

7000-300

FORWARD SCATTER VISIBILITY SENSOR

Applications

- RVR for aviation applications
- Highways
- Ships, Ports
- Oilrigs
- Co-located with 5000-200 Transmissometer

Features

- Class leading 6m– 80km range.
- Proven 42-degree forward scatter angle.
- Flexible output options.
- Ice-resistant “look-down” geometry.
- Compact, lightweight package.
- Simple installation & maintenance.

Description

Measures atmospheric visibility, also known as meteorological optical range (MOR) by determining the amount of light scattered by particles (smoke, dust, haze, fog, rain, & snow) in the air that passes through the optical sample volume.

A 42-degree forward scatter angle is used to ensure performance over a wide range of particle sizes. MOR is calculated by the user by converting the received signal strength (extinction coefficient, s) using Koschmeider's formula, where $MOR (Km) = 3/s$.

Performance in all weather conditions was a design prerequisite for the 7000-300. An integrated, one-piece housing design keeps all cabling internal to the sensor for the ultimate protection against the elements. Based on the proven experience of the NWS and FAA, the sensor uses a "look down" geometry to reduce window contamination and clogging from blowing snow.

The windows use continuous duty anti-dew heaters and thermostatically controlled external hood heaters are offered for protection in extreme environments. All power and signal lines to the 700-300 are protected with surge and EMI filtering to help guarantee uninterrupted service for the life of the sensor.

Installation and maintenance effort is minimal for the 7000-300. Power and signal connections are made through waterproof cable glands to terminal boards in the Signal Processing Box.



7000-300 Forward Scatter Visibility Sensor

Specifications

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Range:	6m to 80km Visibility Range (MOR)
Accuracy:	+/- 10%
Output Averaging:	0, 30, 60, 300, 600 Seconds (Configurable)
Update Interval:	10, 30, 60 Seconds (Configurable)
Scatter Angle:	42 deg nominal
Source:	Infrared LED
DC Version:	100-240 VAC, 14 VA; 70 VA w/ Hood
Heaters:	Hood Heaters 12 Watts Additional
Temperature:	-40 to 55 C
Humidity:	0-100%
Protection:	IP66 (NEMA-4X)
Dimensions:	1440 mm W x 350 mm H x 380 mm D
Weight:	8.75 kg (18 lb)
Mounting:	2 x U-Bolts
Relays:	RS232 , 300 to 38,400 baud, SPDT Relay

Options

Options	
CALKIT	Visibility Sensor Calibration Kit

MTECH Systems Pty Ltd
15 Kevlar Close, Braeside, Victoria, Australia 3195
Email: sales@mtechsystems.com
<http://www.mtechsystems.com>