



## PHOTOELECTRIC DETECTOR

# Smart Line™ series

### HARDWIRED MODELS

#### PROFESSIONAL MODELS

**SL-200QDM** : 60m / 200ft.

**SL-350QDM** : 100m / 350ft.

**SL-650QDM** : 200m / 650ft.

#### ADVANCED MODELS

**SL-200QDP** : 60m / 200ft.

**SL-350QDP** : 100m / 350ft.

**SL-650QDP** : 200m / 650ft.

#### STANDARD MODELS

**SL-200QN** : 60m / 200ft.

**SL-350QN** : 100m / 350ft.

**SL-650QN** : 200m / 650ft.

### BATTERY-OPERATED, WIRELESS MODELS

#### ISERIES PROFESSIONAL MODEL

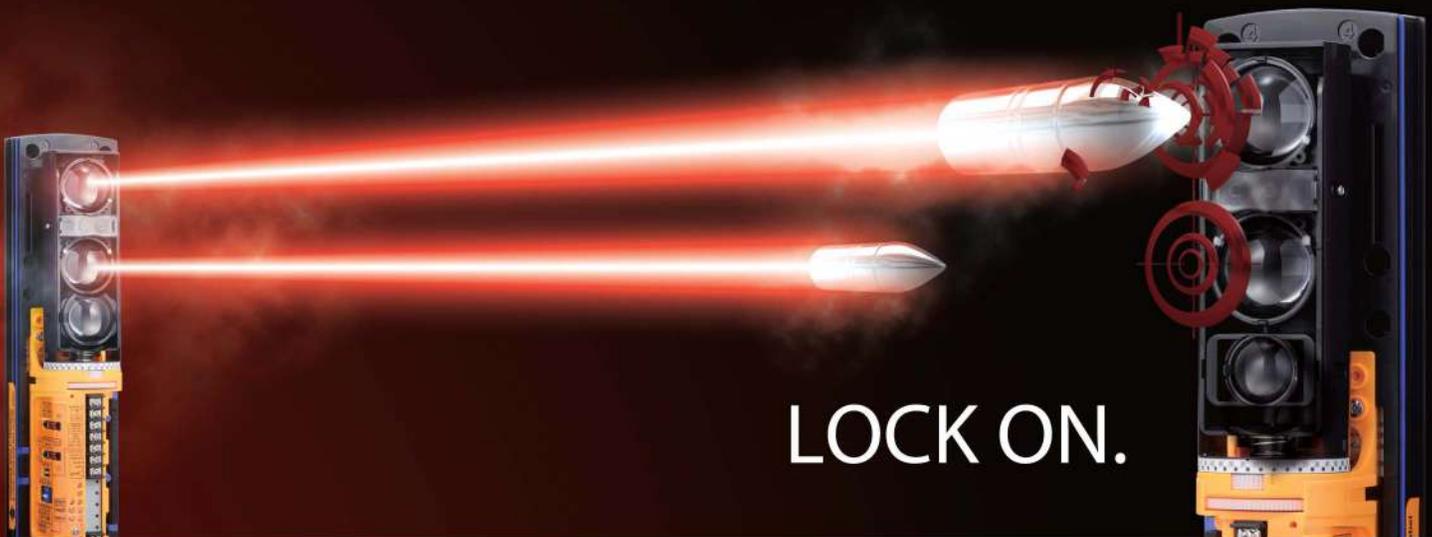
(Includes Batteries and Inovonics EN1941 Transmitters)

**SL-350QFRi** : 100m / 350ft.

#### ADVANCED MODEL

(Empty Back Box accepts most manufacturers wireless transmitters)

**SL-350QFR** : 100m / 350ft.



The SL Series employs features and options to help achieve optimal alignment more quickly and efficiently.

## SNIPER VIEWFINDER™

### X2 MAGNIFICATION LENS

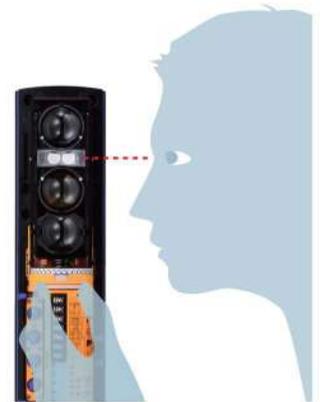
The new telescope lens has a high level of visibility for optical alignment work. Even over long distances, a perfect installation and stable performance can be achieved in minimal time.



