#### **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

RLS-LW

Laser window for

replacement



#### Dimensions





Unit: mm (inch)

/4-201 INC

#### Specifications

Options

LAC-1

Laser Area Checker

for all RLS series

Installation location     Indox/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     S80 mA max. (24 VDC), 14 W max. (PoE+)     S00 mA max. (24 VDC), 12 W max. (PoE)       Mounting method     Celling 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 range     Radius 1 to 21 m (approx. 3.3 to 68 ft.) at 10% reflectivity       Detection range     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 R1-45 108A5E-T1 (1008A5E-T1 (Auto negotiation) R5-485       Protocol     UDP/ TCP/ HTTP/ HTTPS/ IPV4/ IPV6/ DNS/ DHCP/ SNMPv1-v3/ NTP/ WS-Discovery/ ONVIF/ IEEB02.1X       Output     6 outputs, 28 VDC 0.2 A max. NO./N.C.(selectable) (6 from Master alarm, Zone alarm, Trouble, Tamper, Environmental Disgualification, Device Monitoring (programmable)       Alarm period     Approx. 2 second delay timer       Operating temperat	Medal		DI C 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 interface     0.125 degrees / within 50 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 108ASE-TV100BASE-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. NO.NC. (selectable) (6 from Master alarm, Zone alarm, Trouble, Tamper, Environmental Disqualification, Device Monitoring) (programmable)       Alarm period     Approx.2 second delay timer       Operating temperature     -40°C to 60°C (-40°F to 140°F)       IPresting     IP66       Dimensions (H x W x D	Model	RLS-2020V	RLS-2020A	
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 area     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. 61, t) or higher / Outdoor: 4 m (approx.13 ft.) or higher (recommended)       Communication interface     2 Ethernet RJ-45 108ASE-TX (Nuto negotiation) RS-485       Protocol     UDP/ TCP/ HTTP/ IPTP/ IPTP/ IPV6/ DNS/ DICP/ SNMPVI-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, Torouble, 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)       Inge sensor     1/2.8° (MOS         Image sensor     1/2.8° (MOS	Installation location	Indoor/Outdoor		
Laser protection class     Class 1       Power input     19.2-30 VDC, PoE+ (IEEE 802.3at compliant)     19.2-30 VDC, PoE (IEEE 802.3at 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 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 108ASE-T/1008ASE-TX (Auto negotiation) RS-485       Protocol     UDP/TCP/HTTP/HTTPS/HCP/SNPM-14/Y/SNPM/SDIScovery / 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 × 6.5 inch)	Detection method	TOF		
Power input19.2-30 VDC, PoE+ (IEEE 802.3at compliant)19.2-30 VDC, PoE (IEEE 802.3af compliant)Current drawS80 mA max. (24 VDC), 14 W max. (PoE)500 mA max. (24 VDC), 12 W max. (PoE)Mounting methodCeiling mount, Wall mount, Pole mountDetection area20 x 20m, 95 degree (approx. 65 x 65 ft.)Detection rangeRadius 1 to 21 m (approx. 3.3 to 68 ft.) at 10% reflectivityDetection range0.125 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 interface2 Ethernet RJ-45 108ASE-T/100BASE-TX (Auto negotiation) RS-485ProtocolUDP/ TCP/ HTTP/ HTTPS/ IPV4/ IPV6/ DNS/ DHCP/ SNMPv1-v3/ NTP/ WS-Discovery/ ONVIF/ IEEE802.1XOutput6 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)Input2 Non-voltage contact input (Detection profile switching, Area set, Sensor check) (programmable)Alarm periodApprox.2 second delay timerOperating temperature-40°C to 6°C (-40°F to 140°F)Otry Right1.6 kg (3.5 lbs.)1.3 kg (2.9 lbs.)Image resolution1080P/720P/360P (RTSP H264) 720P/360P (RTSP H264) (Supports portrait display)Weight1.6 kg (3.5 lbs.)Image resolution1080P/720P/360P (RTSP H264) 720P/360P (RTSP H2	Laser protection class	Class 1		
