

## Technical data sheet

## Throughbeam photoelectric sensor

Part no.: 50140154

LE412B/4

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Figure can vary



## Technical data

### Basic data

Series	412B
Operating principle	Throughbeam principle
Device type	Receiver

### Optical data

Operating range	Guaranteed operating range
Operating range	0 ... 10 m

### Electrical data

Protective circuit	Polarity reversal protection
	Short circuit protected

### Performance data

Supply voltage $U_B$	10 ... 36 V, DC, Incl. residual ripple
Residual ripple	0 ... 20 %, From $U_B$
Open-circuit current	0 ... 15 mA

### Outputs

Number of digital switching outputs	1 Piece(s)
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### Switching outputs

Voltage type	DC
Switching current, max.	200 mA

### Switching output 1

Switching element	Transistor, PNP
Switching principle	Light switching

### Timing

Switching frequency	1,000 Hz
Response time	0.5 ms
Readiness delay	20 ms

### Connection

#### Connection 1

Function	Signal OUT
	Voltage supply
Type of connection	Cable
Cable length	2,000 mm
Sheathing material	PVC
Cable color	Black
Number of conductors	3 -wire
Wire cross section	0.34 mm <sup>2</sup>

### Mechanical data

Thread size	M12 x 1 mm
Dimension (Ø x L)	12 mm x 51 mm
Housing material	Metal
Metal housing	Chromed brass
Lens cover material	Glass
Net weight	100 g
Housing color	Silver

### Operation and display

Type of display	LED
Number of LEDs	2 Piece(s)

### Environmental data

Ambient temperature, operation	-25 ... 55 °C
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### Certifications

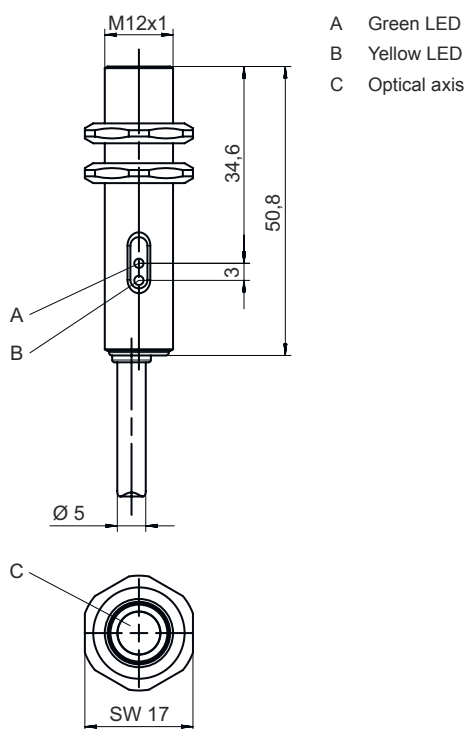
Degree of protection	IP 67
Protection class	III
Certifications	c UL US
Standards applied	IEC 60947-5-2

### Classification

Customs tariff number	85365019
eCl@ss 5.1.4	27270901
eCl@ss 8.0	27270901
eCl@ss 9.0	27270901
eCl@ss 10.0	27270901
eCl@ss 11.0	27270901
ETIM 5.0	EC002716
ETIM 6.0	EC002716
ETIM 7.0	EC002716

## Dimensioned drawings

All dimensions in millimeters



## Electrical connection

### Connection 1

Function	Signal OUT Voltage supply
Type of connection	Cable
Cable length	2,000 mm
Sheathing material	PVC
Cable color	Black
Number of conductors	3 -wire
Wire cross section	0.34 mm <sup>2</sup>

### Conductor color


### Conductor assignment

Brown	V+
Black	OUT 1
Blue	GND

## Operation and display

LED	Display	Meaning
1	Green, continuous light	Function reserve
2	Yellow, continuous light	Switching output/switching state active

## Suitable transmitters

	Part no.	Designation	Article	Description
	50140153	LS412B/D	Throughbeam photoelectric sensor transmitter	Special version: Deactivation input Light source: LED, Red Supply voltage: DC Deactivation inputs: 1 Piece(s) Connection: Cable, 2,000 mm, 3 -wire

## Part number code

Part designation: AAA412BGG.H/ii-K

AAA412B	<b>Operating principle / construction</b> LS412B: throughbeam photoelectric sensor transmitter LE412B: throughbeam photoelectric sensor receiver ET412B: energetic diffuse reflection sensor PRK412B: retro-reflective photoelectric sensor with polarization filter
GG	<b>Light source</b> n/a: LED L2: laser class 2
H	<b>Operating range adjustment</b> 1: 270° potentiometer
ii	<b>Switching output / function / OUT1OUT2 (OUT1 = pin 4, OUT2 = pin 2)</b> 2: NPN transistor output, light switching N: NPN transistor output, dark switching 4: PNP transistor output, light switching P: PNP transistor output, dark switching D: deactivation input (deactivation with low signal) X: pin not used
K	<b>Electrical connection</b> n/a: cable, standard length 2000 mm, 3-wire 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](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.

**Accessories****Mounting technology - Mounting brackets**

	<b>Part no.</b>	<b>Designation</b>	<b>Article</b>	<b>Description</b>
	50113549	BT D12M.5	Mounting bracket	Diameter, inner: 12 mm Design of mounting device: Angle, L-shape Fastening, at system: Through-hole mounting Mounting bracket, at device: Screw type Type of mounting device: Rigid 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.