OPTIONS

BATTERY COMMON UNIT BCU-5

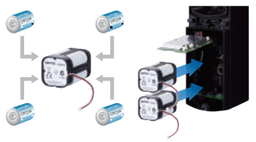
The BCU-5 shares the power source and the low battery signals between the beam and the wireless transmitter.



Input voltage	3.2 - 4.0 VDC	
Current draw	Approx. 5 μA 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 (-40°F - +140°F)	
Operating humidity	95% (max.)	

CR123 BATTERY HOLDER CRH-5 (2 pcs / package)

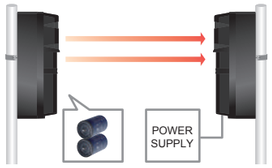
The CRH-5 is a pack of two battery holders each with a capacity of 4 batteries needed when using CR123A batteries. These are included in SL-100/200 TNR-CRH. Each holder can contain 4 batteries; 8 batteries are needed on each beam. Batteries are to be purchased separately.



POWER CONVERT UNIT PCU-5

The PCU-5 is a voltage converter needed to hard wire the receiver and transmitter.





Power input	10.5 - 30 VDC
Current draw	80mA (max.)
Output voltage	Approx. 3.9 VDC
Output current	10mA (max.)
Alarm output	Form C relay ; 30VDC. 0.2A
Low battery output	N.C. relay ; 30VDC. 0.2A
Tamper output	N.C. relay ; 30VDC. 0.2A
Operating temperature	-20°C to 60°C (-4°F to 140°F)
Operating humidity	95% (max.)
Dimension	H×W×D mm (inch): 71 (2.8) × 53 (2.1) × 20 (0.8)

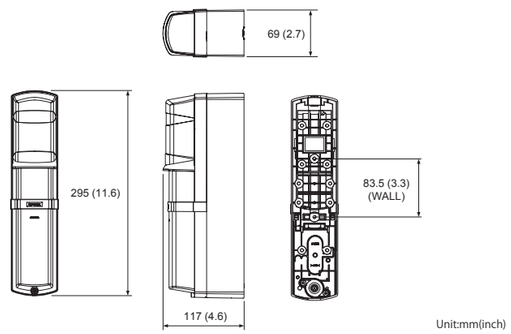
VIZTRO D size lithium battery SB-D02HP

Nominal voltage (at 6mA, 20°C)	3.9V
Nominal capacity (at 6mA, 20°C, 2.0V cut off)	16.0Ah
Maximum recommended continuous current (Higher currents are possible, consult Vitzrocell)	150mA
Max. pulse discharge current	250mA
Weight	95±3.0g
Operating temperature range	-40 to 85°C



UL certificates MH18384

DIMENSIONS



Unit:mm(inch)

SPECIFICATIONS

Model			SL-100TNR	SL-200TNR
Maximum detection range			30 m/100 ft.	60 m/200 ft.
Maximum arrival distance			265 m/870 ft.	530 m/1740 ft.
Detection method			Twin infrared beam interruption detection	
Interruption time			Selectable from 50/100/250/500 ms (4 selections)	
Power source			3.6 to 3.9VDC D size lithium batteries Each Transmitter and Receiver: 2 units (Recommended SB-D02HP manufactured by VITZROCELL) 3.0 VDC CR123A lithium batteries Each Transmitter and Receiver: 8 units (with optional battery holder CRH-5: 2 units)	
Current draw (stand by /at 25°C)	3.6 to 3.9 V DC size Lithium battery		Total: Approx. 500 μA Transmitter: Approx. 200 μA Receiver: Approx. 300 μA	Total: Approx. 600 μA Transmitter: Approx. 300 μA Receiver: Approx. 300 μA
	3.0 VDC CR123A		Total: Approx. 600 μA Transmitter: Approx. 200 μA Receiver: Approx. 400 μA	Total: Approx. 700 μA Transmitter: Approx. 300 μA Receiver: Approx. 400 μA
Battery life *	D size Lithium battery	Transmitter	Approx. 6 years	Approx. 5 years
		Receiver	Approx. 5 years	Approx. 5 years
	CR123A	Transmitter	Approx. 1.5 years	Approx. 1 year
		Receiver	Approx. 1 year	Approx. 1 year
Output	Alarm output		Form C-Solid State Switch: 3.9 VDC, 0.01 A	
	Alarm period		2 s (±1)	
	Low battery output		N.C. (Solid State Switch): 3.9 VDC, 0.01 A	
	Cover tamper output (Receiver)		N.C. (Solid State Switch): 3.9 VDC, 0.01 A Opens when the battery cover removed.	
Indicator LED	Alarm/ Level indicator (Receiver)		ON: Beam not received Blinking: Beam not received sufficiently OFF: Beam received	
	Power/ Low battery indicator (Transmitter and Receiver)		ON: Power ON Blinking: Voltage reduction OFF: Power OFF	
Operating temperature			-20°C to +60°C (-4°F to 140°F)	
Operating humidity			95 % (max.)	
Alignment angle			±90° Horizontal, ±5° Vertical	
Dimension			H x W x D mm (inch): 295 (11.6) x 69 (2.7) x 117 (4.6)	
Weight			1200 g (42.4 oz.) (Total weight of Transmitter + Receiver, excluding accessories)	
International protection			IP65	