Current draw580 mA max. (24 VDC), 14 W max. (PoE+)500 mA max. (24 VDC), 12 W max. (PoE)Mounting methodCelling mount, Wall mount, Pole mountDetection area20 x 20m, 95 degree (approx. 65 x 65 ft.)Detection arageRadius 1 to 21 m (approx. 3.3 to 68 ft.) at 10% reflectivityDetection resolution/Response time0.125 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 interface2 Ethernet RJ-45 106ASE-T/100BASE-TX (Auto negotiation) RS-485ProtocolUDP/TCP/ HTTPS/ IPV4/ IPV6/ DNS/ DHCP/ SNIMPV1-v3/ NTP/ WS-Discovery/ ONVIF/ IEEE802.1XOutput6 outputs, 28 VDC 0.2 A max. NO./NC. (selectable) (6 from Master alarm, Zone alarm, Trouble, Tamper, Environmental Disqualification, Device Monitoring) (programmable)Input2 Non-voltage contact input (Detection profile switching, Area set, Sensor check) (programmable)Alarm periodApprox.2 second delay timerOperating temperature-40°C to 60°C (-40°F to 140°F)IP ratingIP66Dimensions (H x W x D)207 x 203 x 164 mm max. (8.1 x 8.0 x 6.5 inch)Image sensor1/2.8° CMOSImage sensor-Viewing angleH:130° V:65°Minimum illuminationApprox. 1 lux. Less than the above, IR LEDs turn on.Day and nightAutomatically removable infrared-cut filter. Auto/Day/Ngith mode selectableImage compressionH:264, JPEGFrame rate1 to 10 FPS (selectable)	Power input	19.2-30 VDC, PoE+ (IEEE 802.3at compliant)	19.2-30 VDC, PoE (IEEE 802.3af compliant)	
Mounting methodCeiling mount, Wall mount, Pole mountDetection area20 x 20m, 95 degree (approx. 65 x 65 ft.)Detection rangeRadius 1 to 21 m (approx. 3.3 to 68 ft.) at 10% reflectivityDetection resolution/Response time0.125 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 interface2 Ethernet RJ-45 108ASE-TX (Auto negotiation) RS-485ProtocolUDP/TCP/HTTP/IPV4/IPV6/DNS/DHCP/SNMPv1-v3/NTP/WS-Discovery/ONVIF/IEEE802.1XOutput6 outputs, 28 VDC 0.2 A max. N.O./N.C. (selectable) (6 from Master alarm, Trouble, Tamper, Environmental Disqualification, Device Monitoring) (programmable)Input2 Non-voltage contact input (Detection profile switching, Area set, Sensor check) (programmable)Alarm periodApprox.2 second delay timerOperating temperature-40°C to 60°C (-40°F to 140°F)Input207 x 203 x 164 mm max. (8.1 × 8.0 × 6.5 inch)Weight1.6 kg (3.5 lbs.)1.3 kg (2.9 lbs.)Image resolution1080P/720P/360P (RTSP JE60, Supports portrait display)Minimum illuminationApprox.1 lux. Less than the above, IR LEDs turn onDay an nightAutomatically removable infrared-cut filter. Auto/Day/Night mode selectableImage compressionH.264, JPEGMinimum illuminationApprox.1 lux. Less than the above, IR LEDs turn onImage compressionH.264, JPEGImage compressionH.264, JPEG<	Current draw	580 mA max. (24 VDC), 14 W max. (PoE+)	500 mA max. (24 VDC), 12 W max. (PoE)	
