

Vehicle Detection Sensor **VIRTUAL LOOP**

**No in ground device required!
Possible to be used at outdoor!**

High performance sensing with a combination of microwave and ultrasonic.
Presence detection for vehicle is provided by microwave FMCW technology.



**No in ground
or on ground
device required**

Since no in ground or on ground device required like induction loop. Construction period can be shorted.



Outdoor

Automatic sensing adjustment enables to be used at outdoor.



**No color
influence**

Technically no influence for vehicle body color.



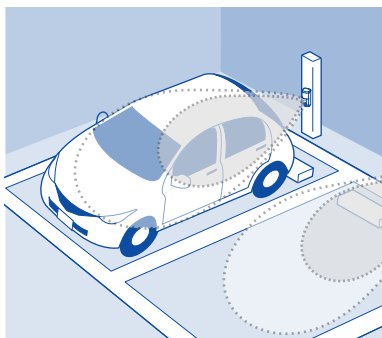
**Human
cancellation**

Human cancellation enables to ignore human and detect vehicle only. (patent pending)



Vehicle Detection Sensor for parking space

VIRTUAL LOOP Surface mount **OVS-01CL**
Flush mount **OVS-01CLB**



Application Image



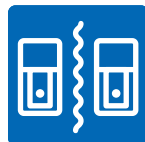
Dust and water proof



Built-in heater



Area check



No interference



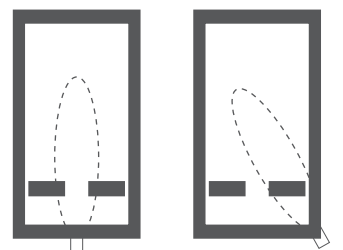
**ON Delay
OFF Delay**

Presence timer



Horizontal angle
adjustment

Installation Location



Center mount / Corner mount

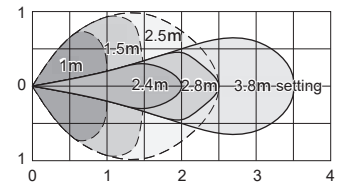
Specifications

Name	VIRTUAL LOOP (Surface mount)	VIRTUAL LOOP (Flush mount)
Model	OVS-01CL	OVS-01CLB
Detection Method	Combination of microwave (Doppler shift, FMCW technologies) and ultrasonic wave	
Sensor Frequency	Microwave : 24GHz, Ultrasonic : 56kHz	
Response	500msec	
Supply Voltage	12 - 24VDC	
Power Consumption	Heater enabled: Up to 200mA, Heater disabled : Up to 80mA (at 24V)	
Output	Relay output DC30V, 0.3A (N.O. / N.C. switchable)	
Input	Active Low / High switchable	
Sensing Distance	Microwave Sensor	0.8 to 3.8m (2.63 to 12.46ft.), Max. range adjustable
	Ultrasonic Sensor	0.1 to 2.5m (0.33 to 8.20ft.), Max. range adjustable
Detectable Vehicle Speed	2 - 20 kph (1.24 - 12.43mph)	
Device Setting	Sensitivity	Level 1 to 5 (Factory default:3)
	Sensitivity Boost Timer	Off / 1 / 2 / 4 sec (Factory default:2 sec)
	On Delay	0.5 / 1 / 2 / 4 sec (Factory default:1 sec)
	Off Delay	0.5 / 1 / 2 / 4 sec (Factory default:1 sec)
	Input	Active Low / Active High (Factory default:Active Low)
	Output	N.O. / N.C. (Factory default:N.O.)
	Microwave Maximum Range	2.4 / 2.6 / 2.8 / 3 / 3.2 / 3.4 / 3.6 / 3.8 m (Factory default:3.2m)
	Ultrasonic Maximum Range	Off / 1 / 1.2 / 1.5 / 2.5m (Factory default:2.5m)
Indicator	Normal Operation	Standby: Solid Green, Detected: Solid Red, Unsuitable environmental notification: Slow Blinking Green
	Detection Area Check	Standby: Green Blinking, Microwave sensor detected: Blinking Yellow, Ultrasonic sensor detected: Blinking Purple, Microwave/ultrasonic sensor detected: Blinking Red
	Calibration	Getting Ready: Slow Blinking Blue, Calibrating: Quick Blinking Blue, Ultrasonic sensor detection error: Alternate Blinking Red-Blue
	Sensor Reset	Reset Complete: Solid Yellow for 2 seconds
Human Cancellation Function Operating	Yes (only for Center mount mode)	
Operating Ambient Temperature	-30 to 50°C (-22 to 122 F)	
Operating Ambient Humidity	95% max. (no condensation)	
Degree of Protection	IP65	
Installation Location	Indoor / Outdoor Pole / Wall mount	
Installation Height	750 to 800mm (29.5 to 31.5")	
Sensor Angle Adjustment	Left and Right: ±30 degrees (5-degree step)	Left and Right: ±15 degrees (5-degree step)
Weight	420g (14.82 oz)	320g (11.29 oz)
Accessories	Retaining screws x 4, Retaining nuts x 4, Detection area adjustment fin, Installation manual	