Conventional model



X2 magnification lens



## BEAM ALIGNMENT UNIT : BAU-4 (option)

The BAU-4 beam alignment unit automatically and accurately adjust the optical axis. This allows peak performance and gives one technician the ability to align a 650ft. (200m) Smart Line detector without additional help.

The world's first  
AUTOMATIC  
BEAM ALIGNMENT  
TOOL



## LED INDICATOR AND SOUND ASSIST

### SL-QDM: TRANSMITTER AND RECEIVER

#### SL-QDP: RECEIVER only

The alignment level indicators have 5 LEDs; each LED represents the level of alignment, ranging from poor to excellent. The optical alignment level can also be checked by sound.



TRANSMITTER



RECEIVER

## UPPER/LOWER BEAM SELECTION BUTTON

### SL-QDM: TRANSMITTER AND RECEIVER

Optical alignment can be done without using a beam blocking plate since the SL has an upper/lower beam selection button. This button turns on and off the upper and lower beam alternately.





# BLOCK OUT TROUBLES.

## QUAD BEAM DETECTION

OPTEX now offers quad beam detection from 200ft. to 650ft., dramatically reducing false alarm caused by birds and falling leaves.



## IP65 WATER/DUST PROTECTION

Rubber packing is used for all conceivable points where water or dust may penetrate, such as wiring holes, wire ports and the outer openings on chassis.



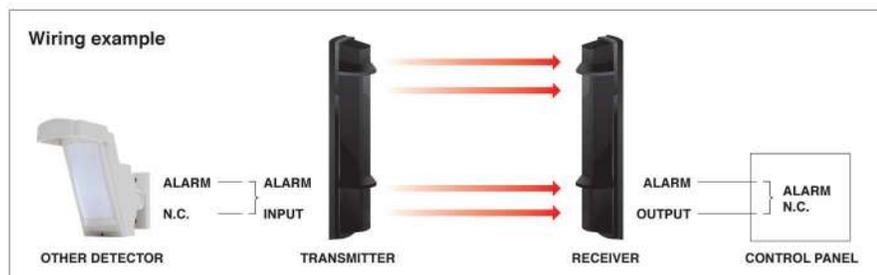
## ANTI-CLOUDED POLY CARBONATE COVER

Front cover will not be clouded by ultraviolet rays during a long term. Therefore, it will maintain transparency of IR beams.



## RE-TRANSMISSION FUNCTION (SL-QDM only)

When the alarm input terminal of the transmitter receives the signal from other detectors, the transmission of the beam is stopped and the receiver outputs an alarm signal to the control panel. The advantage of the re-transmission function is the elimination of wiring from detector or switch back to the control panel.

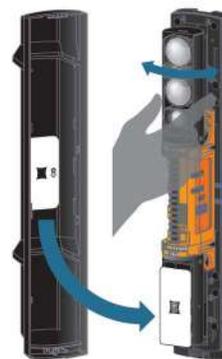


## SLIM BODY & LIGHT WEIGHT

20% reduction of the body size and 15% reduction of the weight come together in the SL series.

## BEAM BLOCKING PLATE

The plate can firmly be fixed on the lens unit without fear of being blown off by wind. The plates can be stored in the back of the front cover.



## ANTI FROST DESIGN (Hood design)

The hoods are positioned on both the upper and lower beams to keep beam power stable by preventing frost from attaching to the front cover.

## VIVID INTERIOR COLOR

Easy-to-see vivid interior color helps with alignment process at long distances.

## ALIGNMENT DIAL

Alignment no longer requires a screwdriver. The new alignment dial allows easy adjustment with your fingers.

