



**Model Number**

**GL20-RT/30/40a/98a**

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

**Features**

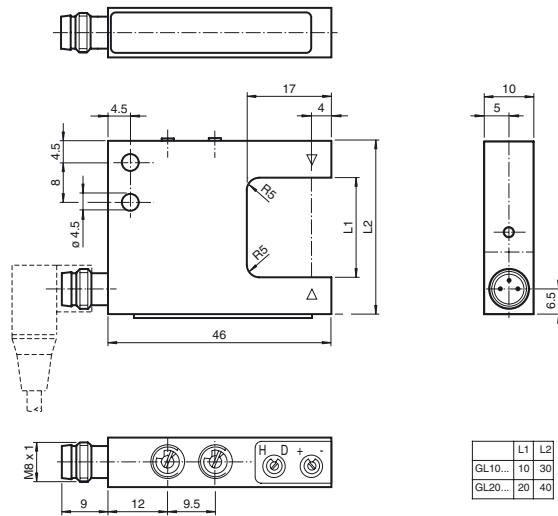
- Optimized for the detection of small parts
- High switching frequency
- Multiple device installation possible, no mutual interference (no cross-talk)
- Sensitivity adjuster and light/dark switch as standard features of this series
- Visible red light
- Degree of protection IP67
- cULus approval
- Sturdy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

**Product information**

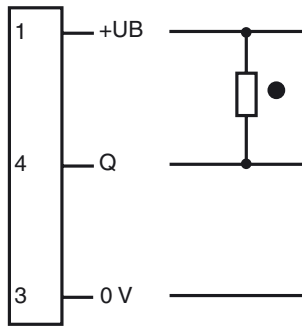
Photoelectric slot sensors offer vast installation benefits thanks to their housing design. When it comes to operation, these new generation devices boast features such as high resolution, high repeatability, automatic signal threshold adjustment, ambient light resistance, and detection of and/or light 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.

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**Dimensions**



**Electrical connection**



○ = Light on  
● = Dark on

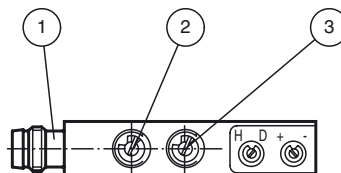
**Pinout**



Wire colors in accordance with EN 60947-5-2

1	BN	(brown)
3	BU	(blue)
4	BK	(black)

**Indicators/operating means**



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

**Technical data****General specifications**

Light source	LED
Light type	modulated visible red light
Target size	0.3 mm
Slot width	20 mm
Slot depth	17 mm
Ambient light limit	100000 Lux

**Functional safety related parameters**

MTTF <sub>d</sub>	1290 a
Mission Time (T <sub>M</sub> )	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 <sub>B</sub>	10 ... 30 V DC
Ripple		10 %
No-load supply current	I <sub>0</sub>	≤ 15 mA

**Output**

Switching type	light/dark on	
Signal output	1 NPN, 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

**Conformity**

Product standard	EN 60947-5-2
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**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	black anodized aluminum
Optical face	glass
Mass	25 g

**Approvals and certificates**

CE conformity	CE
UL approval	cULus Listed, Class 2 Power Source, Type 1 enclosure
CCC approval	CCC approval / marking not required for products rated ≤36 V

**Operating principle**

Photoelectric slot sensors are photoelectric sensors that operate according to the thru-beam sensor principle. The transmitter sends signals directly to the receiver. If an object breaks the light beam, the switching element function is triggered. The special U-shaped design means the transmitter and receiver can be accommodated in one housing, which ensures high resistance to vibrations. In contrast to standard thru-beam sensors, photoelectric slot sensors have the added advantage of not requiring complex electrical installation, as only one device needs to be connected. Also, adjustment of the optical axes is not necessary.

**Accessories****V3-WM-2M-PUR**

Female cordset single-ended, M8, 3-pin, PUR cable

Other suitable accessories can be found at [www.pepperl-fuchs.com](http://www.pepperl-fuchs.com)