

## Technical data sheet

## Throughbeam photoelectric sensor

Part no.: 50139698

LE25C.1/2N-M12



Figure can vary

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## Technical data

### Basic data

Series	25C
Operating principle	Throughbeam principle
Device type	Receiver

### Optical data

Operating range	Guaranteed operating range
Operating range	0 ... 25 m
Operating range limit	Typical operating range
Operating range limit	0 ... 30 m
LED group	Exempt group (in acc. with EN 62471)

### 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

Voltage type	DC
Switching current, max.	100 mA
Switching voltage	high: $\geq(U_B - 2V)$ Low: $\leq 2V$

### Switching output 1

Assignment	Connection 1, pin 4
Switching element	Transistor, NPN
Switching principle	Light switching

### Switching output 2

Assignment	Connection 1, pin 2
Switching element	Transistor, NPN
Switching principle	Dark switching

### Timing

Switching frequency	1,500 Hz
Response time	0.33 ms
Readiness delay	300 ms

### Connection

#### Connection 1

Function	Signal OUT Voltage supply
Type of connection	Connector
Thread size	M12
Type	Male
Material	PUR
No. of pins	4 -pin
Encoding	A-coded

### Mechanical data

Dimension (W x H x L)	15 mm x 42.7 mm x 30 mm
Housing material	Plastic
Plastic housing	ABS
Lens cover material	Plastic
Net weight	22 g
Housing color	Red
Type of fastening	Through-hole mounting with M4 thread Via optional mounting device
Compatibility of materials	ECOLAB

### Operation and display

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

### Environmental data

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

### Certifications

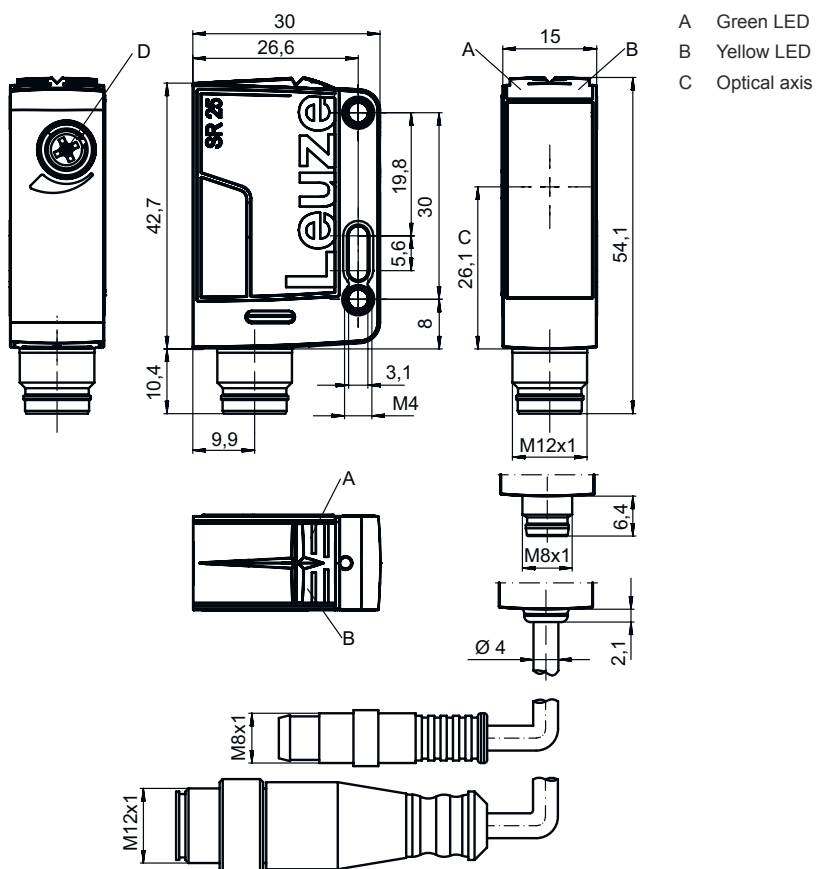
Degree of protection	IP 67 IP 69K
Protection class	III
Certifications	c UL US
Standards applied	IEC 60947-5-2

### Classification

Customs tariff number	85365019
eCl@ss 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



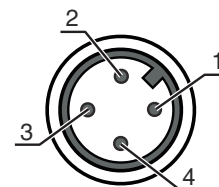
## Electrical connection

### Connection 1

Function	Signal OUT Voltage supply
Type of connection	Connector
Thread size	M12
Type	Male
Material	PUR
No. of pins	4 -pin
Encoding	A-coded

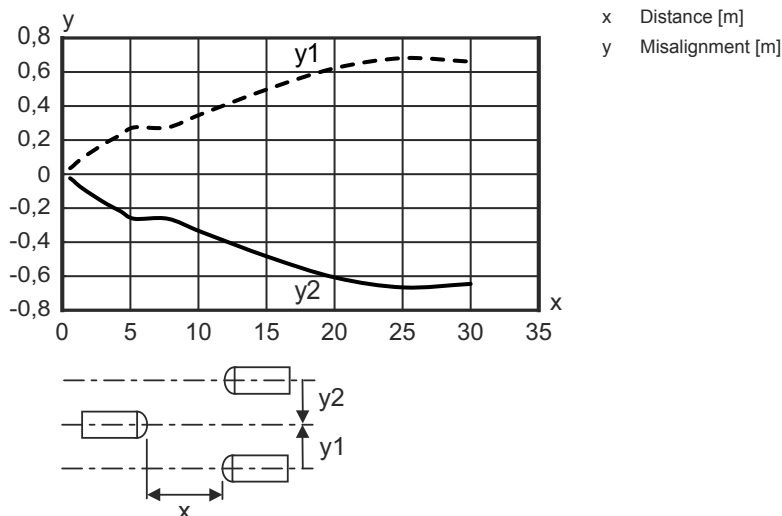
### Pin Pin assignment

1	V+
2	OUT 2
3	GND
4	OUT 1



## Diagrams

### Typ. response behavior



## Suitable transmitters

	Part no.	Designation	Article	Description
	50139689	LS25C/8X-M12	Throughbeam photoelectric sensor transmitter	Special version: Activation input Operating range limit: 0 ... 30 m Light source: LED, Red Supply voltage: DC Connection: Connector, M12, PUR, 4 -pin
	50139688	LS25C/XX-M12	Throughbeam photoelectric sensor transmitter	Operating range limit: 0 ... 30 m Light source: LED, Red Supply voltage: DC Connection: Connector, M12, PUR, 4 -pin

## Part number code

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

<b>AAA25C</b>	<b>Operating principle / construction</b> 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
<b>d</b>	<b>Light type</b> n/a: red light l: infrared light
<b>EE</b>	<b>Light source</b> n/a: LED L1: laser class 1 L2: laser class 2
<b>f</b>	<b>Preset range (optional)</b> n/a: operating range acc. to data sheet xxxF: preset range [mm]

## Part number code

<b>GG</b>	<b>Equipment</b> 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
<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> 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) 6: push-pull switching output, PNP light switching, NPN dark switching G: push-pull switching output, PNP dark switching, NPN light switching
<b>J</b>	<b>Switching output / function OUT 2/IN: pin 2 or white conductor</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 W: warning output X: pin not used 6: push-pull switching output, PNP light switching, NPN dark switching T: teach-in via cable G: push-pull switching output, PNP dark switching, NPN light switching
<b>K</b>	<b>Electrical connection</b> 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](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.

### 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)

## Further information


- Sum of the output currents for both outputs 100 mA

## 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
	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
	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

## Accessories

### Note



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