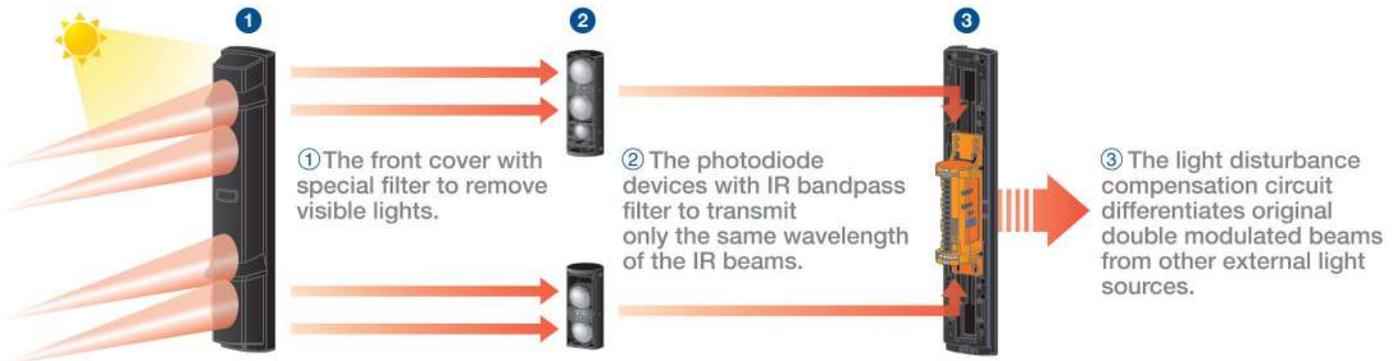
## QUAD BEAM WITH ASPHERICAL LENSES

The high-grade aspherical lens create more sharply defined and precise active infrared beams.

# ENVIRONMENT RESISTANCE

## SUNSHINE PROTECTION TECHNOLOGY (SL-QDM/SL-QDP only)

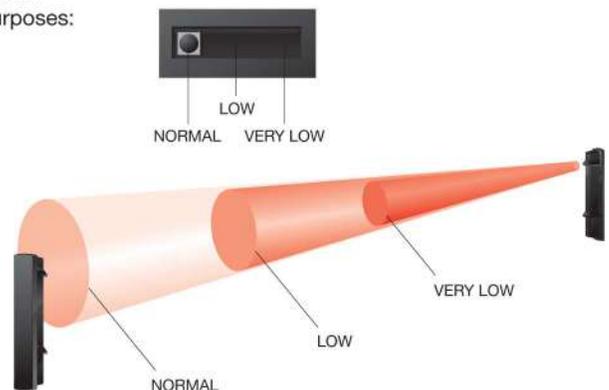
The sunshine protect technology has a triple layer construction to give better performance against external light sources (e.g.:The sun, mercury-vapor lamps, and fluorescent lights).



## BEAM POWER CONTROL SELECTOR (SL-QDM/SL-QDP only)

The beam power control selector allows you to manually adjust beam power from NORMAL to LOW or VERY LOW. This function is effective for the following purposes:

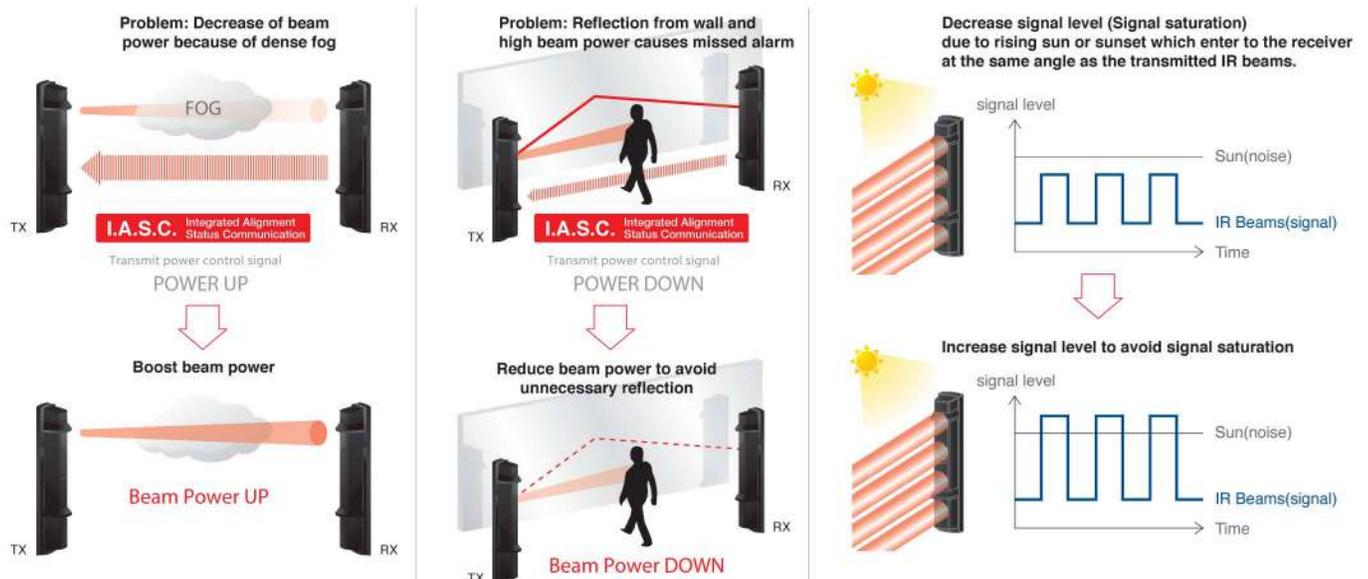
- Helps to prevent crosstalk due to reflection of wall or floor by reducing beam power.
- Prevents interference due to unstable S/N (signal / noise) ratio when using multiple photo beams for long distance or beam stacking applications.
- Allows detector to be used in applications shorter than the rated minimum distance.
- Helps to achieve optimal alignment during aligning process.



