



Part no.: 50139690
LS25C/8X-M8
Throughbeam photoelectric sensor
transmitter



Figure can vary

Contents

- Technical data
- Dimensioned drawings
- Electrical connection
- Diagrams
- Suitable receivers
- Part number code
- Notes
- Accessories

Part no.: 50139690 – LS25C/8X-M8 – Throughbeam photoelectric sensor

Technical data

Basic data	
Series	25C
Operating principle	Throughbeam principle
Device type	Transmitter
Special design	
Special design	Activation input
Optical data	
Operating range	Guaranteed operating range
Operating range	0 ... 25 m
Operating range limit	Typical operating range
Operating range limit	0 ... 30 m
Light source	LED , Red
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 ... 20 mA
Inputs	
Number of activation inputs	1 Piece(s)
Activation inputs	
Voltage type	DC
Activation input 1	
Assignment	Connection 1, pin 4
Timing	
Readiness delay	300 ms
Connection	
Connection 1	
Function	Signal IN Voltage supply
Type of connection	Connector
Thread size	M8
Type	Male
Material	PUR
No. of pins	4 -pin
Mechanical data	
Dimension (W x H x L)	15 mm x 42.7 mm x 30 mm
Housing material	Plastic , ABS
Lens cover material	Plastic

Part no.: 50139690 – LS25C/8X-M8 – Throughbeam photoelectric sensor

Net weight	22 g
Housing color	Red
Type of fastening	Through-hole mounting with M4 thread Via optional mounting device
Compatibility of materials	ECOLAB

Environmental data

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

Certifications

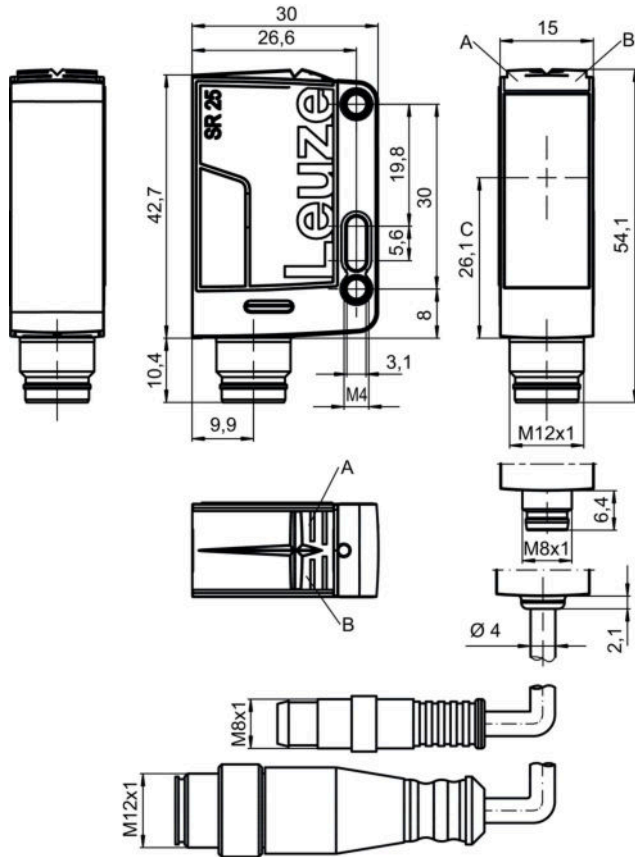
Degree of protection	IP 67 IP 69K
Protection class	III
Certifications	c UL US
Standards applied	IEC 60947-5-2

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

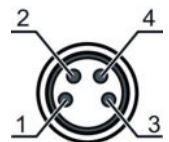


A Green LED
 B Yellow LED
 C Optical axis

Electrical connection

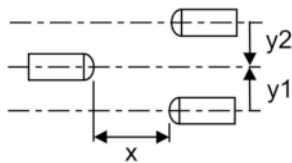
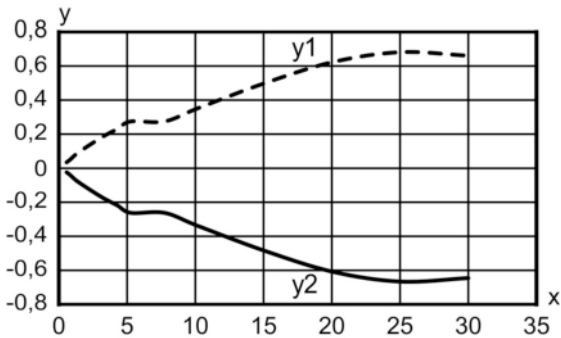
Connection 1	
Function	Signal IN Voltage supply
Type of connection	Connector
Thread size	M8
Type	Male
Material	PUR
No. of pins	4 -pin

