



RLS-50100V	50 x 100 m (approx. 165 x 330 ft.) detection
RLS-3060V	30 x 60 m (approx. 100 x 200 ft.) detection

FEATURES

- Vertical and Horizontal detection area
- Ceiling, wall and pole mount
- Built-in angle adjustment function
- Built-in wide camera for easy installation and log function
- Changeable detection sensitivity & size
- Intuitive WEB User Interface
- ONVIF (Profile S) conformant
- Supporting multiple network protocols
- Automatic area setting function
- Anti-masking, Anti-rotation, Soiling, Device trouble, Tamper output (selectable)
- Paintable housing

Following web site will assist the installation,



<https://navi.optex.net/manual/50385>

	Warning Failure to follow the instructions provided with this indication and improper handling may cause death or serious injury.
	Caution Failure to follow the instructions provided with this indication and improper handling may cause injury and/or property damage.

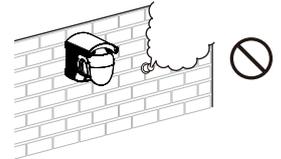
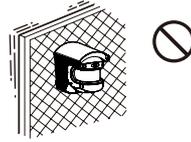
- This symbol indicates prohibition. The specific prohibited action is provided in and/or around the figure.
- This symbol requires an action or gives an instruction.

Warning	
This product is not a safety component as per the machinery directive. Do not use it for the purpose of machine safety.	
Do not touch the unit base or power terminals of the product with a wet hand (do not touch when the product is wet with rain, etc.). It may cause electric shock.	
Never attempt to disassemble or repair the product. It may cause fire or damage to the devices.	
Do not exceed the voltage or current rating specified for any of the terminals, doing so may cause fire or damage to the devices.	
Ensure the power is turned off before wiring.	
Confirm the type of each terminal to ensure wiring is carried out correctly.	
Whenever a commercial switching regulator is used, be sure to connect PE (Protective Earth Terminal).	
Hold the main unit securely when you install or service it. Exercise care not to bump the product against nearby objects or drop it inadvertently.	
This product is not capable of detecting objects in the dead zone of the laser scan. Do not use this product for an application where it is not capable of covering the detection area required by the task.	
Please note that the product can malfunction, including producing an irregular output and committing a detection error, if it is exposed to unfavorable environmental conditions such as strong ambient light, electronic noises or mechanical vibrations.	
Caution	
Use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.	
Clean and check the product periodically for safe use. If any problem is found, do not attempt to use the product as it is.	
When disposing of this product, be sure to follow the waste-disposal regulations of the country or region where it is used.	
This product is intended to detect an intruder(s) and is not designed to prevent theft, disasters or accidents. The manufacturer shall not be held liable for any damage to user's property resulting from theft, disasters or accidents.	

1 PRECAUTIONS

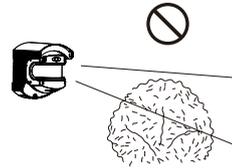
Install the product only on a solid surface. Do not install the product on an uneven surface.

Avoid mounting near vents or devices which cause high levels of smoke or condensation.



Install the product so that the detection area is not influenced by interference from tall grass or tree branches waving in the wind.

Do not install or leave the product in a location exposed to heat, vibrations or impacts.



Do not use the product in an environment where solvent fumes or corrosive gases are present.

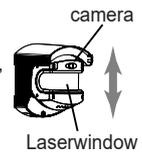
Do not use this product in environments where there may be oil mist particles which may contaminate the window of the detector; thus causing detection errors and possible corrosion which may lead to product failure.

There should not be any obstructs (e.g. lighting equipment, fire detectors, cameras, poster, etc.) in the laser area.

After installation, any obstructs should not be carried/moved into the detection area.

Cleaning the Product

Clean the laser window and the camera lens when the soiling signal is output, or dirt is noticeable. Remove dust or sand grain etc. with running water in advance, apply a mild detergent to a soft damp cloth, and wipe it.



Wipe it vertically as shown in the figure.

Notes : A smeared laser window can limit the detection area due to the reduced laser sensitivity. In addition, heavy soiling of the window can induce detection errors.

Replacing the Window

If the soiling signal is output even after cleaning, if the laser window is scratched, or if it is needed, replace the laser window with option products. For details on how to replace it, see the site on the right.



<https://navi.optex.net/manual/50387>

On Safety of Laser

This product is categorized as a Class 1 product in terms of the Safety Standard.

<RLS-50100V>
Average Power : Max. 0.033 mW (AEL)
Wavelength : 905 nm
Pulse Width : 5 ns
Emission period : 18 μs
Standard : IEC 60825-1 Ed.3

<RLS-3060V>
Average Power : Max. 0.024 mW (AEL)
Wavelength : 905 nm
Pulse Width : 5 ns
Emission period : 36 μs
Standard : IEC 60825-1 Ed.3

Class 1 of the Laser Safety Standard means that the safety of laser products belonging to this class is warranted under normal operating conditions (reasonably predictable operating conditions). The product is marked to indicate that it is laser equipment. No additional safety measures are necessary.

