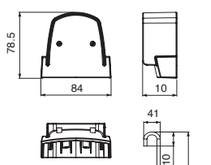
# OPTIONS

## ABC-4





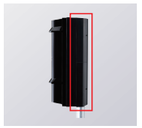

Anti Bird Cap
for
• SL-200QDM/350QDM/650QDM
• SL-200QDP/350QDP/650QDP
• SL-200QN/350QN/650QN
• SL-350QFR/SL-350QNR

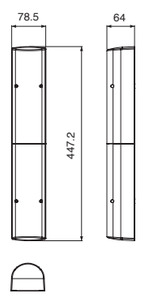




(mm)

## BC-4

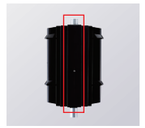


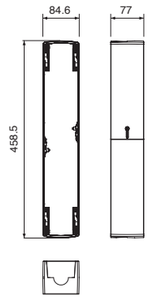



Back cover
for
• SL-200QDM/350QDM/650QDM
• SL-200QDP/350QDP/650QDP
• SL-200QN/350QN/650QN
• SL-350QFR/350QNR

(mm)

## PSC-4



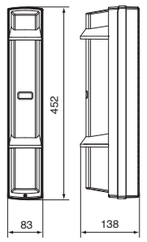



Pole Side Cover
for
• SL-200QDM/350QDM/650QDM
• SL-200QDP/350QDP/650QDP
• SL-200QN/350QN/650QN
• SL-350QFR/350QNR

(mm)

## CBR-4

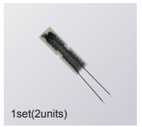


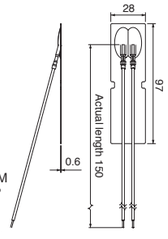



Conduit Bracket
for
• SL-200QDM/350QDM/650QDM
• SL-200QDP/350QDP/650QDP
• SL-200QN/350QN/650QN

(mm)

## HU-3




Heating Unit
for
• SL-200QDM/350QDM/650QDM
• SL-200QDP/350QDP/650QDP
• SL-200QN/350QN/650QN
*2sets (4 units) are used for SL series.

(mm)

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

## BCU-5



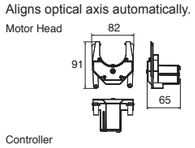
Share power source and low battery signals between the main unit and the wireless transmitter.
for
• SL-350QFR/350QNR

| | | |
|---|---|---|
| Input voltage | 3.2 - 4.0 VDC | |
| Low battery input (EX+/-) | N.C. input only | |
| Current draw | Approx. 5 μA at 3.6 VDC (no load) | |
| Output voltage | Normal | Approx. 3.0 - 3.6VDC |
| | Low battery | Approx. 2.0 - 2.6VDC |
| Output current | 100 mA (max.) | |
| Operating temperature | -20°C - +60°C (-40°F - +140°F) | |
| Operating humidity | 95% (max.) | |

## BAU-4



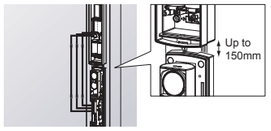
Aligns optical axis automatically.




Controller
Dimensions (HxWxD):
180mm x 120mm x 45mm

Beam Alignment Unit
for
• SL-200QDM/350QDM/650QDM
(applicable to receiver and transmitter)
• SL-200QDP/350QDP/650QDP
• SL-200QN/350QN/650QM
• SL-350QFR/350QNR
• SL-200QDP-BT/350QDP-BT/650QDP-BT
• SL-350QFR-BT/350QNR=BT
(applicable to receiver only)

## EC-4




Extension Cable with
Connector
for
• SL-350QFR/SL-350QNR


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OPTEX
Sensing Innovation

PHOTOELECTRIC DETECTOR

# Smart Line™ series

### HARD-WIRED MODELS

**ADVANCED MODELS**
**SL-200QDM** : 60m / 200ft.
**SL-350QDM** : 100m/ 350ft.
**SL-650QDM** : 200m/ 650ft.

**STANDARD MODELS**
**SL-200QDP** : 60m / 200ft.
**SL-350QDP** : 100m/ 350ft.
**SL-650QDP** : 200m/ 650ft.

**BASIC MODELS**
**SL-200QN** : 60m / 200ft.
**SL-350QN** : 100m/ 350ft.
**SL-650QN** : 200m/ 650ft.

**BEAM TOWER MODELS**
**SL-200QDP-BT** : 60m/200ft.
**SL-350QDP-BT** : 100m/350ft.
**SL-650QDP-BT** : 200m/650ft.

### BATTERY OPERATED MODELS

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

**BASIC MODEL**
**SL-350QNR** : 100m / 350ft.

**BEAM TOWER MODEL**
**SL-350QFR-BT** : 100m/350ft.







**The IR transmitter and receiver must be perfectly aligned in order to achieve the optimal operation of the photoelectric detector. However, a great deal of patience, time and effort is required to ensure that the receiver is receiving the maximum amount of infrared signal possible from the transmitter.**
**Optex has the solution the SL series is designed to lighten your workload while achieving perfect alignment.**

