

Vehicle Detection

Presence and motion detection for gate and barrier automation

OVS-02GT EN

EN-12453 D-DEVICE CERTIFIED
FOR BARRIER SAFETY

Features

- Test input, Safety output
- No ground work required
- Detection up to 35 km/h
- Installation via mobile app
- Pedestrian Detection
for safety or cancellation
- Indoor and outdoor





Vehicle detection

Reliable and flexible vehicle detection

The OVS-02GT EN presence and activation vehicle detection sensor is designed for automatic gates, barriers, and industrial doors. It delivers reliable short- and long-range detection of up to 8 metres, with a wide detection angle of 90°–95°. The sensor accurately detects both stationary and moving vehicles travelling at speeds of up to 35 km/h, regardless of the vehicle's material. A built-in LED indicator provides clear visual status feedback, making it suitable for everything from basic gate activation to advanced parking management systems.

Easy above-ground installation

The OVS-02GT EN is installed above ground, making it an ideal solution where inductive ground loops are impractical, undesirable, or prohibited. Mounted approximately 50 cm above the ground on a barrier housing, wall, or pole, it can be configured quickly using a dedicated mobile app on a smartphone or tablet. The intuitive setup process requires only a few simple steps.

Excellent performance

Designed for dependable operation in demanding environments, the OVS-02GT EN is unaffected by ground movement and intelligently filters out pedestrian traffic to prevent unnecessary activations, whilst in safety installations it offers human detection for collision prevention. Its integrated heater, combined with an IP66 and NEMA 4 enclosure rating, ensures consistent performance in cold, wet, and dusty conditions.

Safety & protection

The OVS-02GT EN complies with EN 12453 D-device (Safeguarding Level D) safety requirements and features a dedicated Test input alongside a Form A solid-state relay safety output. This allows the sensor to be integrated into safety-critical barrier systems, helping prevent collisions and ensuring barriers to remain open until vehicles have safely passed through.





Application scenarios



Barrier safety to avoid collisions

Applications

- Parking barriers
- Perimeter barriers
- Loading docks (truck occupancy)
- Parking occupancy
- Warning system trigger (a light at a parking exit indicating a car is coming out)
- Residential gates or fences
- Industrial gates or fences
- Vehicle presence applications (gate is not closing while vehicle is in the detection area)
- Safety applications: pedestrian & vehicle detection for collision prevention



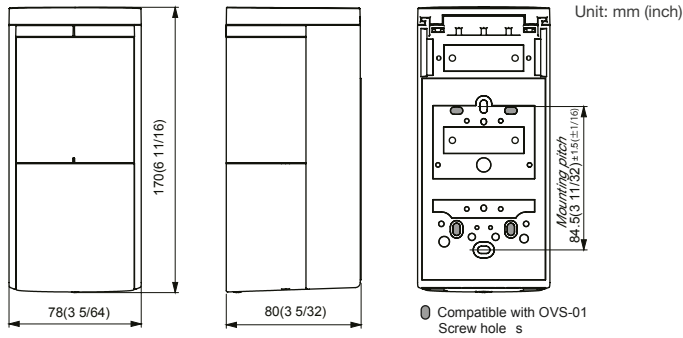
Parking facility

Location solutions

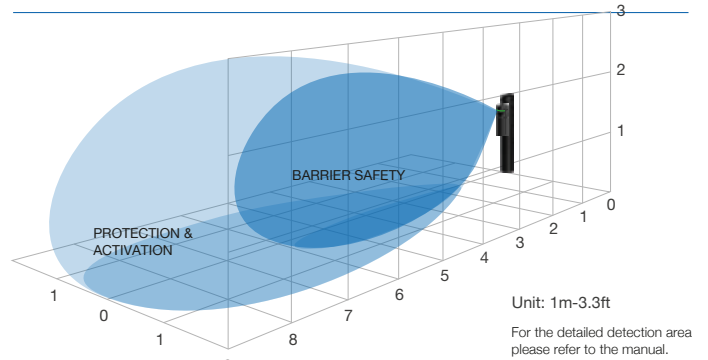
- Where digging is not possible: Resin bound driveways, stone/brick pavements
- Where civil engineering is not possible: Public areas, post tensioned concrete, steel grating cover drains
- Locations where loop malfunctions are caused: Damaged surfaces, surfaces prone to flood, malfunctions by ice or snow



Dimensions



Detection Area Diagram



Specifications

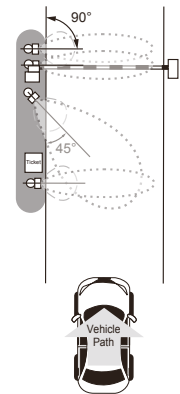
Name			Vehicle Detection Sensor (Surface mount)
Model			OVS-02GT(BL)EN
Detection method			Microwave (FMCW)
Frequency			Microwave : 24GHz, BLE communication : 2.4GHz
Response			MIN 500ms
Supply voltage			12 to 24V AC/DC
Power consumption			Heater enabled : Up to 300mA / Heater disabled: Up to 90mA(at 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
	Pulse time duration		150ms / 250ms / 500ms / 1s
	Input	Spec	Opto coupler 5 to 30VDC(wet conntact) up to 6mA (30VDC)
Mode		Test Input / Link(OR gate) / Link (AND gate) / Inhibit / Wake	
Application			Barrier-Safety 90 deg, Activation, Protection / Slide gater-Activation, Protection / Swing gater-Activation, Protection, Shadow, Car warning
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. (Barrier Safety 90deg. : 6.0m (19.7ft) *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 / 2.5 / 5 / 10 / 30 / 60 / 120
	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
Indicator	On / Off		Switchable (with the smartphone App or by holding a magnet close to the unit)
	Standard operation mode	Detection operation	Standby : Solid green, Detected : Solid red, Bad environment : Solid purple, Calibration uncompleted : Solid blue
		Wake up	Wake up : Solid blue for 3 seconds
		Sensor reset	Completed reset : Blinking blue (Fast) for 2 seconds
	Smartphone app connection mode	Setting Detecton operation	Stanby : Blinking green(slow), Detected : Blinking yellow(slow), Bad environment : Blinking purple(slow), Calibration uncompleted : Blinking blue(slow)
		Area check	Stanby : 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 (-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			4pcs attached screws (2pcs metric coarse thread M4x12, 2pcs tapping screws 4x20), Quick Manual

Specifications are subject to change without notice for improvement.

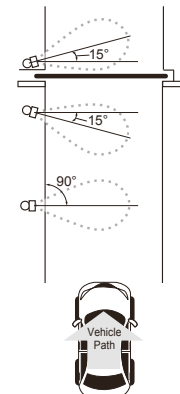
Please note that we are not responsible for any damage that occurred when the equipment is operated or installed improperly.

Sensor Installation Conditions

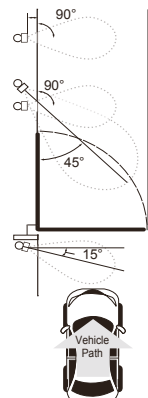
Barrier Gate



Sliding Gate



Swing Gate



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WEBSITE



MANUAL

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