CAMPBELL SCIENTIFIC
WHEN MEASUREMENTS MATTER

CS125

Present Weather and Visibility Sensor

Unrivaled Performance

Ideal for transportation applications

Overview

The CS125 is an infrared forward-scatter visibility and present weather sensor for stand-alone use or with automatic weather stations including those for road, marine, and airport applications. The CS125 has an attached 5 m (16.4 ft) cable and DB9 connector.

Benefits and Features

- High performance sensor at a competitive price
- Sensor design minimizes airflow disruption at measurement volume
- Simple field calibration using optional calibration kit
- Low power - suitable for remote application
- Automatic status check for faults or window contamination
- Incorporates automatic dew and hood heaters for all-weather operation

Specifications

Operational

Maximum Reported Visibility	75 km (46.6 mi)
Minimum Reported Visibility	5 m (16.4 ft)
Resolution	1 m (3.28 ft)
Outputs	Present and past weather: identifies as standard mist, fog, drizzle, freezing drizzle, drizzle and snow, rain, freezing rain, rain and drizzle, rain and snow, and snow. 56 SYNOP present weather codes and associated METAR and NWS present weather codes - hail detection option; past weather code option.
Accuracy	›› ±8% (up to 600 m [1968.5 ft]) ›› ±10% (600 to 10,000 m [1968.5 to 32,808.4 ft]) ›› ±15% (10,000 to 15,000 m [32,808.4 to 49,212.6 ft]) ›› ±20% (above 15,000 m [49,212.6 ft])
Precipitation Detection Sensitivity	0.05 mm/h

For comprehensive details, visit: **www.campbellsci.com.au/cs125**

Accumulation Reporting Range	0 to 999.9 mm (0 to 39.37 in.)
Accumulation Accuracy	20%
Accumulation Resolution	0.1 mm (0.0039 in.)
Rain Intensity Range	0 to 999.9 mm (0 to 39.37 in.)
Intensity Accuracy	20%
Intensity Resolution	0.1 mm (0.0039 in.)
Operating Temperature Range	-25° to +60°C (standard)
Extended Operating Temperature Range	-40° to +70°C (This extended version is available as a special. Contact Campbell Scientific for more information.)
Operating Humidity	0 . . . 100%
Operating Wind Speed	Up to 60 m/s
Sensor Sealing	Rated to IP66
Total Unit Power	Less than 3 W while sampling continuously (including dew heaters)

Mechanical

Material	Stainless steel and hard-anodized aluminum powder-coated
Mountings	Stainless-steel clip on V-bolt mounting to pole with diameter of 32 to 52.5 mm (1.26 to 2.07 in.)
Mounting Pole	An optical mounting pole is available to place the sample volume at 1.5 m (4.9 ft), as recommended by the WMO.
Frangible Mast	Frangible masts are available to customer requirements to meet ICAO recommendations (typically placing the sample volume at 2.5 m [8.2 ft]).
Sensor Dimensions	540 x 640 x 246 mm (21.26 x 25.2 x 9.7 in.) including mount
Sensor Weight	~3 kg (6.61 lb) dependent upon mounting system

Electrical

-NOTE-	*Lower power states can be achieved by less frequent sampling and remote control of heaters.* *Optional power supplies with battery backup available.* *Connectors in place of flying leads are available.* *A low-voltage shutdown level can be set to prevent backup batteries from being damaged.*
Electronics Supply Voltage	7 to 30 Vdc
Hood Heater Supply Voltage	24 V (dc or ac)
Hood Heater Power	2 x 30 W (total of 60 W)
Dew Heater Power	2 x 0.6 W (total of 1.2 W)

Interface

Serial Interface	RS-232 or RS-485
Serial Data Rates	1200 to 115,200 bps (38,400 bps default rate)
Alarm Outputs	2 x 0 to 5 V outputs, 32 mA (max)

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