



allweatherinc

Present Weather and Visibility Model 6497



OVERVIEW

The Model 6497 is the most advanced present weather and visibility sensor ever made. The fully automated instrument provides accurate visibility, present weather and precipitation measurement in a single sensor. This next generation intelligent sensor uses all digital signal processing (DSP) for no-drift high-accuracy results.

The DSP-WIVISTM measures visibility and detects and quantifies rain, snow, drizzle, freezing and mixed precipitation conditions. The sensor is designed for year-round continuous operation in all climates from Antarctica to tropical rain forests.

ADVANTAGES

- Combines present weather identification, precipitation measurement and visibility into a single rugged package
- Outstanding performance yet low cost
- DSP based – no field calibration required
- Advanced scintillation technology
- Intelligent algorithms based on over 100 million hours of OSi sensor field data
- Rugged design – field proven from tropical to sub-arctic environments
- Easy Installation and integration
- Long-term reliability – designed for unattended operation 24/7/365
- Unaffected by dust or buildup on lenses
- Reports over 50 NWS / WMO codes
- Virtually no maintenance required
- Built-in self diagnostics & testing

SENSORS

SPECIFICATIONS

PERFORMANCE SPECIFICATIONS	
Measurement Technique	Scintillation with optical forward scatter
Data Reproting Update Rate	1 Minute
Present Weather Codes Reported	Mor than 50 NWS and WMO codes
Present Weather Type Identification	Rain, Snow, Drizzle, & Mixed
Snow / Rain Accumulation	0.001 to 999.999 mm
Snow /Rain Measurement Resolution	0.001 mm
Rain Dynamic Range	0.01 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	0.001 to 10+ km (metric & ANSI units, & extended range up to 50 km)
Visibility / RVR Accuracy	10% to 5 km, 15% to 10+ 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 SPECIFICATION	
Power Requirements	10-18 VDC, 2 A nominal
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	1 to 100%
Precipitation / Dust	NEMA 4 type protection

DIMENSIONS & WEIGHTS

PHYSICAL SPECIFICATION	
Sensor Size	35 x 5 x 11 inches (890 x 130 x 280 mm)
Sensor Weight	10 lbs. (4.5 kg)
Cable Length	25 ft. (7.7 meters)

ORDERING INFORMATION

PART NUMBER	DESCRIPTION
6497	Present Weather/Visibility Sensor



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