SMART
SENSOR
BUSINESS

Leuze electronic

the sensor people

Figure can vary

Part no.: 50140155
LE412B/P
Throughbeam photoelectric sensor receiver

Contents

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Part no.: 50140155 – LE412B/P – Throughbeam photoelectric sensor receiver

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)
Switching outputs	
Voltage type	DC
Switching current, max.	200 mA
Switching output 1	
Switching element	Transistor , PNP
Switching principle	Dark switching
Timing	
Switching frequency	1,000 Hz
Response time	0.5 ms
Readiness delay	20 ms
Connection	
Connection 1	
Type of connection	Cable
Function	Signal OUT Voltage supply
Cable length	2,000 mm
Sheathing material	PVC
Cable color	Black
Number of conductors	3 -wire
Wire cross section	0.34 mm²
Mechanical data	
Thread size	M12 x 1 mm
Dimension (Ø x L)	12 mm x 51 mm
Housing material	Metal , Chromed brass
Lens cover material	Glass
Net weight	100 g
Housing color	Silver

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

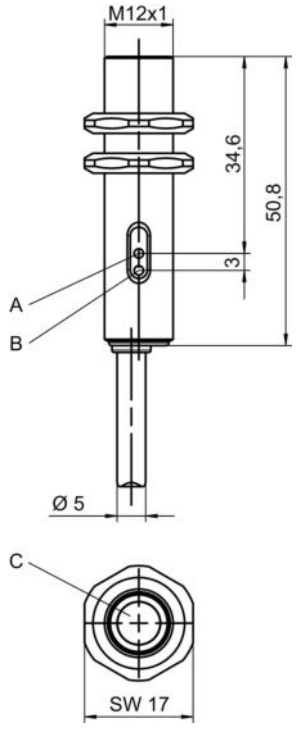
Environmental data	
Ambient temperature, operation	-25 ... 55 °C

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 8.0	27270901
eCl@ss 9.0	27270901
ETIM 5.0	EC002716

Dimensioned drawings

All dimensions in millimeters



A Green LED
B Yellow LED
C Optical axis

Electrical connection

Connection 1	
Type of connection	Cable
Function	Signal OUT Voltage supply
Cable length	2,000 mm
Sheathing material	PVC
Cable color	Black
Number of conductors	3 -wire
Wire cross section	0.34 mm²

Conductor color	Conductor assignment
Brown	V+
Black	OUT 1
Blue	GND

Operation and display

LEDs

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 design: 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	**Operating principle / construction:** LS412B: throughbeam photoelectric sensor transmitter LE412B: throughbeam photoelectric sensor receiver ET412B: energetic diffuse reflection sensor PRK412B: retro-reflective photoelectric sensor with polarization filter
GG	**Light source:** n/a: LED L2: laser class 2
H	**Operating range adjustment:** 1: 270° potentiometer

ii	**Switching output / function / OUT1OUT2 (OUT1 = pin 4, OUT2 = pin 2):** 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	**Electrical connection:** 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 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.

Accessories

Mounting technology - Mounting brackets

	Part no.	Designation	Article	Description
	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 electronic website in the Download tab of the article detailed page.