Complies with 21 CFR 1040.10 and 1040.11 except for conformance with IEC 60825-1 Ed.3, as described in Laser Notice No.56, dated May 8, 2019.

Class 1 laser product

Do not expose your eyes directly to the laser beam

CE Statement

Warning: This is a class A product. In a domestic environment this product may cause radio interference in which case the user may be required to take adequate measures. (EN 55032)

Battery handling

Conforms to WEEE Directive (2012/19/EU).
Do not dispose as general household wastes.
Follow national laws/regulations to dispose.
Lithium Manganese Dioxide Batteries (Li/MnO₂) are used.
Follow EU Battery Directive (2013/56/EU) to dispose batteries.

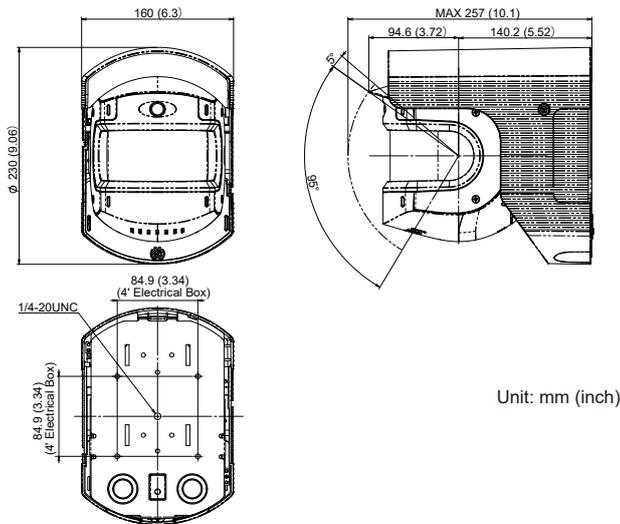
Personal Information

This product is equipped with the function to produce moving image of the designated area and its surrounding and can store the recorded image which includes the information such as face of an individual that could identify the individual.

Prior to the installation of this product, the compliance to local laws and regulations needs to be confirmed by the user of this product for the lawful use of this product. User of this product is deemed to be responsible for the compliance of any laws and regulations relating to personal information, privacy protection and rights of portrait upon use of this product. Image taken by this product is required to be treated appropriately under the responsibility of the user of this product.

OPTEX Co., Ltd. and its subsidiaries (hereinafter collectively called "OPTEX") shall not wilfully obtain or utilize the image taken by this product. However, only when dealing with troubles of this product upon request of user, OPTEX may obtain and utilize the necessary image recorded by this product. When doing so, OPTEX shall not treat such image for the purpose of identifying an individual. OPTEX shall treat such image/video according to its Privacy Policy. When requesting OPTEX to support a trouble of this product, the user may be required to perform applicable legal notification. Ensure to follow the appropriate procedure prior to the provision of personal information and data to OPTEX. Installation of this product, producing image, monitoring, recording with camera and handling of personal information or data shall all be performed under discretion and responsibility of user of this product, and OPTEX shall not be held liable for any dispute between a user and a third party.

2 DIMENSIONS



3 OPTIONS

LAC-1 : Laser area checker
RLS-LWW : REDSCAN Pro laser window
RLS-LWVH : REDSCAN Pro laser window with heater
RLS-LWVH provides defroster function to the laser window.

4 SPECIFICATIONS

Model	RLS-50100V	RLS-3060V
Installation location	Indoor/Outdoor	
Detection method	Infrared Laser Scan	
Laser protection class	Class 1	
Power input	19.2-30 VDC, PoE+ (IEEE 802.3at compliant)	
Current draw	500 mA max. (24 VDC), 12 W max. (PoE+)	
	With optional heater window	1.25 A max. (24 VDC), 25.5 W max. (PoE+) The power consumption limit can be lower by selecting lower heater power with the web based configuration tool.
Mounting method	Ceiling mount, Wall mount, Pole mount	
Detection area	50 x 100m, 190 degree (approx. 165 x 330 ft.)	30 x 60m, 190 degree (approx. 100 x 200 ft.)
Detection range	Radius 1 to 50 m (approx. 3.3 to 165 ft.) at 10% reflectivity	Radius 1 to 30 m (approx. 3.3 to 100 ft.) at 10% reflectivity
Detection resolution/Response time	0.125 degrees / within 100 msec. to 15 min.	0.25 degrees / within 100 msec. to 15 min.
Mounting height (Vertical mode)	Indoor: 2 m (approx. 6.7 ft.) or higher Outdoor: 4 m (approx. 13 ft.) or higher (recommended)	
Communication port	Ethernet RJ-45 10BASE-T/100BASE-TX (Auto negotiation)	
Protocol	UDP/ TCP/ HTTP/ HTTPS/ IPV4/ IPV6/ DNS/ DHCP/ SNMPv1-v3/ NTP/ WS-Discovery/ ONVIF/ IEEE802.1X	
Output	6 outputs, 28 VDC 0.2 A max. N.O./N.C. (selectable) (6 from Master alarm, Zone alarm, Trouble, Tamper, Environmental Disqualification, Device Monitoring) (programmable)	
Input	1 Non-voltage contact input (Detection profile switching, Area set, Sensor check) (programmable)	
Alarm period	Approx. 2 second delay timer	
Operating temperature	-20°C to 60°C (-4°F to 140°F)	
	With optional heater window	-40°C to 60°C (-40°F to 140°F)
IP rating	IP66	
Dimensions (H x W x D)	230 x 160 x 257 mm max. (9.1 x 6.3 x 10.1 inch)	
Weight	2.6 kg (5.7 lbs.)	
Image sensor	Full HD	
Image resolution	1080P (Web User Interface) 720P/360P (RTSP)	
Viewing angle	H : 170° V : 85°	
Minimum illumination	Approx. 1 lux.	
Day and night	Removable infrared-cut filter (Auto / Night / Day) (selectable)	
Image compression	H.264, JPEG	
Frame rate	1 to 10 FPS (selectable)	