## A.T.P.C.-AUTOMATIC TRANSMIT POWER CONTROL (SL-QDM only)

Patent pending

Automatically controls, adjusts and optimizes the power of the beam and maintains optimal performance. It decreases false and missed alarms caused by fog, frost, cross talk, signal saturation.



# SELECTION GUIDE

	HARD-WIRED MODELS			BATTERY OPERATED MODELS	
	PROFESSIONAL	ADVANCED	STANDARD	PROFESSIONAL	ADVANCED
<p>++ Most Appropriate</p> <p>+ Appropriate</p>	<p>SL-200QDM SL-350QDM SL-650QDM</p> 	<p>SL-200QDP SL-350QDP SL-650QDP</p> 	<p>SL-200QN SL-350QN SL-650QN</p> 	<p>SL-350QFRI powered by <b>INOVONICS</b></p> 	<p>SL-350QFR</p> 
<p><b>LIGHT DISTURBANCE</b> </p> <p>(Expected impact: False alarm)</p>	++	+			
<p><b>REFLECTION</b> </p> <p>(Expected impact: Missed alarm)</p>	++	+			
<p><b>INTERFERENCE</b> </p> <p>(Expected impact: Missed alarm)</p>	++	+		+	
<p><b>FOG</b> </p> <p>(Expected impact: False alarm)</p>	+				
<p><b>LIGHTNING SURGE</b> </p> <p>(Expected impact: Unit damage)</p>	+	+	+	++	++
<p><b>FROST</b> </p> <p>(Expected impact: False alarm)</p>	++	+	+		
<p><b>RE-TRANSMISSION FUNCTION</b> </p>	+				
<p><b>LED INDICATOR AND SOUND ASSIST</b> </p>	++	+			
<p><b>WIRELESS (BATTERY OPERATED)</b> </p>				++	++

# HARD-WIRED MODELS

## ADVANCED MODEL

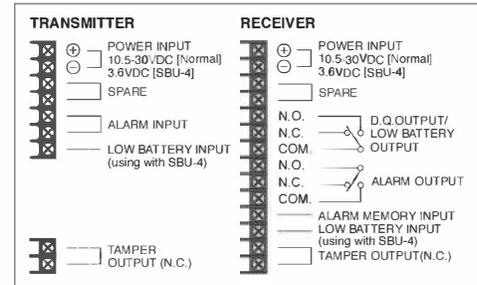
# SL-200QDM/350QDM/650QDM

### FEATURES

- HIGH POWER QUAD BEAM
- DOUBLE MODULATION
- BEAM POWER CONTROL SELECTOR
- A.T.P.C.-AUTOMATIC TRANSMIT POWER CONTROL
- I.A.S.C. - INTEGRATED ALIGNMENT STATUS COMMUNICATION
- UPPER/LOWER BEAM SELECTION BUTTON
- BEAM POWER CONTROL SELECTOR
- SOLAR BATTERY UNIT (OPTION : SBU-4)

