OPTEX
Sensing Innovation

Customizable LiDAR Sensing Solutions
For High Security Applications

REDSCAN Series

The REDSCAN Product Series utilizes LiDAR sensing technology to provide highly accurate detection of intruders and moving objects. Equipped with OPTEX's most advanced technologies, it provides excellent detection performance not affected by variable lighting, temperature, or environmental changes, making it the ideal solution for high security sites.

Applications include:
Power plants, substations, border protection, correctional facilities, data centers, distribution centers, airports, water treatment plants, ports, warehouses, museums & art galleries, financial institutions, hospitals, and schools.
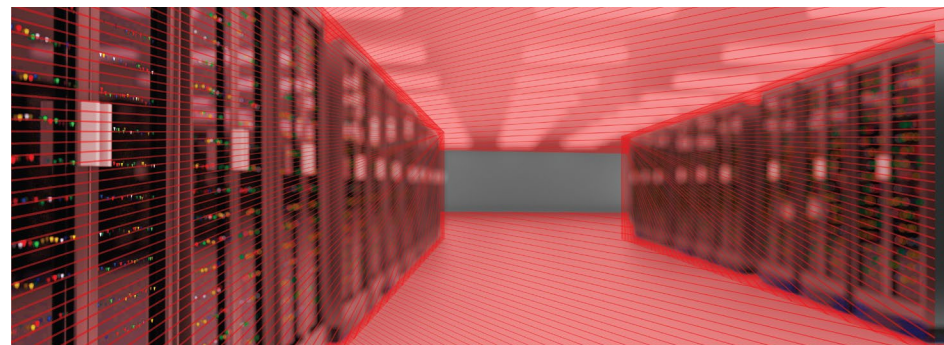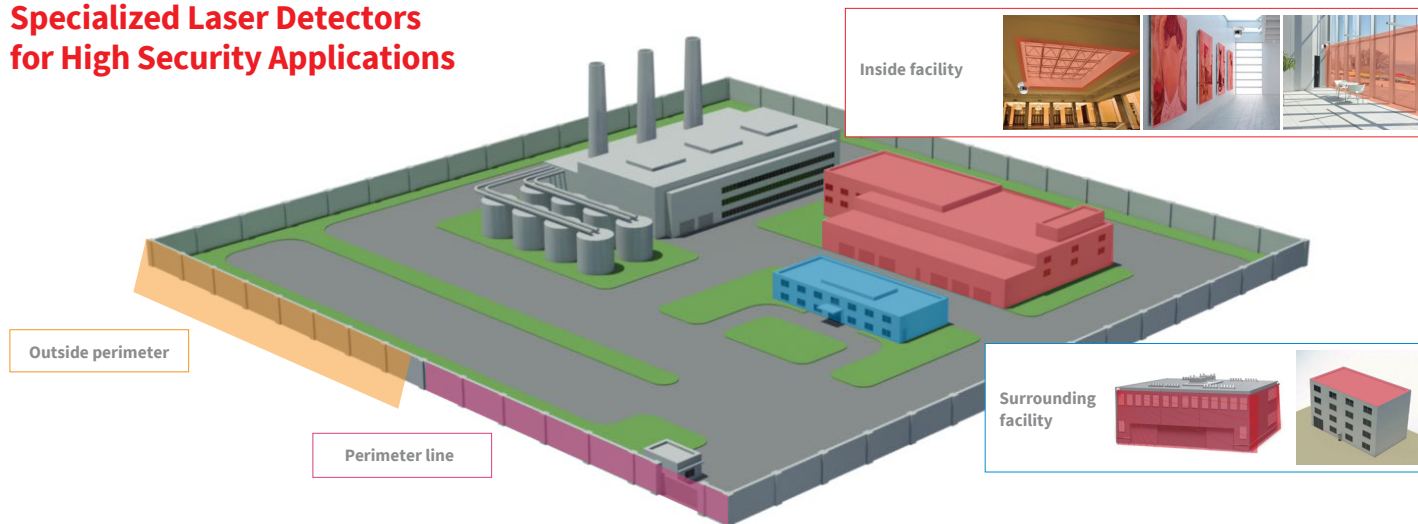
RLS-2020
Series

RLS-3060
Series

REDSCAN Pro
Series

REDWALL

Specialized Laser Detectors for High Security Applications

PoE
Power over Ethernet

Specialized Laser Detectors for High Security Applications

Inside facility

Outside perimeter

Perimeter line

Surrounding facility

RLS-3060 Series

The RLS-3060 series is an innovative laser scan detector that identifies a moving object's size, speed, and distance from the detector. It processes that information with a unique algorithm, providing a highly reliable detection system with minimal false alarms.

