



TCS Ultrasonic Directional Sensor TCS-USDS

The TCS International Ultrasonic Directional Sensor is designed to replace inductive loops, and provide accurate vehicle counting. TCS sensors are extremely reliable and play an important part in any parking guidance solution. These ceiling mounted sensors eliminate the need for saw-cutting ground work. Installation is easy, and relocation is possible should traffic patterns change.

Technical data

Dimensions: 74" L x 2.75" H x 2.5" W

Weight: 15.5 lbs (7 kg)

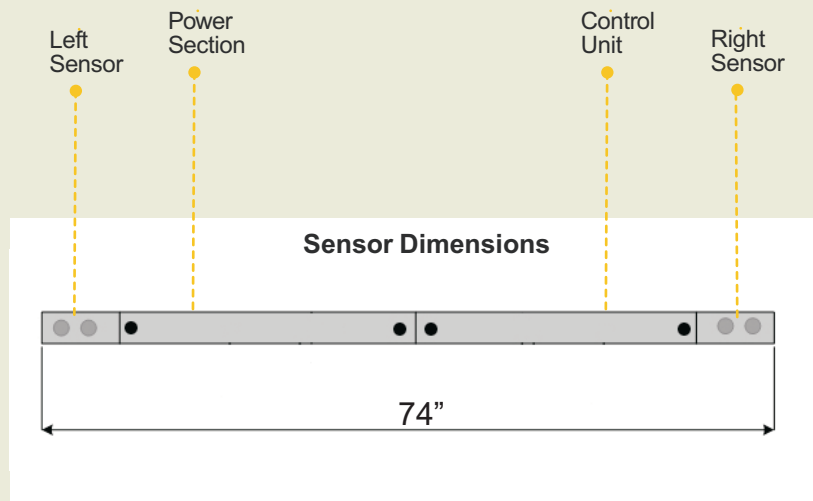
Measurement: Ultrasonic Distance

Data transfer : RS-485 or +/- relay

Temperature: -4°F to +158°F,
below -4° a heater is required

Protection: IP54

TUV Approved



Product Highlights

- TCS uses (2) ultrasonic sensors on each end of this device for distance measurement and directional vehicle counts
- One built-in central processing unit to control sensor logic
- Internal self test diagnostics
- Standalone operation with memory back up offline
- Bi-directional vehicle counting
- Up to 20 km/hr. (12 miles/hr.) effective counting speed
- Output: dry contact and/or serial interface via RS485
- Power Supply: Voltage: 120 VAC or 24VDC

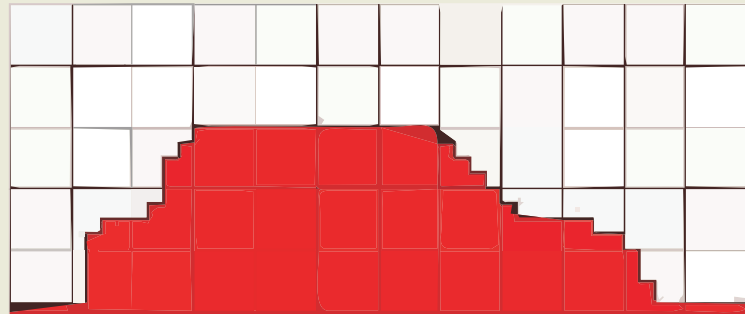


Function

Two groups of sensors on a single USDS continually determine a standard gap. A passing vehicle produces a typical height profile (see illustration). A vehicle is differentiated from other objects by correlating information using a pattern-recognition process. In addition, the sensors reliably recognize the distance and difference between two vehicles - even when vehicles are traveling up to 12 miles per hour.

The detection of a vehicle is transmitted using two relays for each direction. This can also be transmitted over a serial interface or wireless to TCS Visual Control Center software.

Sensor Directional Analysis



Installation of TCS USDS

Each lane sensor is attached to the ceiling with threaded rod and parallel to the floor. A drive lane of 10' to 12' is required depending on USDS mounting height.

| | | | | | |
|----------------------|-----|-------|-----|-------|-----|
| USDS Mounting Height | 86" | 88.5" | 91" | 93.5" | 96" |
| Drive Lane Width | 10' | 10.5' | 11' | 11.5' | 12' |

Connection

The sensor can be used with either 120 VAC or 24VDC . The data transfer is with a serial interface.

Options

The USDS can integrate with barrier gates and other PARC systems as a direct replacement for inductive loops.



Typical Installation

About TCS

TCS International manufactures and designs intelligent parking guidance solutions. Real time monitoring allows our customers to promote open spaces, and improve vehicle flow by reducing "cruising" which increases operator and customer satisfaction. Getting customers to their destination more quickly has the added benefit of reducing your facility's carbon footprint. TCS conceptualizes, manufactures, and continually improves all of its products by harnessing over 100 years of direct industry knowledge found in its product development team. From wireless intelligent parking guidance systems, to automated parking management solutions, TCS provides end-to-end solutions to monitor and facilitate car egress for any facility.

