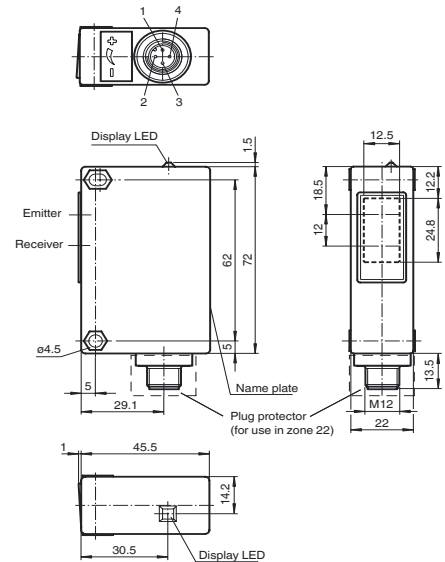
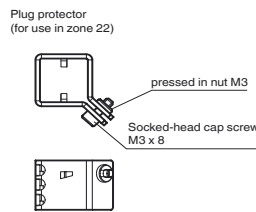




Dimensions



Model Number

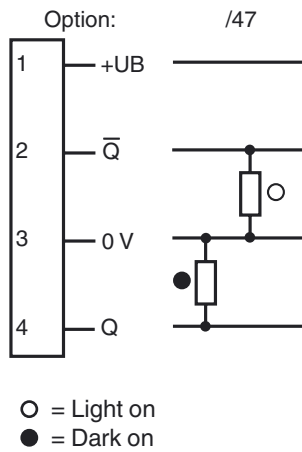
RL32-54-Ex2/47/73c

Retroreflective sensor with polarization filter
with 4-pin, M12 x 1 plastic connector

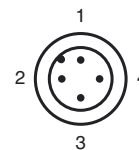
Features

- ATEX-approval for zone 2 and zone 22
- Sleek design, especially for storage and conveyor systems
- Excellent optical performance data
- Scratch-resistant and solvent resistant glass lens

Electrical connection



Pinning according



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Technical data**General specifications**

Effective detection range	0 ... 4 m
Reflector distance	0 ... 4 m
Threshold detection range	7 m
Reference target	H60 reflector
Light source	LED , 660 nm
Light type	modulated visible red light
Polarization filter	yes
Diameter of the light spot	approx. 100 mm at 4000 mm detection range
Angle of divergence	approx. 3 °
Ambient light limit	80000 Lux

Functional safety related parameters

MTTF _d	401 a
Mission Time (T _M)	20 a
Diagnostic Coverage (DC)	0 %

Indicators/operating means

Function indicator	LED yellow, lights up when light beam is free, flashes when falling short of the stability control
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Electrical specifications

Operating voltage	U _B	10 ... 30 V DC
Ripple		10 %
No-load supply current	I ₀	40 mA

Output

Switching type	light/dark on	
Signal output	2 PNP, complementary, short-circuit protected, reverse polarity protected	
Switching voltage	30 V DC	
Switching current	max. 50 mA	
Switching frequency	f	250 Hz
Response time		2 ms

Ambient conditions

Ambient temperature	-20 ... 50 °C (-4 ... 122 °F)
Storage temperature	-20 ... 60 °C (-4 ... 140 °F)

Mechanical specifications

Protection degree	IP65
Connection	Plastic connector M12 x 1, 4-pin
Material	
Housing	Terluran GV15
Optical face	glass
Mass	60 g

General information

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

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	CCC approval / marking not required for products rated ≤36 V
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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

ATEX marking

Ⓔ II 3 G Ex nAc op is IIC T4

Directive conformity

94/9/EG

Standards

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

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.

Specific conditions

Maximum permissible ambient temperature T_{Umax} 50 °C (122 °F)

Protection from mechanical danger

The apparatus must be protected from mechanical damage.

Protection of overvoltage

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

Protect from direct sunlight

Set up the apparatus so that optical components cannot come into contact with direct sunlight.

Protection from UV light

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

Other conditions

The optical light from the emitter must not be focused. 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).

ATEX 3D

Instruction

Manual electrical apparatus for hazardous areas

Details for use in hazardous areas

Electrical apparatus for potentially explosive atmospheres

ATEX marking

Ⓔ II 3 D Ex tc IIIC T75 °C

Directive conformity

94/9/EG

Standards

EN 60079-31:2009

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.

Specific conditions

Protection from mechanical danger

The apparatus must be protected from mechanical damage.

Protection of overvoltage

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

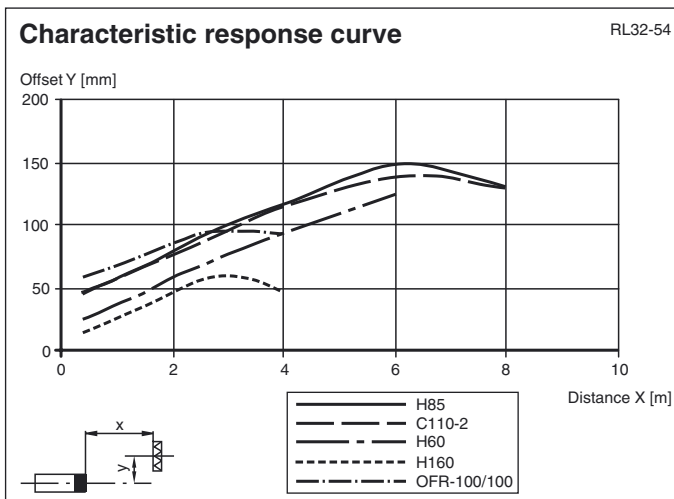
Protection from UV light

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

Other conditions

Set up the apparatus so that optical components cannot come into contact with direct sunlight.

Curves / Diagrams



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

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Relative received light strength

RL32-54

