



## 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.

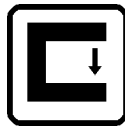
The detection sensitivity is adjusted by means of a trimmer. The dark/light operating mode is configured according to the connection.

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



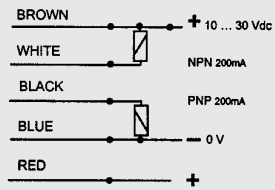
Packaging lines

## TECHNICAL DATA

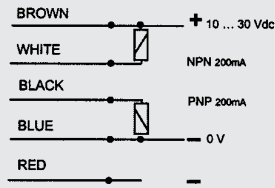
Power supply	10...30 Vdc, reverse polarity protection
Consumption	50 mA max.
Light emission	infrared LED 880 nm
Resolution	2 mm
Fork width	30 mm
Fork depth	42 mm
Detection point depth	12 mm
Setting	multi-turn sensitivity trimmer
Indicators	red OUTPUT LED
Output type	NPN or PNP (connector vers.) NPN and PNP (cable vers.) Rpull-down/up 10 kΩ
Saturation voltage	0.8 V max. (NPN vers.) 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 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

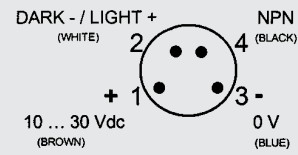


LIGHT MODE

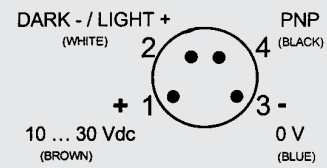


DARK MODE

### M8 CONNECTOR



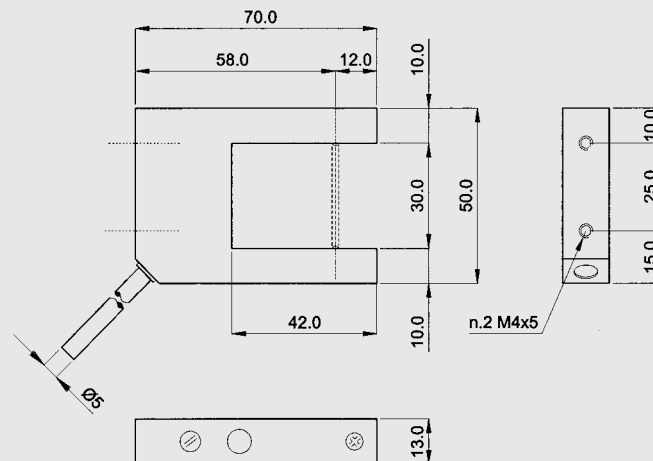
NPN OUTPUT(SR31-0)



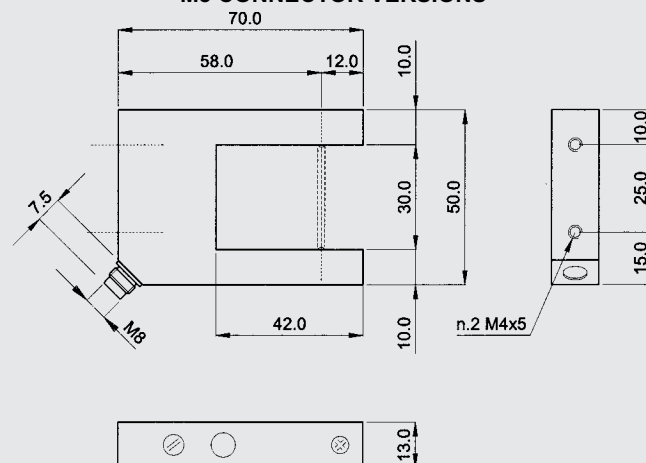
PNP OUTPUT (SR31-1)

## 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



## SR31 SERIES INSTRUCTION MANUAL

### MODELS SELECTION TABLE

TYPE	CONNECTION	OUTPUT
SR31	cable	NPN and PNP
SR31-0	M8 connector	NPN
SR31-1	M8 connector	PNP

