Model Number

GL121-RT/32/40a/98a

Photoelectric slot sensor
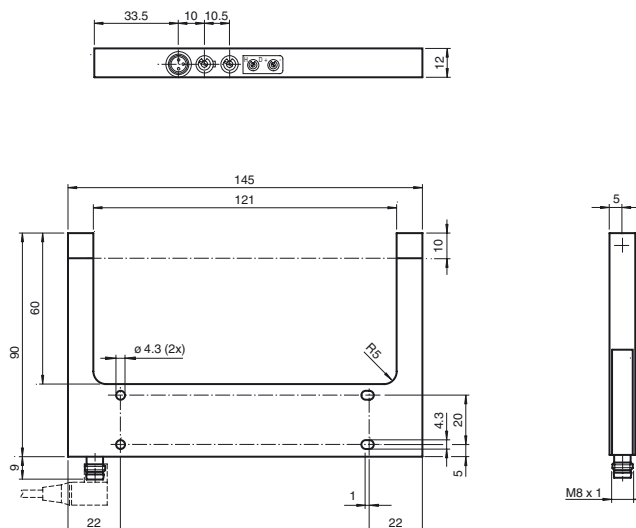with 3-pin, M8 x 1 connector

Features

- Optimized for the detection of small parts
- High switching frequency
- Multiple device installation possible, no mutual interference (no cross-talk)
- Sensitivity adjuster and light/dark switch as standard features of this series
- Visible red light
- Degree of protection IP67
- cULus approval
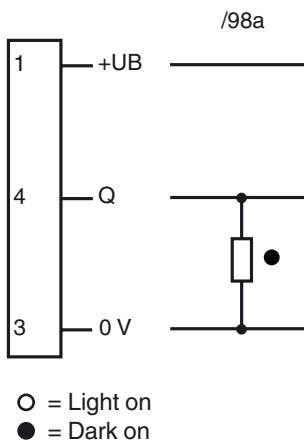- Diecast zinc housing, powder coated

Product information

Photoelectric slot sensors offer vast installation benefits thanks to their housing design. When it comes to operation, these new generation devices boast features such as high resolution, high repeatability, automatic signal threshold adjustment, ambient light resistance, and detection of and/or light transmission through transparent objects. Cross-talk protection enables parallel installation of devices despite extremely high switching frequency. These characteristics guarantee reliable detection of small parts, from 0.3 mm, across the entire detection range, even in very fast moving applications.
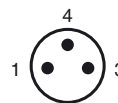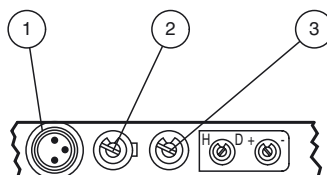
Dimensions

Electrical connection

/98a

○ = Light on
● = Dark on

Pinout

Indicators/operating means

1	Functional display	red
2	Light-/dark switch	
3	Sensitivity adjuster	

Refer to "General Notes Relating to Pepperl+Fuchs Product Information".

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1

Technical data

General specifications

Light source	LED
Light type	modulated visible red light
Tests	EN 60947-5-2
Target size	0.3 mm
Slot width	121 mm
Ambient light limit	100000 Lux

Functional safety related parameters

$MTTF_d$	1290 a
Mission Time (T_M)	20 a
Diagnostic Coverage (DC)	0 %

Indicators/operating means

Function indicator	LED red in connector
Control elements	Sensitivity adjuster, light/dark switch

Electrical specifications

Operating voltage	U_B	10 ... 30 V DC, class 2
Ripple		10 %
No-load supply current	I_0	≤ 15 mA

Output

Switching type		light/dark on
Signal output		1 PNP, short-circuit protected, open collector
Switching voltage		max. 30 V DC
Switching current		max. 100 mA
Repeat accuracy		0.05 mm
Switching frequency	f	3 kHz
Response time		≤ 160 µs

Ambient conditions

Ambient temperature	-20 ... 60 °C (-4 ... 140 °F)
Storage temperature	-20 ... 75 °C (-4 ... 167 °F)

Mechanical specifications

Degree of protection	IP67
Connection	M8 connector, 3-pin
Material	
Housing	powder coated diecast zinc
Optical face	glass
Mass	295 g

Approvals and certificates

CE conformity	CE
UL approval	cULus
CCC approval	CCC approval / marking not required for products rated ≤36 V

Accessories

V3-GM-2M-PUR
Cable socket, M8, 3-pin, PUR cable

V3-WM-2M-PUR
Cable socket, M8, 3-pin, PUR cable

Other suitable accessories can be found at www.pepperl-fuchs.com

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