



## SR31 SERIES

The **SR31** series is composed of fork sensors with infrared LED emission, distinguished by an elevated 10kHz switching frequency and by a sturdy and compact metal housing.

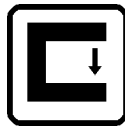
The detection sensitivity is adjusted by means of a trimmer. The dark/light operating mode is configured according to the connection.

The series includes M8 connector versions with NPN output, or PNP output; cable versions present both NPN/PNP outputs.

The **SR31** sensors have a 30 mm wide and 42 mm deep fork. These sensors are suitable for detecting opaque labels on a transparent support, to control material presence and continuity, to detect synchronism pulses on toothed or holed wheels, or as on-off edge guide.



SENSOR



## HIGHLIGHTS

- Infrared LED emission
- Sensitivity trimmer adjustment
- Elevated switching frequency
- Metal housing with wide fork

## APPLICATIONS

Labeling machines



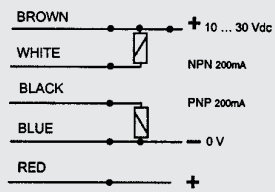
Packaging lines

## TECHNICAL DATA

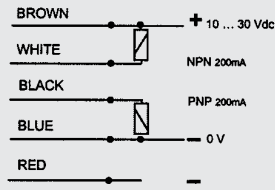
|                       |  |
|-----------------------|--|
| Power supply          | 10...30 Vdc, reverse polarity protection   |
| Consumption           | 50 mA max.   |
| Light emission        | infrared LED 880 nm  |
| Resolution            | 2 mm   |
| Fork width            | 30 mm  |
| Fork depth            | 42 mm  |
| Detection point depth | 12 mm  |
| Setting               | multi-turn sensitivity trimmer   |
| Indicators            | red OUTPUT LED   |
| Output type           | NPN or PNP (connector vers.)<br>NPN and PNP (cable vers.)<br>Rpull-down/up 10 kΩ |
| Saturation voltage    | 0.8 V max. (NPN vers.)<br>2 V max. (PNP vers.)                                   |
| Output current        | 200 mA max.,   |
| Response time         | 50 μs max.   |
| Switching frequency   | 10 kHz max.  |
| Operating mode        | dark/light configurable  |
| Connection            | 4-pole M8 connector<br>2 m Ø 5 mm cable  |
| Electrical protection | class 1  |
| Mechanical protection | IP60   |
| Housing material      | ZAMA   |
| Lens material         | glass  |
| Weight                | 100 g max.   |
| Operating temperature | -10...+60°C  |
| Storage temperature   | -20...+70°C  |
| Reference standard    | EN 60947-5-2   |
| Certifications        | CE   |



## CONNECTIONS

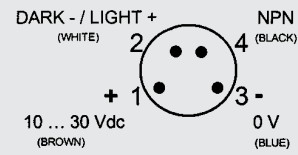


LIGHT MODE

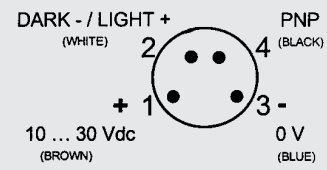


DARK MODE

### M8 CONNECTOR



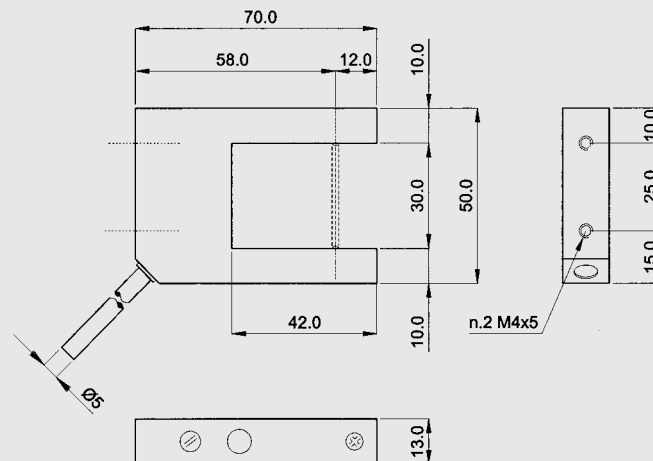
NPN OUTPUT(SR31-0)



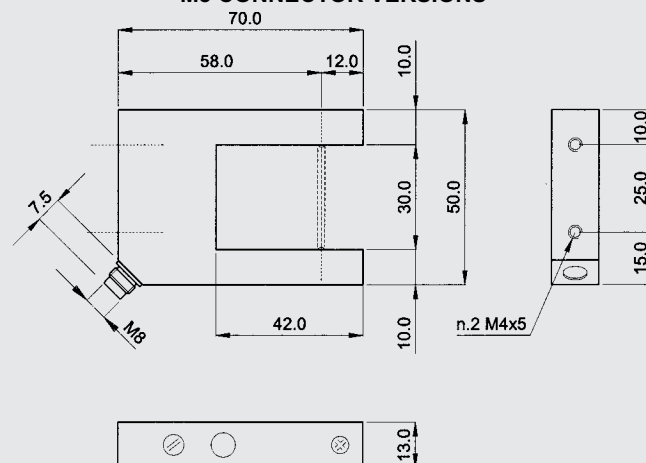
PNP OUTPUT (SR31-1)

## DIMENSIONS

### CABLE VERSIONS



### M8 CONNECTOR VERSIONS



mm

## MODEL SELECTION AND ORDER INFORMATION

| MODEL  | CONNECTION   | OUTPUT  | CODE N°    |
|--------|--------------|---------|------------|
| SR31   | cable        | NPN/PNP | S970830000 |
| SR31-0 | M8 connector | NPN     | S970830101 |
| SR31-1 | M8 connector | PNP     | S970830201 |