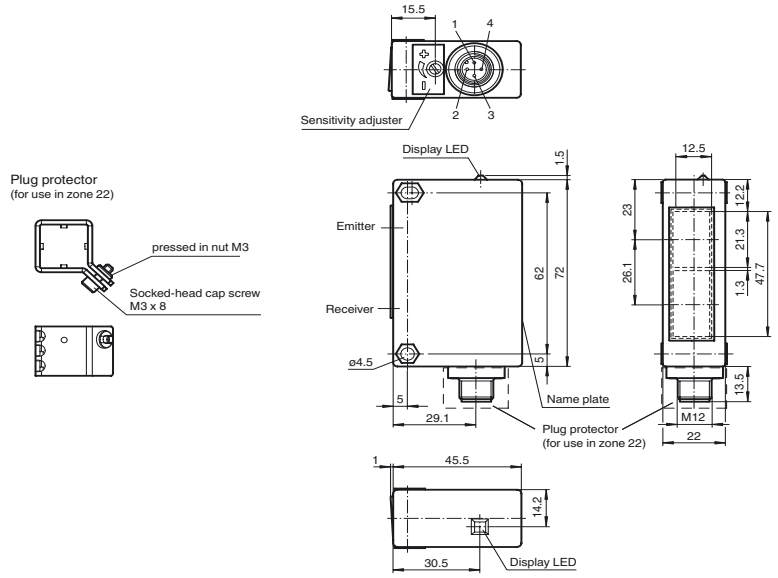
Dimensions



Model Number

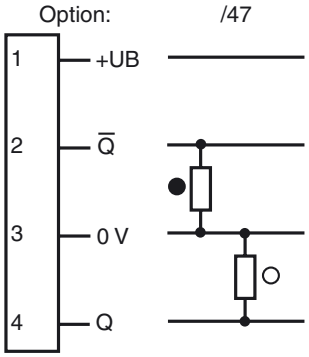
RL32-8-H-800-Ex2/47/73c

Background suppression sensor
with 4-pin, M12 x 1 plastic connector

Features

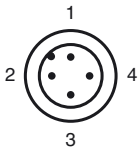
- ATEX-approval for zone 2 and zone 22
- Sleek design, especially for storage and conveyor systems
- Adjustable background suppression
- Excellent optical performance data
- Scratch-resistant and solvent resistant glass lens

Electrical connection



○ = Light on
● = Dark on

Pinning according



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Technical data

General specifications		
Detection range		30 ... 800 mm
Detection range min.		30 ... 300 mm
Detection range max.		30 ... 800 mm
Reference target		standard white 200 mm x 200 mm
Light source		IRED
Light type		modulated infrared light
Black/White difference (6 %/90 %)		< 15 %
Diameter of the light spot		approx. 25 mm at 800 mm sensor range
Angle of divergence		approx. 3 °
Ambient light limit		80000 Lux
Functional safety related parameters		
$MTTF_d$		840 a
Mission Time (T_M)		20 a
Diagnostic Coverage (DC)		0 %
Indicators/operating means		
Function display		LED yellow, lights up with receiver lit
Controls		Detection range adjuster
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	Products with a maximum operating voltage of ≤36 V do not bear a CCC marking because they do not require approval.
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	⟨Ex⟩ II 3 G Ex nAc op is IIC T4
Installation, Comissioning	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_{Umax}	50 °C (122 °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.
Protection of overvoltage	Precautions must be taken to prevent the rated voltage being exceeded by more than 40 % due to transient disturbances.

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Pepperl+Fuchs Group www.pepperl-fuchs.com
USA: +1 330 486 0001 fa-info@us.pepperl-fuchs.com
Germany: +49 621 776-4411 fa-info@pepperl-fuchs.com
Singapore: +65 6779 9091 fa-info@sg.pepperl-fuchs.com

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

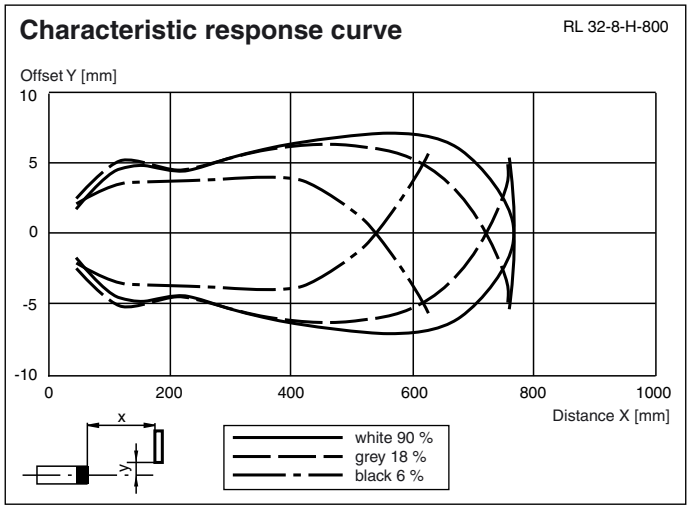
ATEX 3D

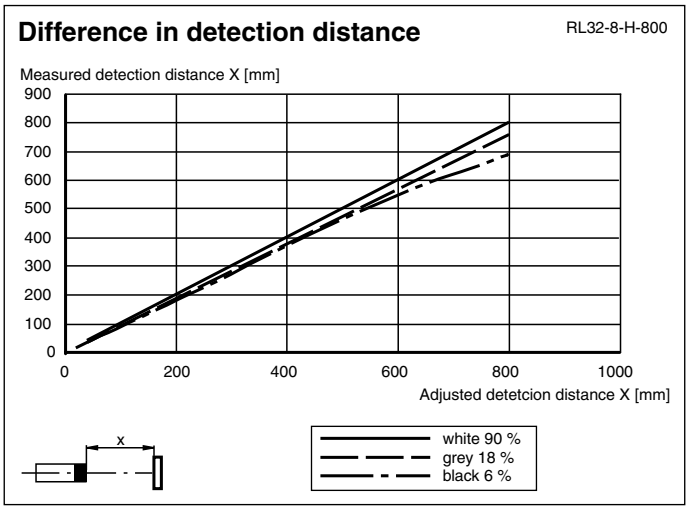
Instruction	**Manual electrical apparatus for hazardous areas**
Details for use in hazardous areas	Electrical apparatus for potentially explosive atmospheres
Directive conformity	94/9/EG
Standard conformity	EN 60079-31:2009
Ex-identification	Ⓔx II 3 D Ex tc IIIC T75 °C
Installation, Comissioning	Laws 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

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.
Protection of overvoltage	Precautions must be taken to prevent the rated voltage being exceeded by more than 40 % due to transient disturbances.
Other conditions	Set up the apparatus so that optical components cannot come into contact with direct sunlight.

Curves / Diagrams





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