

## Single Channel Detectors

The innovative TD136 series of single channel inductive loop vehicle detectors are used to detect vehicles presence by means of an inductive loop buried under the road and have all the features and benefits found on much larger modules. No longer is it necessary to make compromises when selecting a detector for Traffic control, counting or traffic analysis - these "one-chip" microprocessor-based units are suitable for them all. Available in standard & custom variations these detectors can cater to your every system requirement.

### Applications

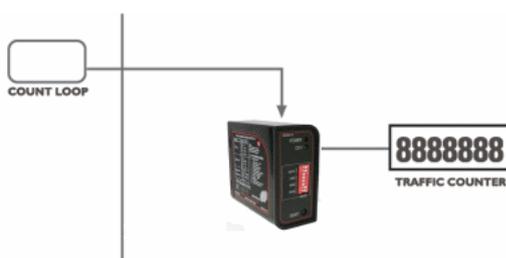
- Traffic Control Applications
- Vehicle Counting
- Toll Systems
- Traffic Analysis



### Features

- Compact Size:** This compact and well engineered housing combines all of the industry requirements regarding features and functionality and allows this detector to be incorporated into any new or existing traffic detection system.
- Diagnostic Capabilities:** Comprehensive diagnostics capabilities allow for accurate diagnosis of loop and installation problems.
- Selectable Presence:** The output of the presence relay can be selected to maintain an output for an extension period, or defined presence output times.
- Loop Isolation Protection:** The loop is isolated and provides protection against lightning and transient damage and allows for operation with single point to ground sensor loops. Added filtering reduces interference from external noise.
- Loop Frequency Indication:** Interference between adjacent loop / detectors can be determined by an integral indication, and eliminated by changing the frequency settings.
- Environmental Analyser:** Continuous monitoring of external parameters ensure reliable product performance & operations under all environmental and power supply conditions.
- Delay on Detect:** Provides a turn-on delay, thus allowing selective detection which is often useful for screening out unwanted inputs.
- Visual Fault Monitor:** A fault indication is provided in the event of the loop input becoming faulty, or alternatively if the loop is out of the operational range. This feature will help in localising the fault in the event of a maintenance call-out.

## USING THE TD136 DETECTOR AS A TRAFFIC COUNTER



<b>Self-tuning Range:</b>	20 – 1500 $\mu$ H
<b>Sensitivity:</b>	Four step adjustable on faceplate: High - 0.02% $\Delta$ L/L                      Med-High - 0.05% $\Delta$ L/L Med-Low - 0.1% $\Delta$ L/L                      Low - 0.5% $\Delta$ L/L
<b>Frequency:</b>	Four step adjustable on faceplate 12-80kHz (Frequency determined by loop geometry)
<b>Output Configuration:</b>	2 output relays: Relay 1 = Presence output (Fail-Safe) Relay 2 = Fault output (Fail-Safe)
<b>Presence Time:</b>	Four step adjustable on faceplate: - 1 second, 4 minutes, 40 minutes, no fixed time out (No fixed timeout dependant on inductance change 1 hour for 3% $\Delta$ L/L)
<b>Delay Time:</b>	Four step adjustable on faceplate: - 0, 10, 20, 30 seconds
<b>Indications:</b>	The following faceplate indications are provided: Red LED - Diagnostic Green LED - Channel indicator 1. Tuning - on steady followed by flashed frequency count (x10kHz) 2. Undetect - off 3. Detect - on steady 4. Fault - on with short off periods
<b>Protection:</b>	Loop isolation transformer, zener diode clamping on loop inputs and gas discharge tube protection.
<b>Power Requirements:</b>	120 V AC $\pm$ 10% (48 - 62Hz) 230V AC $\pm$ 10% (48 - 62Hz) 12-24V AC/DC $\pm$ 10% (48 - 62Hz) Requirements - 1.5VA max @ 230V
<b>Output Relays:</b> (Rating and Type)	Presence Relay - 5A @ 230V AC Change-over contact (Fail-Safe) Fault Relay - 5A @ 230V AC Change-over contact (Fail-Safe)
<b>Operating Temp Range:</b>	-20°C to +70°C (Circuit sealed against condensation)
<b>Material:</b>	High heat ABS blend
<b>Dimensions:</b>	78mm (high) 41mm (wide) x 80mm (deep)
<b>Mounting Position:</b>	Shelf or DIN-rail socket
<b>Connector:</b>	Single rear mount 11-pin submangnal (86CP11) Option - 1 metre flying lead

**TD136 Typical Wiring Configuration for standard models.**  
**May vary according to special requirements.**

PIN	FUNCTION
1	Live                      120V AC / 230V AC / 12/24V AC/DC options
2	Neutral
3	Fault Relay N/O Contact
4	Fault Relay Common Contact
5	Presence Relay N/O Contact
6	Presence Relay Common Contact
7	Loop                      Twist this pair
8	Loop                      Twist this pair
9	Earth
10	Presence Relay N/C Contact
11	Fault Relay N/C Contact

