

# VIRTUAL LOOP

## Vehicle Detection Sensor

**No need for a ground loop!  
No in ground device required!**

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



**No in ground device required**

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

**Outdoor**

Automatic sensing adjustment enables to be used at outdoor.

**High accurate sensing**

Improved vehicle sensing  
High accuracy and well filtered for vehicle

**Human cancellation**

Human cancellation ignores humans and detects vehicles only.

Vehicle Detection Sensor for gate

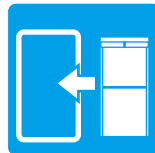
**VIRTUAL LOOP OVS-02GT(BL)**



Various settings can be made on a smartphone



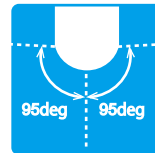
Direct conduct access



Direct installation for single gang box



**12-24V AC/DC**  
Flexible power supply



Wide angle adjustment



Improved built-in heater



Visible indicator



Color variation



IP66 / NEMA4  
Water & Dust protection



2 output / 1 input



Max Range

## Specifications

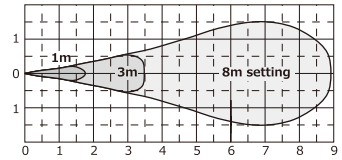
Name		Vehicle Detection Sensor (Surface mount)
Model		OVS-02GT(BL)
Detection method		Microwave (FMCW)
Frequency		Microwave : 24GHz, BLE communication : 2.4GHz
Response		MIN 500ms
Supply voltage		12 to 24V AC/DC
Power consumption		Heater enabled : Up to 300mA, Heater disabled : Up to 90mA( at 24V )
Output	Spec	1 Non-voltage solid state relay output 30VDC 0.3A or less (resistance load) (N.O. / N.C.)
		2 Non-voltage mechanical relay output 30VDC 1A or less (resistance load) (N.O. / N.C.)
	Delay [s]	OFF / 0.5 / 1 / 2 / 3 / 4
	Hold timer [s]	OFF / 0.5 / 1 / 2 / 3 / 10 / 30 / 60
	Mode	Detection / Pre-detection / Mask
	Type	Holding / Pulse IN / Pulse OUT
Input	Spec	N.O. contact Non-voltage relay Input
		On resistance 100Ω or less, Off resistance 200kΩ or more, Internal pull-up voltage: approx. 3.3V
	Mode	Link(OR gate) / Link (AND gate) / Inhibit / Wake
Application		Barrier-Activation, Protection / Slide gater-Activation, Protection / Swing gater-Activation, Protection, Shadow
Detectable vehicle speed		2 to 35km/h (1.2 to 22 mi/h)
Device setting	Detection range	1.5m (7ft.) to 8.0m (26ft.) *0.5m(20in.) pitch
	Main sensitivity	Level 1 to 7
	Fine tuning presence	Level 1 to 7
	Close range sensitivity	Level 1 to 7
	Side approach detection	Off / On(2.5s)
	Vibration sensitivity	Off / Low / Middle / High
	Sensitivity boost	Off / Low / Middle / High
	Sensitivity boost timer [s]	Off / 0.5 / 1 / 2 / 3 / 4 / 5 / 10 / 20 / 40
	Relay Response time	Level 1 to 4
	Presence detection timer [min]	5 / 15 / 60 / 180 / Infinity
	Slide gate cancellation	Off / On
	On / Off	Switchable (with the smartphone App or by holding a magnet close to the unit)
	Standard operation mode	Detection operation
Wake up		Wake up : Solid blue for 3 seconds
Smartphone app connection mode	Sensor reset	Completed reset : Blinking blue (Fast) for 2 seconds
	Setting	Standby : Blinking green(slow), Detected : Blinking yellow(slow), Bad environment : Blinking purple(slow), Calibration uncompleted : Blinking blue(slow)
	Area check	Standby : Blinking green(slow), Pre-detected : Blinking yellow(slow), Detected : Blinking red(slow)
	Calibration	In process : Blinking Blue & Green, Error Unstable : Blinking Red & Yellow(Fast), Error High reflection : Blinking Red & Blue(Fast), High reflection : Blinking Purple(for 10s)
Ambient Temperature		-30 to 50°C (-22 to 122°F)
Operating Ambient Humidity		95% max. (no condensation)
Degree of Protection		IP66 / NEMA4
Installation Location		Indoor / Outdoor
Installation Height		500mm(20in.) (from the ground to the bottom of the unit)
Sensor Angle Adjustment		Left and right : ±96°(3° pitch)
Weight		600g (21oz) (including accessories)
Accessories		Retaining screw (Metric coarse thread M4x12 : 2pcs, Tapping Screws 4x20 : 2pcs), Quick manual

Specifications are subject to change without notice for improvement.

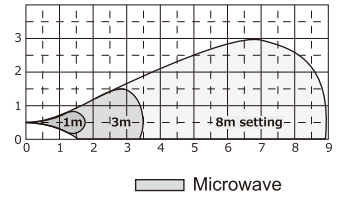
## Detection Area Diagram

[Unit:m] 1m=3.3ft.

Top View



Side View

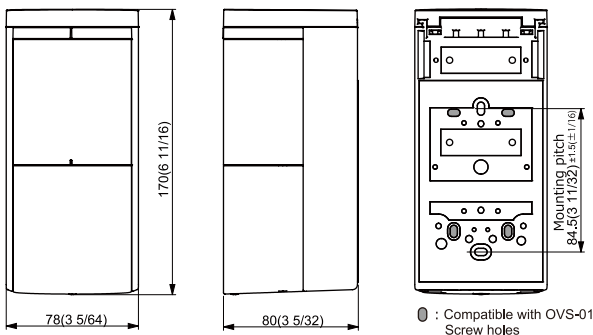


Installation height 0.5m(1.6ft.),  
Operation type: Device activation,  
Sensitivity: 4,

\*Under normal operation, the detection area by an actual vehicle may be smaller.

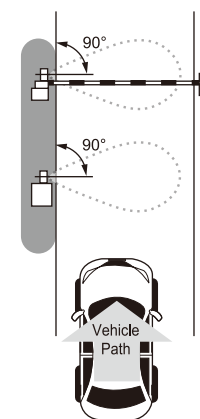
## Dimensions

[Unit:mm(inch)]

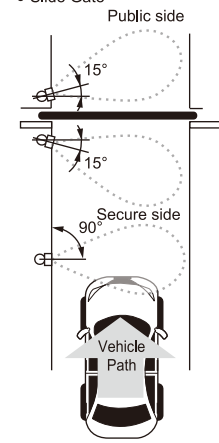


## Sensor Installation Conditions

• Barrier Gate



• Slide Gate



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