ORG® Optical Rain Gauge ORG-815

OSi's ORG® (Optical Rain Gauge) is a superior tool for rain measurement. The ORG® is the only instrument available to measure true rain rate. This means you avoid the reading errors due to mechanical limitations, which plague other low-tech gauges. No other rain sensor comes close to the ORG® in performance and features. Our scintillation technology has undisputed advantages over the competition.

From Antarctica to Saudi Arabia and from Switzerland to Australia, users worldwide rely upon OSi sensors. Our instruments can be found working for airports, transportation authorities (such as state DOT's), businesses, municipalities, universities, research institutions, military, and other government agencies. Our customers include the NWS, FAA, MIT, NASA, USAF, and USGS. If your weather measurement needs involve hydrological profiling, research, or synoptic observation, OSi's sensors will do the job.

OSi's scintillation technology is the best method for optical measurement of rain. Falling rain causes beam intensity variations in the infrared light as it passes through the beam. These irregularities, known as scintillation, have characteristic patterns, which are detected by the sensor and converted to rain rate.

ORG® has a very tough, lightweight frame, which can withstand the rigors of the weather. Lens heaters keep the optical path clear of dew or condensation. The enclosure is rated NEMA-4 (IP 66). The instrument is easily installed using our U-bolt configuration to a vertical pole or horizontal bar. (No special mounting pole required.) ORG® reports rain rate in mm/hr. The output format is a common ASCII delimited data string, which is easily handled by a PC or Data Collection System.

ORG® Advantages

- **Superior Technology:** ORG® uses Optical Scintillation which is superior to other methods; measures true rain rate
- **Long-term reliability:** operates unattended 24 hours/day, 7 days/week
- **Low maintenance**
- **Extremely wide dynamic range**
- **Adaptive Heater Technology (AHT):** ideal for solar operation.
- **Data access:** Low cost cellular modem option
- **Self diagnostics & Testing:** continuously monitors performance and informs user of trouble

ORG® Reports:

Rain rate in Metric units (mm/hr)
Rain accumulation in Metric units (mm)

ORG® Accessories:

Cellular modem option

Solar Power Optional, consult factory

QCS-815 Qwik Collect Software: Collects, displays, archives data (compatible w/ all Windows systems)

PSB-815-U Power Supply Box for the ORG®

LDM Limited Distance Modem: for distances > 100 ft. (max = 7 miles).

ORG® Ordering Information:

Part number: ORG-815-DS

ORG® is not designed for snow detection. For snow, use our APG-815, OWI-430, or OWI-650. Contact OSi for details.

Optical Scientific Inc.

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OSi's optical sensors have more than 800 million hours of proven field operation in all climates. MTBF (Mean Time Between Failure) for OSi instruments is 80,000 hours. The ORG® operates unattended 24 hours a day, 7 days a week. The instrument uses proprietary algorithms that eliminate the need for field calibration. Most users will need no field calibration; factory calibration every few years can be done for critical customers. The ORG® has AGC (Automatic Gain Control) to compensate for signal loss. The sensor also employs a comprehensive self-test that updates once per minute and reports any potential problems in the output message.

No other precipitation sensors provide this powerful combination of high technology and proven reliability!

ORG® Specifications

Performance Specification	
Rain Dynamic Range	0.001 to 500 mm/hr
Rain Accumulation	0.001 to 999.999 mm
Rain Accuracy	5% Accumulation
Rain Resolution	0.001 mm
Measurement Technique	Scintillation
Output Format	RS-232 Serial I/O, simple polled protocol

Electronic Specification	
Supply voltage	12 VDC
Fusing	User-supplied 1.0 a Slow Blow
Signal Output	RS-232 ASCII
Transient Protection	All power & signal cables protected

Environmental Specification	
Temperature	-40° to 60° C (-40° to 140° F)
Humidity	0-100%
Precipitation / Dust	NEMA 4 type protection

Physical Specification	
Head Size	730 x 102 x 254 mm (29 x 4 x 10 inches)
Head Weight	3 kg (6.6 lbs.)
Cable Length	15m (48 ft)

*Specifications are subject to change without notice

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For the most reliable and best performing precipitation instruments, please contact OSi today!

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