



Part no.: 50128862
Set L318B.Y1
Throughbeam photoelectric sensor
transmitter set





Figure can vary

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Set consists of

	Quantity	Part no.	Designation	Article	Description
	1	50116847	LE318B/4P-M12	Throughbeam photoelectric sensor receiver	Operating range limit: 0 ... 15 m Supply voltage: DC Digital switching outputs: 2 Piece(s) Switching output 1: Transistor, PNP, Light switching Switching output 2: Transistor, PNP, Dark switching Switching frequency: 500 Hz Connection: Connector, M12, Plastic, 4 -pin
	1	50126605	LS318B.Y1	Throughbeam photoelectric sensor transmitter	Special design: Deactivation input, Small light spot (S) Operating range limit: 0 ... 14.2 m Light source: LED, Red Supply voltage: DC Deactivation inputs: 2 Piece(s) Connection: Connector, M12, Plastic, 4 -pin

Technical data

Basic data	
Series	318B
Operating principle	Throughbeam principle
Device type	Set (transmitter and receiver)
Special design	
Special design	Article set Deactivation input Small light spot (S)
Optical data	
Operating range	Guaranteed operating range
Operating range	0 ... 9.4 m
Operating range limit	Typical operating range
Operating range limit	0 ... 14.2 m
Light source	LED , Red
LED light wavelength	620 nm
LED group	Exempt group (in acc. with EN 62471)
Transmitted-signal shape	Pulsed
Electrical data	
Protective circuit	Polarity reversal protection Short circuit protected
Performance data	
Supply voltage U_B	10 ... 30 V , DC , Incl. residual ripple
Residual ripple	0 ... 15 % , From U_B
Open-circuit current	0 ... 15 mA

Inputs

Number of deactivation inputs 2 Piece(s)

Deactivation inputs

Deactivation input 1

Active switching state Low

Deactivation input 2

Active switching state High

Outputs

Number of digital switching outputs 2 Piece(s)

Switching outputs

Voltage type DC

Switching current, max. 100 mA

Switching voltage High: $\geq(U_B-2V)$
Low: $\leq 2V$

Switching output 1

Switching element Transistor , PNP

Switching principle Light switching

Switching output 2

Switching element Transistor , PNP

Switching principle Dark switching

Timing

Switching frequency 500 Hz

Response time 1 ms

Readiness delay 300 ms

Connection

Connection 1

Type of connection Connector

Function Signal IN
Transmitter device connection
Voltage supply

Thread size M12

Type Male

Material Plastic

No. of pins 4 -pin

Encoding A-coded

Connection 2

Type of connection Connector

Function Receiver device connection
Signal OUT
Voltage supply

Type Male

Material Plastic

No. of pins 4 -pin

Encoding A-coded

Mechanical data

Thread size M18 x 1 mm

Dimension (\varnothing x L) 18 mm x 46 mm

Housing material Plastic , ABS

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Lens cover material	Plastic
Net weight	40 g
Housing color	Black Red

Environmental data

Ambient temperature, operation	-40 ... 60 °C
Ambient temperature, storage	-40 ... 70 °C

Certifications

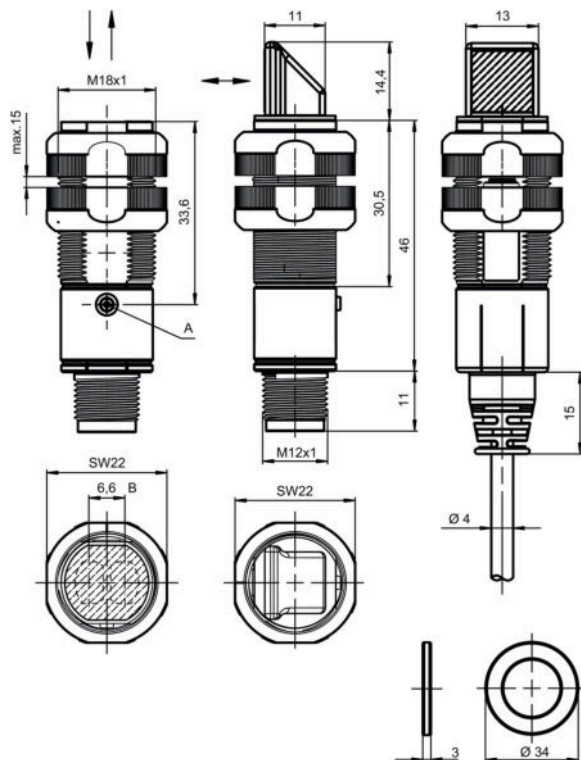
Degree of protection	IP 67
Protection class	III
Certifications	c UL US
Standards applied	IEC 60947-5-2

