

GROUNDHOG® G-8

WIRELESS TRAFFIC ANALYZER

GROUNDHOG G-8

OVERVIEW

The QTT Nu-Metrics Groundhog G-8 is a wireless, permanent traffic analyzer that collects data without any external sensors, loops or tubes. The Groundhog is a self-contained, in-pavement sensor that utilizes Vehicle Magnetic Imaging Technology to detect vehicle count, speed and classification. The unit reports wirelessly to a site controller alongside the roadway or a road weather station. The Groundhog features an easily removable lid, which allows for quick extraction of sensor components during road maintenance or sensor maintenance. The Groundhog battery pack has sufficient capacity for continuous operation for a period of two to four years without replacement.

The Groundhog provides accurate and essential data necessary for effective traffic analysis, control and management. When used with Nu-Metrics Wireless Data Management (WDM) software, historical data can easily be presented in the form of reports, charts and graphs.

FEATURES AND BENEFITS

- ▶ Provides vehicle count, speed and classification
- ▶ Detects roadway surface temperature and roadway wet / dry condition
- ▶ Wireless data transfer
- ▶ Easy-to-use WDM software
- ▶ Typical battery life 2 to 4 years
- ▶ Lower maintenance cost than traditional inductive loops

APPLICATIONS

- ▶ Highways and city streets and with free-flow conditions
- ▶ Parking lots, garages and shopping centers with free-flow conditions
- ▶ Bridges and toll booths
- ▶ Construction areas
- ▶ Airports, stadiums and casinos
- ▶ Military bases and border crossings
- ▶ Easily incorporates into incident management systems such as low visibility warnings, vehicle-in-median warnings, and variable message sign notifications
- ▶ Compatible with QTT Road Weather Information Systems (RWIS) and QTT IntelliZone® AdvanceWarn™ systems



**Groundhog
Permanent Traffic
Analyzer**

GROUNDHOG SPECIFICATIONS

CANISTER

- Dimensions ▶ 6.0 in (diameter) x 3.25 in (height) (152.4 mm x 82.6 mm)
- Weight ▶ 1 lb (454 g)
- Wall Thickness ▶ 0.6 in (15.2 mm)
- Core Drill Size ▶ 6.5 in (165.1 mm)
- Material ▶ Molybdenum Disulfide filled nylon thermoplastic
- Density ▶ 0.0473 lb/in³
- Lid / Housing ▶ 10 tpi
3.25 in (82.5 mm) bolt circle, 0.25 in (6.4 mm) diameter pins
Double-grooved, silicon o-ring construction
- Operating Temperature ▶ -40°F to +185°F (-40°C to +85°C)
- Humidity ▶ 0 to 100%
- Chemical Exposure ▶ Sodium chloride (NaCl), calcium chloride (CaCl₂), calcium magnesium acetate (CMA), magnesium chloride (MgCl₂), potassium acetate (KAc), etc.

ELECTRICAL

- Operating Voltage ▶ 3.0 V
- Protocol ▶ CEBUS EIA 600
- Battery Type ▶ Lithium thionyl chloride (-40°C to +85°C)
- Battery Configuration ▶ Heat-sealed, 4 D cell arrangement, 72 Ah capacity
- Battery Life ▶ Up to 5 years (typically 2 - 4 years, varying with AADT* and polling interval)

TRANSMITTER

- Frequency ▶ Frequency hopping: ISM 902 - 928 MHz or ISM 2.4000 - 2.4835 GHz
- Transfer Rate ▶ 10,000 bps
- Output Power ▶ 100 mW for ISM 902 - 928 MHz
50 mW for ISM 2.4000 - 2.4835 GHz
- Distance from Groundhog to LBU ▶ 300 ft (91.4 m) max

TRAFFIC

- Vehicle Count ▶ Binned, speed, length, daily and AADT*
- Vehicle Speed ▶ Binned; custom up to 12 bins
- Vehicle Length ▶ Binned; custom up to 6 bins
- Polling Intervals ▶ 5 - 120 minutes
- Occupancy ▶ 0 to 100%

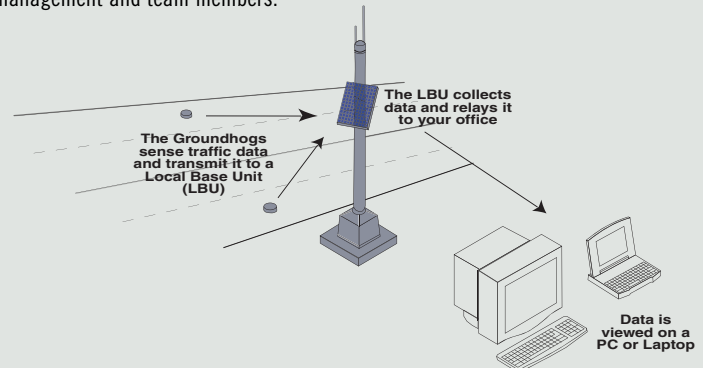
WEATHER

- Chemical Index ▶ 0 to 100% (passive detection)
- Road Surface ▶
- Temperature ▶ Fast-response thermistor type
- Operating Temperature Range ▶ -67°F to +185°F (-55°C to +85°C)
- Road Condition ▶ Wet / dry

*AADT denotes Average Annual Daily Total

PERMANENT COUNT STATION (PCS) APPLICATION

The Groundhog is frequently used in the Permanent Count Station (PCS) application. This system utilizes a network of wireless Groundhog sensors, which transmit data to a Local Base Unit (LBU) positioned alongside the roadway. The LBU relays the information to your computer for review. The system provides accurate data for traffic analysis, control and management. Additionally, with the use of WDM software, the data can be easily compiled and displayed for management and team members.



DISTRIBUTED BY:



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