# SRF SERIES INSTRUCTION MANUAL

Slot sensor

# **CONTROLS**

YELLOW LED ON - object presence YELLOW LED OFF - object absent

## **SENSITIVITY TRIMMER**

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

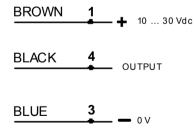
#### N.O. / N.C. TRIMMER - OUTPUT

This trimmer can be used to adjust the output status.

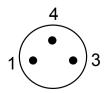
<u>WARNING</u>: The trimmer rotation is limited to 270° by a mechanical stop.

Do not apply excessive torque when adjusting.

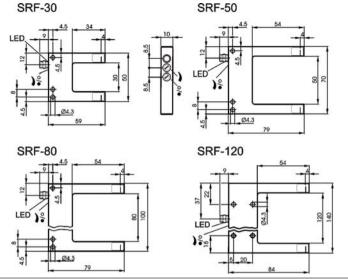
## **CONNECTIONS**



#### M8 connector



## **DIMENSIONS**



# **TECHNICAL DATA**

|                            | SRF-30   | SRF-50    | SRF-80  | SRF-120 |
|----------------------------|--|-----------|---------|---------|
| Power supply:              | 10 30 VDC; reverse polarity protected                              |           |         |         |
| Ripple:                    | 2 Vpp max.   |           |         |         |
| Current consumption        | 35mA max.  |           |         |         |
| (output current excluded): | ***************************************                            |           |         |         |
| 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:             | 333 μs   |           |         |         |
| Switching frequency:       | 1500 Hz  |           |         |         |
| Hysteresis:                | ≤□0.1 mm   | ≤ 0.15 mm | ≤ 0.:   | 2 mm    |
| Resolution:                | 0.3 mm   | 0.5       | mm      | 0.8 mm  |
| Repeatability:             | 0.02 mm  | 0.04 mm   | 0.06 mm | 0.08 mm |
| 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 M $\Omega$ 500 Vdc, between electronics and housing            |           |         |         |
| Emission type:             | LED RED 640 nm   |           |         |         |
| 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:                    | 36 g.  | 54 g.     | 77 g.   | 118 g.  |

## SETTING

## Sensor 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



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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