



Present Weather Sensor Model 6490



Overview

The Model 6490 Present Weather Sensor optically measures precipitation induced scintillation and applies algorithms to automatically determine the precipitation occurrence, type, and rate. This sensor is vastly superior to traditional type sensors, and offers the reliability and proven performance you need.

The Model 6490 measures precipitation by detecting the optical irregularities - known as scintillations - induced by particles falling through a beam of partially coherent infrared light (in the sample volume).

By detecting the intensity of the scintillations characteristic of precipitation, the precipitation rate is determined, allowing it to be used as a precipitation accumulation sensor.

By analyzing the frequency spectrum of the induced scintillation, the precipitation type is determined.

Options

The Model 6490 Present Weather Sensor also offers several features that can be customized to fit a specific need. These features include...

- NWS or WMO weather code formats
- English or metric units of measure
- Past data (15 min and 60 min)
- Automated Calibration

The Sensor can be further customized by adding an optional Hail and Ice Pellet Sensor (HIPS). With a HIPS unit, precipitation is measured using the sensor head "in-beam" optics.

An optional rechargeable backup battery kit (housed in the Model 1190 DCP) is available to power the sensor in the event of AC power failure.

Precipitation types:

- Drizzle
- Rain
- Snow
- Precipitation
- Freezing Rain
- Freezing Drizzle

Reliability

All Weather Inc.'s Model 6490 precipitation sensor provides accurate measurement of precipitation in all weather conditions. Designed for rugged, unattended operation, these sensors have been field-proved in adverse environments around the world in locations such as Antarctica, Europe, the Far East, and North America.

The Model 6490 is Federal Aviation Administration (FAA) certified, meeting the most current regulatory requirements.

SENSORS

SPECIFICATIONS

Parameter	Specification
Present Weather Codes Reported	>50 NWS and WMO codes
Rain Dynamic Range	0.1 to 3000 mm/h
Rain Resolution	0.001 mm
Rain Accumulation	0.1 to 999.999 mm
Rain Accumulation Accuracy	5%
Snow Dynamic Range	0.01 to 300 mm/hwater equivalent
Snow Resolution	0.001 mm
Snow Accumulation Accuracy	10%
Temperature	-40°C to +50°C
Relative Humidity	0–100%, condensing
Enclosure	NEMA 4X 100/110/220/230 V
Power Supply	AC, 50/60 Hz, 50 V·A

ORDERING INFORMATION

Part Number	Description
6490	Present Weather Sensor
M488173-01	Hardware Mounting Kit
M105655-00	Deck Mounting Pole
11903	Battery Back-up (Domestic Systems Only)

DIMENSIONS & WEIGHTS

Size (Sensor Head)	4.53" x 9.06" x 28.74" (115 x 230 x 730 mm)
Size (Electronics Enclosure)	8.27" x 12.01" x 18.31" (210 x 305 x 465 mm)
Weight (Sensor Head)	8.82 lbs (4 kg)
Weight (Electronics Enclosure)	22.05 lbs (10 kg)
Shipping Dimensions	Box 1: 20" x 19" x 13" (508 x 483 x 330 mm) Box 2: 33" x 15" x 9" (838 x 381 x 229 mm)
Shipping Weight	Box 1: 24 lbs (10.89 kg) Box 2: 11 lbs (4.99 kg)



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