

# **SIR.70 SIR.71**

**INFRARED SENSORS** 



- edge reading of nontransparent materials
- current output 4÷20 mA and 0÷20 mA
- ✓ tension output 0÷5 V
- integrated keypad for a quick and easy visualization and calibration

# application fields

- soundtrasparent materials
- materials with very thick weaves
- materials with density differences

SIR.70 and SIR.71 are infrared sensors for the edge reading of soundtransparent webs, materials with very thick weaves and non transparent materials.

SIR 70 has a detection range of 84mm (+/- 42mm), while the range of SIR 71 is 16mm (+/- 8mm); both sensors are able to work with all Re webguiding systems or with a normal PLC using the 4÷20 mA current output and the broad 12÷24 V power range.

A **light strip** consisting of 5 green leds allows the positioning of the sensor complying with the material and show constantly the **coverage level** of the web. Moreover 2 buttons make the calibration and operation very quick, smart and easy.

#### **Functioning**

Despite all other infrared sensors, SIR 70 and SIR 71 are made up of a transmitter, that emits infrared led,

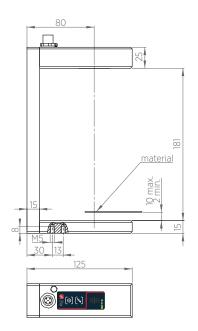
a reflecting material on the opposite, that reflects the infrared rays, and a PSD receiver, which accordingly with the intensity of the detected signal,

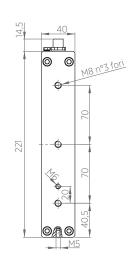
determines the quantity of the sensitive surface of the sensor covered by the material.

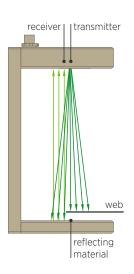




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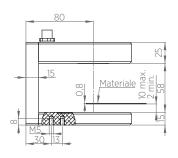


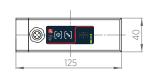


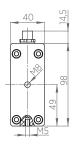


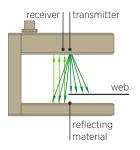
functioning

### **SIR.71**









functioning

## **TECHNICAL CHARACTERISTICS**

|                     | SIR.70   | SIR.71   |
|---------------------|--|--|
| Detection range     | +/- 42 mm (84 mm)  | +/- 8 mm (16 mm)   |
| Fork width          | 181 mm   | 58 mm  |
| Resolution          | 0,042 mm   | 0,01 mm  |
| Infrared wavelenght | 850 nm   | 850 nm   |
| Analog outputs      | $0\div5$ V (Rload>2k $\Omega$ )<br>$4\div20$ mA (Rload<100k $\Omega$ )<br>$0\div20$ mA | $0\div5$ V (Rload>2k $\Omega$ ) 4 $\div$ 20 mA (Rload<100k $\Omega$ ) 0 $\div$ 20 mA |
| Response time       | 1 msec   | 1 msec   |
| Power supply        | 12÷24 V nominale (9÷26 V max)  | 12÷24 V nominale (9÷26 V max)  |
| Max current drawn   | <70 mA   | <70 mA   |
| Max cable length    | 30 m   | 30 m   |
| Working temperature | 0÷50°C   | 0÷50°C   |

\*Subject to technical change without notice





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