



Laser Sensor with background suppression

Series PS1 L 965 S

- Adjustable sensing distance 55-300 mm
- Switching frequency 5 kHz
- Adjustable spotsize
- High accuracy

Description:

- Sensing range **55-300mm** (multiple application areas)
- Switching distance adjustable
- Switching frequency **5kHz**
- Background suppression
- Adjustable spotsize
- Supply voltage **10-30VDC** reverse supply and short circuit protected
- Laser protection CLASS 2
- Visible red laser wavelength **675 nm**
- Light- / Dark-switching selection
- Switchable pulse-extension **40 ms**
- CE

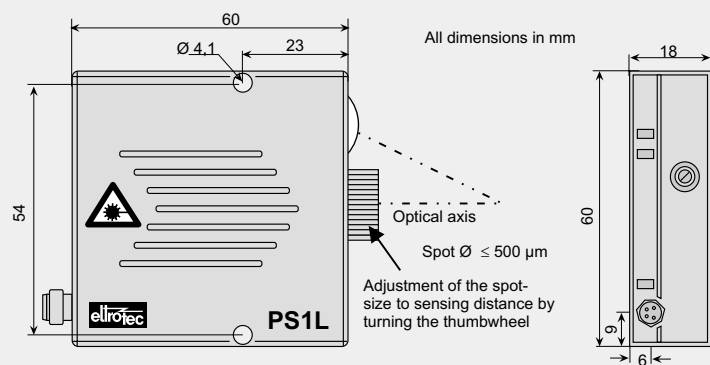
Application:

- Detection of very small parts up from **≥ 0,1 mm**
- Position recognition of small parts
- Position- and placement checks at installing machines and feeding systems
- Presence check of components on a PCB

Advantages:

- High switching frequency
- Adjustable spotsize
- High accuracy because of adjustable spotsize
- Adjustable threshold
- Pulse extension
- No additive laser protection device necessary
- Changing backgrounds don't influence switching accuracy
- Visible red laser beam for easy adjustment and checks

Dimensions

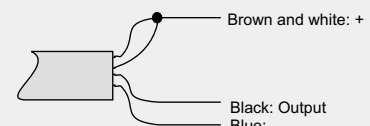


Wiring connections

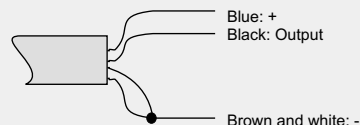
Normal function without timer



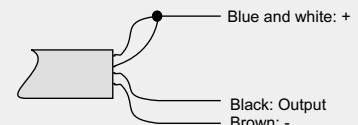
Normal function with Timer



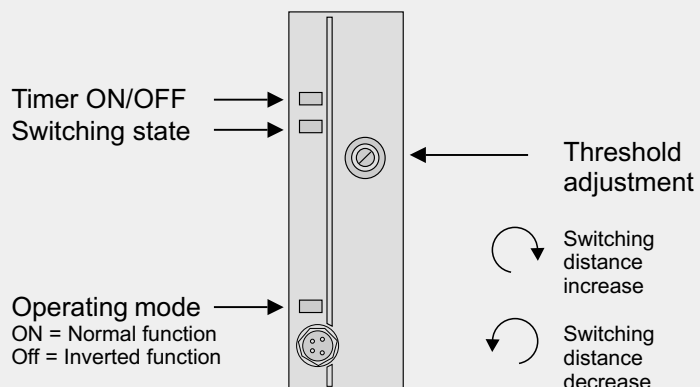
Inverse function without timer



Inverse function with timer



Operating and display elements



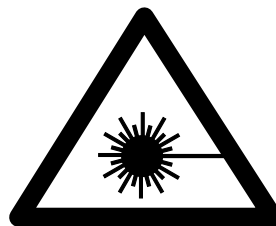
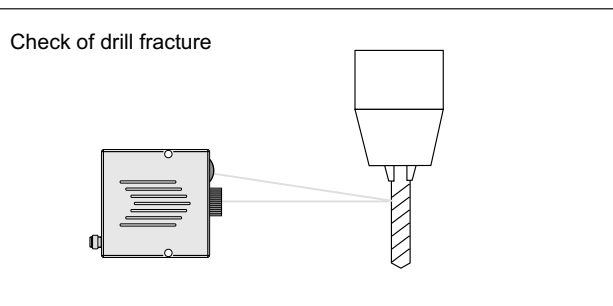
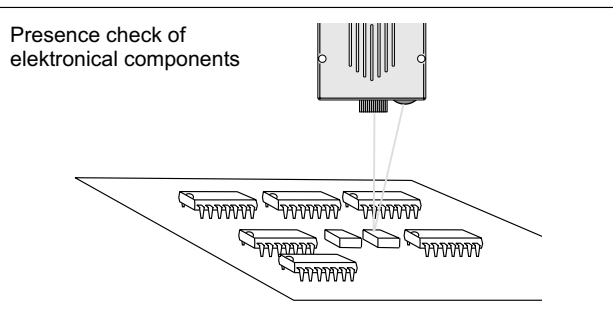
Technical data

Supply	Operating Voltage	10 to 30 VDC
	Max. residual ripple	≤ 10% (within specified limits)
	Current consumption	~ 35 mA
Response time	t _{on} or t _{off}	≤ 150 μs
	Switching frequency	≤ 5 kHz
Output	Current	max. 100 mA
	at 100 mA output current	≤ 2 V saturation voltage
	at 10 mA output current	≤ 1 V saturation voltage
Emitter	Pulsed laser LED	Red, wavelength 675 nm
	Laser protection class	2 (EN60825-1:1994)
	Spot-diameter	0,5 mm
Delay-OFF-timer	switchable	40 ms
Temperature	Operating	0 to 50 °C
	Storage	-20 to 80 °C
External light immunity	Artificial light	≥ 50 cm with 100 W / 230 VAC bulb
	Daylight	≥ 50 cm with 55 W / 12 VDC halogen bulb
Protection	Output	short circuit and overload protection
	Degree of protection	IP 65
Operating mode	selectable light-/darkswitching	determined by wiring
Recogn. objects	min.	≥ 0,1 mm
Threshold adjustment	accurate adjustable	with 30-turn potentiometer from 55 mm to 300 mm
Case	Material	Polycarbonat
	Weight	approx. 50 g

Ordering information

Product	Reference	Part No.
Triangulation sensor	PS1 L - (C0) - 965S C0 M8-plug without cable	10440117
Cable with M8-plug	C2 (length 2m)	11261135
	C5 (length 5m)	11261136

Applications



LASER CLASS 2
EN 60825-1:1994

Do not stare into the beam!

Presented by:

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