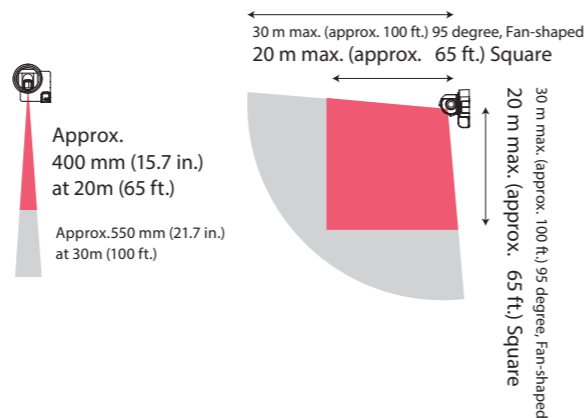


## Detection areas

Normal detection range  
20 x 20m (Approx. 65 x 65 ft), 95 degree, Square

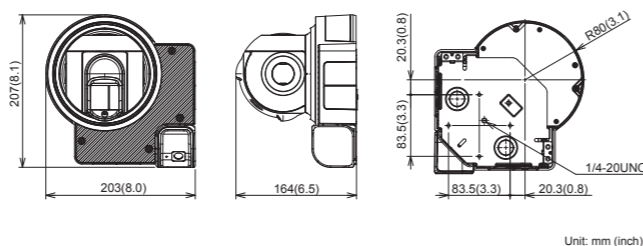
When using "Detection range expansion" radius 30m, (Approx. 100 ft.)  
95 degree, Fan-shaped area



## Options

LAC-1	RLS-LW	RLS-PB2
Laser Area Checker for all RLS series	Laser window for replacement	Pole mount Bracket

## Dimensions



## Specifications

Model	RLS-2020V	RLS-2020A
Installation location	Indoor/Outdoor	
Detection method	TOF	
Laser protection class	Class 1	
Power input	19.2-30 VDC, PoE+ (IEEE 802.3at compliant)	19.2-30 VDC, PoE (IEEE 802.3af compliant)
Current draw	580 mA max. (24 VDC), 14 W max. (PoE+)	500 mA max. (24 VDC), 12 W max. (PoE)
Mounting method	Ceiling mount, Wall mount, Pole mount	
Detection area	20 x 20m, 95 degree (approx. 65 x 65 ft.)	
Detection range	Radius 1 to 21 m (approx. 3.3 to 68 ft.) at 10% reflectivity	
Detection resolution/Response time	0.125 degrees / within 50 msec. to 15 min. / 0.25 degrees / within 75 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 interface	2 Ethernet RJ-45 10BASE-T/100BASE-TX (Auto negotiation) RS-485	
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	2 Non-voltage contact input (Detection profile switching, Area set, Sensor check) (programmable)	
Alarm period	Approx. 2 second delay timer	
Operating temperature	-40°C to 60°C (-40°F to 140°F)	
IP rating	IP66	
Dimensions (H x W x D)	207 x 203 x 164 mm max. (8.1 x 8.0 x 6.5 inch)	
Weight	1.6 kg (3.5 lbs.)	1.3 kg (2.9 lbs.)
Image sensor	1/2.8" CMOS	—
Image resolution	1080P/720P/360P (RTSP H.264) 720P/360P (RTSP JPEG) (Supports portrait display)	—
Viewing angle	H:130° V:65°	—
Minimum illumination	Approx. 1 lux. Less than the above, IR LEDs turn on.	
Day and night	Automatically removable infrared-cut filter. Auto/Day/Night mode selectable	
Image compression	H.264, JPEG	—
Frame rate	1 to 10 FPS (selectable)	—

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



## OUTDOOR/INDOOR 2D LIDAR SENSOR

# REDSKAN mini-Pro

Advanced 2D LiDAR sensor for outdoor and indoor intrusion detection. Customizable zones and detection logic fully integrated with various VMS platforms.



### Available Models:

RLS-2020V : 20 x 20 m (approx. 65 x 65 ft.) detection with FHD camera  
RLS-2020A : 20 x 20 m (approx. 65 x 65 ft.) detection



OPTEX CO., LTD. (JAPAN)  
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FOR OUTDOOR & INDOOR HIGH SECURITY APPLICATIONS

## Built-in FHD Camera and IR LED



RLS-2020V

Built-in FHD Camera and IR LED

RLS-2020V has a built-in FHD camera with IR LED providing clear image in 1080P resolution. The pre and post alarm camera images are recorded in internal memory of the unit (alarm logs : 500 events) and can be played back for verification.



Horizontal and portrait image can be selectable

## Automatic IR Adjustment

RLS-2020V can automatically adjust the strength of IR LED to the distance from the target.



