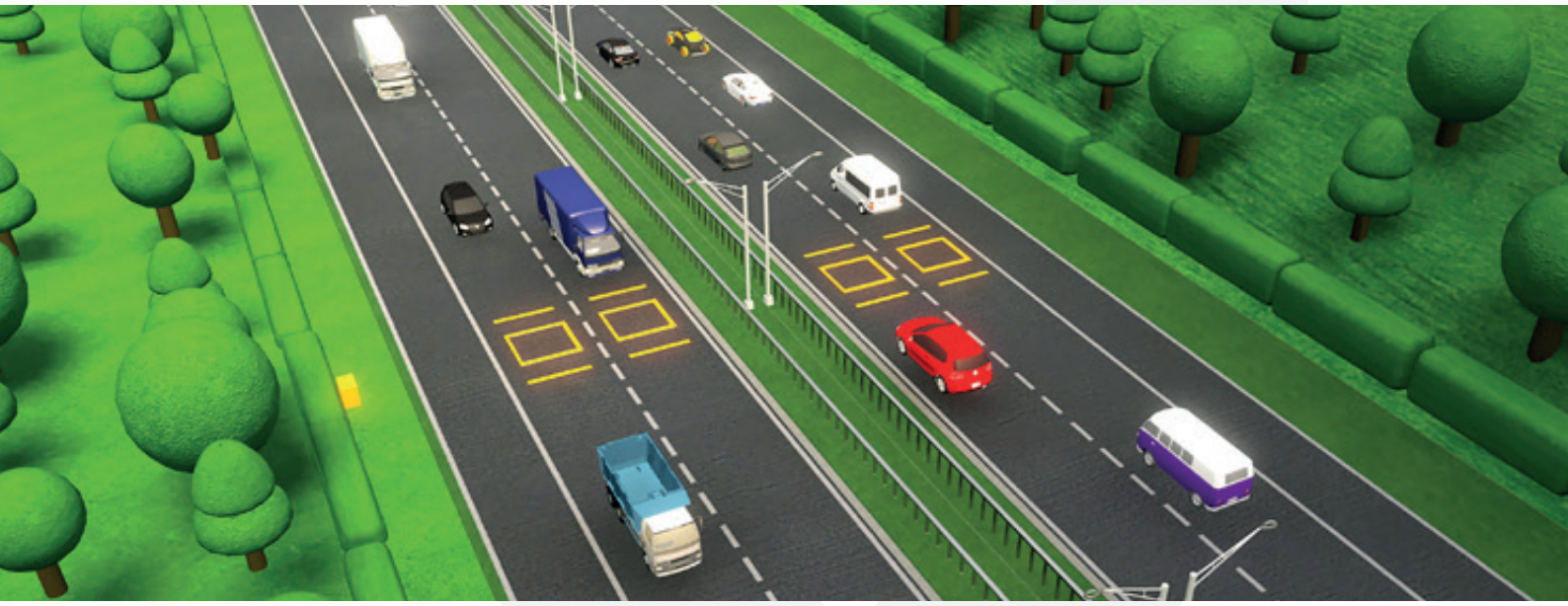
HI-TRAC® TMU4

HIGH SPEED CLASSIFICATION & WEIGH-IN-MOTION SYSTEM

- Supports multiple array configuration
- Transmits data via GPRS with real-time view
- Integrates with ANPR, CCTV and diversion sign



OVERVIEW

The HI-TRAC® TMU4 is a high speed traffic data collection system recording vehicle classification and axle load data without interruption to traffic flow.

The HI-TRAC® TMU4 incorporates embedded Ethernet with TCP/IP stack, VPN and FTP as well as extensive 8 Gb data storage and thus provides high-end functionality at a reasonable cost.

The standard configuration of two Class 1 piezo electric sensors and one inductive loop installed in the highway per lane provides axle weight data to COST 323 Class B(10) accuracy in addition to inter-axle spacing and vehicle speed data.

The system can be used as a statistical data device to record highway traffic loading or it can also be used as a screening weighbridge to identify overloaded vehicles in the traffic stream.

The HI-TRAC® TMU4 can be interfaced to traffic signals or diversion signs to intercept overloaded vehicles and to ANPR or CCTV camera systems.

The HI-TRAC® TMU4 uses TDC Systems advanced loop profiling techniques to improve vehicle classification accuracy and weight data is significantly improved with advanced automatic temperature compensation algorithms incorporated as standard.

KEY FEATURES

- Weigh-in-Motion
- Counter & Classifiers
- Data Hosting
- Multiple Lane Operation
- ANPR
- Air Pollution Monitoring

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BENEFITS

- Weigh-in-Motion (WIM) and Automatic Vehicle Counter/ Classifying (AVC) operation
- Classification of over 100 unique vehicle types
- Vehicle-by-Vehicle (VBV) data storage
- Advanced temperature compensation algorithm ensuring accuracy of weight data
- Two to Sixteen Lane configuration options
- Laptop (USB2), Modem (RS232) Ports and Data (RS485) port
- Ethernet 10/100 Mb Supports TCP/IP and DHCP Protocols
- Telemetry output module for data download via mobile telephone network (GSM/GPRS)
- 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)
- Automatic Number Plate Recognition (ANPR) and CCTV camera interface

INSTALLATION

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

SOFTWARE

- HI-COMM 100 Compatible
- Data Download, Analysis, Real Time VBV View, Report Generation & Diagnostics
- Data hosting and reporting service

TECHNICAL SPECIFICATIONS

ACCURACY DATA

Gross Vehicle Weight	±10 %
Individual Axle Weight	±15 %
Group Axle Weight	±13 %
Traffic Volume	>99.5 %
Length	±8 %
Headway	±7 %
Speed	±1.5 %
WIM Speed Range	20 –180 kph

LANE CONFIGURATIONS

Piezo-Piezo	Cycles
Piezo-Loop-Piezo	AVC, WIM, Cost 323 C (15) to B (10)
Piezo-Loop-Piezo-Piezo-Loop-Piezo	WIM, Cost 323 B(7)

VBV DATA RECORDED

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

POWER SUPPLY

85–264 VAC @ 47-440 Hz

12 V Battery – Rechargeable via HI-TRAC TMU boost charger and power supply

Solar Panel, Battery & Charge Regulator

Operating temperature -25 to +85 Deg °C

STORAGE CAPACITY

Standard 8 Gb MicroSD data storage
circa. 800 Million VBV WIM Records

CLASSIFICATION ACCURACY

FHWA, UK DFT, AUSTROADS, user definable

Motorbike	>95 %
Cars & Vans	>97 %
Cars & Vans + Trailer	>97 %
Rigid HGV	>98 %
Articulated HGV	>99 %
Draw-Bar Trailers	>99 %
Buses & Coaches	>97 %

INPUT/OUTPUT PORTS

USB2	Laptop
RS232	Modem
RS232	Printer, ANPR/CCTV Control
RS485	Data Transmission
Ethernet	10/100 Mb
Dry Contact	6 N.O.
Switch Inputs	2 (e.g. door tamper switches)

DIMENSIONS & WEIGHT

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

SHIPPING DIMENSIONS & WEIGHT

W – 550 mm D - 430 mm H – 260 mm
Weight: 9 kg

Specifications are subject to change without prior notice.