TDC TRAFFIC SYSTEMS

DESIGNERS & MANUFACTURERS OF TRAFFIC DATA COLLECTION, MONITORING AND ENFORCEMENT SYSTEMS

# HI-TRAC® TMU4

## HIGH-SPEED TRAFFIC WEIGH-IN-MOTION & CLASSIFICATION SYSTEM

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 4Gbytes 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.

## FEATURES

- Weigh-in-Motion (WIM) & 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
- 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)
- Automatic Number Plate Recognition (ANPR) and Camera interface

# HI-TRAC® TMU4

## HIGH-SPEED TRAFFIC WEIGH-IN-MOTION & CLASSIFICATION SYSTEM

## TECHNICAL INFORMATION

### ACCURACY DATA

| | |
|---|---|
| Gross Vehicle Weight | ±10% |
| Individual Axle Weight | ±15% |
| Group Axle Weight | ±15% |
| Traffic Volume | >99.5% |
| Length | ±8% |
| Headway | ±7% |
| Speed | ±1.5% |
| Speed Range | 1 - 200 kph |

### 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% |

### LANE CONFIGURATIONS

| | |
|---|---|
| Piezo-Loop-Piezo | WIM or AVC |
| Piezo-Piezo | WIM, AVC, Bicycles |

### VBV DATA RECORDED

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

### INPUT/OUTPUT PORTS

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

### STORAGE CAPACITY

256 Mb Flash Mass Storage Media Drive Upgradeable to 4Gb

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

### POWER

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

### ROAD INSTALLED ITEMS

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

### DIMENSIONS & WEIGHT

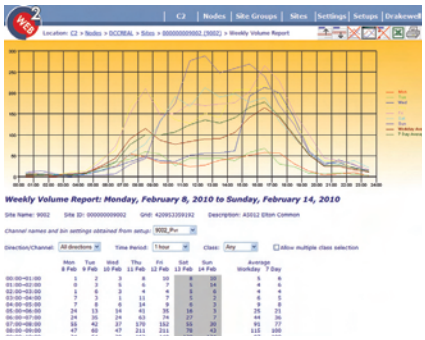
W - 430mm
(485mm with rack mount flanges
D - 280mm
(325mm with handles)
H - 180mm
7 kg

### SHIPPING DIMENSIONS & WEIGHT

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

## SOFTWARE

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

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