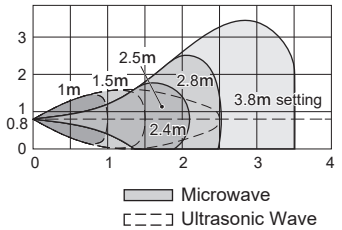
Detection Area Diagram

[Unit : m] 1m = 3.28ft.

Top View



Side View



Mounting height : 0.8m (2.63ft.)

Installation location : Corner mount

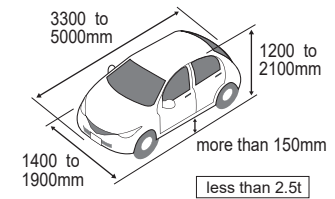
Sensitivity : 3

Operation mode : Detection Area Check

※Under normal operation, the detection area by actual vehicle may be smaller.

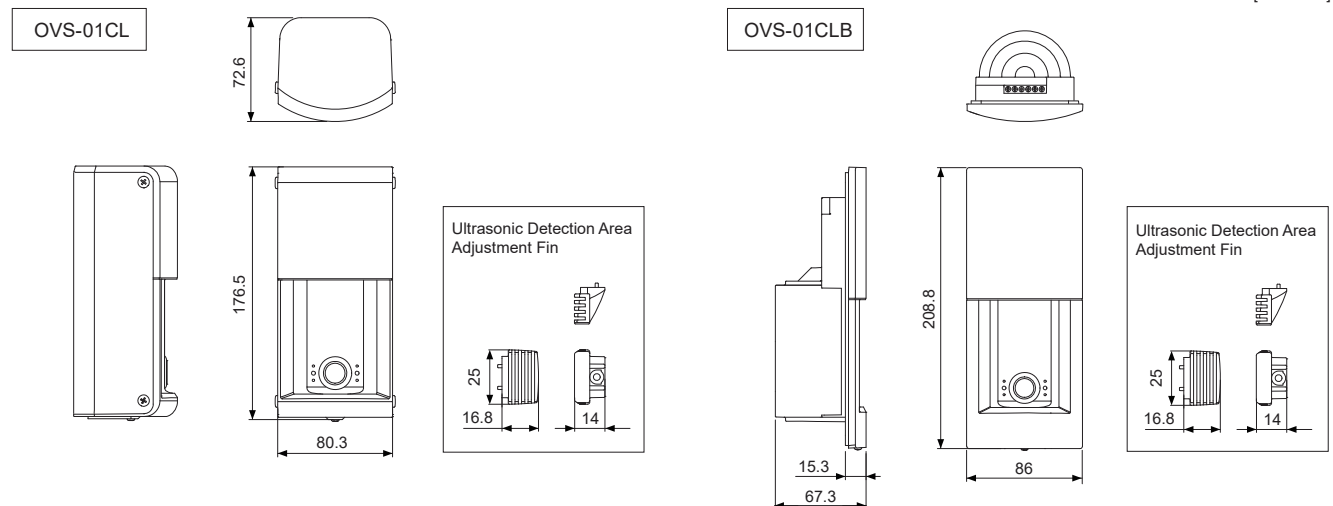
Sensor Detection Condition

- Detectable Vehicle Size
 - Length 300mm to 5000mm
 - Width 400mm to 1900mm
 - Height 1200mm to 2100mm
 - min. Floor height more than 150mm
 - Weight less than 2.5t
- Detectable Speed 2 to 20km/h



Dimensions

[Unit : mm]



Specifications are subject to change without notice for improvement.



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