

HI-TRAC[®] TMU2

HIGH-SPEED TRAFFIC CLASSIFICATION SYSTEM



CLASSIFICATION	LENGTH	SPEED	LANE NO.
55 - ARTICULATED HGV	16.2 M	84 KPH	1



SYSTEM DESCRIPTION

The HI-TRAC[®] TMU2 is a high speed traffic data collection system recording vehicle classification data without interruption to traffic flow. The HI-TRAC[®] TMU2 incorporates embedded Ethernet with TCP/IP stack, VPN and FTP as well as extensive 4Gbytes data storage and thus provides high-end functionality at a reasonable cost.

The system can be used as a statistical data gathering device to record the pattern of highway traffic as well as a means of event monitoring and incident detection.

The unit incorporates interfaces to both piezo electric sensors and inductive loop sensors and therefore the HI-TRAC TMU2 can be configured as a weigh-in-motion (HSWIM) system.

TDC Systems advanced vehicle straddling algorithms mean volumetric detection rates in excess of 99.5% are achievable.

“ HI-TRAC TMU2 systems with Air Quality Monitoring capability have been deployed by TDC for the UK Department for Transport and provide valuable information on not only traffic flows and axle loading but also particle (PM10) pollution and NO2 levels. ”

FEATURES

- Automatic Vehicle Counter/Classifying (AVC) operation
- Classification of over 100 unique vehicle types
- Euro 6 classification or user defined classifications
- Vehicle-by-Vehicle (VBV) data storage
- Event monitoring and incident detection
- Two to Sixteen Lane configuration options
- Laptop (USB2), Modem (RS232) ports and Data (RS485) port
- Viewing of sensor waveforms for fault diagnosis via HI-COMM 100 software package
- Telemetry output module for data download via mobile telephone network
- Ethernet 10/100MB
- Supports TCP/IP and DHCP Protocols
- 4Gbyte flash drive data storage
- Environmental monitoring interfaces (includes pass-by-noise, wind speed/direction, air temperature, rain, vibration)
- Air Quality Monitoring Interface (includes NO₂, CO, PM10)



TECHNICAL INFORMATION

ACCURACY DATA

Traffic Volume	>99.5%
Speed	±1.5%
Length	±8%
Headway	±7%
Speed Range	1 to 200 kph

CLASSIFICATION ACCURACY (LOOP-PIEZO-LOOP)

FHWA, UK DFT, AUSTRROADS, user definable	
Motorbike	±95%
Cars & Vans	±97%
Cars & Vans + Trailer	±97%
Rigid HGV	±98%
Articulated HGV	±99%
Draw-Bar Trailers	±99%
Buses & Coaches	±97%

LANE CONFIGURATIONS

Loop-Loop	AVC
Loop-Piezo-Loop	AVC or WIM

VBV DATA RECORDED

Time & Date	Direction of Travel
Site Identity Code	Vehicle Count Number
Lane Number	Vehicle Class
Individual Axle Weights	Gross Vehicle Weight
Vehicle Speed	Vehicle length
Inter-axle Spacing	Wheelbase
Vehicle Gap	Headway
Equivalent Single Axle	Validity Code

STORAGE CAPACITY

256 Mb Flash Mass Storage Media Drive
Upgradeable to 4G

25,000,000 Vehicle VBV WIM Records – 256Mb
40,000,000 Vehicle VBV AVC Records – 256Mb

INPUT/OUTPUT PORTS

USB2	Laptop (Front Panel Mounted)
RS232	Modem
RS232	Printer or ANPR/CCTV Control
RS485	Data Transmission
Ethernet	10/100MB Data Transmission
Relay Drive	16
Switch Inputs	8 (e.g. door tamper switches)

POWER

85-264VAC @ 47-440Hz
12V Battery – Rechargeable via HI-TRAC TMU boost charger and power supply.
Solar Panel, Battery & Charge Regulator



SOFTWARE

HI-COMM 100 and HI-COMM EZY Compatible:
Data Download, Analysis, Real Time VBV View,
Report Generation & Diagnostics



Drakewell C2, C2 Web Reports



ROAD INSTALLED ITEMS

Piezo electric sensors and inductive loop sensors permanently installed in highway.

DIMENSIONS & WEIGHT

W = 430mm (485mm with rack mount flanges)
D = 280mm (325mm with handles)
H = 180mm
7 kg

SHIPPING DIMENSIONS & WEIGHT

550 x 430 x 260mm (w d h)
9 kg

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