FEATURES

• 30m (100ft) radius for 190 degrees range
• Vertical and horizontal mounting
• Unique detection algorithm
• Automatic area setting function
• 4 independently adjustable detection areas and
4 linked outputs for PTZ camera control
(on Analog connection and IP connection)
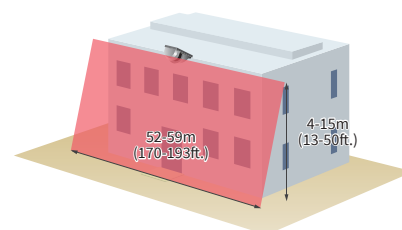• Fog cancellation algorithm (Patent listed)

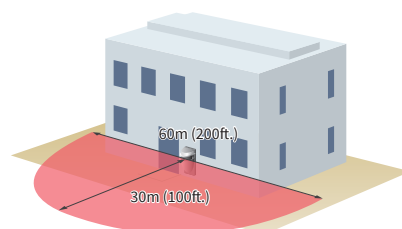### RLS-3060L

• Scene selection (Indoor / outdoor)

RLS-3060SH

Scene selection(outdoor, indoor, indoor ceiling/Wall protection and vehicle)
• 8 independently adjustable detection area and Redwall event codes for network recorder and video management software
(on analog connection and on IP connection)
• Built-in heater

VERTICAL DETECTION ZONE

52-59m (170-193ft.)
4-15m (13-50ft.)

HORIZONTAL DETECTION ZONE

60m (200ft.)
30m (100ft.)

RLS-2020 Series

The RLS-2020 series is a compact and highly customizable Laser Scan detector that works in an unobstructed way to protect houses, buildings, flat roofs, controlled areas, and assets, by creating an invisible laser wall or plane and detecting any intrusion breaching it.
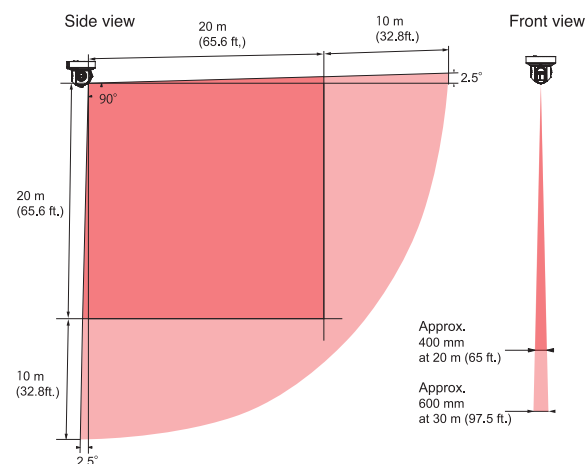
FEATURES

• 20m x 20m (65ft. x 65ft.), 95 degree detection area
• Vertical and Horizontal detection modes
• Multi-angle Adjustment Shell Structure (M.A.S.S.)
• Unique detection algorithm
• Automatic area setting function
• Advanced area setting
• 4 adjustable detection areas on IP connection
• Total 3 outputs can be assigned for analog connection

RLS-2020I

• Indoor use model

RLS-2020S

• Indoor / outdoor mode
• Indoor high resolution mode
• Indoor throw-in mode

Side view
20 m (65.6 ft.)
10 m (32.8ft.)
Front view
2.5°
90°
20 m (65.6 ft.)
10 m (32.8ft.)
2.5°

Approx. 400 mm at 20 m (65 ft.)
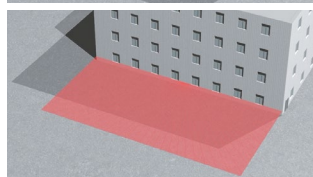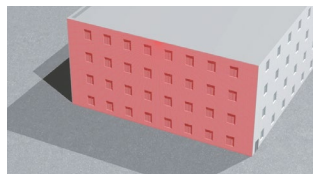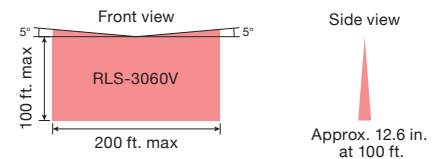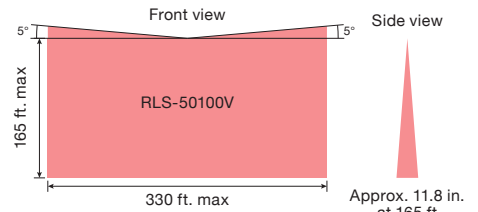Approx. 600 mm at 30 m (97.5 ft.)