### Specifications

Model	SL-200QDM	SL-350QDM	SL-650QDM
Detection range	60m/200ft.	100m/350ft.	200m/650ft.
Beam frequencies	4ch selectable		
Current consumption	Normal 26mA/Max. 60mA		
Ambient temperature	-35°C - +60°C (-30°F - 140°F)		
Water protection	IP65		
Dimensions H x W x D	448 (17.6) x 79 (3.1) x 96 (3.8) mm(inch)		
Weight	2500 g(88.2oz)		



## STANDARD MODEL

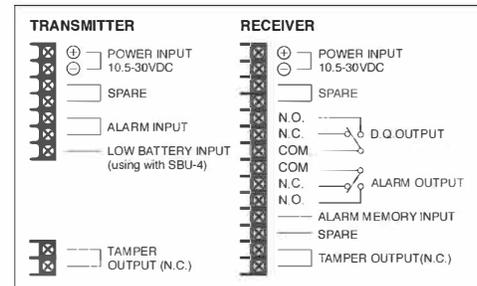
# SL-200QDP/350QDP/650QDP

### FEATURES

- HIGH POWER QUAD BEAM
- DOUBLE MODULATION
- BEAM POWER CONTROL SELECTOR

### Specifications

Model	SL-200QDP	SL-350QDP	SL-650QDP
Detection range	60m/200ft.	100m/350ft.	200m/650ft.
Beam frequencies	4ch selectable		
Current consumption	Normal 17mA/Max. 24mA		
Ambient temperature	-35°C - +60°C (-30°F - 140°F)		
Water protection	IP65		
Dimensions H x W x D	448 (17.6) x 79 (3.1) x 96 (3.8) mm(inch)		
Weight	2400g(84.6oz)		



## BASIC MODEL

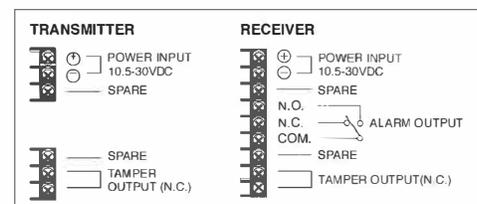
# SL-200QN/350QN/650QN

### FEATURES

- HIGH POWER QUAD BEAM
- SMART DESIGN - Slim body  
- Vivid interior color

### Specifications

Model	SL-200QN	SL-350QN	SL-650QN
Detection range	60m/200ft.	100m/350ft.	200m/650ft.
Beam frequencies	-		
Current consumption	38-40mA		
Operating temperature	-25°C - +60°C (-13°F - 140°F)		
Water protection	IP65		
Dimensions H x W x D	448 (17.6) x 79 (3.1) x 96 (3.8) mm(inch)		
Weight	2400g(84.6oz)		



# BATTERY OPERATED MODELS

NO WIRING for POWER,  
NO WIRING for SIGNAL.



## PROFESSIONAL ISERIES MODEL

# SL-350QFRi

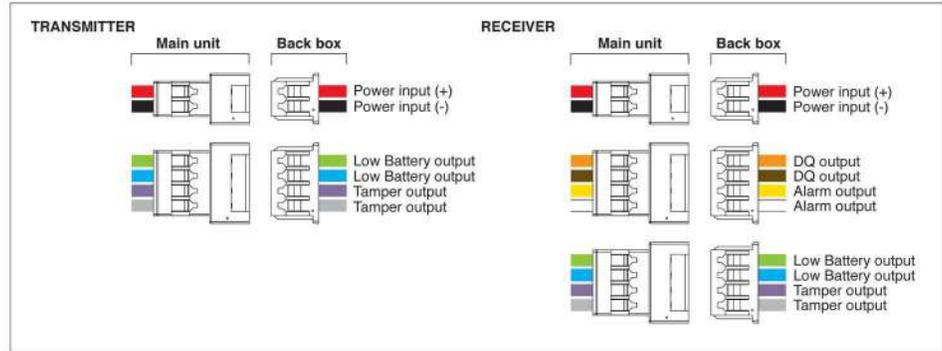
## ADVANCED MODEL

# SL-350QFR



### FEATURES

- No trenching or wiring needed
- Long distance 100m / 350ft.
- Long battery life - 4 to 8 years
- Batteries and Inovonics EN1941 Included
- No trenching or wiring needed
- Long distance 100m / 350ft.
- Long battery life - 4 to 8 years
- Spacious Back Box for wireless transmitter



