

RTMS®

Sx-300E



The non-intrusive, radar-based RTMS Sx-300E 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-300E is renowned for long-term worry-free reliability.

The RTMS Sx-300E 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 4 user-defined detection zones. Output information is provided to other computing systems by serial port. A single radar can replace multiple inductive loop detectors.

The Sx-300E's all-in-one concept combines a high-resolution radar in a sleek cabinet free detection station that is simple to integrate into any system whether urban signal control or highway traffic management.

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, data collection
- Highly flexible: suitable for any road and pole type, with various built-in communication options
- Zero Setback™ 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 4 separate zones (lanes)
- Fully programmable to support multiple applications using simple intuitive software on a Notebook PC
- 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
- Work zone safety systems
- Permanent and mobile traffic counting stations



RTMS Sx-300E

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 4 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 ETSI EN 300 440-1, ETSI EN 300 440-2, ETSI EN 301 489-1, ETSI EN 301 489-3, ETSI EN 301 489-17
- Canadian CSA C108.8 - M1983

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

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
23 x 18 x 17 cm (9 x 7.25 x 6.75 in)
- Weight
1.02 kg (2.24 lbs) without mount

Power

- Operates on 12 - 24 VAC or VDC
3.6W max standard
- 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)
- NEMA TS2: 2003
- Wind
Up to 190 km/hr (120 mph)
- IP 67 compliant

Warranty

- Five-year warranty

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