Detection area20 x 20m, 95 degree (approx. 65 x 65 ft.)Detection rangeRadius 1 to 21 m (approx. 3.3 to 68 ft.) at 10% reflectivityDetection resolution/Response time0.125 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 interface2 Ethernet RJ-45 108ASE-T71(008ASE-TX (Auto negotiation) RS-485ProtocolUDP/TCP/HTTP/HTTPS/IPV4/IPV6/DNS/DHCP/SNMPv1-v3/NTP/WS-Discovery/ONVIF/IEEE802.1XOutput6 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)Input2 Non-voltage contact input (Detection profile switching, Area set, Sensor check) (programmable)Input2 Non-voltage contact input (Detection profile switching, Area set, Sensor check) (programmable)IPratingIP66Dimensions (H x W x D)207 x 203 x 164 mm max. (8.1 x 8.0 x 6.5 inch)Weight1.6 kg (3.5 lbs.)Image resolution1080P/720P/360P (RTSP H.264) 720P/360P (RTSP JPEG) (Supports portrait display)Viewing angleH:130° V:65°Minimum illuminationApprox. 1 ux. Less than the above, IR LEDs turn on.Day and nightAutomatically removable infrared-cut filter. Auto/Day/Ibjet mode selectableImage compressionH:264, JPEGImage compressionH:264, JPEGImage compressionH:264, JPEGImage compressionH:264, JPEGImage compressionH:264, JPEG	Mounting method	Ceiling mount, Wall	mount, Pole mount	
Detection rangeRadius 1 to 21 m (approx. 3.3 to 68 ft.) at 10% reflectivityDetection resolution/Response time0.125 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 interface2 Ethernet R1, or higher / Outdoor: 4 m (approx.13 ft.) or higher (recommended)ProtocolUDP/TCP/HTTP/HTTPS/IPV4/IPV6/DBASE-TX (Auto negotiation) R5-485Output6 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)Input2 Non-voltage contact input (Detection profile switching, Area set, Sensor check) (programmable)Alarm periodApprox. 2 second delay timerOperating temperature-40°C to 60°C (-40°F to 140°F)IP ratingIP66Dimensions (H x W x D)207 x 203 x 164 mm max. (8.1 × 8.0 × 6.5 inch)Image resolution1080P/720P/360P (RTSP H.264) 720P/360P (RTSP J.PEG) (Supports portrait display)Minimum illuminationApprox. 1 lux. Less than the above, IR LEDs turn on.Minimum illuminationApprox. 1 lux. Less than the above, IR LEDs turn on.Day and nightAutomatically removable infrared-cut filter. Auto/Day/Night mode selectableImage compressionH.264, JPEG——	Detection area	20 x 20m, 95 degree	e (approx. 65 x 65 ft.)	
Detection resolution/Response time0.125 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 interface2 Ethernet RJ-45 108ASE-T/100BASE-TX (Auto negotiation) RS-485ProtocolUDP/TCP/HTTP/ITPY/IPV4/IPV6/DNS/DHCP/SNMPv1-v3/NTP/WS-Discovery/ONVIF/IEEE802.1XOutput6 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)Input2 Non-voltage contact input (Detection profile switching, Area set, Sensor check) (programmable)Alarm periodApprox. 2 second delay timerOperating temperature-40°C to 60°C (-40°F to 140°F)IP ratingIP66Dimensions (H x W x D)207 x 203 x 164 mm max. (8.1 × 8.0 × 6.5 inch)Meight1.6 kg (3.5 lbs.)Image resolution1080P/720P/360P (RTSP J.26° (Supports portrait display)Minimum illuminationApprox.1 lux. Less than the above, IR LEDs turn on.Minimum illuminationApprox.1 lux. Less than the above, IR LEDs turn on.Day and nightAutomatically removable infrared-cut filter. Auto/Day/Night mode selectableFrame rate1 to 10 FPS (selectable)Frame rate1 to 10 FPS (selectable)	Detection range	Radius 1 to 21 m (approx. 3.3	3 to 68 ft.) at 10% reflectivity	
