



TD424ES HIGH PERFORMANCE DETECTOR

Design for ease of operation, the TD424 4 channel inductive loop detector allows parameters to be individually set for each channel. As a presence detector, it provides a continuous output whilst a vehicle is present in the detection zone. With Eurocard, OR ANSI/NEMA, Standard TS1, Part 15 connectors, it offers discrete detector outputs, logic outputs as well as the option of a serial link for communication to a host device.

APPLICATIONS

- Traffic Counting
- Queue Detection
- Traffic Control Applications

SPECIFIC FEATURES

Configuration

Four channel detector for rack mounting and powered from an external source.

Storage and Connectivity

Multi-channel, single multiplexed oscillator, employing sequential channel sampling.

Detection method

Microprocessor controlled by monitoring loop oscillator frequency changes resulting from loop inductance variation due the presence of motor vehicles.

Optional Auto-retune

The detector will retune following a step inductance change greater than 15% of the current value.

Output configuration

Available in either relay or opto output per channel. Master and individual channel fault available on certain units.

TECHNICAL DATA

Self Tuning Range

20 - 1000 μ H

Sensitivity

Four step adjustable on faceplate:

High	0.02% Δ L/L
Med-High	0.05% Δ L/L
Med-Low	0.1% Δ L/L
Low	0.5% Δ L/L

Frequency

Four step selectable on PCB:

High, Medium-High, Medium-Low and Low
Frequency dependent on loop per channel

Output Configuration

One opto-isolated presence output per channel

Presence Time

Four step adjustable on faceplate:

3.5 seconds
4 minutes (Optional 8 minutes)
40 minutes
Infinity – no fixed time-out

Static Response Times

Turn on 40mS \pm 7mS

Turn off 45mS \pm 7mS

Indications

The following indications are provided:

2 x LED per channel
• 1 x Red – Detect
• 1 x Red – Fault
2 x Timing Status Indicators (Red)
2 x Mode Indicators

Protection

Loop isolation transformers, zener diode clamping on loop inputs and gas discharge tube protection.

Power Requirements	12 V to 40 V DC 100 mA max.
Detect outputs	Sealed relays rated at 1A @ 220V AC Single change-over contact per channel Opto-isolated rated at 50mA @ 50V DC (optional)
Operating Temperature Range	-40 °C to + 85 °C (Circuit conformal coated)
Mechanical Details	Standard Eurocard OR NEMA Format
Dimensions	160 mm (l) x 100 mm (h)
Connector	2 x 32 way DIN 41612 type B/C connector, OR Dual NEMA 22-way direct mating edge connector

ORDERING INFORMATION

878FT0021	TD424N, NEMA WITH RELAY OUTPUTS 24V DC
878FT0037	TD424N, NEMA WITH OPTO OUTPUTS 24V DC
878FT0061	TD424E4, EUROCARD WITH RELAY OUTPUTS 24V DC - 2x32 WAY DIN41612 TYPE C Connector
878FT0063	TD424ES, EUROCARD WITH SERIAL OUTPUT 24V DC - 2x32 WAY DIN41612 TYPE B Connector