## SNIPER VIEWFINDER™

### X2 MAGNIFICATION LENS

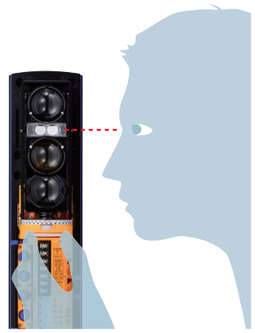
The new telescope lens has a high level of visibility for optical alignment work. Even over long distances, a perfect installation and stable performance can be achieved in a short period.



Conventional model



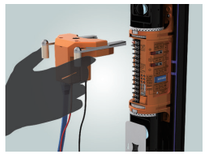
X2 magnification lens



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

The BAU-4 beam alignment unit automatically and accurately adjusts the optical axis. This allows peak performance and gives one technician the ability to install the 200 m (650 ft.) Smart Line detector by himself.

THE world first AUTOMATIC BEAM ALIGNMENT









## 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

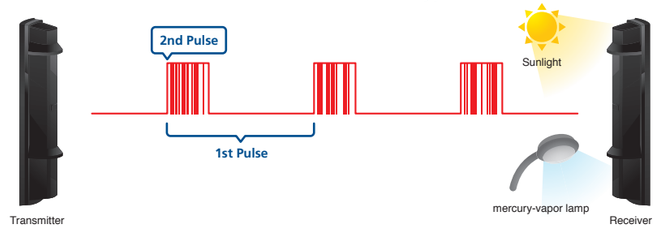
## UPPER/LOWER BEAM SELECTION BUTTON

### SL-QDM/SL-QDP only: TRANSMITTER AND RECEIVER

Optical alignment can be done without using a beam blocking plate since the SL has upper/lower beam selection button which enables to turn on and off the upper and lower beam alternately in the installation mode.



## Double Modulation Beam (SL-QDM/QDP only)




The SL-QDM and SL-QDP series offer double modulation beams that differ in pulse patterns. This can enhance signal discrimination against potential noise interference such as sunlight or other external light sources, resulting in a reduction of missed or false alarms. Together with OPTEX triple layered Sunshine Protection Technology, it ensures high reliability under the severe outdoor security environment.

## QUAD BEAM & UNITED APPEARANCE

By employing quad beam, it dramatically reduces false alarm caused by birds and falling leaves. Moreover, it is also important that the housing design of both long and short beams is harmonised. 60m (200ft.) range models, SL-200QN/SL-200QDP/SL-200QDM with a wide beam pitch is now available.



Conventional short beam



Smartline series

## IP65 WATER/DUST PROTECTION

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



## UV-resistant POLY CARBONATE COVER

Front cover is not clouded by ultraviolet ray during a long term. Therefore it will maintain the transparency of IR beams.

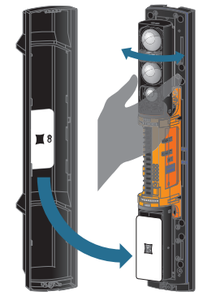



## SLIM BODY & LIGHT WEIGHT

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 to be 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 beam and the lower beam to secure a high and stable beam power by preventing frost from attaching to the front cover.

## VIVID INTERIOR COLOR

Easy-to-see vivid interior color for optical alignment.

## ALIGNMENT DIAL

The alignment no longer requires a screwdriver. All you need is touch with your fingers for precise adjustment.

