



## 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 $\mu$ H

## **Sensitivity**

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

<b>Power Requirements</b>	12V DC – 10% to 24V DC + 10% 120 mA @12V DC OR 60 mA @ 24V DC
<b>Output Opto-Couplers</b>	50mA @ 30V DC (Max)
<b>Operating Temp Range</b>	-40°C to +80°C (Circuit conformal coated)
<b>Mechanical Details</b>	Standard Eurocard Format
<b>Dimensions</b>	160 mm (l) x 100 mm (h)
<b>Faceplate</b>	25 mm (w)
<b>Connector</b>	64 way DIN 41612 Type B connector

## ORDERING INFORMATION

<b>878FT0108</b>	TD724ID TRAFFIC DETECTOR - 24V DC (Normally Closed detect outputs)
<b>878FT0109</b>	TD724ID TRAFFIC DETECTOR - 24V DC (Normally Open detect outputs)