

# 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**

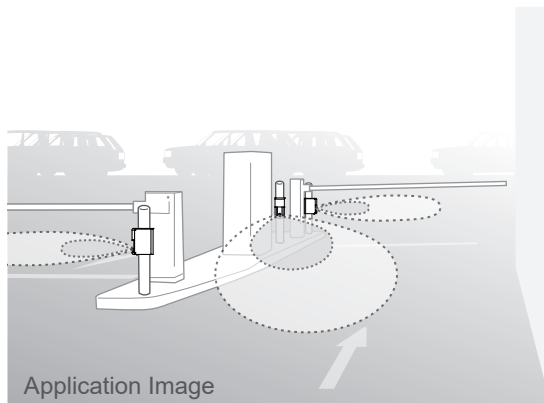
Technically no influence for vehicle body color.

**Human  
cancellation**

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



Vehicle Detection Sensor for gate  
**VIRTUAL LOOP OVS-01GT**



Dust and water proof



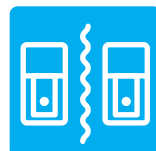
1 output / 1 input



2 modes



Built-in heater



No interference



Presence timer



Area check

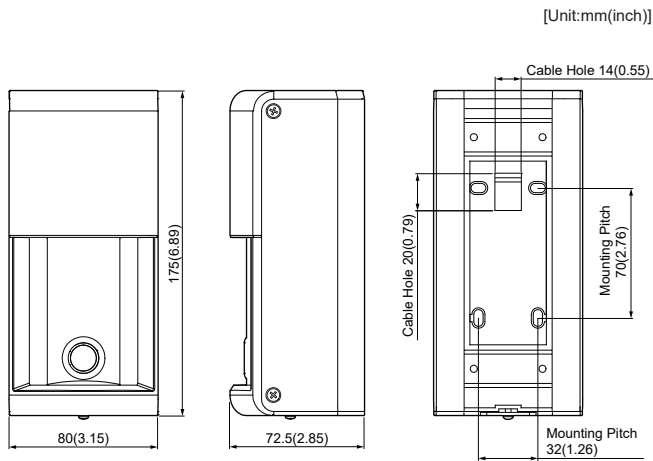


Horizontal angle adjustment

## Specifications

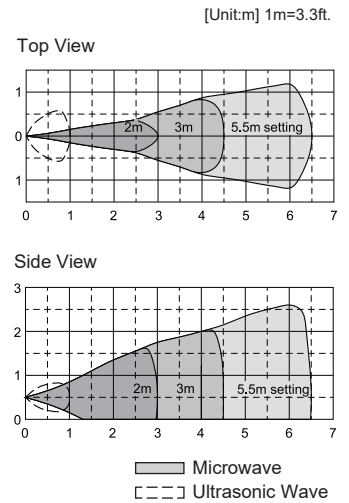
Name		VIRTUAL LOOP (Vehicle Detection Sensor for Gate)
Model		OVS-01GT
Detection Method		Combination of microwave (Doppler shift, FMCW technologies) and ultrasonic wave
Sensor Frequency		Microwave : 24GHz, Ultrasonic : 56kHz
Response		500msec
Supply Voltage		12 - 24VDC
Power Consumption		Heater enabled: 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 5.5m (2.6 to 18ft.), Max. range adjustable
	Ultrasonic Sensor	0.1 to 1.5m (0.3 to 5ft.), Max. range adjustable
Detectable Vehicle Speed		2 - 20 kph (1.2 - 12.4mph)
Device Setting	Sensitivity	Level 1 to 5
	Human Cancel Adjust	Level 1 to 5
	Presence Detection Timer	5 / 60 / 180 / Infinity min
	Sensitivity Boost Timer	Off / 5 / 10 / 20 / 40 sec
	Input	Wake L / Wake H / Inhibit L / Inhibit H
	Output	N.O. / N.C.
	Microwave Maximum Range	2 / 2.5 / 3 / 3.5 / 4 / 4.5 / 5 / 5.5 m (7 / 8 / 10 / 11.5 / 13 / 15 / 16 / 18 ft.)
	Ultrasonic Maximum Range	Off / 0.6 / 0.8 / 1 m (Off / 2 / 2.6 / 3.3 / 5 ft.)
Indicator	Sensor Mode	Activation / Vehicle protection
	Normal Operation	Standby: Solid Green, Detected: Solid Red, Unsuitable environmental notification: Slow Blinking Green
	Detection Area Check	Non detection: Blinking Green, Microwave sensor detected: Blinking Yellow Microwave 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 (except for the setting of sensitivity level 5)
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
Installation Height		500mm(20in.) (distance from the ground to the bottom of the unit)
Sensor Angle Adjustment		Left and Right: ±30 degrees (5-degree step)
Weight		420g (15 oz)
Accessories		Retaining screws x 4, Installation manual, OVS-SGA(A) included for US model only

## Dimensions



Specifications are subject to change without notice for improvement.

## Detection Area Diagram



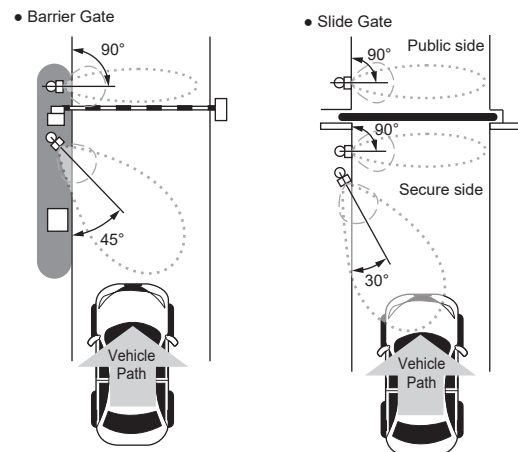
Installation height 0.5m(1.6ft.),  
Operation type: Device activation,  
Sensitivity: 3,

Ultrasonic sensor sensing distance: 1m  
(3.3ft.), Detection area check mode

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

## Sensor Installation Conditions

There are two (2) types of sensor installations. Choose one depending on the site conditions from the followings.  
The sensor will not work properly unless its installation direction, height, and operation type are correct.



**OPTEX**  
OPTEX CO.,LTD. (JAPAN)  
www.optex.co.jp/e

OPTEX INC. / AMERICAS HQ (U.S.)  
www.optex-vs.com

OPTEX (EUROPE) LTD. / EMEA HQ (U.K.)  
www.optex-europe.com

OPTEX TECHNOLOGIES B.V. (The Netherlands)  
www.optex-europe.com/nl

OPTEX SECURITY SAS (France)  
www.optex-europe.com/fr

OPTEX SECURITY Sp.z o.o. (Poland)  
www.optex-europe.com/pl

OPTEX PINNACLE INDIA, PVT., LTD. (India)  
www.optexpinnacle.com

OPTEX KOREA CO.,LTD. (Korea)  
www.optexkorea.com

OPTEX (DONGGUAN) CO.,LTD.  
SHANGHAI OFFICE (China)  
www.optexchina.com

OPTEX (Thailand) CO., LTD. (Thailand)  
www.optex.co.th