

# MAXIMUM<sup>®</sup>

COMMERCIAL INSTRUMENTS







# *Innovative Solutions* *for Measurement and Control* *of Weather-Sensitive Equipment*

Maximum commercial instruments have proven to be effective tools for reporting, measuring and controlling weather sensitive equipment in commercial applications such as construction, energy, agriculture, forestry, security and sporting events. Consisting of wind speed sensors, wind speed alarms and hand held anemometers, our commercial instruments provide weather assessment solutions that increase convenience and efficiency.

We offer analog and digital instruments that feature professional quality movements with accuracy that has been rigorously tested. These products are supported by a knowledgeable Maximum staff that works with each customer, large and small, to provide the technical expertise needed to obtain the best possible results for each application. Every Maximum weather instrument carries a 5-Year manufacturer's warranty.

On the following pages, we highlight the versatility of our commercial instruments and show how our team has successfully met challenges in a wide variety of settings. To find out how our solutions can work for you, contact Maximum today at 508.995.2200. We'll be happy to discuss customization of any products to fit your specific requirements.

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*Maximum, Inc., 30 Barnet Boulevard, New Bedford MA 02745 U.S.A. 508.995.2200*





## Helping Dairy Cows Stay Cool

Keeping dairy cows comfortable in hot weather has a positive impact on milk production. One of the companies we work with developed a cooling system that needs to change operation based on wind speed. When there isn't any wind to cool the cows naturally, a cool mist is activated to provide comfort to the cows. That's where we come in.

**Maximum's #400 Anemometer** is used along with a proprietary controller to automatically deactivate the misting device when winds reach a certain force.



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### APPLICATIONS

#### Wind Energy

For more than 20 years, Maximum has worked closely with engineering departments to enhance our anemometers to meet the strict demands of the wind energy market. These modifications have resulted in our #40 Anemometer being adopted as the standard anemometer for wind energy assessment devices. If you have a wind energy application, we will be happy to refer you to our business partner for assistance.

#### Irrigation Systems

Working with engineers at an irrigation system manufacturer, Maximum technicians developed a modified anemometer compatible with their irrigation system's multi-function, low power-draw controller. Due to the manufacturer's low power requirement, we designed a custom anemometer to minimize battery draw when the controller obtains a wind speed reading.

#### Solar Energy

Maximum's #400 Anemometers are used with tracker controller systems to change the angle of solar panels when winds have the potential to cause damage to the panels.

#### Greenhouses

Our anemometers have also been used with greenhouse roof controllers to close the roof in the event of high winds.





## Making Safety a High Priority

Many crane work sites are required to maintain an accurate reading of wind speed and a method for taking quick action to prevent damage and/or injury. Maximum works with several manufacturers to develop methods for incorporating our **Wind Speed Alarm** into new and existing crane models.

### Wind Speed Alarm



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### APPLICATIONS

#### Brownout Prevention

High winds can sway power lines, often causing brownouts. Working with an engineering firm, we integrated our Wind Speed Alarm into a control panel which re-routes electricity within the electric grid when high winds occur. Wind Speed Alarm, in conjunction with this re-routing device, has helped reduce the frequency of brownouts caused by high winds.

#### Security / Observation Platforms

Wind Speed Alarm was designed into the elevation controller for mobile observation platforms. When winds exceed the specified levels, the alarm's relay triggers a device that lowers the platform to a safer level.

#### Agriculture

Large tarpaulins are used to cover grain supplies and keep them from suffering water damage. During high winds, these tarps can be secured with the turn of switch. Wind Speed Alarm provided a reliable method for performing this task while saving the expense of 24/7 power and a human operator.

#### Fountain Control

Wind Speed Alarm was integrated into a fountain controller to regulate fountain operation based on wind speed. If the system continually turned off and on there was the possibility of damage to the controller. An accessory was developed for Wind Speed Alarm that prevents this power cycling from taking place. At a certain wind speed the fountain will now shut down until it is manually reset.





## Hand Held Anemometers



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## APPLICATIONS

**Military**

The accuracy and durability of our hand held anemometers have been trusted by the US military for many years. In particular, our DIC-3 has become the instrument of choice for monitoring wind conditions at military firing ranges and for parachuting exercises.

**Forestry**

Forestry Departments in the U.S. and around the world have found Maximum hand held anemometers to be effective and reliable field instruments in obtaining location-specific wind conditions for general observations and emergency situations. Maximum's experience with this sector dates back more than 20 years.

**Fire Fighting**

Knowing how fast the wind is blowing can often provide enough time for safe evacuation in locations affected by brush and/or forest fires. Providing site-specific knowledge of wind speeds during a fire fight is something that Maximum hand held anemometers do very well.

**Sporting Events**

For a variety of sports, on-location wind speed readings are necessary for new record consideration. The Maximum DIC-3 hand held anemometer has been utilized in these situations to provide accurate readings of current, peak, 2- and 5-minute wind averages.



## Knowing When to Jump

Wind conditions are changing all the time, which makes on-site wind assessment critical to recreational and professional skydivers.