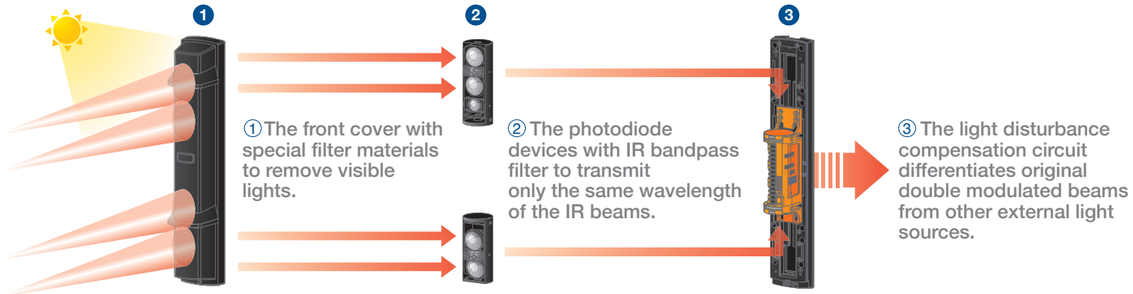
## QUAD BEAM WITH ASPHERICAL LENSES

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

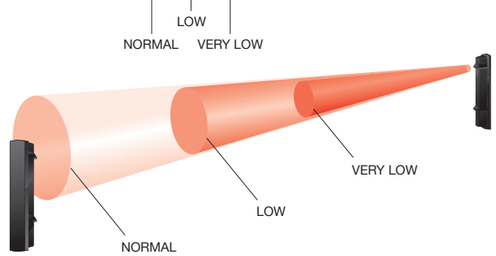



## BEAM POWER CONTROL SELECTOR (SL-QDM/SL-QDP only)

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:

- For countermeasure against crosstalk due to reflection of wall or floor by reducing beam power.
- For countermeasure against interference due to unstable S/N (signal / noise) ratio when using multiple photo beams for long distance or beam stacking applications.
- To reduce beam power when using the detector for a distance shorter than the rated distance.
- To search the peak value when making optical alignment to support perfect alignment.

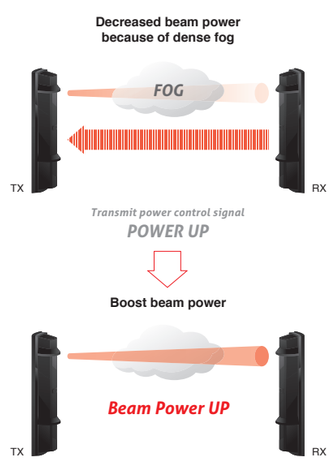


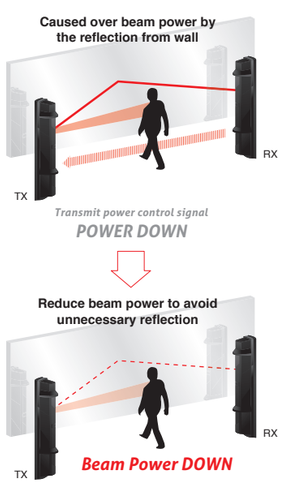



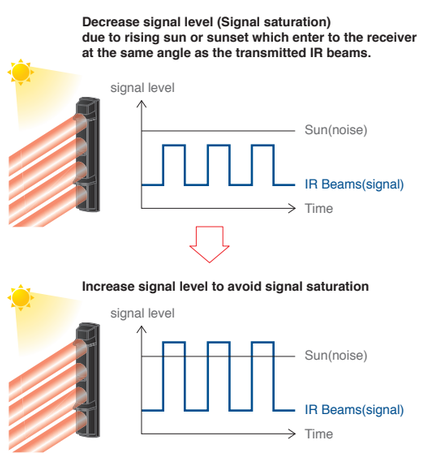

## A.T.P.C.-AUTOMATIC TRANSMIT POWER CONTROL (SL-QDM only)

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, and signal saturation.




# SELECTION GUIDE

++ Most appropriate
+ Appropriate

| | HARD-WIRED MODELS | | | BATTERY OPERATED MODELS | |
|---|---|---|---|---|---|
| | ADVANCED | STANDARD | BASIC | STANDARD | BASIC |
| | SL-200QDM<br>SL-350QDM<br>SL-650QDM | SL-200QDP<br>SL-350QDP<br>SL-650QDP | SL-200QN<br>SL-350QN<br>SL-650QN | SL-350QFR | SL-350QNR |
| LIGHT DISTURBANCE (Expected impact :False alarm) | ++ | + | | | |
| REFLECTION (Expected impact :Missed alarm) | ++ | + | | | |
| INTERFERENCE (Expected impact :Missed alarm) | ++ | + | | + | |
| FOG (Expected impact :False alarm) | + | | | | |
| LIGHTNING (Expected impact :Unit damage) | + | + | + | ++ | ++ |
| FROST (Expected impact :False alarm) | ++ | + | + | | |
| RE-TRANSMISSION FUNCTION | + | | | | |
| LED INDICATOR AND SOUND ASSIST | ++ | + | | | |
| WIRELESS (BATTERY OPERATED) | | | | ++ | ++ |
| BEAM TOWER MOUNTING | | + WIRED SL-200QDP-BT SL-350QDP-BT SL-650QDP-BT | | + BATTERY OPERATED SL-350QFR-BT | |

