

Dual Channel Inductive Loop Traffic Detector

TD250



The TD250 is a dual channel microprocessor based detector designed specifically for traffic control applications.

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 road traffic vehicle speeds.

The TD250 has a range of configurable options to meet the requirements of diverse applications.

PART NUMBER

879FT0014 TD250 – Direction/delay/extend 240V AC
 879FT0016 TD250L – Headway/speed logic 240V AC

FEATURES

Traffic Data options:

The TD250 detector may be configured to provide various outputs. The normal mode provides a variable presence output. Directional logic (A to B) outputs can be derived from the loop pairs of CH1 + CH2.

Selectable Presence Time and Sensitivity:

The detector presence time may be set to passage (pulse) output or varying pre-selected maximum presence times.

Selectable Delay / Extension Timing (TD250 only):

Channel 2 may be preset to delay / extend the detector output. Delay timings of 0 – 30 secs. in 2 second steps. Extend timings of 0 – 7.5 secs. in 0.5 second steps.

Speed & Headway options (TD250L only):

This detector can operate in a Speed detection or Headway measurement mode.

Pre-set thresholds may be set by means of the detector DIP switches. Outputs are triggered when the pre-set speed threshold is exceeded or when the vehicle following distance is less than the pre-set value.

Fault monitor:

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

Fail safe Outputs:

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
- Speed discrimination
- Following distance discrimination
- Toll equipment

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 Direction (A - B) option Relay 2 - TD250 model = Presence output Direction (B - A) option OR TD250L model - Speed logic / Headway logic 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)
Operating Modes:	Mode selection on faceplate: 1. Normal presence both channels 2. Direction logic both channels 3. Delay / extend modes
Indications:	The following face-plate indications are provided: Red LED – power; Tri-colour LED per channel output Green – detect Red – fault Orange – indicates speed/ headway or timing
Protection:	Loop isolation transformer, zener diode clamping on loop inputs and gas discharge tube protection
Power requirements:	240V AC \pm 15% 48-60Hz 3VA max @ 230V
Output relays and Rating:	1A @ 230V AC Change-over contacts (fail-safe)



NORTECH
TRAFFIC

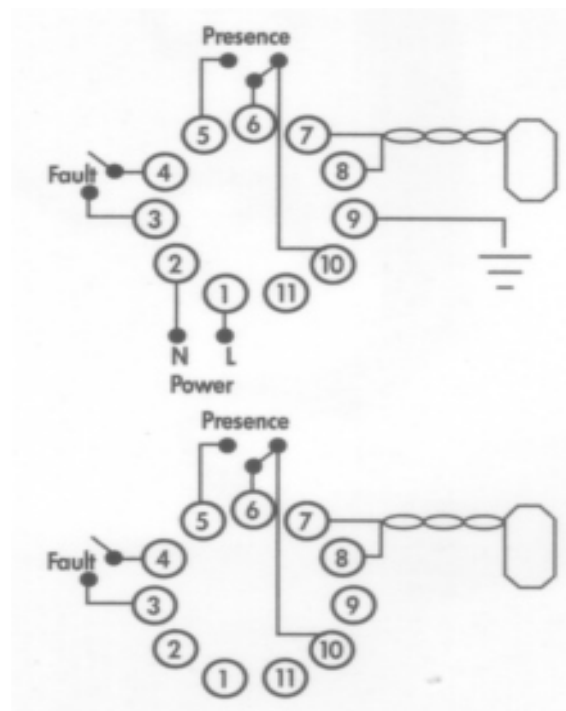
TD250

Operating temperature range: -40°C to +80°C

Mechanical detail:

Material:	High heat ABS blend
Dimensions:	113(H) x 57(W) x 131(L)mm
Mounting:	Shelf mount
Connector:	dual rear mount 11-pin submagnal (86CP11)
Inclusions:	2 x 1 metre flying leads

WIRING DETAILS



INCLUDED ITEMS

302FT0041	2 x 1 metre flying lead
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