Maximum's rugged **Hand Held Anemometers** have a long and successful history of providing accurate, reliable wind speed readings for jumping enthusiasts.





## ANEMOMETERS

Maximum 3-cup anemometers have been proven in wind tunnel tests, mountain-top tests and other installations. These rugged and reliable sensors can be used with almost any device that accepts a frequency or pulse input. Maximum anemometers have recorded wind speeds greater than 200 MPH on several occasions. In fact, several of the world's greatest recorded wind gusts were recorded using Maximum 3-cup anemometers.

Along with the three standard anemometers listed below, we may be able to utilize our polycarbonate housing to create custom anemometers for your specific application. Please contact Maximum to learn more.

### #41 Anemometer

AC Voltage generating, polycarbonate, 3-Cup anemometer calibrated to a master to be interchangeable.

Dimensions: 3.5"H x 2.0"D; swept diameter 7.5"  
Weight: 3.3 oz.

### #400 Anemometer

AC Voltage generating, polycarbonate, 3-Cup anemometer producing linear frequency output.  
Dimensions: 3.5"H x 2.0"D; swept diameter 7.5"  
Weight: 3.1 oz.

### Hall Effect Anemometer

Polycarbonate, 3-Cup anemometer utilizing a Hall Effect switch to produce a pulse based on input voltage.

Dimensions: 3.5"H x 2.0"D; swept diameter 7.5"  
Weight: 3.0 oz.



## WIND SPEED ALARMS

The MAC3 Wind Speed Alarm provides operators with a wealth of features and an unprecedented level of control. It is highly accurate, rugged and an ideal solution for managing commercial equipment by collecting and monitoring conditions and providing timely alerts to keep you abreast of wind speeds that could cause safety concerns for people and equipment in nearly endless applications.

The MAC3 integrates time delay and latching capabilities to prevent equipment damage due to frequent on/off power cycling, and has a large, easy-to-read green on black LCD panel for viewing wind speed conditions, settings and user-defined information such as wind speed averages, peak gusts and other key metrics.

### WSA-12 and WSA-24 Alarms

- Indicator and sensor are weather-tight to the IP65 standard
- Can be use with dual sensors to monitor 2 separate locations
  - Uses the 3-cup, #400 anemometer
- 2 internal SPDT relays provide on/off control for external devices
- Powered by both 12- and 24VDC
- Measurement Range: 0-255 MPH in 1 MPH increments
  - Accuracy: 2 MPH of input and 1 digit
- Operating Temperature: -40 to 158F (-40 to 70C)
- Size: 5.08"w x 7.39"h x 2.26"d (129.0mm x 187.8mm x 57.4mm)



#### HAND HELD ANEMOMETERS

Maximum hand held anemometers are well-suited for any application that requires portable, accurate measurement of wind speed. These lightweight and durable anemometers are easy to read and feature precision components.

We offer a battery-powered digital (DIC-3) model and a self-powered analog (BTC) model. Unlike fan-based designs, the DIC-3 and BTC feature our unique folding 3-cup design, allowing for consistently accurate readings regardless of orientation. Cups collapse for easy storage and a custom ripstop nylon carrying case is supplied with each anemometer.

Completely self-contained, Maximum's hand held anemometers have no exterior cables, tubes or other extensions.

##### DIC-3 Hand Held Digital Anemometer

- Four selectable scales: MPH, Knots, km/h, m/s
  - Single 9V battery (included) powers the 3-digit LCD for up to 70 hours of continuous use
  - Readings up to 125 MPH in one of four modes: current, high gust, 2-min. or 5-min. average
- Dimensions: 2.02"D x 2.07"W x 6.15"H  
Weight: Less than 10 oz. (with battery)

##### BTC Hand Held Analog Anemometer

- Registers wind speeds from 0-35 MPH and 0-70 MPH (also scaled in Knots)
  - 2-scale, jeweled meter movement
- Dimensions: 1.70"D x 2.07"W x 3.75"H  
Weight: 7 oz.

##### Other Commercial Products

Maximum offers additional products for commercial applications. Please visit [www.maximum-commercial.com](http://www.maximum-commercial.com) to see product details.

- Wind Distributor & Vane
- Wind Speed Indicators
- Wind Speed & Direction Indicators
- Temperature Sensors & Indicators
- Rainfall Sensors & Indicators

##### Put Our Team to Work for You!

The versatility and accuracy of Maximum commercial instruments has made them ideal for a wide variety of settings. The possibilities for creative solutions are limitless.

Contact Maximum today with questions or to discuss the particular challenges of your specific application. Our support team offers a wealth of technical experience and a solid commitment to customer service. We'll work closely with you to put together a customized solution.

Maximum, Inc. is a recognized leader in the design and manufacture of weather instruments. Our products and services are offered worldwide. All Maximum weather instruments carry a 5-Year manufacturer's warranty and are serviced by an in-house staff of technicians and engineers.

Our customer service staff can be reached at 508-995-2200, Mon - Fri., 8:30 a.m. to 5:00 p.m. (ET). Or e-mail us at [support@maximum-inc.com](mailto:support@maximum-inc.com).

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