COMPANY WITH QUALITY SYSTEM CERTIFIED BY DNV GL = ISO 9001 =

RTMS

RTMS SX-300 RADAR SENSOR

The non-intrusive, radar-based RTMS Sx-300 is an advanced sensor for the detection and measurement of traffic on roadways.

It is all-weather accurate and virtually maintenance free.
Best of all, Sx-300 is renowned for long-term worry-free reliability.
The RTMS Sx-300 is a small roadside pole mounted radar, operating in the microwave band. Simultaneously, the sensor provides per lane presence as well as volume, occupancy, speed and classification information in up to 12 user-defined detection zones. Output information is provided to existing controllers via contact closure and to other computing systems by serial or TCP/IP communication port. A single radar can replace multiple inductive loop detectors.

The Sx-300's all-in-one concept combines a high resolution radar and a variety of communications options all in a single enclosure. This sleek cabinet free detection station is simple to integrate into any system whether urban signal control or highway traffic management.

ABOVE GROUND TECHNOLOGY

- Safe for traffic engineers, who can stay safely by the side of the road during installation or to download the data, and for car and motorcycles, because the location of the equipment eliminates any possibility of damage with on-road equipment.
- Discreet: guaranteed to get accurate data, as drivers' behaviour is not influenced by the presence of visible sensors.

BENEFITS

- Fast, safe installation, on existing road-side poles, with no traffic disruptions.
- Compatible with all RTMS integrated solutions including detection station, counting, urban traffic control, event reporting and data collection.
- Highly flexible: suitable for any road and pole type, with various built-in communication options, including contact pairs and TCP/IP.
- Zero Setback TM feature means any pole is suitable
- Low power requirement allows low cost solar power operation.

FEATURES

- Provides presence indication and accurate measurements of volume, occupancy, speed and classification in up to 12 separate zones (lanes) up to 76 meters (250 feet) away.
- Fully programmable to support multiple applications using simple intuitive software on a Notebook PC.
- True-presence: detects stationary and fast moving vehicles; single or dual loop emulation.
- Reliable all-weather performance.
- Low life-cycle cost with no routine maintenance procedures and high reliability.
- Typical MTBF – 10 years or 90,000 hours.
- Easy to calibrate by fast, automatic set-up wizard.

APPLICATIONS

- Mid-block detection for intersections (advance detection).
- Freeway traffic management and incident detection.
- Traveller information and journey time prediction.
- Ramp metering.
- Queue detection.
- Work zone safety systems.
- Permanent and mobile traffic counting stations.
- Loop replacement (single or dual loop emulation.

SPECIFICATION

Average Coverage (Radar)

The Sx-300 detection field of view covers the area defined by:

- Elevation angle: 50 degrees
- Azimuth: 12 degrees
- Range: 0 to 76 m (0 to 250 ft)

Measurement Resolution

- Detection zones: up to 12 zones
- Detection range (increment)
  0.4 m (1.3 ft)
- Zone width: 2 to 7 m (7 - 20 ft)
- Time events: 1.3 msec

Frequency Bands

- K band, model Sx-300 operates at high resolution in the 24 GHz band
- Regulatory:
  FCC
  CE EN 60215, EN 301 489-1, EN 301 489-3,
  EN 300 440-1, EN 300 440-2, EN61000-4-4

Interface

- Single MS type connector provides communications and output signals.
- Data: volume, occupancy, speed, gap or headway, six vehicle classes, 85th percentile.
- 8MB built-in memory for data storage.
- Isolated configurable RS232/RS-485 port provides vehicle presence, per vehicle and statistical data.
- Bluetooth communication for setup, calibration and data access.

Configuration Options

- Base unit (as configured above)
- Option 1: Base unit plus second serial port (RS-232/422)
- Option 2: Base unit plus TCP/IP

*Note: Option 1 includes 8 optically isolated output pairs rated for 100mA and 24VDC for presence indication and dual-loop speed

Mechanical

- Unit is encased in a rugged, water-tight NEMA 4X & IP-67 polycarbonate enclosure.
- Universal mounting bracket mountable on any structure. Tilts on three axes and is lockable.
- Size: 21 x 21 x 16 cm (8 x 8 x 6 in)
- Weight: 1.5 kg (3.5 lbs)

Power

- Operates on 12 - 24 VAC or VDC
  3.6W max standard
  12W max with IP camera option
- EN 61000-4-5

Maintainability

- Ultra-reliable: MTBF (mean time between failures) designed for 90,000 hours (10 years)
- Self-test diagnostic software
- Quick replacement
- Firmware field upgradable

Environmental Conditions

- Temperature range: -40° to +74°C (-40° to 165°F)
- Wind: up to 190 km/hr (120 mph)
- IP 67 compliant

Warranty

- Five year warranty

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* Technical specifications subject to change without notice