Specifications and design are subject to change without prior notice.
Battieries are to be purchased separately.
* Above battery life are confirmed with SB-D02HP manufactured by VITZROCELL or CR-123A manufactured by PANASONIC that they are used within the ambient temperature range of 20 to 25 . By using batteries other than these recommended and due to the site conditions, the battery life can be shortened and low battery signal can be generated in extremely short period. In such case, periodic battery replacement is recommended.

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OPTEX
Sensing Innovation

BATTERY OPERATED
PHOTOELECTIC DETECTOR

Smart Line™ series

SL-100 TNR
30 m / 100 ft. model

SL-200 TNR
60 m / 200 ft. model

SL-100 TNR-CRH
Includes 4 battery holders (two packs of CRH-5)

SL-200 TNR-CRH
Includes 4 battery holders (two packs of CRH-5)



Picture displaying SL-TNR-CRH. Batteries to be purchased separately.

Wireless or hybrid perimeter protection for quick installations

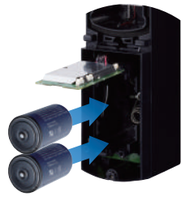
The SL-TNR offers a cost-effective and versatile solution to protect a perimeter line up to 60m long, where cabling is an issue or inconvenient.
Both the transmitter and receiver beams can be battery powered using D size lithium battery or universal CR123A batteries and the receiver can also be hard-wired.



Great flexibility with power options

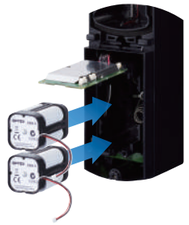
With high density lithium batteries

The SL-TNR series has been designed to work with D size lithium batteries, the one we recommend is Vitzro D size battery. By using 2 Vitzro D batteries in the transmitter and in the receiver (4 batteries in total), the battery life expectancy is approximately 5 years. The batteries could also power the wireless transmitter when using the battery common unit BCU-5*



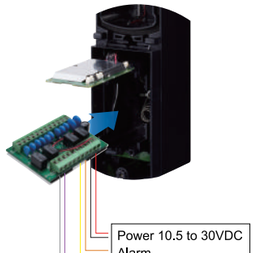
With universal CR123A lithium batteries

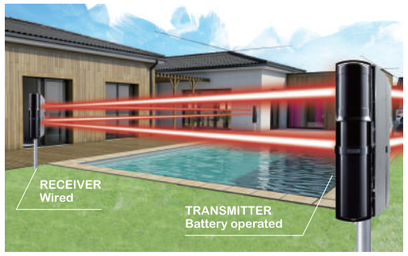
The SL-TNR can also be powered by universal CR123A batteries, which are very easily available and costeffective. 8 pieces are needed for each wireless beam, and can provide a approximate battery life of 1 year. For each wireless beam, a pack of two battery holders (CRH-5*) containing 4 batteries each is required.



Hybrid with the receiver being hardwired

For site configurations where one beam is close to a main power source but the other beam needs to be wireless, the SL-TNR features the option to hard wire the infrared beam receiver. This is possible by purchasing a PCU-5* power converter





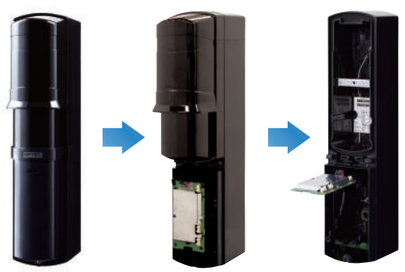


* : Refer to OPTIONS.

