



4 Channel Eurocard format Detector

TD424NT

The TD424NT is a high performance, 4 channel, NEMA format, microprocessor based vehicle detector.

This purpose designed traffic detector has been developed for general-purpose vehicle monitoring and counting in motorways applications.

The TD424NT employs the latest SMT construction for increased reliability and low component count. This model complies with Australian Standards and is approved by the RTA and Vic Roads for use in SCATS applications

PART NUMBERS

878FT0021	TD424NT Nortech (Relay)	12-24V DC
878FT0037	TD424NT Nortech (Opto)	12-24V DC

FEATURES

Delay and Extend timing options:

This model provides configurable delay/extend timings. These are required for occupancy and queue applications in ATC.

Optimised Sensitivity:

Sensitivity levels are adjustable for each channel. These have been carefully chosen for traffic control applications allowing adjacent lane rejection and elimination of interference.

Adjustable Presence Time:

A range of four presence times is available and, adjustable for each channel. This facilitates operation in passage mode, limited presence or for queue detection.

Mode Selection:

The TD424NT can operate either as a Presence Detector or a Passage detector

Loop Fault Monitoring:

The TD424NT provides provides faceplate indications of loop faults on an individual channel basis.

Sequential Polling:

Scanning techniques are employed to positively eliminate crosstalk between loops connected to the same detector module. Similarly a loop synchronisation feature prevents crosstalk between channels of different detectors.

Selectable options :

Enabled by PC mounted switch selection:

1. "Anti - lock" for positive change rejection,
2. "Auto-retune" to protect against faulty loops in multiple loop configurations.

APPLICATIONS

- Vehicle actuated traffic control
- Traffic counting
- Traffic Queue detection
- Incident detection

TECHNICAL DETAILS

Self tuning range:	20-1000 μ H
Sensitivity:	Seven step adjustable on faceplate: Step 7: 0.02% Δ L/L Step 5 -6 : 0.05 / 0.1% Δ L/L Step 2-4 : 0.2 / 0.3 / 0.4 % Δ L/L Step 1 : 0.5% Δ L/L
Frequency:	Four step adjustable on face plate, 20- 140kHz (frequency determined by loop geometry)
Presence time:	Fixed Presence time: 1.5 seconds in passage mode or 8 minutes (Limited by % Δ L/L)
Response Times:	Turn-on 52 ms \pm 3.5ms Turn-off 52 ms \pm 3.5ms Recovery \pm 75ms
Operating modes:	Two position Mode selector on face-plate 1. Passage mode 2. Presence mode
Indications:	The following face-plate indications are provided per channel: 1 red - detect 1 red - fault
PCB switch selection:	1. Anti - locking enable 2. Auto - retune enable 3. Configurable Presence times 4. Delay / extend options
Delay / Extend Timing:	1. Delay – 0 to 31 seconds in 1 second steps 2. Extend – 0 to 7.75 seconds in 0.25 sec. steps. 3. “Green” gating timer enabling via remote inputs.
Protection:	Loop isolation transformers, zener diode clamping on loop inputs and gas discharge tube protection

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Power requirements:	12 - 40V DC 100 m.a. max input current
Relay Outputs:	1 A @ 230 V AC Single change over contact per channel
Opto Outputs:	Optional model with opto-isolated solid state outputs
Operating : temperature range	-40°C to +80°C
Humidity:	up to 95% without condensation

Mechanical detail:

NEMA Card Dimensions:	175mm x 114mm
Faceplate:	25mm (wide) – 1 inch
Connector:	2 x 22 terminal, 0,156 - inch contact spacing. Cinch Jones card edge connector, 50-44A - 30M or equivalent.)



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