



# SIR.1/B...

## INFRARED SENSOR



- ✓ Detects the edge of soundtransparent materials
- ✓ Measuring range of 16 mm
- ✓ 0,015 mm of resolution
- ✓ Compact design for narrow frames
- ✓ Available with air connection for cleaning the reading area
- ✓ Both edge and centre guide

The infrared SIR sensors are specifically designed for detecting of the edges of soundtransparent materials or with very thick weaves.

The compact design guarantees an easy installation in all kind of applications.

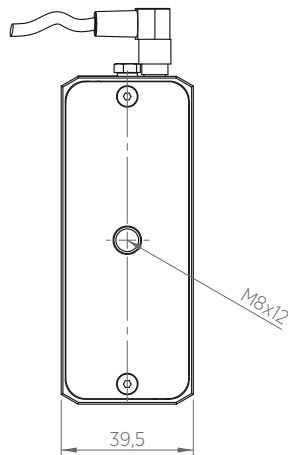
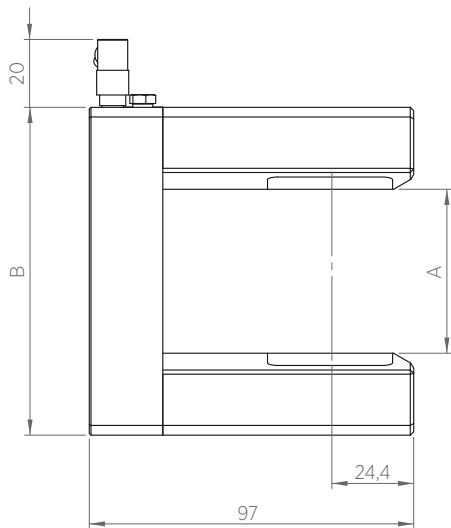
SIR.1 is equipped with a LED transmitter and a PSD receiver that guarantees a measuring range of 16 mm with a resolution of 0,015 mm.

The sensor can be used in conjunction with Re webguiding system or with a normal PLC, using the 0÷5 Vdc voltage output and the broad 12 Vdc power range.

The SIR.1-AIR version is available also with the pneumatic connection to clean automatically the reading area from machining residues.

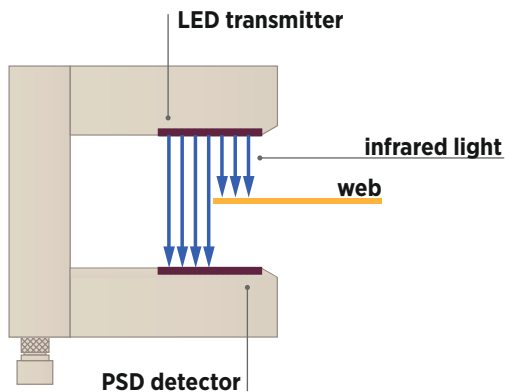
Using two sensors at the same time is it possible to realize the "centre guide": by considering the reading of both edges, the sensors guide the web by keeping the centre as the reference point.

## TECHNICAL DRAWING



SIR.1/B-50	A = 48 mm B = 98 mm
SIR.1/B-100	A = 90 mm B = 140 mm

## FUNCTIONING



SIR.1 is equipped with a PSD detector and infrared LEDs on the opposite side that generate infrared light which is converted by the PSD into electric signals. According to the intensity of the signal received, the microprocessor can identify how much of the sensitive surface of the capsule is covered by the material inserted in the fork and calculate the position of the web edge.

## TECHNICAL CHARACTERISTICS

Power supply	standard optional	12 Vdc 24 Vdc
Power consumption		< 50 mA
Measuring range		± 8 mm
Fork width		48 mm (SIR.1/B.50) 90 mm (SIR.1/B.100)
Accuracy		0,015 mm
Infrared wavelength		950 nm
Response time		1 msec
Analog outputs	standard optional	0÷5 Vdc 0÷10 Vdc
Max cable length		30 m
Pneumatic connection	optional	SIR.1/B.xx-AIR
Working temperature		0÷50° C
Protection class		IP20
Dimensions		97 x 39,5 x 98 mm (SIR.1/B.50) 97 x 39,5 x 140 mm (SIR.1/B.100)

\*Data are subject to technical change without notice



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