### Specifications

Model	SL350QFRi	SL-350QFR
Detection range	100m/350ft.	100m/350ft.
Beam frequencies	4ch selectable	4ch selectable
Power source	Four LSH20 lithium batteries (2 transmitter and 2 receiver) manufactured by SAFT included	Recommend: 3.6 V, 13.0Ah LSH20 lithium batteries manufactured by SAFT Operating range: 3.2 V - 4.0 V lithium batteries Transmitter: 2 or 4 units, Receiver: 2 or 4 units
Wireless Transmitter	Inovonics EN1941 Included	Not Included
Current consumption	745µA	
Operating temperature	-20°C - +60°C (-4°F - 140°F)	
Water protection	IP65	
Dimensions H x W x D	452 (17.9) x 83 (3.3) x 138 (5.4) mm(inch)	
Weight	3300 g	

## SL SERIES OPTIONS

### ABC-4 Anti Bird Cap

for all models

Prevents birds and small animals from sitting on the detector. Protects the front of the detector from excessive rain and snow.



### BC-4 Back Cover

for all models

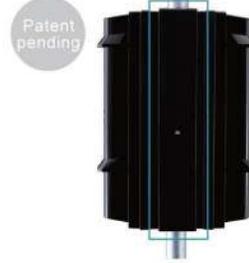
Conceal the back side of a pole mounted detector.



### PSC-4 Pole Side Cover

for all models

Conceal the gap between two pole mounted detectors in back to back.



### CBR-4 Conduit Bracket

for all models

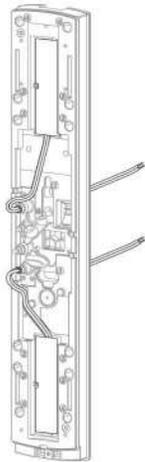


### HU-3 Heater Unit

for Hard-wired models



Power input	24VAC/DC
Current draw	420mA(max.) (Per 1 unit)
Thermo switch	60°C (140°F)



### BAU-4 Beam Alignment Unit

for all models

Align optical axis automatically.  
(SL-QDP/QN/QFR/QNR: applicable to receiver only)

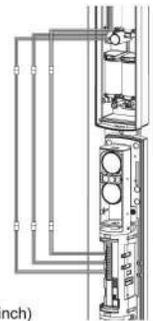
Patent pending



### EC-4 Extension Cable with Connector

for SL-QFR/QNR only

Extension cables between the back box and the main unit when installing in a beam tower beam tower.

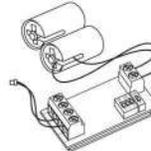


Cable length: 500 mm (19.7 inch)

### BCU-4 Battery Common Unit

for SL-QFR/QNR AX-TFR only

Share power source and low battery signals between the main unit and the wireless transmitter.



Input voltage	3.2 - 4.0 VDC	
Current draw	Approx. 5 $\mu$ A at 3.6 VDC (no load)	
Output voltage	Normal	Approx. 2.3 - 3.6 VDC
	Low battery	Approx. 2.0 - 2.6 VDC
Output current	100 mA (max.)	
Operating temperature	-20°C - +60°C (-4°F - +140°F)	
Operating humidity	95% (max.)	

## SHORT RANGE MODELS



### AX-100TFR/200TFR

#### BATTERY OPERATED PHOTOELECTRIC DETECTOR

AX-100TFR : Detection range 30m / 100ft.  
AX-200TFR : Detection range 60m / 200ft.



### AX-70TN/130TN/200TN

#### SHORT RANGE PHOTOELECTRIC DETECTOR

AX-70TN : Detection range 20m / 70ft.  
AX-130TN : Detection range 40m / 130ft.  
AX-200TN : Detection range 60m / 200ft.

### AX-100TF/200TF

#### 4ch. BEAM FREQUENCIES SELECTABLE MODELS

AX-100TF : Detection range 30m / 100ft.  
AX-200TF : Detection range 60m / 200ft.



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