### TECHNICAL DATA

Power supply:	10 ... 30 Vdc (reverse polarity protection)
Ripple:	2 Vpp max.
Current consumption:	50 mA max.
Output:	NPN or PNP (connectore vers.) NPN and PNP (cable vers.)
Load current:	200 mA max.
Saturation voltage:	0.8 V max. (NPN output) 2 V max. (PNP output)
Response time:	50 $\mu$ s max.
Switching frequency:	10 KHz max. (dark/light ratio1:1)
Indicators:	RED output LED
Setting:	multi-turn sensitivity trimmer
Operating temperature:	-10 ... +60 °C
Storage temperature:	-20 ... +70 °C
Humidity:	35 ... 85% RH (non condensing)
Emission type:	Infrared LED 950nm

Ambient light rejection:	EN 60947-5-2
Vibration:	amplitude 0.5 mm, 10 ... 55 Hz frequency, for every axis (EN60068-2-6)
Shock resistance:	11 ms (30 G) 6 shock for every axis (EN60068-2-27)
LIGHT/DARK selection:	Standard (by red wire)
Slot width:	30 mm
Material width:	25 mm max.
Detection width:	2 mm min.
Housing:	ZAMA
Lenses:	Glass
Protection class:	IP60
Connections:	2m cable $\varnothing$ 5 mm; 4-pole M8 connector
Dimensions:	70x50x13.5 mm
Weight:	100 g.

826110006 Rev.G



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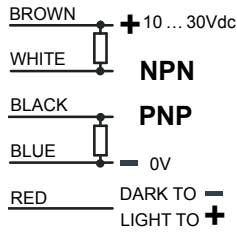
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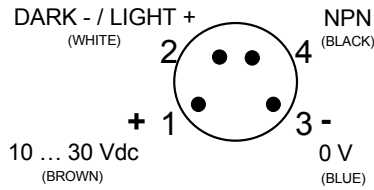
826110006 Rev.G

## SR31 WIRING CONNECTIONS

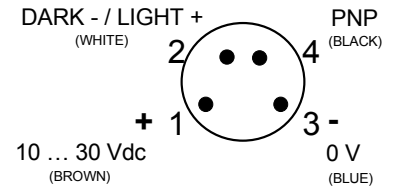
### SR31 CABLE VERSION



### SR31-0 M8 CONNECTOR



### SR31-1 M8 CONNECTOR



#### CE Compliance

CE marking states the compliance of the product with essential requirements listed in the applicable European directive. Since the directives and applicable standards are subject to continuous updates, and since Datalogic promptly adopts these updates, therefore the EU declaration of conformity is a living document. The EU declaration of conformity is available for competent authorities and customers through Datalogic commercial reference contacts. Since April 20<sup>th</sup>, 2016 the main European directives applicable to Datalogic products require inclusion of an adequate analysis and assessment of the risk(s). This evaluation was carried out in relation to the applicable points of the standards listed in the Declaration of Conformity. Datalogic products are mainly designed for integration purposes into more complex systems. For this reason it is under the responsibility of the system integrator to do a new risk assessment regarding the final installation.

#### Warning

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The warranty period for this product is 36 months. See General Terms and Conditions of Sales for further details.

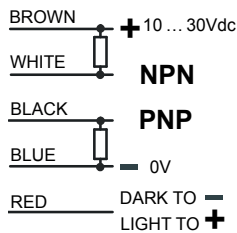


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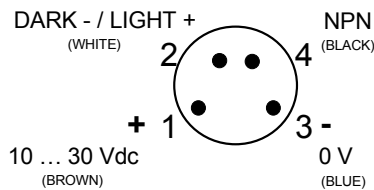
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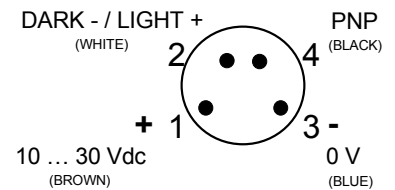
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