Other key features

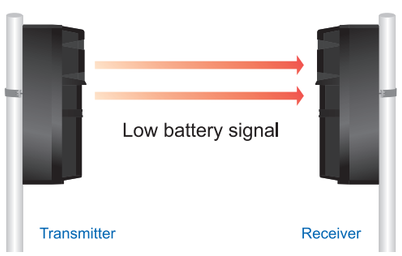
Simplified Battery Replacement

Batteries can be accessed without touching the main unit eliminating the need to re-align the beams.



IR communication for low battery signal

The SL-TNR features an infrared communication between the transmitter and the receiver which signals the low battery status. It means that no wireless transmitter is necessary in the transmitter beam for this functionality. The system would only need one wireless transmitter on the receiver beam. If however the customer would like to monitor the status of wireless transmitter's battery separately, a second wireless transmitter will be necessary on the transmitting beam.



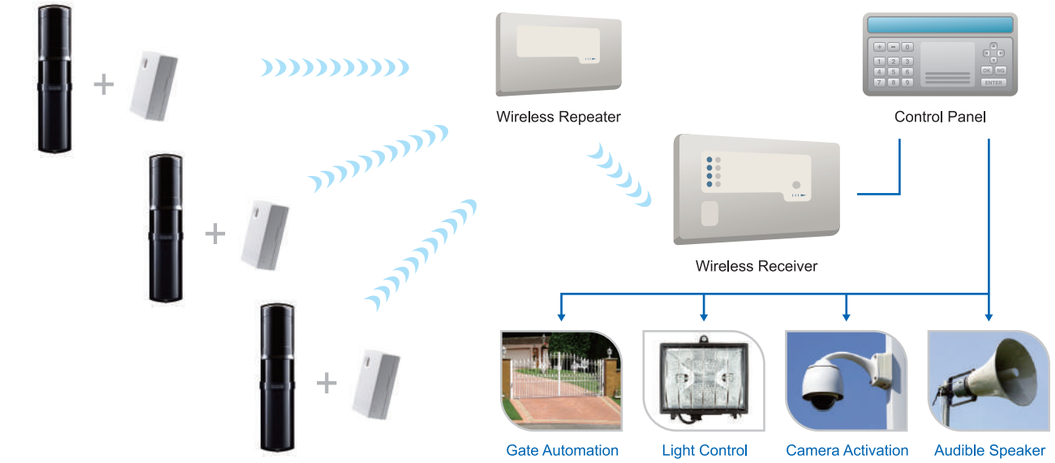
Wireless-Ready

How to add the SL-TNR to your wireless enabled alarm panel

To connect easily a battery powered the SL-TNR to your wireless panel, the following steps should be followed:

Use a two input wireless door contact or universal wireless transmitter. (Wireless transmitter)
1: Take one of your panel manufacturer's wireless transmitter.
2: Register the wireless transmitter on the wireless alarm panel.
3: Place the wireless transmitter in the SL-TNR's rear compartment (back box) and connect the alarm and tamper pair to wireless transmitter.
4: When battery power of the SL-TNR is shared with the wireless transmitter, use the BCU-5 (option).

A range of applications can be triggered by the SL-TNR



Innovative mechanical design

Sniper Viewfinder with 2X magnification
The new telescopic lens has a high level of visibility for optical alignment work.



Anti-frost main unit cover
The hoods prevent frost forming on active infrared beams.

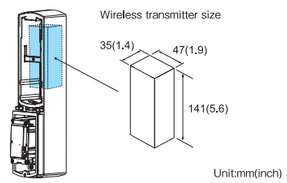
Aspherical optical lens
The high grade aspherical lens creates more sharply defined and precise active infrared beams compered to ordinary fresnel lens.

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



Weather protection IP65
Rubber packing is used for all conceivable points where water or dust may penetrate, such as wiring holes and wire points.

Wireless transmitter storage space



Battery cover
Easy to access the battery holder and change batteries.

Basic performance

·Battery saving function ·Beam interruption adjustment function ·Form C (N.O. / N.C.) alarm output