



# OWI-650 Low Power LP-AWS<sup>®</sup> Portable Automated Weather Station



The LP-AWS<sup>®</sup> is an advanced, portable, **Low Power Automated Weather Station** built around the OWI-650 **Low Power Weather Identifier and Visibility Sensor** (LP-WIVIS<sup>®</sup>). The low power requirements of the OWI-650 make it well suited for portable battery and solar powered applications. The system has been designed from the ground up for fast setup anywhere.

The OWI-650 measures visibility and detects rain, snow, drizzle, freezing and mixed precipitation conditions. The OWI-650 is more than just a sensor. It is a system. No separate data acquisition system is required to add optional meteorological sensors. Implementing a portable automated weather station with weather identification and visibility sensor capability has never been easier or as cost effective.

## LP-AWS<sup>®</sup> Advantages

- Easy installation
- Portable system which reports present weather and visibility
- Intelligent algorithms based on over 200 million hours of OSi sensor field data
- Solar, Battery or AC Powered
- Small size, light weight, rugged design
- Other sensors easily added
- Data radio options available
- Separate data acquisition system not required
- Design for unattended operation
- Virtually no maintenance required
- Built-in self diagnostics & testing

The fully automated OWI-650 provides accurate visibility, present weather and precipitation measurements. Typical systems include other optional meteorological sensors including wind, pressure, and temperature/ humidity sensors.

OSi's patented environmentally adaptive weather identification algorithms use artificial-intelligence technology derived from over 25 years experience and over 200 million field hours of real-world data from OSi sensors installed around the world. The result is the most advanced / easily deployable Automated Weather Station with optical weather identifier and visibility sensor available.

## LP-AWS<sup>®</sup> Ordering Information:

- Model no: OWI-650-DR (DC powered, RS-232 serial I/O – specify Metric or ANSI)

## LP-AWS<sup>®</sup> Accessories:

- **Optional Sensors Contact OSi**
- PSB-650 AC-powered junction box
- PSB-650S Power Junction Box with Solar Kit
- PSB-650B Power Junction Box with Rechargeable Battery
- TRI-650 AWS Tripod
- Data Radio Contact OSi
- QCS-650 QwikCollect™ software

# OWI-650 LP-WIVIS<sup>®</sup> Specifications

Performance Specification	
Measurement Technique	Scintillation with optical forward scatter and optional acoustic*
Data Reporting Update Rate	1 minute
Present Weather Codes Reported	More than 50 NWS and WMO codes
Present Weather Type Identification	Rain, freezing rain, snow, freezing drizzle, mist, mixed, fog, haze, clear
Snow / Rain Accumulation	.001 to 999.999 mm
Snow / Rain Measurement Resolution	0.001 mm
Rain Dynamic Range	0.1 to 3000 mm/hr
Rain Measurement Accuracy	5% accumulation
Snow Dynamic Range	0.01 to 300 mm/hr
Snow Measurement Accuracy	10% accumulation
Visibility / RVR Dynamic Range (metric and ANSI units & extended ranges available)	0.01 to 10+ km 0.001 to 7.1 miles
Visibility Contrast Threshold	5%
Ambient Light Dynamic Measurement Range	0 to 9,990 candles / m <sup>2</sup>

Electronic Specification	
Power Requirements	
Electronics	3.6 vdc @ 375 mA
Heaters	12 vdc @ 600 mA
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%
Precipitation / Dust	NEMA 4 type protection

Physical Specification	
DSP-WIVIS Sensor Size	21 x 8 x 4 inches (53 x 20 x 10 cm)
DSP-WIVIS Sensor Weight	4.25 lbs. (1.9 kg)
Cable Length	12 ft. (3.7 meter)

Specifications are subject to change without notice.

 <p>Optical Scientific Inc.</p>	<p><b>2 Metropolitan Court, Suite 6 Gaithersburg, MD 20878 USA</b>  <b>Ph. 301-963-3630</b>  <b>Fax 301-948-4674</b>  <b>website: <a href="http://www.opticalscientific.com">www.opticalscientific.com</a></b>  <b>email: <a href="mailto:sales@opticalscientific.com">sales@opticalscientific.com</a></b></p>
--	--

*For the world's best performing and most reliable advanced optical instruments, please contact OSi today!*

