sensor receiver PRK33C: Retro-reflective photoelectric sensor with polarization filter HT33C: Diffuse reflection sensor with background suppression DRT33C: Dynamic reference diffuse sensor
<b>d</b>	<b>Light type</b> n/a: red light I: infrared light
<b>EE</b>	<b>Light source</b> n/a: LED PP: Power PinPoint® LED L1: laser class 1
<b>GG</b>	<b>Equipment</b> 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
<b>H</b>	<b>Operating range adjustment</b> 1: 270° potentiometer 2: multiturn potentiometer 3: teach-in via button
<b>i</b>	<b>Switching output/function OUT 1/IN: Pin 4 or black conductor</b> X: pin not used 8: activation input (activation with high signal) L: IO-Link interface (SIO mode: PNP light switching, NPN dark switching)

## 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

**K**                    **Electrical connection**  
 M8: M8 connector, 4-pin (plug)

### Note



A list with all available device types can be found on the Leuze website at [www.leuze.com](http://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.

## Further information

- Ambient temperature, operation: +70 °C permissible only briefly (≤ 15min)
- IP 69K only with internal tube installation of M8 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

### Connection technology - Connection cables

	Part no.	Designation	Article	Description
	50106153	K-D M8A-4P-5m-FAB	Connection cable	Application: Hygienic and wet areas Connection 1: Connector, M8, Axial, Female, 4 -pin Connector, LED: No Connection 2: Open end Shielded: No Cable length: 5,000 mm Sheathing material: PVC

## Accessories

	Part no.	Designation	Article	Description
 	50148347	KD U-M8-4A-T0-050 F+B	Connection cable	Application: Chemical resistant, Hygienic and wet areas Connection 1: Connector, M8, Axial, Female, A-coded, 4 -pin Connector, LED: No Connection 2: Open end Shielded: No Cable length: 5,000 mm Sheathing material: TPE
 	50130850	KD U-M8-4A-V1-050	Connection cable	Application: Chemical resistant Connection 1: Connector, M8, Axial, Female, 4 -pin Connector, LED: No Connection 2: Open end Shielded: No Cable length: 5,000 mm Sheathing material: PVC

## Mounting technology - Other

	Part no.	Designation	Article	Description
	50145361	BTU 053M.5F-D12-T	Mounting system	Design of mounting device: Mounting system Fastening, at system: Screw type Mounting bracket, at device: For 12 mm rod Type of mounting device: Turning, 360°, Adjustable 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.