



Present Weather & Visibility Model 6498



- High Performance
- Cost Effective
- Accurate
- Low Maintenance

OVERVIEW

The Model 6498 is an infrared forward scatter visibility and present weather sensor that can be used in stand alone applications, or with an automated weather station. The economical design, precise data, and power saving features make the 6498 ideal for most applications.

Accuracy by Design

The Model 6498 applies well established forward scatter technology for visibility measurement, utilising a 42° scatter angle to obtain the most accurate estimates of Meteorological Observable Range (MOR) for fog and snow. It identifies precipitation particles from their scattering properties and fall speeds, and combines this with a temperature measurement to identify the weather type. The Model 6498's downward pointing optics reduce the risk of

contamination and blockage from snow build-up while also minimizing the risk that flow distortion or heat will cause interference between the sample volume and the sensor.

The Model 6498 provides reliable present weather information in the form of SYNOP codes, including information on the intensity of precipitation. Accumulation can also be reported.

This cutting edge sensor uses continuous high speed sampling to reduce errors during mixed weather events and events that return intermittent signals such as rain and hail, while still providing reliable readings during more stable events such as fog and mist. The Model 6498 has high immunity to interference from the visible and infra-red warning lights used to mark obstructions such as wind turbines.

The sensor can be set to a lower sampling frequency to save power, if required. The Model 6498 incorporates low power dew prevention heaters as well as higher power anti-icing heaters for the hoods as standard. These heaters are automatically controlled to ensure operation in all weather or can be disabled to save power. The Model 6498 continuously monitors its own status and will report internal faults and contamination or blockage of the sensor lenses. It also has two user configurable alarm outputs which can be used to drive audio or visual alarms.

Temperature and relative humidity sensors can be fitted to the Model 6498, providing improved performance in identifying precipitation, and allowing relative humidity information to be transmitted.

SENSORS

SPECIFICATIONS

Parameter	Specification
Measuring Range	10 – 75,000 meters
Rain Rate	0 – 999 mm/h
SYNOP Code	As per WMO Table 4680
METAR Code	As per WMO Table 4678
Visibility Accuracy	±10%
Visibility Resolution	1 meter
Rain Resolution	0.05 mm/h
Detection Treshold	0.02 mm/h
Temperature Range	-40 to +80°C
Operating Temp.	-40 to +70°C
Operating Winds	max. 60 m/s
Relative Humidity	0 – 100%
Address Range	0 – 9
Communications	RS-232/RS-485
Protocol Mode	Polled or Auto Output
Enclosure	NEMA 4X (IP66)
Power Supply	115/230 V AC, 50/60 Hz, 50 V•A
Mounting	Head mounts to 2.5" pipe (2.875" O.D.)

ORDERING INFORMATION

Part Number	Description
6498	Present Weather and Visibility Sensor
M442089-00	10 A 250 V, 5x20 mm slow blow fuse
M438130-00	Backup Battery
M482254-00	Calibration Disk with Calibration Bungs
M403326-01	Day/Night Sensor Kit
M482243-00	Sensor Head
M488594-00	Maintenance Module Kit
M488600-00	Background Luminance Sensor Kit

DIMENSIONS & WEIGHTS

Dimensions	447 mm (H) 640 mm (W) 245 mm (D)
Weight	3 kg
Shipping Weight	18 kg (40 lb)



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