



NiteStar®

Distance Measuring Instrument (DMI)

Overview

The NiteStar is a Distance Measuring Instrument (DMI) designed to accurately record distances and survey coordinates as you drive. The device records distances for logging points along a given route, and gives you linear distances with a high degree of accuracy. It is easy to use and displays measurements right in your vehicle. The NiteStar has endless uses when vehicle-obtained distances are needed.

The NiteStar is used in conjunction with a speed sensor mounted on the firewall or under the dashboard. This sensor transfers speed signals to the NiteStar for measurement and display.

Options to enhance usage of NiteStar include: Survey Data Management (SDM) software and a GPS receiver that records coordinates for surveying and mapping data. SDM software allows you to easily organize, view and report information collected during surveys. The optional GPS receiver provides latitude and longitude data, allowing you the ability to plot the data on GIS-based mapping software.

Benefits

- ▶ Convenient way to gather accurate distances
- ▶ Easy to install and use
- ▶ Measurements are displayed right in your vehicle
- ▶ Stores location data for later review or inventory

Applications

- ▶ Roadway or railway lengths
- ▶ Paint line or guardrail lengths
- ▶ Cable or pipeline lengths
- ▶ Pole or sign spacing
- ▶ Inventory of signs, guardrails, etc.
- ▶ Truck, bus or postal routes
- ▶ Material calculation for construction or repair
- ▶ E-911 address mapping
- ▶ Accident reconstruction
- ▶ Passing/no passing zones



Features

- ▶ Accurately measures distances at ± 1 foot per mile
- ▶ Converts distances to miles, feet or kilometers
- ▶ Capable of detecting bi-directional distance (up/down)
- ▶ Displays distance intervals between points of interest
- ▶ Extensive internal memory for storing data
- ▶ Optional power adapter cable to derive 12 VDC from the cigarette lighter or auxiliary power socket

Optional SDM Software

SDM software is designed specifically for use with the NiteStar, and allows you to easily organize, view and report information collected during surveys. Data is stored in a standard database for future processing or analysis. Features include:

- ▶ English and metric interfaces
- ▶ Inventory data and GPS coordinates stored in a single file
- ▶ Customizable key definitions for each user or application
- ▶ Remote control to operate the NiteStar

Key Specifications

Models	NS-50; NS-60
Power	9 to 16 VDC, negative ground 90 mA at 12 VDC (max)
Accuracy	± 1 foot per mile (± 0.19 meters per kilometer)
Speed Sensor	SS-10 speed sensor
GPS Receiver	WAAS enabled USB GPS receiver*
GPS Accuracy	± 2 meters
Resolution	1 foot (1 meter)
Display	Back lighted liquid crystal panel (3 brightness level adjustments and off), 6-digit distance (mi, ft, km), 4-digit interval distance, 3-digit speed (mph, kph, fps)
Indicators	Up/Down arrow, AEC, Code, Mark, Count Hold, Display Hold, Calibrate
Keypad	LED back lighted (3 brightness adjustments and off), 15 key, touch-tell silicon rubber
Speed	Displays vehicle speed 0 to 199 (mph, kph, fps)
Calibration	Four vehicle memory
Auto Distance Conversion	Feet, miles, kilometers
Pre-distance	Capable of starting at a known distance
Output Pulse	0 to 5 VDC (low going high)
Automatic Error Correction	Compensates for sensor error due to vehicle's dynamic motion
Material Calculation	Area, volume, tonnage, cost
Interval Counts	Elapsed distance from last mark, *begin/end accumulation
Memory	0 to 99 memory locations, *unlimited with laptop computer, *20 preset plain language events
Communications	*RS-232 in/out, selectable baud rate (300-600-1200-2400-4800-9600)
Input Channel	One 8-bit 0 to 5 VDC analog, one 0 to 5 VDC digital
Output Channel	One 0 to 5 VDC digital
Dimensions	7.5 inches x 2.25 inches x 0.88 inches (19 cm x 5.7 cm x 2.2 cm)
Operating Temperature	32°F to 158°F (0°C to 70°C)
Instrument Warranty	One year parts and labor, 90 days on install and sensor kit

*Available on model NS-60 only



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