REDSCAN Pro Series

The REDSCAN PRO series can very accurately detect intruders to a range of 165 x 330ft (50 x 100m), without any gaps and keeping the same detection resolution near and far into the detection range. Equipped with OPTEX's most advanced technology, the REDSCAN PRO provides excellent detection performance that won't be affected by variable lighting, temperature or environmental changes, making it the best solution for high security sites.

FEATURES
- **RLS-50100V:** 50 x 100 m (approx. 165 x 330 ft.)
- **RLS-3060V:** 30 x 60 m (approx. 100 x 200 ft.)
- Very high detection resolution: 0.125°
- Vertical and horizontal mounting
- Selectable installation method (wall, ceiling, pole mount)
- Rectangular detection area
- 8 independent detection zones with customizable target size, sensitivity, and output
- Embedded video camera for visualizing your detection area
- Event log function — Confirm events with event log & image
- Auto area adjustment
- Small animal tolerant
- Setting by Internet browser
- Environmental resistance function

Front view / Side view — RLS-50100V
5° / 5° / 165 ft. max / 330 ft. max / Approx. 11.8 in. at 165 ft.

Front view / Side view — RLS-3060V
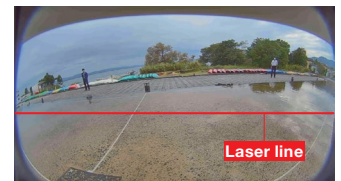5° / 5° / 100 ft. max / 200 ft. max / Approx. 12.6 in. at 100 ft.

RLS-3060V

- Indoor / outdoor model
- 8 independent detection zones. Configurable sensitivity, target size & output

RLS-50100V

- Indoor / outdoor model
- Expanded mode: up to 530 ft vertical / 265 ft radius horizontal mount
- 8 independent detection zones. Configurable sensitivity, target size & output

Laser line

ONVIF® | S

ONVIF (Profile S) conformant*

The REDSCAN Pro LiDARs are ONVIF profile S conformant sensors allowing them to send alarm outputs via the ONVIF protocol to any ONVIF conformant networked video system or IP network devices.
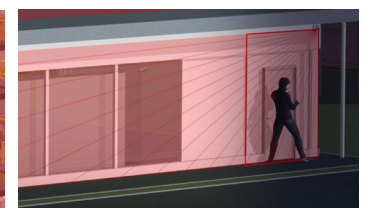
Detect a crawling person	Detect a running person	Thrown object detection	Quick intrusion detection

SPECIFICATIONS

Model		RLS-3060SH	RLS-3060L
Detection method		Infrared Laser Scan	
Laser protection class		Class 1	
Coverage	Vertical area	Max. 100m (s), 60 m (i), at 10% reflectivity	
	Horizontal area	Radius:50m (s), 30 m (i), Arc:190° at 10% reflectivity	
Detection resolution		0.25°	
Communication port		Ethernet ,RJ-45 ,10BASE-T/100BASE-TX	
Protocol		UDP, TCP/IP *Redwall Event Code	
Power input		24 VDC , 24 VAC	
Current draw		400 mA max. (24 VDC) 600 mA max. (24 VAC)	
Heater power input		24 VDC, 24 VAC	-
Heater current draw		400 mA max. (24 V DC/AC)	-
Mounting height	Vertical area	From 4 m (13 ft.) to 15 m (50 ft.) (recommendation)	
	Horizontal area	0.7 m (28 in.) (recommendation)	
Target object selector		S / M / L	
Sensitivity selector		H / M / L	
Camera control output		N.O. 28 VDC, 0.2 A x 4 outputs	
Master alarm output		Form C, 28 VDC, 0.2 A max.	
Trouble output		Form C, 28 VDC, 0.2 A max.	
Tamper output		N.C. 28 VDC, 0.1 A max.	
Environmental disqualification circuit		Form C, 28 VDC, 0.2 A max.	
Alarm period		Approx. 2 sec., Off delay timer	
Operating temperature		-20 to 60 °C (-4 to 140° F)	
Operating temperature with heater		-40 to 60 °C (-40 to 140° F)	-
IP rating		IP66	
Dimensions (H x W x D)		334 x 144 x 155 mm (13.2 x 5.7 x 6.1 in.)	
Weight		2.5 kg (88 oz)	2.4 kg (85 oz)