Pin	Pin assignment
1	V+
2	n.c.
3	GND
4	IN 1





Diagrams

Typ. response behavior



x Distance [m]
y Misalignment [m]

Suitable receivers

	Part no.	Designation	Article	Description
	50139700	LE25C/2N-M8	Throughbeam photoelectric sensor receiver	Operating range limit: 0 ... 30 m Supply voltage: DC Digital switching outputs: 2 Piece(s) Switching output 1: Transistor, NPN, Light switching Switching output 2: Transistor, NPN, Dark switching Switching frequency: 1,500 Hz Connection: Connector, M8, PUR, 4 -pin
	50139699	LE25C/4P-M8	Throughbeam photoelectric sensor receiver	Operating range limit: 0 ... 30 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: 1,500 Hz Connection: Connector, M8, PUR, 4 -pin

Part number code

Part designation: AAA25C d EE-f.GGH/IJ-K

AAA25C	Operating principle / construction: HT25C: diffuse reflection sensor with background suppression PRK25C: retro-reflective photoelectric sensor with polarization filter LS25C: throughbeam photoelectric sensor transmitter LE25C: throughbeam photoelectric sensor receiver DRT25C: Dynamic reference diffuse sensor
d	Light type: n/a: red light I: infrared light
EE	Light source: n/a: LED L1: laser class 1 L2: laser class 2

Part no.: 50139690 – LS25C/8X-M8 – Throughbeam photoelectric sensor

f	Preset range (optional): n/a: operating range acc. to data sheet xxxF: preset range [mm]
GG	Equipment: A: autocollimation principle (single lens) S: small light spot D: detection of stretch-wrapped objects X: extended model HF: suppression of HF illumination (LED) XL: extra long light spot T: autocollimation principle (single lens) for highly transparent bottles without tracking TT: autocollimation principle (single lens) for highly transparent bottles with tracking
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: 2: NPN transistor output, light switching N: NPN transistor output, dark switching 4: PNP transistor output, light switching P: PNP transistor output, dark switching X: pin not used 8: activation input (activation with high signal) L: IO-Link interface (SIO mode: PNP light switching, NPN dark switching)
J	Switching output / function OUT 2/IN: pin 2 or white conductor: 2: NPN transistor output, light switching N: NPN transistor output, dark switching 4: PNP transistor output, light switching P: PNP transistor output, dark switching W: warning output X: pin not used 6: push-pull switching output, PNP light switching, NPN dark switching T: teach-in via cable
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) M8: M8 connector, 4-pin (plug) M12: M12 connector, 4-pin (plug) 200-M8: cable, length 200 mm with M8 connector, 4-pin, axial (plug)

Note

A list with all available device types can be found on the Leuze 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:





- Only for use in "class 2" circuits
- 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)

- Light source: Average life expectancy 100,000 h at an ambient temperature of 25 °C


Part no.: 50139690 – LS25C/8X-M8 – Throughbeam photoelectric sensor

Accessories



Connection technology - Connection cables

	Part no.	Designation	Article	Description
 	50130850	KD U-M8-4A-V1-050	Connection cable	Connection 1: Connector, M8, Axial, Female, 4 -pin Connection 2: Open end Shielded: No Cable length: 5,000 mm Sheathing material: PVC
 	50130871	KD U-M8-4W-V1-050	Connection cable	Connection 1: Connector, M8, Angled, Female, 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
	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
	50117829	BTP 200M-D12	Mounting system	Design of mounting device: Protection hood Fastening, at system: For 12 mm rod Mounting bracket, at device: Screw type Type of mounting device: Clampable, Adjustable, Turning, 360° Material: Metal
	50117252	BTU 300M-D12	Mounting system	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

Note

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