

Dual Channel Inductive Loop Traffic Detector

TD234



The TD234 is a dual channel microprocessor based detector designed specifically for traffic control applications.

The TD234 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 NUMBER

306FT0002 TD234 Nortech 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.

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 tuning range. This indicator has a memory feature will help in localising the fault in the event of a maintenance call-out.

Solid State Outputs:

The detector has solid – state optically isolated outputs to minimise power consumption and isolate output devices from the detector voltage rails.

APPLICATIONS

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

TECHNICAL DETAILS

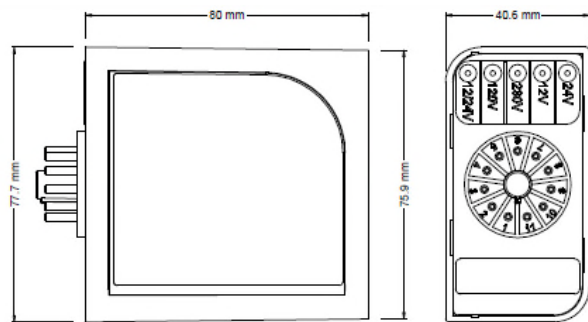
Self tuning range:	20-1000 μ H
Sensitivity:	Four step adjustable on face-plate: High: 0.02% Δ L/L Medium High: 0.05% Δ L/L Medium Low: 0.1% Δ L/L Low: 0.5% Δ L/L
Frequency:	Four step adjustable on face plate, 12- 80kHz (frequency determined by loop geometry)
Output Configuration	2 outputs – opto isolated solid state
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)
Output Modes:	1. Presence or pulse outputs independently selectable for CH 1 and CH2 2. Direction logic output - A to B (CH1) & B to A (CH2) pulse or presence outputs
Indications:	The following face-plate indications are provided: Red LED – power; Green LED – channel indicator 1. Tuning and detect – on steady 2. Undetect – off 3. Fault – on with short off
Protection:	Loop isolation transformer, zener diode clamping on loop inputs and gas discharge tube protection
Power requirements:	12-24V AC/DC \pm 15% Typically 35 m.a.@ 12V

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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 12 - 24V AC/DC
2	Neutral 45 – 65 Hz
3	CH 1 Loop Twist this pair
4	CH 1 Loop
5	CH 2 Loop Twist this pair
6	CH 2 Loop
7	CH 2 Out Opto +
8	CH 2 Out Opto -
9	Earth
10	CH 1 Out Opto +
11	CH 1 Out Opto -

OPTIONAL ITEMS

302FT0041	1 metre flying lead
CTR 119090	11 pin Relay Base



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