Model	RLS-2020I	RLS-2020S
Installation location	Indoor	Indoor/Outdoor
Detection metod	Infrared Laser Scan	
Laser protection class	Class 1	
Power input	10.5 to 30 VDC, PoE (IEEE802.3af/at compliant)	
Current draw	500mA max. (12 VDC), 250mA max. (24 VDC), 6W max. (PoE)	
Mounting method	Ceiling mount, Wall mount, Tripod mount, Pole mount (option), Recess mount (option)	
Detection area	S: 30m (97.5ft) radius arc | i: 20 x 20 m, (approx. 65 x 65 ft.) | 95 degrees	
Detection range	Radius 1 to 21m (approx. 3.0 to 68 ft.) at 10% reflectivity	
Detection resolution/ Response time	0.25 degrees / within 75 ms to 1 minute	0.25 degree / within 75msec to 1 minutes (for indoor mode and outdoor mode) 0.25 degree / within 25msec (for indoor throw-in mode), 0.125 degree / within 100msec to 1 minutes (for Indoor high resolution mode)
Mounting height (Vertical mode)	2 m (6.7 ft.) or higher	Indoor: 2 m (6.7 ft.) or higher Outdoor: 4 m (13 ft.) or higher (Recommended)
Communication port	Ethernet RJ-45 10BASE-T/100BASE-TX (Auto negotiation)	
Protocol	UDP, TCP/IP (Redwall Event Code), Http (Web setting), SNMP	
Output	3 outputs, 28 VDC 0.2A max. N.O./N.C. Selectable (3 from Master alarm, Zone outputs, Trouble, Tamper)	3 outputs, 28 VDC 0.2A max. N.O./N.C. Selectable (3 from Master alarm, Zone outputs, Trouble, Tamper, D.Q.)
Input	-	1 Non-voltage contact input
Alarm period	Approx. 2 sec delay timer	
Operating temperature	-40 to 50 C degrees (-40 to 122 F degrees)	-40 to 60 C degrees (-40 to 140 F degrees)
IP rating	IP66	
Dimensions (HxWxD)	146 x 160 x 160 mm (5.8 x 6.3 x 6.3 inch)	
Weight	1.0 kg (2.2 lb)	

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 heater option: 1.25 A max. (24 VDC), 25.5 W max. (PoE+)	
Mounting method	Ceiling mount, Wall mount, Pole mount	
Detection area	50 x 100 m, 190 degree (approx. 165 x 330 ft.)	30 x 60 m, 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/DNS/DHCP/SNMPv1-v3/NTP/WS-Discovery/ONVIF	
Output	6 outputs, 28 VDC 0.2A max. N.O./N.C. Selectable	
Input	1 Non-voltage contact input	
Alarm period	Approx. 2 second delay timer	
Operating temperature	-20°C to 60°C (-4°F to 140°F)	
	with RLS-LWVH: -40 °C to 60°C (-40°F to 140°F)	
Dimensions (H×W×D) , Weight	230 × 160 × 256.6 mm max. (9.1 x 6.3 x 10.1 inch), 2.6 kg (92 oz.)	
IP rating	IP66	

*ONVIF is a trademark of Onvif, Inc. www.onvif.org/profiles/profile-s/

OPTIONS

2020-PDMA
Pendant Mount

RLS-SB
Adjustable angle mounting bracket for RLS-3060 series

2020-MAB
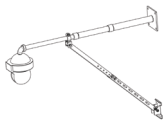Multi-Angle Adjustment Wall Ceiling Mount

LAC-1
Laser Area Checker

RLS-RB
Recess mount bracket

2020-WMA
12" wall mount arm bracket

2020-WMAD
Adjustable Extension Wall/Roof

RLS-LWV
Replacement Window for RLS-3060V & RLS-50100V

RLS-LWVH
Replacement Window **with heater unit** for RLS-3060V & RLS-50100V

For more information about the REDSCAN Series
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OPTEX
Sensing Innovation

www.optexamerica.com