



TD724ID HIGH PERFORMANCE DETECTOR

The TD724ID is a high performance 4 channel, microprocessor based inductive loop vehicle detector and an invaluable component in any 3M AVC system. The high-end sampling algorithm provides extremely high levels of sensitivity enhancing the axle loop capability of 3M AVC.

The TD724ID Eurocard detector complies with TR0100/TR2512 UK Highways Agency pin configuration for motorway use.

APPLICATIONS

- Speed monitoring in motorway application
- Incident monitoring
- Tolling Equipment
- Tunnel monitoring
- Intelligent vehicle detection
- Vehicle classification
- Axle detection

SPECIFIC FEATURES

Electronic Frequency Selection

Electronic tuning of channels allows greater flexibility in calibrating the detector to connected loop.

Optimised Sensitivity

Sensitivity levels are adjustable for each channel. Due to the high sampling capability of this detector, high levels of sensitivity are available for operation and 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 TD724ID provides local and remote fault output indications on an individual channel basis, as well as calibration feedback.

Loop Fault Monitor

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

TECHNICAL DATA

Self-tuning Range

20 - 1000 μ H

Sensitivity

Eight step adjustable on faceplate with option to turn channel OFF: High – 0.02% Δ L/L to Low – 0.24% Δ L/L

Frequency

Band step selectable on PCB:
40-120 kHz (Frequency dependent on loop per channel)

Output Configuration

1x opto-isolated presence output per channel

Presence Time

Four step adjustable on faceplate:
3.5 seconds
4 minutes
40 minutes
Permanent presence (Limited by % Δ L/L Change)

Static Response Times

Turn on 28.0ms \pm 2.0ms
Turn off 128.0ms \pm 2.0ms

Variable Response Times

Can be reduced to turn on/off time of 11.9ms \pm 0.7ms with all channels on Low Sensitivity

Fault Outputs

One opto-isolated fault output per channel indicating loop short/open circuit conditions. One master opto-isolated fault output indicating a fault on any of the 4 channels

Indications

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

Protection

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

Power Requirements	12V DC – 10% to 24V DC + 10% 120 mA @12V DC OR 60 mA @ 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

878FT0108 TD724ID TRAFFIC DETECTOR - 24V DC (Normally Closed detect outputs)

878FT0109 TD724ID TRAFFIC DETECTOR - 24V DC (Normally Open detect outputs)