



OWI-432 DSP WIVIS™ Present Weather and Visibility Sensor



OWI-432™ Advantages

- Combines present weather identification, precipitation, and visibility measurement.
- Intelligent algorithms based on over 100 million hours of OSi sensor field data
- Reports over 50 NWS / WMO codes
- Supports add-on sensors
- Unaffected by dust or buildup on lenses
- No field calibration required
- Virtually no maintenance required
- Built-in self diagnostics & testing

The OWI-432 Present Weather Sensor optically measures precipitation induced scintillation and extinction coefficient and applies algorithms to automatically determine the precipitation type, precipitation rate, and visibility. The OWI-432 is vastly superior to traditional sensors and delivers the reliability and proven performance you need!

OWI-432 delivers accurate measurement of precipitation in all weather conditions. Equipped with a dual measurement system, the WIVIS can use both the precipitation and visibility information for a more robust algorithm to optimize performance. Designed for rugged, unattended operation, more than 1,000 WIVIS have been field proven in adverse environments in North America, Europe, the Far East, and even Antarctica. As of 2005, OSi has accumulated more than 100 million hours of field experience with optical precipitation and visibility sensors!

OWI-432 is more than a sensor. With add-on sensors, it can be expanded to a whole system!

OWI-432 Can handle add-on sensors!

OWI -432 is equipped with added data processing capacity: 4 analog channels and a secondary serial communication port are available through the auxiliary connector.



You can add:

Meteorological temperature and humidity probes

- Digital and analog wind sensors
- Cloud height sensors (ceilometers)
- Digital and analog barometric pressure sensors
- Other analog or digital sensors

Simply connect the additional sensor(s) to the auxiliary connector. The data is processed and integrated into the output data.



Temp/Humidity



Wind Speed/Direction



Cloud Height



Barometric Pressure

Common options shown – alternate sensors are available

Contact OSi Weather Sales for the configuration that fits your requirements:

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OWI-432™ Present Weather Sensor Specifications

| Performance Specification | |
|---|--|
| Data Reporting Update Rate | 1 minute |
| Present Weather Codes Reported | More than 50 NWS and WMO codes |
| Present Weather Type Identification | Rain, snow, drizzle, mixed, hail and ice pellets* |
| Snow / Rain Accumulation | .001 to 999.999 mm |
| Snow / Rain Measurement Resolution | 0.001 mm |
| Rain Dynamic Range | 0.001 to 3000 mm/hr |
| Rain Measurement Accuracy | 5% accumulation |
| Snow Dynamic Range | 0.001 to 300 mm/hr |
| Snow Measurement Accuracy | 10% accumulation |
| Hail / Ice Pellet Reporting Accuracy | Correct ID better than 90% of time* |
| Visibility / RVR Dynamic Range | 0.001 to 10+ km (metric and ANSI units available for all ranges) 0.001 to 30+ km (extended range option 1) 0.001 to 50+ km (extended range option 2) |
| Visibility / RVR Accuracy | 10% to 10 km, 15% to 20+ km, 20% to 30+ km |
| Visibility / RVR Time Constant | 3 minute harmonic |
| Visibility / RVR Contrast Threshold | 5% |
| Ambient Light Dynamic Measurement Range | 0 to 9,990 candles / m ² |

| Electronic Specifications | |
|---------------------------|--|
| Power Requirements | 11-18 VDC, 3 A |
| Transient Protection | All power & signal lines fully protected |
| Signal Output | RS-232 ASCII, simple polled protocol |

| Environmental Specification | |
|-----------------------------|---|
| Temperature | -40° to 122° F (-40° to 50° C) |
| Humidity | 0 to 100%, Condensing |
| Wind Speed | 125 knots |
| Icing | 0.5" / hr – Heaters protect all optics |
| Precipitation / Dust | NEMA 4 type protection (Powder-coated aluminum) |

| Physical Specification | |
|-------------------------|---|
| DSP-WIVIS Sensor Size | 35 x 5 x 11 inches (890 x 130 x 280 mm) |
| DSP-WIVIS Sensor Weight | 10 lbs. (4.5 kg) |
| Cable Length | 25 ft. (7.7 meter) |

Specifications are subject to change without notice.



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