Mounting height (Vertical mode)Indoor: 2 m (approx. 6.7 ft.) or higher / Outdoor: 4 m (approx.13 ft.) or higher (recommended)Communication interface2 Ethernet RJ-45 10BASE-T/100BASE-TX (Auto negotiation) RS-485ProtocolUDP/ TCP/ HTTP/ HTTPS/ IPV4/ IPV6/ DNS/ DHCP/ SNMPv1-v3/ NTP/ WS-Discovery/ ONVIF/ IEEE802.1XOutput6 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)Input2 Non-voltage contact input (Detection profile switching, Area set, Sensor check) (programmable)Alarm periodApprox. 2 second delay timerOperating temperature-40°C to 60°C (-40°F to 140°F)IP ratingIP66Dimensions (H x W x D)207 x 203 x 164 mm max. (8.1 × 8.0 × 6.5 inch)Image sensor1/2.8° (CMOSImage resolution1080/720P/360P (RTSP H.264) 720P/360P (RTSP JPE6) (Supports portrait display)Viewing angleApprox. 1 lux. Less than the above, IR LEDs turn on.Day and nightAutomatically removable infrared-cut filter. Auto/Day/Night mode selectableImage compressionH.264, JPEGImage compressionH.264, JPEGFrame rate1 to 10 FPS (selectable)Image compressionH.264, JPEG	Detection resolution/Response time	0.125 degrees / within 50 msec. to 15 min. / 0.25 degrees / within 75 msec. to 15 min.		
Communication interface2 Ethernet RJ-45 10BASE-T/100BASE-TX (Auto negotiation) RS-485ProtocolUDP/TCP/HTTP/HTTPS/IPV4/IPV6/DNS/DHCP/SNMPv1-v3/NTP/WS-Discovery/ONVIF/IEEE802.1XOutput6 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)Input2 Non-voltage contact input (Detection profile switching, Area set, Sensor check) (programmable)Alarm periodApprox. 2 second delay timerOperating temperature-40°C to 60°C (-40°F to 140°F)IP ratingIP66Dimensions (H x W x D)207 x 203 x 164 mm max. (8.1 x 8.0 x 6.5 inch)Image sensor1.6 kg (3.5 lbs.)Image resolution1080P/720P/360P (RTSP H.264) 720P/360P (RTSP JPEG) (Supports portrait display)Viewing angleApprox. 1 lux. Less than the above, IR LEDs turn on.Day and nightAutomatically removable infrared-cut filter. Auto/Day/Night mode selectableImage compressionFrame rate1 to 10 FPS (selectable)	Mounting height (Vertical mode)	Indoor: 2 m (approx. 6.7 ft.) or higher / Outdoor: 4 m (approx.13 ft.) or higher (recommended)		
ProtocolUDP/TCP/HTTP/HTTPS/IPV4/IPV6/DNS/DHCP/SNMPv1-v3/NTP/WS-Discovery/ONVIF/IEEE802.1XOutput6 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)Input2 Non-voltage contact input (Detection profile switching, Area set, Sensor check) (programmable)Alarm periodApprox. 2 second delay timerOperating temperature-40°C to 60°C (-40°F to 140°F)IP ratingIP66Dimensions (H x W x D)207 x 203 x 164 mm max. (8.1 × 8.0 × 6.5 inch)Image sensor1.6 kg (3.5 lbs.)Image resolution1080P/720P/360P (RTSP H.264) 720P/360P (RTSP JPEG) (Supports portrait display)Viewing angleH:130° V:65°Minimum illuminationApprox. 1 lux. Less than the above, IR LEDs turn on.Day and nightAutomatically removable infrared-cut filter. Auto/Day/Night mode selectableImage compressionH.264, JPEGFrame rate1 to 10 FPS (selectable)Frame rate1 to 10 FPS (selectable)	Communication interface	2 Ethernet RJ-45 10BASE-T/100BASE-TX (Auto negotiation) RS-485		
Output6 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)Input2 Non-voltage contact input (Detection profile switching, Area set, Sensor check) (programmable)Alarm periodApprox. 2 second delay timerOperating temperature-40°C to 60°C (-40°F to 140°F)IP ratingIP catingDimensions (H x W x D)207 x 203 x 164 mm max. (8.1 x 8.0 x 6.5 inch)Weight1.6 kg (3.5 lbs.)Image sensor1/2.8° CMOSImage resolution1080P/720P/360P (RTSP H264) (Supports portrait display)Viewing angleH:130° V:65°Viewing angleApprox. 1 lux. Less than the above, IR LEDs turn on.Day and nightAutomatically removable infrared-cut filter, Auto/Day/Night mode selectableImage compressionH.264, JPEGImage compressionH.264, JPEGFrame rate1 to 10 FPS (selectable)	Protocol	UDP/ TCP/ HTTP/ HTTPS/ IPV4/ IPV6/ DNS/ DHCP/ SNMPv1-v3/ NTP/ WS-Discovery/ ONVIF/ IEEE802.1X		
