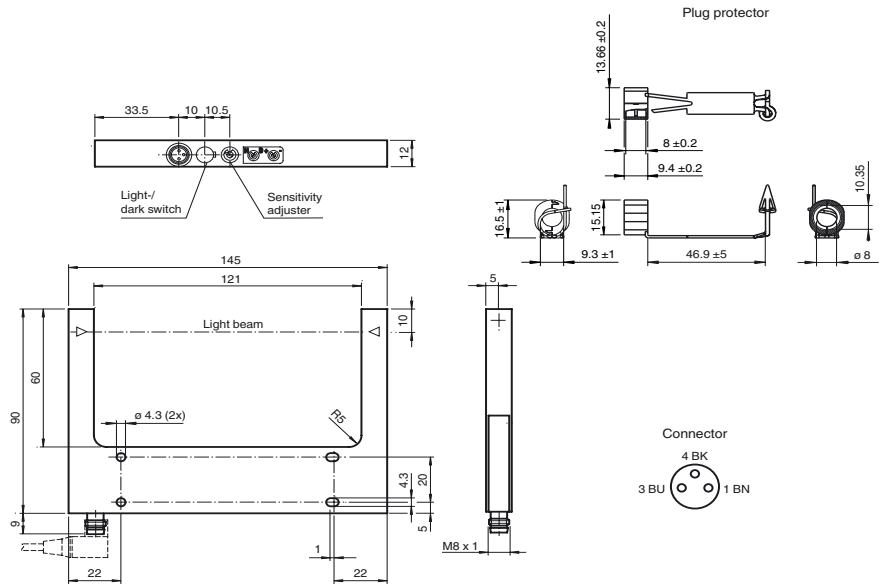




**Dimensions**



**Model Number**

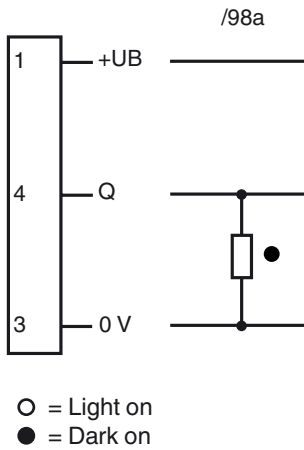
**GL121-IR-EX2/32/40a/98a**

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

**Features**

- ATEX-approval for zone 2
- Optimized for the detection of small parts
- High switching frequency
- Sensitivity adjuster and light/dark switch as standard features of this series
- Infrared light
- Protection degree IP67
- Diecast zinc housing, powder coated

**Electrical connection**



**Pinning according**



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

Light source	IREL
Light type	modulated infrared light
Target size	0.3 mm
Fork width	121 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 display	LED red in connector
Controls	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 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	2 kHz
Response time		≤ 250 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 x 1 connector, 3-pin
Material	
Housing	powder coated diecast zinc
Optical face	glass
Mass	295 g

**General information**

Use in the hazardous area	see more details for the use in hazardous areas
Category	3G

**Compliance with standards and directives**

Directive conformity	
EMC Directive 2004/108/EC	EN 60947-5-2:2007
Standard conformity	
Product standard	EN 60947-5-2:2007 IEC 60947-5-2:2007

**Approvals and certificates**

CCC approval	Products with a maximum operating voltage of ≤36 V do not bear a CCC marking because they do not require approval.
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**ATEX 3G (nA)**

Instruction

**Manual electrical apparatus for hazardous areas****Device category 3G (nA)**

for use in hazardous areas with gas, vapour and mist

Directive conformity

94/9/EG

Standard conformity

EN 60079-0:2009 , EN 60079-15:2010 , EN 60079-28:2007

Ex-identification

⊕ II 3 G Ex nAc op is IIC T6

Installation, Commissioning

Laws and/or regulations and standards governing the use or intended usage goal must be observed. Attach the connector fuse provided so that the connector cannot be unplugged without using tools. Only connections that are disconnected from the power supply may be unplugged.

Maintenance

No modifications must be undertaken on apparatus, which is operated in hazardous areas. Repairs to such apparatus are not permissible.

**Special conditions**Maximum permissible ambient temperature T<sub>Umax</sub>

60 °C (140 °F)

Protection from mechanical danger

The apparatus must be protected from mechanical damage.

Protection from UV light

The sensor must be protected against harmful UV radiation. This can be achieved by using the sensor indoors.

Electrostatic charging

Electrostatic charges on the sensor must be avoided.

Protection of overvoltage

Precautions must be taken to prevent the rated voltage being exceeded by more than 40 % due to transient disturbances.

## Other conditions

The connection cable and the plug connector must be protected from excessive and unintentional tensile and compressive loading. The plug connector must not be disconnected under voltage. When the plug connector is disconnected the ingress of dirt into the inner areas (i.e. the areas, which are not accessible in the plugged-in condition) must be prevented. The plug connection can only be separated using a tool. This is achieved by using the unlocking protection "Plug protector" (Mounting accessory from Pepperl + Fuchs).