



Single Channel Inductive Loop Traffic Detector

TD136

The TD136 is a single channel microprocessor based detector designed specifically for traffic control applications.

This unit has been designed using the most up-to-date technology in order to meet the requirements of diverse applications with a wide range of configurable options available.

The primary function of the detector is to detect vehicle presence by means of an inductance change caused by the vehicle passing over a wire loop buried under the road surface. Faster operating characteristics make this unit suitable for motorways vehicle speeds.

PART NUMBERS

305FT0001_01	TD136D Nortech	240 VAC
305FT0010_01	TD136D Nortech	12-24V AC/DC
305FT0015_01	TD136D Nortech (opto)	12-24V AC/DC

FEATURES

Compact Size:

The compact aesthetically pleasing housing combined with all the industry requirements regarding features and functionality allows this detector to be incorporated into any new or existing vehicle detection system.

Diagnostic Capabilities:

The software of this unit allows comprehensive diagnostics capabilities in conjunction with separate DU100 hand-held diagnostics readout. Advanced diagnostics features are covered by International patents.

Selectable Presence Time and Sensitivity:

Presence time and sensitivity settings are switch selectable on the face of the unit.

Loop Isolation Protection:

The loop isolation transformer provides protection against lightning and transient damage and allows for operation with single point to ground sensor loops.

Loop Frequency Indication:

The possibility of crosstalk (interference) between adjacent loops/detectors can be determined by an integral indication, and eliminated by changing the frequency settings.

Delay mode:

This feature allows the detector output to be delayed for a pre-set time as used in queue detection applications

Fault monitor:

A separate fault output relay is provided that operates under conditions of loop failure, or detector / power faults.

Fail Safe:

The detector output is "fail-safe", providing a permanent call to the controller in the event of loop or detector failure.

APPLICATIONS

- Vehicle actuated traffic control
- Traffic counting
- Toll applications
- Queue detection applications

TECHNICAL DETAILS

Self tuning range:	20-1500 μ H
Sensitivity:	Four step adjustable on face-plate: High: 0.02% Δ L/L Medium High: 0.05% Δ L/L Medium Low: 0.1% Δ L/L Low: 0.5% Δ L/L
Frequency:	Four step adjustable on face plate, 12- 80kHz (frequency determined by loop geometry)
Output Configuration	2 output relays: Relay 1 = Presence output Relay 2 = Fault output
Response time:	Turn on / turn off is 60ms.
Presence time:	4-position Presence selection on faceplate: 1 second 4 minutes 40 minutes or indefinite (Approx. 1hour for 3% Δ L/L)
Delay mode:	4-position Delay selector on faceplate 0 seconds 10 seconds, 20 seconds 30 seconds
Indications:	The following face-plate indications are provided: Red LED – power; Green LED – channel indicator 1. Tuning – on steady followed by flashing frequency count (x 10 kHz) 2. Undetect – off 3. Detect – on steady 4. Fault – on with short off
Protection:	Loop isolation transformer, zener diode clamping on loop inputs and gas discharge tube protection
Power requirements:	240V AC \pm 15% 48-60Hz 12-24V AC/DC \pm 15% 1.5VA max @ 230V
Presence * Output Relay:	5A @ 230V AC Change-over contacts (fail-safe)
Fault relay: *	5A @ 230V AC Change-over contacts



* optional solid state
opto - isolated version available

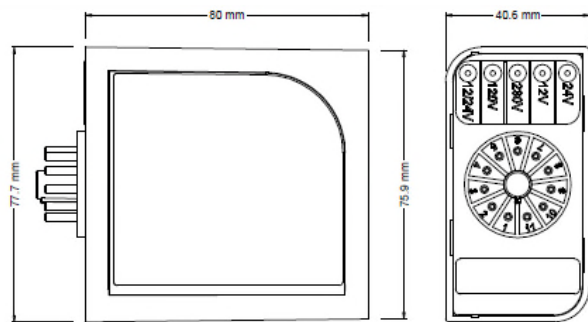
NORTECH
TRAFFIC

TD136

Operating temperature range: -40°C to +70°C

Mechanical detail:

Material:	High heat ABS blend
Dimensions:	78(H) x 41(W) x 80(L)mm
Mounting:	Shelf or DIN-rail socket
Connector:	Single rear mount 11-pin (JEDEC No. B11-88)
Options:	1 metre flying lead 11 pin screw terminal Base



WIRING DETAILS

pin	designation
1	Live 230V AC 50/60 Hz OR
2	Neutral 12 - 24V AC/DC
3	Fault Relay Normally Open contact
4	Fault Relay Common contact
5	Presence Relay Normally Open contact
6	Presence Relay Common contact
7	Loop Twist this
8	Loop pair
9	Earth
10	Presence Relay Normally Closed contact
11	Fault Relay Normally Closed contact

OPTIONAL ITEMS

301FT0041	1 metre flying lead
CTR 119090	11 pin Relay Base