SLOT SENSOR BASIC LINE

SLOT SENSORS

- *High resolution with visible red LED emission*
- *Versions with 30, 50, 80 and 120 mm slots*
- *Sensitivity adjustment and dark/light selectors*
- *Sturdy metal housing with glass lenses*

SRF SERIES

The slot sensors of the **SRF** series are photoelectric devices characterised by an excellent precision thanks to the red LED emission which offer resolutions reaching 0.3 mm.

The particular 'U' shape with opposite receiver and emitter units, together with the high resistance of the metal housing, make monitoring extremely simple and rapid, guaranteeing reliable functioning as well as shock and vibration resistance.

The SRF series presents versions with 30, 50, 80 and 120 mm slots allowing the best adaptation to the many different applications, including opaque label detection on transparent supports, monitoring of the correct material position and dimension or object counting on conveyor belts.

Sensitivity adjustment is easily accomplished thanks to the trimmer positioned on the posterior side of the sensor. This side has also a red LED with a 360° visibility for operating status signalling.

The range offers versions with PNP or NPN output. The light/dark mode can be selected in all models.

DATASENSOR
value through detection

SR SLOT SENSORS

The best resolution, in terms of minimum detectable object, can be obtained rotating completely the sensitivity trimmer in a clockwise direction.

The normally closed output is selected by turning clockwise the output trimmer. The sensor, in this manner, functions in the light mode where the connector LED ON signals the absence of an object to detect. The opposite effect is obtained rotating the trimmer in an anti-clockwise direction and the sensor functions in the dark mode with the LED ON in presence of an object.
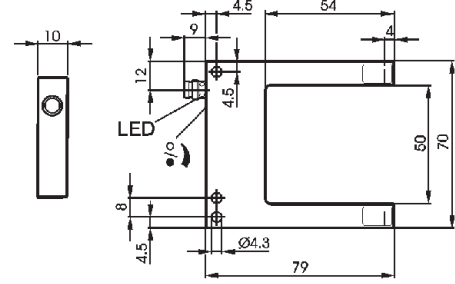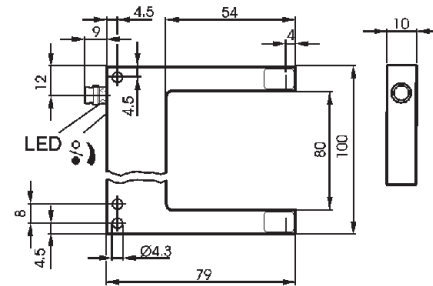
DIMENSIONS

SRF-30
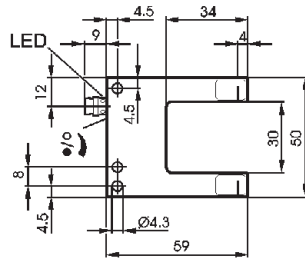
SRF-50

SRF-80

SRF-120
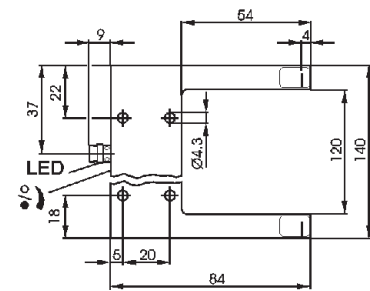
mm

INDICATORS AND SETTINGS
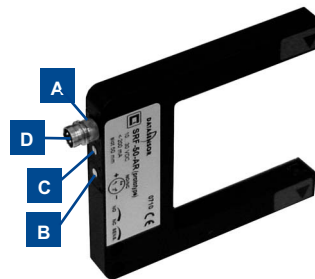
A	Output status LED
B	Sensitivity trimmer
C	Output type selector
D	M8 connector output

ACCESSORIES

For **dedicated accessories** refer to the **ACCESSORIES** section of this catalogue.

CONNECTIONS

BROWN 1 + 10 ... 30 Vdc

BLACK 4

BLUE 3 — 0 V

M8 CONNECTOR

4

1   3

DATASENSOR

Versions and options: refer to **MODEL SELECTION TABLE**
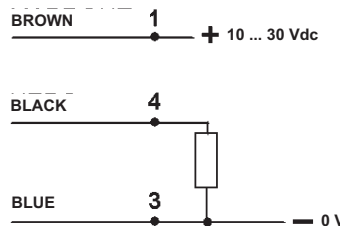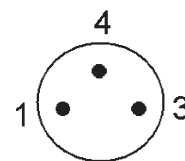
TECHNICAL DATA