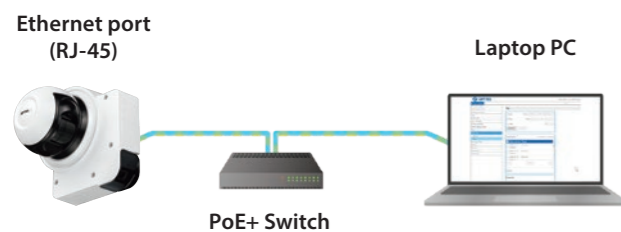
## Map Screen Display

Both RLS-2020V and 2020A can stream live images instead of video images from the camera. Any photo or image can be used to overlap the detection area.



## Intuitive user interface by a web browser

mini-PRO series can be setup with a web browser. No extra software installation nor internet connection is required.



## Event log function

Track of object is recorded when alarm signal is generated.

Up to 500 events, selectable from video or map screen.

<input type="checkbox"/>	Date and time	Trigger
<input type="checkbox"/>	2023/07/12 06:58:27	Area set
<input type="checkbox"/>	2023/07/12 09:01:26	MO/A11
<input type="checkbox"/>	2023/07/12 08:00:12	MO/A11

## Connectivity and network security



Alarm events can be transmitted to VMS with video stream, which provides a smart integration with VMS.

Network Protocols with enhanced network security  
UDP/TCP/HTTP/HTTPS/IPV4/DNS/DHCP/SNMPv1-v3/NTP/WS-Discovery/ONVIF/IEEE 802.1X

\*ONVIF is a trademark of Onvif.Inc.

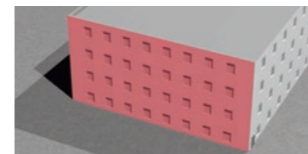
# Reliable and flexible detection performance

## Flexible detection area design

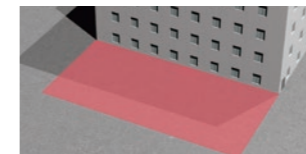
Vertical and horizontal mode can be automatically chosen.

mini-Pro series have 3 installation methods as Wall, Ceiling and Pole. You can select either method to match the installation site.

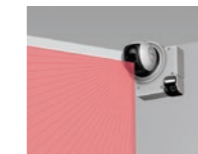
Vertical detection area



Horizontal detection area



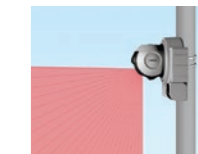
Wall mount



Ceiling mount



Pole mount

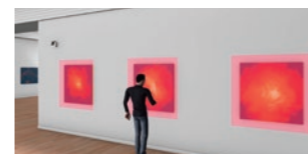


## Allocating Detection Areas - Examples [Museum]

Multiple parameters can be set for each zone individually.

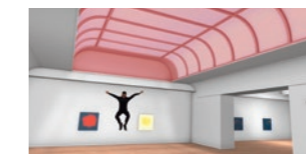
### Vertical Detection Areas

Critical area :  
immediate alarm output  
Sensitivity : High



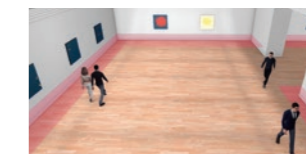
### Horizontal Detection Areas

Critical area :  
immediate alarm output



### Switching profile 1 and 2 - Horizontal use case -

Profile 1 :  
Daytime hours of opening



### Switching profile 1 and 2 - Horizontal use case -

Profile 2 :  
Nighttime hours of opening



# Reduction of false/missed alarms

## Auto area adjustment

In snowy conditions, the detection area floor can change, this could cause false alarms. By using this function, the REDSCAN mini-Pro automatically offsets the area floor to accommodate the snow built-up.



## Small Animal Tolerance

This function is used to reduce false alarms due to small animals in the vertical detection area.

mini-Pro can assign up to 8 detection zones with individual detection parameters. Minimum target size, Sensitivity (object presence time) and "Ignoring Area from Ground" setting allow multiple ways to reduce nuisance alarm caused by small animals.

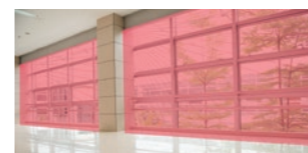
## Environmental Resistance function

When harsh outdoor environment is expected such as a presence of dense fog, heavy snow storm and apparent presence of gaseous matters, limiting the sight range of the LiDAR technology, this function provides extra filtration of nuisance factors. mini-Pro is also equipped with environmental disqualification output notification allowing bypass of signals in aforementioned harsh conditions. (These two features are disabled when in Indoor mode)

# Applications

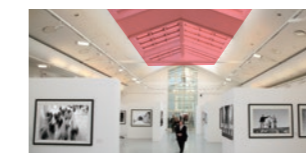
## Glass wall protection

Office, school, shop



## Skylight protection

Museum



## Shelf protection

Warehouse, distribution center



## Passport throwing protection

Airport