Classification

Customs tariff number	85365019
eCl@ss 8.0	27270901
eCl@ss 9.0	27270901
ETIM 5.0	EC002716
ETIM 6.0	EC002716

Dimensioned drawings

All dimensions in millimeters



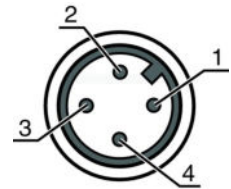
A Indicator diode

B Optical axis

Electrical connection

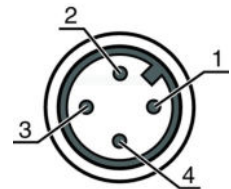
Connection 1	Transmitter
Type of connection	Connector
Function	Signal IN Transmitter device connection Voltage supply
Thread size	M12
Type	Male
Material	Plastic
No. of pins	4 -pin
Encoding	A-coded

Pin	Pin assignment
1	V+
2	IN 2
3	GND
4	IN 1



Connection 2	Receiver
Type of connection	Connector
Function	Receiver device connection Signal OUT Voltage supply
Thread size	M12
Type	Male
Material	Plastic
No. of pins	4 -pin
Encoding	A-coded

Pin	Pin assignment
1	V+
2	OUT 2
3	GND
4	OUT 1



Part number code

Part designation: XXX318BY-AAAF.BB/CC-DDD

XXX318B	Operating principle: PRK: retro-reflective photoelectric sensor with polarization filter ET: energetic diffuse reflection sensor FT: diffuse reflection sensor with fading LE: throughbeam photoelectric sensor receiver LS: throughbeam photoelectric sensor transmitter
Y	Light type: n/a: red light I: infrared light

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AAAF	Preset range (optional): n/a: operating range acc. to data sheet XXXX: preset range [mm]
BB	Equipment: n/a: axial optics W: 90° angular optics 3: teach-in via button X: reinforced fading
CC	Switching output / function (OUT1 = pin 4, OUT2 = pin 2):: 4: PNP transistor output, light switching P: PNP transistor output, dark switching 2: NPN transistor output, light switching N: NPN transistor output, dark switching 9: input for transmitter deactivation (deactivation with HIGH signal) D: input for transmitter deactivation (deactivation with LOW signal) X: pin not used
DDD	Electrical connection: n/a: cable, standard length 2000 mm, 4-wire M12: M12 connector, 4-pin (plug) 5000: cable, standard length 5000 mm, 4-wire

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.


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)


- Sum of the output currents for both outputs, 50 mA for ambient temperatures > 40 °C

Accessories


Connection technology - Connection cables

	Part no.	Designation	Article	Description
	50130652	KD U-M12-4A-V1-050	Connection cable	Connection 1: Connector, M12, Axial, Female, A-coded, 4 -pin Connection 2: Open end Shielded: No Cable length: 5,000 mm Sheathing material: PVC


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	Part no.	Designation	Article	Description
	50130690	KD U-M12-4W-V1-050	Connection cable	Connection 1: Connector, M12, Angled, Female, A-coded, 4 -pin Connection 2: Open end Shielded: No Cable length: 5,000 mm Sheathing material: PVC



Mounting technology - Mounting brackets

	Part no.	Designation	Article	Description
	50113548	BT D18M.5	Mounting bracket	Diameter, inner: 18 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

Mounting technology - Rod mounts

	Part no.	Designation	Article	Description
	50117490	BTU D18M-D12	Mounting system	Design of mounting device: Mounting system Fastening, at system: Through-hole mounting Mounting bracket, at device: Screw type Type of mounting device: Clampable, Adjustable, Turning, 360° Material: Metal

Mounting technology - Other

	Part no.	Designation	Article	Description
	50117258	BT 318P-LS	Fastening	Contains: 10x Design of mounting device: Mounting clamp Fastening, at system: Through-hole mounting Mounting bracket, at device: Clampable Type of mounting device: Rigid Material: Plastic
	50121904	BT318B-OM	Fastening	Design of mounting device: Mounting clamp Fastening, at system: Through-hole mounting Mounting bracket, at device: Screw type Type of mounting device: Swiveling, Adjustable, Turning Material: Plastic

Note

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