



## DMT Distance Measuring Trolley

*The Distance Measuring Trolley (DMT) designed and manufactured by Donfabs & Consillia Ltd is a simple yet revolutionary way of precisely measuring distance parameters on railways. The self-guiding and self-centering trolley provides a stable base for two precision tacho sensors to provide high accuracy positional information.*

*A battery pack is provided for long recording autonomy, a laser pointer to provide accurate start, stop and measurement references and a PC with integral software for real time data showing the distance and event information.*



### Features

- Portable and Robust
- Battery Powered
- Integral PC & Software
- Fully Braked Wheels
- Self Centering Frame
- Start, Stop, Event 1 & 2 Buttons
- Trolley Mounted Laser Pointer
- Export Results to Other Software

For more information, please contact the Railway Sales Department at Donfabs & Consillia

Email: [sales@consillia.com](mailto:sales@consillia.com)

### Operation

Simply unfold the lightweight, aluminium frame of the DMT and be on track within seconds. The integral software prompts the user at all times. Press the start button and push the DMT along the track. At any point Event 1 or Event 2 can be initiated and a time stamped note is added to the data file at that distance. When the destination is reached simply press the stop button. All data including left distance, right distance, average distance and event information is stored and available for use in other programmes.

### Customisation

Experience has shown that people have many different uses for this type of instrument so individual customisation is possible to suit differing requirements. Contact the Donfabs & Consillia Sales Team to discuss options.

### Measurement

Two high precision tacho systems with direction signals are used to provide information to an integral data logging system

### Braking

Both front wheels of the DMT have failsafe brakes linked to the push handle. When the handle is in the "Up" operating mode, the brakes are released. When the handle is "Down" the brakes are applied.

### Software

The DMT is supplied with a standard Windows application which allows operation, control and data collection of the distance information.

### Calibration

The DMT can be self calibrated by a simple procedure to ensure accuracy.

# Technical Specification

## Construction

Frame:	Aluminium Box Section & Sheet, Powder Coat RAL 1007 Yellow
Wheels:	Self Lubricating Nylon
Logger Enclosure:	Flame Resistant ABS
Battery Pack:	Nickel-Metal Hydride
Brakes:	2 x Front wheel applied, failsafe interlocked with push handle

## Measurements

2 x High Precision tachometers with directional signals

7 x Measurements comprising:

- 1 x Left Hand Wheel Tacho Counts - Converted to distance with a calibration factor
- 1 x Right Hand Wheel Tacho Counts - Converted to distance with a calibration factor
- 1 x Start Measurement, Button 1
- 1 x Stop Measurement, Button 2
- 1 x Event 1, Button 3
- 1 x Event 2, Button 4
- 1 x Average Distance, Track Centre (Calculated)

Total Measurement Distance: Limited to length of Battery Life

Measurement Resolution: 1mm

Measurement Accuracy: 0.1%

## Calibration

Calibration Mode: Software initiated, direct input of tachometer counts and calibration factor calculated

## Events and Control

Start and Stop Recording momentary push buttons, handle mounted providing distance log at start and end of test. Start event can be offset manually using input box.

Event 1 & Event 2 Momentary Push Buttons, handle mounted providing distance mark against event type

## Power

Self contained rechargeable batteries providing 4 hours continuous operation. Charging unit supplied as standard

## Data Logging

Fully integrated data logging system with high speed quadrature inputs for 2 x tachometer signals and digital inputs for event logging

## Software

Windows based application XP, Vista and Windows Seven, supplied fully installed. (License by software key)

## Environmental

Temperature Range: 0 Deg C to 50 Deg C

Humidity Range: 5 to 95% Non Condensing

Dimensions:	<b>Measurement Mode</b>	<b>Transportation Mode</b>
	Length = 1650mm	Length = 325mm
	Width = 1650mm	Width = 1650mm
	Height = 350mm	Height = 350mm

Weight: Frame: 17.6Kg, Battery Pack: 4.25Kg, Computer: 2.85Kg, Laser: 1.45Kg