



Model Number

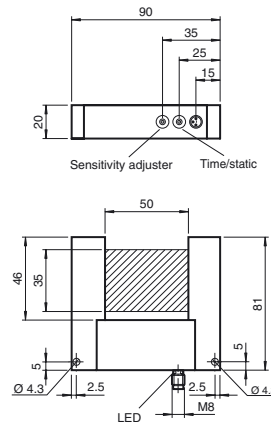
RAL50-IR/32/98

Slot grid sensor
with 3-pin, M8 x 1 connector

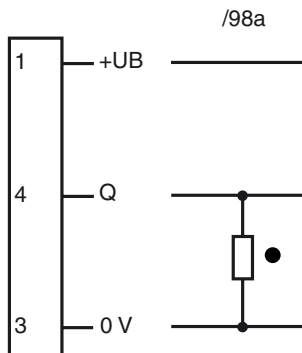
Features

- High switching frequency
- High resolution
- Time function
- Adjustable sensitivity
- Sturdy aluminum housing

Dimensions



Electrical connection



- = Light on
- = Dark on

Pinout



Technical data

General specifications

Light source	IRE D
Light type	modulated infrared light
Marking	CE
Fork width	50 mm
Ambient light limit	10000 Lux
Resolution	0.5 mm
Temperature influence	< 10 %
active zone	35 mm x 50 mm

Indicators/operating means

Function display	LED, yellow
Controls	sensitivity adjustment
Controls	Time adjuster for Pulse stretching and Dynamic/static operation

Electrical specifications

Operating voltage	U_B	24 V DC \pm 20 %
No-load supply current	I_0	< 70 mA

Output

Switching type	dark on	
Signal output	1 PNP output, short-circuit protected, protected from reverse polarity, open collector	
Switching voltage	max. 30 V DC	
Switching current	200 mA	
Voltage drop	U_d	< 2.5 V
Switching frequency	f	5000 Hz
Repeat accuracy	R	0.1 mm
Pulse extension		0.1 ... 150 ms

Standard conformity

Standards	EN 60947-5-2
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Ambient conditions

Ambient temperature	-10 ... 60 °C (14 ... 140 °F)
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Mechanical specifications

Protection degree	IP67
Connection	M8 connector, 3-pin
Material	
Housing	black anodized aluminium
Optical face	glass
Mass	200 g

Resolution

	RAL-50	RAL-70	RAL-100	RAL-150
minimal	0.5 mm	0.8 mm	1.0 mm	1.2 mm
center	4.0 mm	8.0 mm	10.0 mm	15.0 mm
Maximum	8.0 mm	15.0 mm	25.0 mm	50.0 mm

The information on the maximum resolution (smallest detectable object) relates to the center of the slot grid sensor.

Note on adjustment

By turning the potentiometer sensitivity setting adjuster clockwise the device is set for large components. Anticlockwise rotation provides the adjustment for small components.

The potentiometer „Time/ Static“ control is used to select the pulse expansion in dynamic operation and also static/ dynamic operation. Anticlockwise rotation up to the stop selects static operation. The pulse expansion is set to 1 ms. The pulse expansion can be adjusted from 150 ms - 0 ms by rotating this control clockwise.

During static operation the output remains set so long as the object remains in the frame. During dynamic operation the output is only set in accordance with the set pulse expansion. Objects, which enter the frame, are suppressed. If the device becomes dirty during dynamic operation the output is set to static when the received signal is 50 %.