

# MWS<sup>®</sup>-C400

## Micro Weather Sensor

### The Professional-Grade, All-In-One Weather Sensor

#### Key Features

- Wireless Weather Sensing in an Elegant, Compact Package
- No Extra Equipment Needed
- Easy 60-Second Installation
- Autonomous Operations
- Two Expansion Ports
- Portable and Rugged
- Three Communication Options Available

#### Weather Data Reported

- Temperature
- Barometric Pressure
- Altimeter Setting
- Relative Humidity
- Wind Speed
- Peak Wind Speed
- Wind Direction
- Compass Reading
- Precipitation Amount
- Lightning Distance
- Lightning Frequency

#### Other Data Reported

- GPS Longitude and Latitude
- GPS Elevation
- Compass Orientation
- Angular Tilt

#### Patents

D734,182 | D796,353 | D796,972

9,784,887 | 10,429,546



The MWS<sup>®</sup>-C400 is a lightweight, wireless, all-in-one Micro Weather Sensor that precisely and reliably delivers meteorological data. As a completely wireless unattended ground sensor (UGS), this latest innovation in weather sensing technology from Intellisense Systems combines cloud-based data logging, communications, and a solar power system with a rechargeable battery pack to autonomously gather and report more than 20 environmental parameters. Small enough to fit inside a backpack, the C400 can be installed or placed in nearly any environment for weather reporting in real time.

The engineers at Intellisense set out to create a wireless, reliable, and cost-effective weather sensor for businesses and communities of any size, and they achieved that with the C400. With a built-in GPS and compass, the C400 offers more accurate measurements of wind speed and direction than any other all-in-one weather station on the market today. This sensor also includes solar panels and an internal rechargeable battery pack for sustained operations, and customers can choose between cellular LTE-M or Iridium Satellite modems for reliable and fully remote data transmission and autonomous processing.

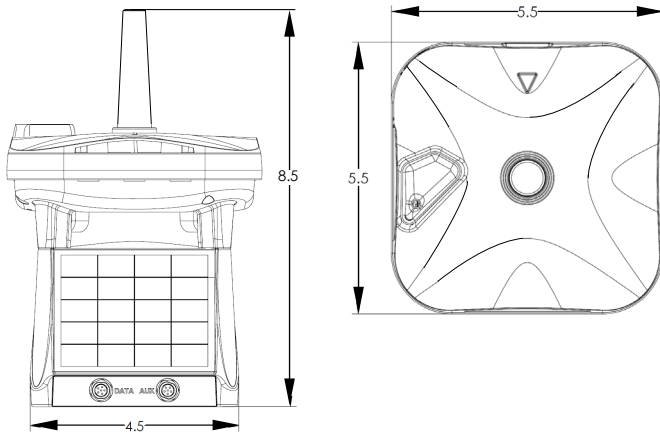


Compared to other off-the-shelf weather sensors for commercial applications, the C400 provides the most highly integrated, reliable, and easy-to-use weather-sensing system in one professional-grade, rugged, and wireless package.



## DIMENSIONS

At just 8.5 inches tall and weighing only 3.2 pounds, the C400 can easily be carried to and set up in just about any location. With a built-in compass and GPS, it can be installed or placed in the most remote areas for accurate weather sensing and data collection.



## CONTROLS & CONNECTIVITY

The controls on the C400 are simple, consisting of a single power switch. The sensor will automatically configure itself for operation within 60 seconds of start-up. The two expansion ports also enable connectivity to laptops, external power sources, and other remote sensors.

## SENSOR SPECIFICATIONS

<b>Temperature</b>	Range: -40 to 60°C (-40 to 140 °F) Resolution: 0.1°C Accuracy: ± 0.2°C at 25°C (77°F)
<b>Barometric Pressure</b>	Range: 600 to 1110 mb Resolution: 0.01 mb Accuracy: ± 0.5 mb at 25°C (900-1100 mb)
<b>Humidity</b>	Range: 0 to 100% Resolution: 1% Accuracy: ± 2%
<b>Precipitation</b>	Range: 0 to 152 mm/hr (0 to 6 in/hr) Resolution: 0.25 mm/hr (.01 in/hr) Accuracy: ± 2.5 mm/hr (0.1 in/hr) or 10% (whichever is greater)
<b>Wind Speed</b>	Range: 0 to 28 m/s (0 to 55 knots) Resolution: 0.5 m/s (1 knot) Accuracy: ± 3%
<b>Wind Direction</b>	Range: 0° to 359° Resolution: 1° Accuracy: ± 5°
<b>Angular Tilt</b>	Range: -90° to +90° Resolution: 0.1° Accuracy: ± 1°
<b>Lightning Distance</b>	Range: 0 to 40 km (0 to 25 mi) Resolution: 3.2 km (2 mi) Accuracy: Varies

## COMMUNICATIONS

The C400 is available with three communication options to best fit the customers' needs. The standard C400 features a cellular LTE-M modem with data plans available from Verizon or AT&T. But for areas where cellular coverage is limited, the sensor can also be equipped with Iridium Satellite modems for both commercial and U.S. Department of Defense (DoD) bands. A full breakdown of MWS Commercial Series models with these communication options are below:

- **MWS®-C400** – Cellular LTE-M
- **MWS®-C410** – Commercial Iridium Satellite
- **MWS®-C420** – DoD Iridium Satellite

## ACCESSORIES

To serve a variety of needs, Intellisense offers many accessories for the C400, including mounting solutions, carrying cases, and extension cables up to 500 feet in length.

For a complete catalog of weather sensor accessories, please visit [intellisenseinc.com](http://intellisenseinc.com).

## UNIT PROPERTIES

<b>Weight</b>	1.45 kg (3.2 lb)
<b>Dimensions</b>	H: 21 cm (8.5 in) W: 14 cm (5.5 in) D: 14 cm (5.5 in)
<b>Operating Temperature</b>	Minimum: -40°C (-40°F) Maximum: +60°C (+140°F)
<b>Mounting Hardware</b>	1/4-20 threaded camera mount
<b>Power Management</b>	<b>Solar Cell Array and Onboard Nickel-Cadmium Batteries</b> Continuous operation and the ability to endure extended periods of harsh environmental conditions
<b>Communications</b>	<b>Integrated LTE-M Cellular or Iridium Satellite Modem</b> Transmits data to command and control elements via satellite
<b>Expansion Port</b>	<b>Threaded M8 Serial Connector Rated to IP67 Waterproof Standards</b> Allows new capabilities to be added and easy integration of other fielded sensors, including external power and laptop connectivity as well as easy integration of other field sensors
<b>Compliance</b>	<b>Manufactured under ISO 9001 Quality Management System</b>

Phone: 310-320-1827  
Email: [Info@intellisenseinc.com](mailto:Info@intellisenseinc.com)  
[www.intellisenseinc.com](http://www.intellisenseinc.com)

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