SRF-L SERIES
INSTRUCTION MANUAL

Slot sensor Laser

CLASS 1 EN 60825-1 (2014)
LASER PRODUCT

CONTROLS

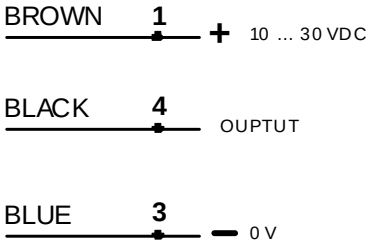
YELLOW LED ON – object presence
YELLOW LED OFF – object absent

SENSITIVITY TRIMMER
This trimmer can be used to adjust sensitivity of the sensor.

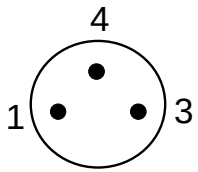
N.O. / N.C. TRIMMER – OUTPUT
This trimmer can be used to adjust the output status.

***WARNING*:** *The trimmer rotation is limited to 270° by a mechanical stop.*
Do not apply excessive torque when adjusting.

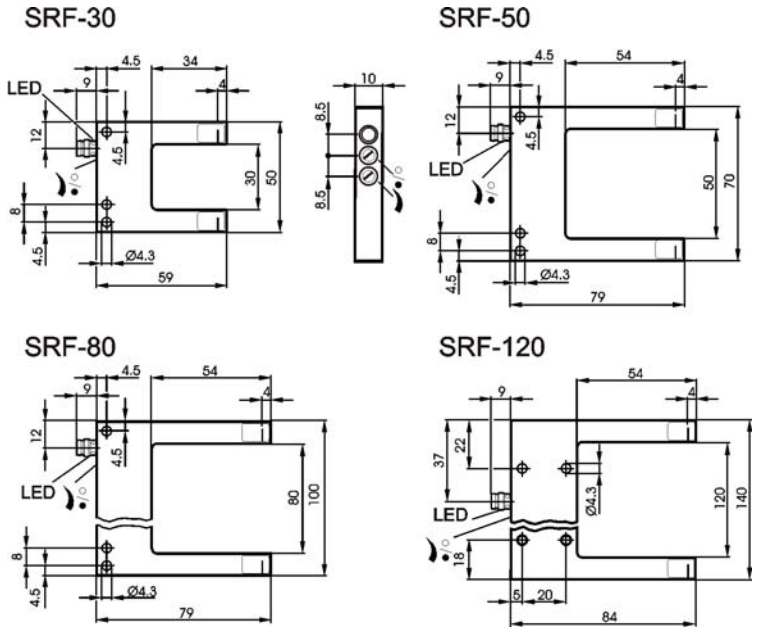
CONNECTIONS



M8 connector



DIMENSIONS



TECHNICAL DATA

	SRF-L-30	SRF-L-50	SRF-L-80	SRF-L-120
Power supply:	10 … 30 VDC; reverse polarity protected			
Ripple:	2 Vpp max.			
Current consumption (output current excluded):	20mA max.			
Outputs:	PNP or NPN / N.O. / N.C. selectable			
Output current:	200 mA max. with short-circuit protection			
Output saturation voltage:	3 V max. PNP / 2.5 V max. NPN			
Response time:	100 µs			
Switching frequency:	5000 Hz			
Hysteresis:	20 µm	25 µm	30 µm	50 µm
Resolution:	0.05 mm	0.08 mm	0.1 mm	0.15 mm
Repeatability:	10 µm			15 µm
Humidity:	35 … 85% rH non condensing			
Indicators:	YELLOW LED			
Setting:	sensitivity trimmer and N.O./N.C. trimmer			
Operating temperature:	-10 … 60°C			
Storage temperature:	-20 … 70°C			
Dielectric strength:	500 Vac 1 min., between electronics and housing			
Insulating resistance:	>20 MΩ 500 Vdc, between electronics and housing			
Emission type:	red laser (650 nm) Class 1 EN 60825-1 (2014)			
Ambient light rejection:	5 kLux			
Vibration:	0.5 mm amplitude, 10 … 55 Hz frequency, for every axis (EN60068-2-6)			
Shock resistance:	11 ms (30 G) 6 shock for every axis (EN60068-2-27)			
Slot width:	30 mm	50 mm	80 mm	120 mm
Housing:	GDZn			
Lenses:	Glass			
Protection class:	IP67			
Connections:	M8 3 pole connector			
Weight:	66 g.	110 g.	135 g.	210 g.

SETTING

1) Place the object to read in the sensor slot using the reference marks on the tip for alignment.

2) Turn the sensitivity with the trimmer in order to obtain the correct reading of the object.

These slot sensors are not suitable for safety applications.

SAFETY NOTES

These photoelectric sensors may not be used in applications where personal safety depends on proper function of the devices (not safety designed per EU machine guideline). Read these operating instructions carefully before putting the device into service.

Danger of eye injury. Do not look into the laser beam! Laser protection regulations: The transmitter and the laser light barrier comply with laser class 1 in accordance with EN 60825-1:2003-10. Therefore no additional protective measures are necessary for operation.

Complies with 21 CFR 1040.10 and 1040.11 except for deviations pursuant to Laser Notice No. 50, dated Jun 24, 2007.

Caution! The use of controls or adjustments or performance of procedure other than those specified herein may result in hazardous radiation exposure.

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The sensors are NOT safety devices, and so MUST NOT be used in the safety control of the machines where installed.

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Helpful links at www.datalogic.com: **Contact Us, Terms and Conditions, Support**.

The warranty period for this product is 36 months. See General Terms and Conditions of Sales for further details.

Under current Italian and European laws, Datalogic is not obliged to take care of product disposal at the end of its life. Datalogic recommends disposing of the product in compliance with local laws or contacting authorised waste collection centres.

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