Environmental Disqualification, Device Monitoring) (programmable)Input2 Non-voltage contact input (Detection profile switching, Area set, Sensor check) (programmable)Alarm periodApprox. 2 second delay timerOperating temperature-40°C to 60°C (-40°F to 140°F)IP ratingIP66Dimensions (H x W x D)207 x 203 x 164 mm max. (8.1 × 8.0 × 6.5 inch)Weight1.6 kg (3.5 lbs.)Image sensor1/2.8" CMOSImage resolution1080P/720P/360P (RTSP JPEG) (Supports portrait display)Viewing angleH:130° V:65°Viewing angleH:130° V:65°Day and nightAutomatically removable infrared-cut filter. Auto/Day/Night mode selectableImage compressionH.264, JPEGFrame rate1 to 10 FPS (selectable)——	Output	6 outputs, 28 VDC 0.2 A max. N.O./N.C.(selectable) (6 from Master alarm, Zone alarm, Trouble, Tamper,		
Input2 Non-voltage contact input (Detection profile switching, Area set, Sensor check) (programmable)Alarm periodApprox. 2 second delay timerOperating temperature-40°C to 60°C (-40°F to 140°F)IP ratingIP66Dimensions (H x W x D)207 x 203 x 164 mm max. (8.1 × 8.0 × 6.5 inch)Weight1.6 kg (3.5 lbs.)Image sensor1/2.8" CMOSImage resolution1080P/720P/360P (RTSP JPEG) (Supports portrait display)Viewing angleH:130° V:65°Viewing angleH:130° V:65°Day and nightAutomatically removable infrared-cut filter. Auto/Day/Night mode selectableImage compressionH.264, JPEGFrame rate1 to 10 FPS (selectable)	Output	Environmental Disqualification, Device Monitoring) (programmable)		
Alarm periodApprox. 2 second delay timerOperating temperature-40°C to 60°C (-40°F to 140°F)IP ratingIP66Dimensions (H x W x D)207 x 203 x 164 mm max. (8.1 × 8.0 × 6.5 inch)Weight1.6 kg (3.5 lbs.)Image sensor1/2.8" CMOSImage resolution1080P/720P/360P (RTSP JPEG) (Supports portrait display)Viewing angleH:130° V:65°Viewing angleH:130° V:65°Day and nightAutomatically removable infrared-cut filter. Auto/Day/Night mode selectableImage compressionH.264, JPEGFrame rate1 to 10 FPS (selectable)	Input	2 Non-voltage contact input (Detection profile switching, Area set, Sensor check) (programmable)		
Operating temperature40°C to 60°C ( -40°F to 140°F)IP ratingIP66Dimensions ( H x W x D)207 x 203 x 164 mm max. (8.1 × 8.0 × 6.5 inch)Weight1.6 kg (3.5 lbs.)1.3 kg (2.9 lbs.)Image sensor1/2.8" CMOS—Image resolution1080P/720P/360P (RTSP JPEG) (Supports portrait display)—Viewing angleH:130° V:65°—Minimum illuminationApprox.1 lux. Less than the above, IR LEDs turn on.—Day and nightAutomatically removable infrared-cut filter. Auto/Day/Night mode selectable—Frame rate1 to 10 FPS (selectable)—	Alarm period	Approx. 2 second delay timer		
IP ratingIP66Dimensions (H x W x D)207 x 203 x 164 mm max. (8.1 × 8.0 × 6.5 inch)Weight1.6 kg (3.5 lbs.)1.3 kg (2.9 lbs.)Image sensor1/2.8" CMOS—Image resolution1080P/720P/360P (RTSP JPEG) (Supports portrait display)—Viewing angleH:130° V:65°—Minimum illuminationApprox.1 lux. Less than the above, IR LEDs turn on.—Day and nightAutomatically removable infrared-cut filter. Auto/Day/Night mode selectable—Frame rate1 to 10 FPS (selectable)—	Operating temperature	-40°C to 60°C ( -40°F to 140°F)		
Dimensions (H x W x D)207 x 203 x 164 mm max. (8.1 × 8.0 × 6.5 inch)Weight1.6 kg (3.5 lbs.)1.3 kg (2.9 lbs.)Image sensor1/2.8" CMOS—Image resolution1080P/720P/360P (RTSP JPEG) (Supports portrait display)—Viewing angleH:130° V:65°—Minimum illuminationApprox.1 lux. Less than the above, IR LEDs turn on.—Day and nightAutomatically removable infrared-cut filter. Auto/Day/Night mode selectable—Image compressionH.264, JPEG—Frame rate1 to 10 FPS (selectable)—	IP rating	IP66		