* Specifications and design are subject to change without prior notice.

■ EU & UK contact information



<https://navi.optex.net/cert/contact/>



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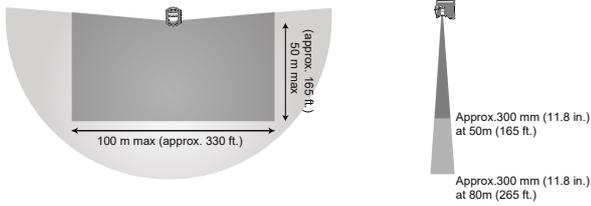
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APPENDIX

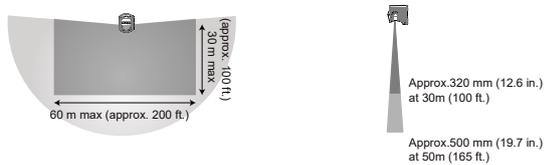
DETECTION RANGE

RLS-50100V



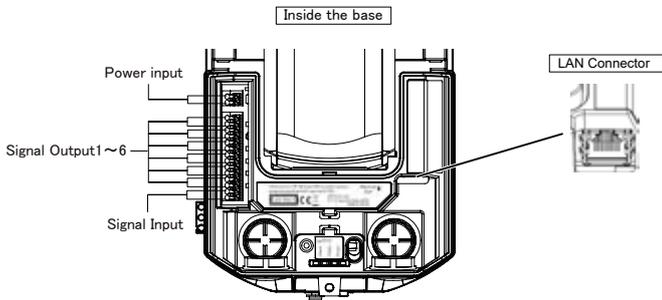
Normal detection range
 50 x 100m (Approx. 165 x 330 ft), 190 degree , Square
 When using "Detection range expansion" radius 80m, (Approx. 265 ft.)
 190 degree , Fan-shaped area

RLS-3060V



Normal detection range
 30 x 60m (Approx. 100 x 200 ft), 190 degree , Square
 When using "Detection range expansion" radius 50m, (Approx. 165 ft.)
 190 degree , Fan-shaped area

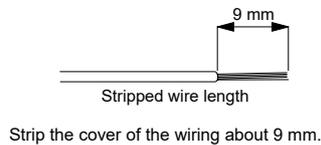
PARTS LAYOUT INSIDE THE COVER AND THEIR FUNCTIONS



The length of the power wire must be less than the figures listed below.

WIRE SIZE	Sensor
AWG20 (0.52 mm ²)	40 (130)
AWG18 (0.83 mm ²)	70 (230)
AWG16 (1.31 mm ²)	110 (360)

m (ft.)



Note >>

Some PoE hubs have a limit for wattage. Connect the detectors to PoE hubs without exceeding the limit referring to the PoE hub's instructions.

UL Statement

-In case of using PoE injector or switch for power supply

PoE is not evaluated by UL. The product is to be powered via a UL listed control panel or transformer / power supply with a power limited class 2 output with a voltage range of 19.2 to 30VDC. The power supply is to be a UL 603 or UL 2610 power supply with min of 4 hours of standby backup power.

-Mounting method

UL recommended ceiling mount and wall mount. When installing the device on a pole, secure it and free from movement

-For UL Listed installation applications

The relay outputs shall be connected to a compatible UL Listed control panel. The equipment shall be installed in accordance with the National Electrical Code NFPA 70.

-Operating temperature

UL testing was conducted at temperature range of -35°C to 66°C.

-IP rating

IP rating is not a feature of UL Listed application.

-The following items are not evaluated by UL

- Web user interface
- Camera function and Video streaming (including ONVIF)
- Optional heater window
- Ethernet port and IP communication
- Environmental Disqualification output and Device Monitoring output
- Input function

< MEMO >

Model/ Name	
Place	
Serial No.	
Date	
IP address/ Subnet mask/ Default gateway	
Output 1	
Output 2	
Output 3	
Output 4	
Output 5	
Output 6	
Input setting	
Mode/ Parameter/ Others	



RLS-50100V/3060V

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