

PreView Sentry®X

Featuring a Narrow Field of View for Specialised Applications



Description

In 2016, PRECO released the PreView Sentry®, the first of its frequency modulated continuous wave radar sensors operating in the narrow band 24 GHz band. The Sentry® provides a wide 150 degree horizontal field of view with adjustable detection zone (range and width) making it a very effective blind spot monitoring sensor; however, the wide field of view does not allow the Sentry to be installed in certain applications such as at the center of the rear axle on large haul trucks – the sensor will detect the wheels on either side. Enter the PreView Sentry®X. Using the Sentry® platform, PRECO has created a product with a narrower field of view designed to support all the same installation points as the original PreView Xtreme. The Sentry®X adds a narrow field of view option to PRECO's latest product family – the global standard for blind spot monitoring on heavy duty mobile equipment operating in the harshest of environments.

Features and Benefits

- Frequency: 24Ghz
- **Azimuth Field of View: ±45° (10 dBsm target)**
- Protection Rating: IP69K
- Programmable Detection Range: 0' to 100' (0 m to 30 m)
- Detection Pattern: Configurable | Set based on model
- Current Draw: Less than 0.25 AMP
- Operating Temp: -40 F/ +185 F (-40 C to +85 C)
- Sensor Dimensions: 4.9"H x 4.06"W x 1.28"D
- Utilizes standard J1939 CAN communication protocols
- Qualified for use globally including Japan and India



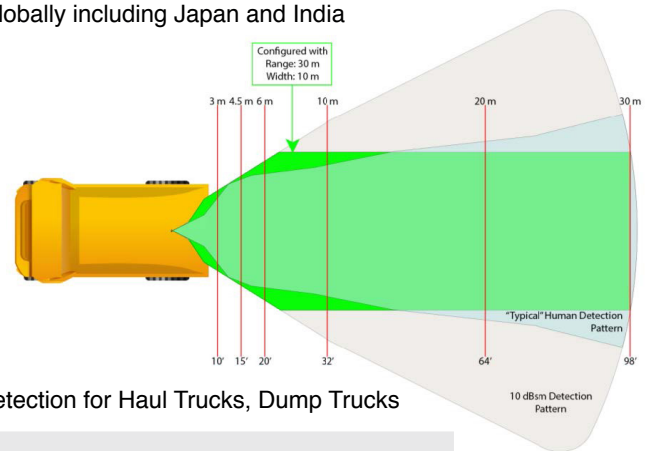
Tech Specs

Measuring Performance

Range	0 - 100 ft / 0 - 30 m (10 dBsm target) - Depending on configured detection
Range Accuracy	±1 ft (0.3 m)
Azimuth Field of View	±45° (10 dBsm target)
Elevation Field of View	±10° (10 dBsm target)
Angle Accuracy	±2° at ±10° FOV ±5° at ±30°FOV ±10° at ±40° FOV
Velocity Range	±20 mph (±9 m/sec)
Target Resolution	4.5 ft (1.4 m) for static targets approaching 1 ft (0.3 m) for dynamic targets
Cycle Time	120 ms (A CAN bus target message is provided in every cycle.)
Water Tightness	IP 68 - IP 69K
Operating Temp	-40°C to +60°C
Salt Spray	ISO 9227
Housing	Plastic Aluminum
Lens	Hardened glass
Reflector	Free from reflector
Warranty	5 Years

Operating Conditions

Frequency	24.05 - 24.25 GHz
Power Supply	9 - 33 VDC Reverse polarity and over-voltage protected
Current	<0.5 A
Operating Temperature	-40°C to +85°C
Storage Temperature	-55°C to +105°C
Shock	50G
Vibration	25G random all three axis
Protection Rating	IP69K



Applications

Heavy-duty object detection for Haul Trucks, Dump Trucks

Operating Modes

Detection Pattern	Configurable set based on model
Target Detection Time	240 ms
Power On to Active	240 ms

Communications Interface

J1939 CAN Bus	250 or 500 Kbits/second
Alarm Output	Switch to ground sink up to 1A Over current protected Inactive State - High Impedance
Data Update Rate	80 ms

Physical Characteristics

Sealing	IP69K
Housing Material	Polycarbonate radome
Dimensions	4.90" W x 4.06" H x 1.28" D (12.4 cm W x 10.3 cm H x 3.25 cm D)
Weight	1.0 lb (0.45 kg)
Mounting	Unit supplied with mounting hardware and can be mounted directly on equipment or by using an optional mounting bracket



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