Weight1.6 kg (3.5 lbs.)1.3 kg (2.9 lbs.)Image sensor1/2.8" CMOS—Image resolution1080P/720P/360P (RTSP JPEG) (Supports portrait display)—Viewing angleH:130° V:65°—Minimum illuminationApprox.1 lux. Less than the above, IR LEDs turn on.—Day and nightAutomatically removable infrared-cut filter. Auto/Day/Night mode selectable—Image compressionH.264, JPEG—Frame rate1 to 10 FPS (selectable)—	Dimensions ( H x W x D )	207 x 203 x 164 mm max. (8.1 × 8.0 × 6.5 inch)		
Image sensor1/2.8" CMOS—Image resolution1080P/720P/360P (RTSP J.264) 720P/360P (RTSP J.PEG) (Supports portrait display)—Viewing angleH:130° V:65°—Minimum illuminationApprox.1 lux. Less than the above, IR LEDs turn on.—Day and nightAutomatically removable infrared-cut filter. Auto/Day/Night mode selectable—Image compressionH.264, JPEG—Frame rate1 to 10 FPS (selectable)—	Weight	1.6 kg (3.5 lbs.)	1.3 kg (2.9 lbs.)	
Image resolution     1080P/720P/360P (RTSP J.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)     —	Image sensor	1/2.8" CMOS	_	
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) —	Image resolution	1080P/720P/360P (RTSP H.264) 720P/360P (RTSP JPEG) (Supports portrait display)	_	
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)     —	Viewing angle	H:130° V:65°	—	
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) —	Minimum illumination	Approx. 1 lux. Less than the above, IR LEDs turn on.	_	
Image compression     H.264, JPEG     —       Frame rate     1 to 10 FPS (selectable)     —	Day and night	Automatically removable infrared-cut filter. Auto/Day/Night mode selectable	_	
Frame rate 1 to 10 FPS (selectable) —	Image compression	H.264, JPEG	_	
	Frame rate	1 to 10 FPS (selectable)	_	

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



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### OUTDOOR/INDOOR 2D LIDAR SENSOR

# **REDSCAN** 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



#### FOR OUTDOOR & INDOOR HIGH SECURITY APPLICATIONS



#### Built-in FHD Camera and IR LED



Built-in FHD Camera and IR LED

#### Automatic IR Adjustment

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



#### 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.





for verification.



Horizontal and portrait image can be selectable

RLS-2020V has a build-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

#### 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.



#### Event log function

Track of object is recorded when alarm signal is generated.

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

	Date and time	Trigger	<u>.</u>
0	2023/07/12 06:58:27	Area set	î
0	2023/07/12 09:01:26	MO/A11	
0	2023/07/12	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.

Vertical detection area







### 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





### **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.

**Auto Adjustment** 

#### 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.



## **Applications**

**Glass wall** protection

Office, school, shop

#### Skylight protection

Museum





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

#### Wall mount







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



#### **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)

#### Shelf protection

#### Warehouse, distribution center



#### Passport throwing protection

#### Airport

