



TD624ES

HIGH PERFORMANCE DETECTOR

Developed for general purpose vehicle monitoring and counting in motorway applications, the TD624 4 channel inductive loop detector employs the latest SMT construction for increased reliability and low component count. The optimised response times facilitate the collection of accurate speed and length measurement data and the optimised sensitivity levels allow adjacent lane rejection and elimination of interference in a traffic control application. It complies with TR0100/TR2512 UK DoT for motorway use.

APPLICATIONS

- Speed monitoring in motorway application
- Determining vehicle headway
- Calculation of lane occupancy
- Accurate high-speed vehicle speed measurement

SPECIFIC FEATURES

Optimised Response Time

Response times are optimized to facilitate the collection of accurate speed and length measurements.

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 mode or for queue detection.

Loop Fault Monitor

The TD624ES provides local and remote fault output indications on an individual channel basis, as required.

Sequential Polling

Scanning techniques are employed to positively eliminate crosstalk between loops connected to the same detector module.

Serial Communication

The TD624ES is able to communicate various settings and information (e.g. tuned frequency value, sensitivity settings etc) via a serial link. The serial link operates at TTL levels.

TECHNICAL DATA

Self-tuning Range

20 - 1000 μ H

Sensitivity

Four step adjustable on faceplate:
High – 0.02% Δ L/L to Low – 0.24% Δ L/L

Frequency

Four step selectable on PCB:
10-140 kHz (Frequency dependent on loop geometry)

Output Configuration

One opto-isolated presence output per channel

Presence Time

Four step adjustable on faceplate
3.5 seconds
4 minutes
40 minutes
Limited by % Δ L/L Change

Static Response Times

Turn on 61ms \pm 2.4ms (typical)
Turn off 61ms \pm 2.4ms (typical)

Fault Outputs

One opto-isolated fault output per channel indicating loop short/open circuit conditions OR one master opto-isolated fault output indicating loop short/open circuit condition on any channel

Indications

The following indications are provided:
2 x LED per channel
• 1 x Red – Detect
• 1 x Red – Fault

Protection

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

Power Requirements

24V DC $\pm 20\%$, requirement 1.8VA (max) @ 24V DC

Output Opto-Couplers

50mA @ 30V DC (Max)

Operating Temp Range

-40°C to +80°C (Circuit conformal coated)

Mechanical Details

Standard Eurocard Format

Dimensions

160 mm (l) x 100 mm (h)

Faceplate

25 mm (w)

Connector

64 way DIN 41612 Type B connector

ORDERING INFORMATION**878FT0070**

TD624ES TRAFFIC DETECTOR 24V

