Model Number

GL10-RT/32/40a/98a
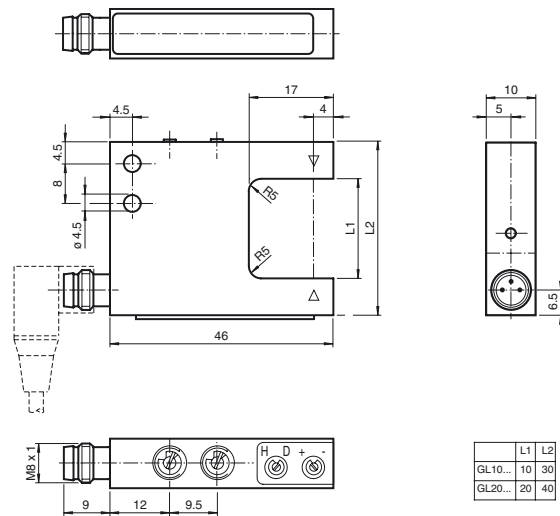
Photoelectric slot sensor
with 3-pin, M8 x 1 connector

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
- Protection degree IP67
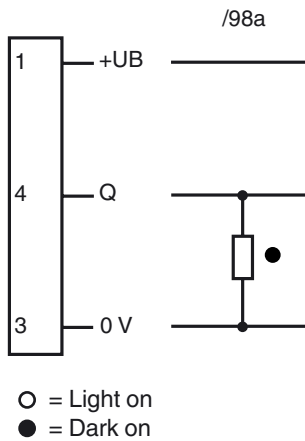- cULus approval
- Sturdy aluminum housing

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.
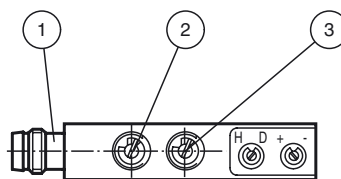
Dimensions

	L1	L2
GL10...	10	30
GL20...	20	40

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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Technical data

General specifications

Light source	LED
Light type	modulated visible red light
Tests	EN 60947-5-2
Target size	0.3 mm
Fork width	10 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 display	LED red in connector
Controls	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

Protection degree	IP67
Connection	M8 connector, 3-pin
Material	
Housing	black anodized aluminum
Optical face	glass
Mass	20 g

Approvals and certificates

CCC approval	CCC approval / marking not required for products rated ≤36 V
Approvals	CE, cULus

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