# HARD-WIRED MODELS



ADVANCED MODEL

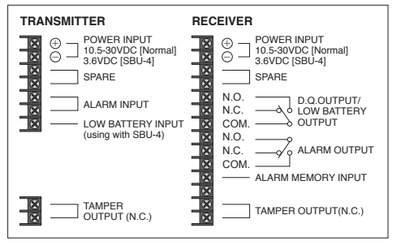
## SL-200QDM/350QDM/650QDM

### 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

### 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

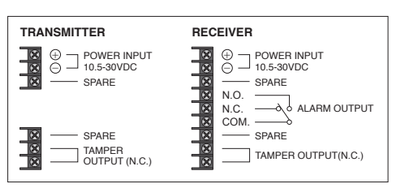
## SL-200QDP/350QDP/650QDP

### FEATURES

- High power quad beam
- Double modulation
- Upper/lower beam selection button
- 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




STANDARD MODEL

## SL-350QFR

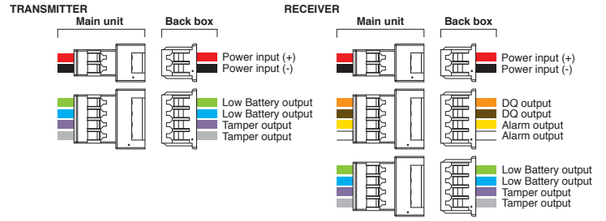
BASIC MODEL

## SL-350QNR

WIRELESS

### FEATURES

- Long distance 100m / 350ft.
- Long battery life - 4 to 8 years
- Spacious back box for wireless transmitter




### Specifications

| Model | SL350QFR | SL-350QNR |
|---|---|---|
| Detection range | 100m/350ft. | 100m/350ft. |
| Beam frequencies | 4ch selectable | - |
| Power source | Recommend: 3.6 V, 13.0Ah<br>LSH20 lithium batteries manufactured by SAFT<br>Operating range: 3.2 V - 4.0 V lithium batteries<br>Transmitter: 2 or 4 units, Receiver: 2 or 4 units | |
| 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 | |

# BEAM TOWER MODELS



WIRED MODELS

## SL-200QDP-BT/350QDP-BT/650QDP-BT

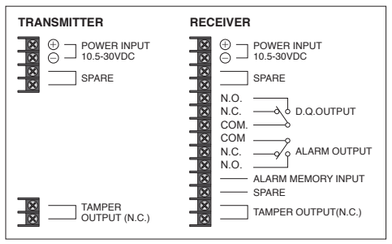
### FEATURES

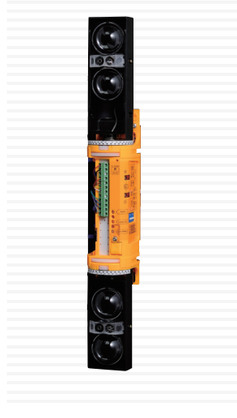
- High power quad beam
- Double modulation
- Upper/lower beam selection button
- Beam power control selector

*This model is not included the cover and the chassis.

### Specifications

| Model | SL-200QDP-BT | SL-350QDP-BT | SL-650QDP-BT |
|---|---|---|---|
| Detection range | 60m/200ft. | 100m/350ft. | 200m/650ft. |
| Beam frequencies | 4ch selectable | | |
| Current consumption | Normal 17 mA / Max. 24mA | | |
| Operating temperature | -35°C to +60°C (-30 to 140°F) | | |
| Water protection | - | | |
| Dimensions H x W x D | 405.1 (15.9) x 56.5(2.22) x 60.1 (2.36) mm(inch) | | |
| Weight | Approx. 800g(28.2oz) | | |



BATTERY OPERATED MODEL

## SL-350QFR-BT

### FEATURES

- Long distance 100m / 350ft.
- Long battery life - 4 to 8 years
- Spacious back box for wireless transmitter

*This model is not included the cover and the chassis.

### Specifications

| Model | SL-350QFR-BT |
|---|---|
| Detection range | 100m/350ft. |
| Beam frequencies | 4ch selectable |
| Power source | Recommend: 3.6V, 13.0Ah<br>LSH20 lithium batteries manufactured by SAFT<br>Operating range: 3.2 V to 4.0 V lithium batteries<br>Transmitter: 2 or 4 units, Receiver: 2 or 4 units |
| Current consumption | 745µA |
| Operating temperature | -20°C to +60°C (-4 to 140°F) |
| Water protection | - |
| Dimensions H x W x D | 405.1 (15.9) x 56.5(2.22) x 60.1 (2.36) mm(inch) |
| Weight | Approx. 800g(28.2oz) |

