



ImageSensing  
systems

ACCURATE, RELIABLE RADAR DETECTOR.



## RTMS Sx-300

The non-intrusive, radar-based RTMS Sx-300 is an advanced sensor that empowers smart decisions by accurately detecting and measuring 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 RTMS technology provides meaningful and reliable data that maximizes the full potential of existing infrastructure and optimizes the safety and efficiency of every city.

### KEY 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, including contact pairs and TCP/IP
- Zero Setback™ feature means any pole is suitable
- Low power requirement allows low cost solar power operation



# RTMS Sx-300

## 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 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

### 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  
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  
4.5W max @24 VAC or VDC for the SSP and TCP/IP options
- 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

- Three-year warranty



## CONTACTS

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Due to ISS' continuous efforts to develop the products that are most responsive to our customers needs, the above specifications are subject to change. To verify the current information, please visit the Image Sensing Systems website.

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