

Vaisala Nu-Metrics Radar Traffic Analyzer TCR100



Overview

The Vaisala Nu-Metrics Radar Traffic Analyzer TCR100 meets the increasing demand for a reliable, non-intrusive traffic measuring device. Daily traffic volumes continue to increase making it more difficult and dangerous than ever to install traffic sensors in the roadway, or on top of the road surface. The TCR100 gives traffic engineers a solution for these concerns.

The TCR100 is easy to set-up on the roadside with a PDA (Palm) and does not disturb traffic flow. The sensor detects all passing vehicles in two directions, obtaining their length, speed and classification. Data is easily retrieved with either a PDA or wireless connection (GPRS or Bluetooth).

Benefits

- Non-intrusive technology allows you to analyze traffic without sensors in the roadway
- Easy roadside installation with pole-mounted set-up
- Does not disturb traffic flow
- Reduces safety risk to workers because there is no maintenance of embedded roadway sensors
- 12 volt battery can be recharged in as little as eight hours
- No tubes, loops, or chains

Features

- Non-intrusive radar classifier that provides high-resolution speed, count, and length classification
- Two lane detection - two direction capability
- Optional anti-theft bracket
- Can be integrated with Nu-Metrics® HDM (Highway Data Management) software
- Complete installation in under 30 minutes
- Rechargeable battery
- Solar power option
- Easy set-up using either a PDA (Palm) or wireless connection (GPRS or Bluetooth)

Technical data

General

Housing Material	Extruded/ anodized aluminum
Ultimate Bearing Strength	88,000 psi (607 MPa)
Dimensions	181 mm x 118 mm x 12.7 mm (7.125 in. x 4.625 in. x 0.5 in.)
Weight	1.3 lbs (0.59 kgs)
Electronic PCB	Conformal coated and water resistant
Roadway Occupancy	Percent occupancy over report interval
Count Period Frame Mode	1 to 120 min
Capacity and Memory	Up to 300,000 vehicles or 21 days per study (whichever occurs first)/ Micro Serial Flash 3mb
Data Program/Read Rate	115k-9600 baud RS-232 user selectable
Communication Link	Standard RS-232 USB adapter optional
Real-Time Clock	Yr, Mo, Day, Hr, Min, Sec
Operating Temperature	-30 °C to +75 °C (-22 °F to +167 °F)
Sensor	GMR magnetic chip for Vehicle Magnetic Imaging
Computed Values	Imperial or Metric

Performance

Battery/Power	Lithium Ion Rechargeable 3.0 - 4.20 Vdc, 3000 mAH at 23 °C Nominal voltage 3.70 vdc (Up to 21 days before recharge) Automatic overcharge protection Field replaceable by customer
Accuracy length classification	±4 ft, 90 % of the time
Accuracy speed classification	±4 mph, 90 % of the time
Accuracy vehicle count determination	±1 %; 95 % of the time
Dimensions	181 mm x 118 mm x 12.7 mm (7.125 in. x 4.625 in. x 0.5 in.)
Vehicle Detection	vehicles between 13 to 193 kph (8 & 120 mph)
CE Compliance	EN 55022:1998 Emissions EN 55024:1998 Immunity EN 60950:2002 Low Voltage

Applications

- Traffic studies
- Volume, speed, and classification studies
- Traffic impact or feasibility studies
- Stop signs, traffic lights, or posted speeds
- Road construction
- Temporary parking studies
- Mall developments
- Airports
- Military bases
- State parks or recreational areas



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For more information, visit
www.vaisala.com or contact
 us at sales@vaisala.com

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