



# HI-TRAC® 100+

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

The HI-TRAC® 100+ high-speed traffic data collection system provides a low cost means of recording vehicle classification and axle load data without interruption to traffic flow.

In the standard configuration two piezo electric sensors and one inductive loop are installed in the highway per lane of detection.

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® 100+ can be interfaced to traffic signals or diversion signs to intercept overloaded vehicles and to ANPR or CCTV camera systems.

The HI-TRAC® 100+ uses TDC Systems advanced loop profiling techniques to improve vehicle classification accuracy.

Weight data is significantly improved with automatic temperature compensation algorithms.

“ The HI-TRAC® 100 system has been deployed on the UK Department for Transport (DfT) National Core ATDC and Weigh-in-Motion Census for the last 10 years. The DfT use the data from the HI-TRAC® systems to produce the UK National Transport Statistics.

Department for Transport (DfT) UK

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## FEATURES

- Weigh-in-Motion (WIM) & Automatic Vehicle Counter/Classifying (AVC) operation using advanced loop profiling techniques
- Classification of over 100 unique vehicle types as well as supporting UK DfT, FHWA, AUSTRROADS class schemes
- Vehicle-by-Vehicle (VBV) data storage
- Advanced temperature compensation algorithm ensuring accuracy of weight data
- High speed compressed vehicle data transmission at least 10,000 vehicles records per minute (typically 20,000)
- Eight Lane Operation
- Laptop (USB), Modern (RS232) Ports and Data (RS485) port
- GPRS, GSM Telemetry options
- Viewing of sensor waveforms for fault diagnosis via HI-COMM 100 software package
- Automatic Number Plate Recognition (ANPR) and CCTV camera interface
- Environmental and Air Pollution monitoring interfaces





# HI-TRAC<sup>®</sup> 100+

## 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

Note: Gross vehicle and axle weight accuracy with 90% confidence. Axle weight accuracy assumes road sensors installed in a surface compliant with COST 323 Class B(10) or ASTM E1318-02 specifications.

#### CLASSIFICATION ACCURACY

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

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
- Inter-axle Spacing
- Direction of Travel
- Site Identity Code
- Vehicle Length
- Vehicle Speed
- Lane Number
- Vehicle Class
- Validity Code
- Time & Date
- Vehicle Gap
- Wheelbase
- Headway

#### INPUT/OUTPUT PORTS

USB2	Laptop
RS232	Modem
RS232	Printer, ANPR/CCTV Control
RS485	Data Transmission
Dry Contact	6 N.O.
Switch Inputs	2 (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 100  
Solar Panel, Battery & Charge Regulator

#### ROAD INSTALLED ITEMS

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

#### DIMENSIONS & WEIGHT

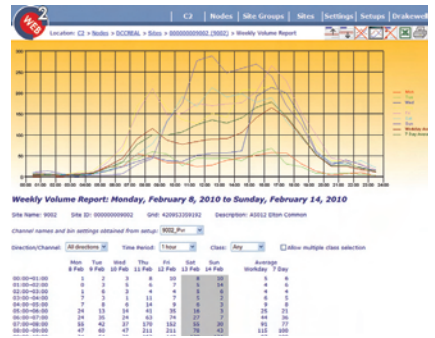
W - 430mm  
(485mm with rack mount flanges)  
D - 280mm  
(325mm with handles)  
H - 180mm  
7 kg

#### 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



Drakewell C2, C2 Web Reports



### CONTACT US

TDC Systems Ltd.  
30 Lynx Crescent  
Weston Industrial Estate  
Weston-super-Mare  
North Somerset  
BS24 9BP  
England  
United Kingdom

T: +44 (0)1934 644299  
F: + 44 (0)1934 644255  
E: sales@tdcsystems.co.uk

www.tdcsystems.co.uk