

TDD1 Series

Doppler Radar Traffic Detectors



The TDD1-MW series of traffic detectors uses microwave Doppler radar technology for detecting vehicles moving through its field of view. For the duration of the detection, a contact closure relay output is activated. When the detection ends, the contact is released into its normal state. The factory-set configuration can easily be altered using an IR remote control (extra accessory).

Typical Applications

The ADEC TDD1-MW series has been developed for a range of applications that require robust and reliable detection:

- Green-phase request or extension at traffic lights, with possibility to discriminate by vehicle driving direction
- Speed-dependent detection of vehicles
- Door sensor: As detector for auto-operation of doors

Working Principle

The TDD1-MW series of detectors senses moving objects by detecting the frequency shift of the reflected microwave vs. the transmitted waves.

Using an IR remote control (extra accessory), the following configuration settings can be easily changed:

- Direction-discrimination (approaching / receding / both)
- Detection range (depends on detector model)
- Minimum speed threshold (4 km/h / 8 km/h, 2.5 mph / 5 mph)
- Auto-timer output activation (off / 90 s / 150 s)
- Feedback LED on front of detector (on / off)

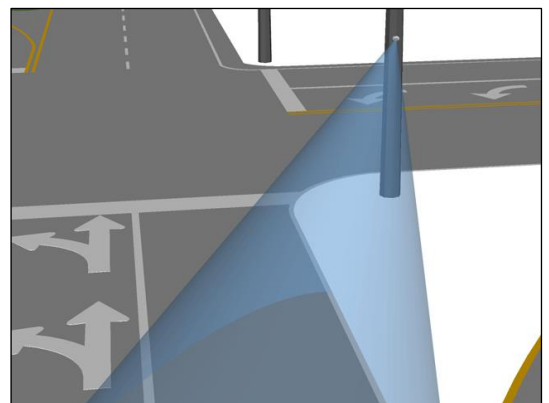
Mounting

The recommended mounting location is on a pole at the side of the road, approximately 1 to 5 m (3 to 16 ft.) above ground.

Features

- **Easy Integration**
Using SPDT relay output
- **Extended Supply Voltage Range**
5 VDC - 60 VDC / 24 VAC
- **Robust, Lasting Design**
Poly-carbon enclosure with weather protection hood using stainless steel V4A
- **Large Mounting Range**
Mounting height 1 - 5 meters (3 - 16 ft)
- **Easy Installation**
Mounting bracket with three holes for easy mounting on poles or gantries
- **Easy & Effortless Configuration**
Using IR remote control (extra accessory)
- **Large operating temperature range of -40°C to +70°C (-40°F to 160 °F)**
Peak performance in all environmental conditions

Detection Zone

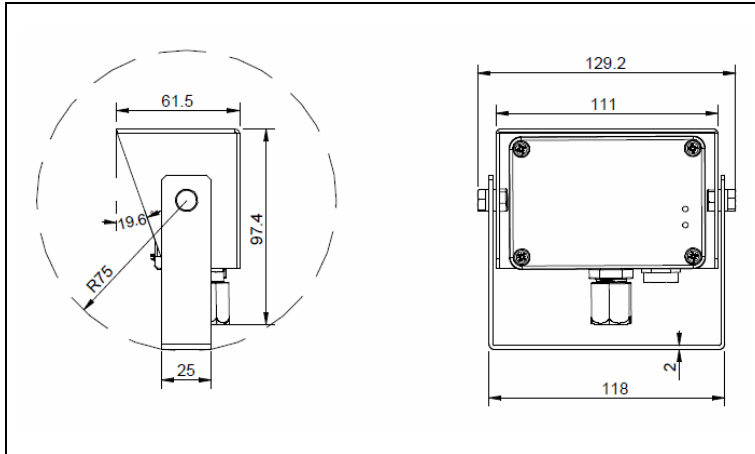


Technical Specifications

| Electrical | |
|-----------------------|---|
| Supply Voltage | 5 ... 60 VDC / 24 VAC |
| Power Consumption | app. 50 mA @ 12 VDC |
| Output / Switch* | Relay, SPDT / 300 VAC / 2 A / 60W |
| Function indication | Tri-color LED on front of detector |
| Turn-on time | 1 second after power on |
| Mechanical | |
| Dimensions | see drawing |
| Case Material | Polycarbonate, dark gray |
| Weather protection | Stainless steel, V4A |
| Weight | app. 700 g (25 oz) incl. bracket |
| Detection | |
| Doppler Radar | K-Band 24.05 ... 24.25 GHz |
| Detection Range | TDD1-MW30: 30 m (100 ft.) nominal TDD1-MW75: 75 m (250ft.) nominal |
| Low speed threshold | Selectable, 4 / 8 km/h (2.5 / 5 mph) |
| Environmental | |
| Operating Temperature | -40°C to +70°C (- 40° to +158°F) |
| Humidity | 95 % RH max. (non-condensing) |
| Sealing | IP 64 splash proof |

*) the maximum voltage on the output must not exceed the supply voltage!

Mechanical Dimensions



Important:

Data is based on samples and believed to be representative.

Design and specification changes reserved without prior notice.

For more specific information on the products, their installation and application please refer to the installation manual or contact the manufacturer.

Accessories (sold separately)

IR Remote Control

To customize the settings of the detector, an infrared remote control is required.

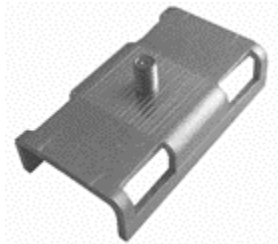
The following settings can be changed: Traffic direction discrimination, low speed threshold, detection range, front LED feedback, auto-timer output activation.



TDD1-IRF: **Order Number 12510**

Mounting Accessories

Pole mount adapter for mounting the detector on a round pole. The pole mount adapter is an extra accessory and has to be ordered separately as necessary.



TDC-PMA: **Order Number 14101**

Model Overview

- **TDD1-MW30**, 30 m(100 ft.) maximum range (Order Number: 10010)
- **TDD1-MW75**, 75 m(250 ft.) maximum range (Order Number: 10011)