		SRF-30-5-P	SRF-30-5-N	SRF-50-5-P	SRF-50-5-N	SRF-80-5-P	SRF-80-5-N	SRF-120-5-P	SRF-120-5-N
Power supply:	10..30 Vdc [1]	●	●	●	●	●	●	●	●
Consumption:	35 mA max	●	●	●	●	●	●	●	●
Light emission:	red LED 640 nm [2]	●	●	●	●	●	●	●	●
Setting:	sensitivity trimmer [3]	●	●	●	●	●	●	●	●
Resolution:	0.3 mm	●	●						
	0.5 mm			●	●	●	●		
	0.8 mm							●	●
Repeatability:	0.02 mm	●	●						
	0.04 mm			●	●				
	0.06 mm					●	●		
	0.08 mm							●	●
Power on delay:	0.33 ms	●	●	●	●	●	●	●	●
Slot width:	30 mm	●	●						
	50 mm			●	●				
	80 mm					●	●		
	120 mm							●	●
Slot depth:	34 mm	●	●						
	54 mm			●	●	●	●	●	●
Detection point depth:	4 mm	●	●	●	●	●	●	●	●
Indicators:	red LED	●	●	●	●	●	●	●	●
Output type:	PNP	●		●		●		●	
	NPN		●		●		●		●
Saturation voltage:	3 V max	●	●	●	●	●	●	●	●
Output current:	200 mA, short-circuit protection	●	●	●	●	●	●	●	●
Response time:	333 µs	●	●	●	●	●	●	●	●
Switching frequency:	1.5 KHz	●	●	●	●	●	●	●	●
Operating mode:	configurable light/dark [4]	●	●	●	●	●	●	●	●
Connection:	M8 3-pole connector	●	●	●	●	●	●	●	●
Electrical protection:	class 1	●	●	●	●	●	●	●	●
Mechanical protection:	IP65	●	●	●	●	●	●	●	●
Protection devices:	A,B [5]	●	●	●	●	●	●	●	●
Housing material:	anodised aluminium	●	●	●	●	●	●	●	●
Lens material:	glass	●	●	●	●	●	●	●	●
Weight:	36 g	●	●						
	54 g			●	●				
	77 g					●	●		
	118 g							●	●
Operating temperature:	-10…+60°C	●	●	●	●	●	●	●	●
Storage temperature:	-20…+70°C	●	●	●	●	●	●	●	●
Reference standard:	EN 60947-5-2	●	●	●	●	●	●	●	●

SELECTION TABLE

slot sensors

model	slot	output
SRF-30-5-P	30 mm	PNP
SRF-30-5-N	30 mm	NPN
SRF-50-5-P	50 mm	PNP
SRF-50-5-N	50 mm	NPN
SRF-80-5-P	80 mm	PNP
SRF-80-5-N	80 mm	NPN
SRF-120-5-P	120 mm	PNP
SRF-120-5-N	120 mm	NPN

TECHNICAL NOTES

[1] Limit values

[2] Average life of 100.000 h with T_A = +25 ℃

[3] 270° trimmer

[4] Dark/light selector

[5] A - reverse polarity protection
 B - overload and short-circuit protection

CE

DATASENSOR

MODEL SELECTION AND ORDER INFORMATION

MODEL	SLOT	CONNECTION	OUTPUT	ORDER N°
SRF-30-5-P	30 mm	M8 connector	PNP	95B020050
SRF-30-5-N	30 mm	M8 connector	NPN	95B020090
SRF-50-5-P	50 mm	M8 connector	PNP	95B020060
SRF-50-5-N	50 mm	M8 connector	NPN	95B020100
SRF-80-5-P	80 mm	M8 connector	PNP	95B020070
SRF-80-5-N	80 mm	M8 connector	NPN	95B020110
SRF-120-5-P	120 mm	M8 connector	PNP	95B020080
SRF-120-5-N	120 mm	M8 connector	NPN	95B020120

ACCESSORY SELECTION AND ORDER INFORMATION

MODEL	DESCRIPTION	ORDER N°
CS-B1-01-G-03	3 m M8 3-pole axial connector	95A251490
CS-B1-01-G-05	5 m M8 3-pole axial connector	95A251510
CS-B2-01-G-03	3 m M8 3-pole radial connector	95A251500
CS-B2-01-G-05	5 m M8 3-pole radial connector	95A251520

SLOT SENSORS

Distributed by:

HEADQUARTERS

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Datasensor SpA endeavours to continuously improve and renew its products; for this reason the technical data and contents of this catalogue may undergo variations without prior notice. For correct installation and use Datasensor SpA can guarantee only the data indicated in the instruction manual supplied with the products.

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