



THETA INSTRUMENTS

THETA INSTRUMENTS

for blue sky

Overview

- Founded in **2007**
- Location: **Shenzhen, China**
- Number of Employees: **33**
- Quality Management System: **ISO9001**
Quality Assurance: Pre-release product functional and verification tests
- Product Certificates: **CE, EMC, IP66, RoHS**

Key Focus - Monitoring

Weather



Air Quality



Industrial Process



Product Family

Weather

AR / MP / WS Series



Air Quality

AQS / AWS Series



Industrial Process

iMassFlow 200



iTPFlow 200



iMassFlow 600



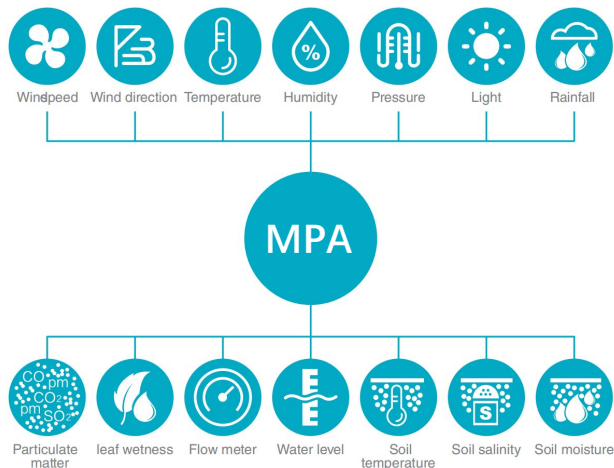
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Solution – MPA for agriculture application

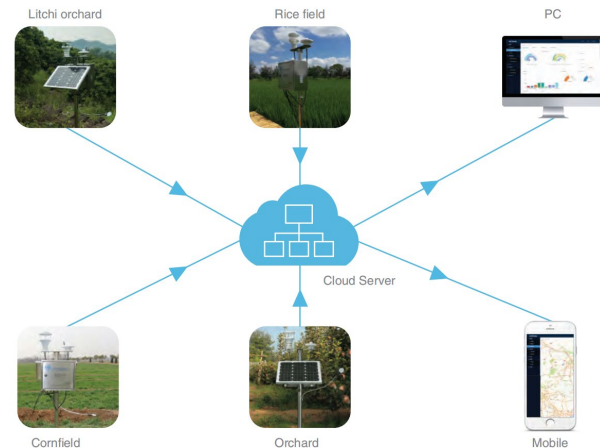


MPA agricultural weather station is designed to deploy flexibly to monitor field weather and soil parameters which significantly impact agricultural production, it's also integrated with solar panel, battery, wireless data module, able to work in rainy days for 20 days.

Customizable parameters



Typical application



Solution – RWIS

Sensors for monitoring:

- Weather Conditions
 - Rainfall: 0 – 400 mm/h (optical)
 - Air Temperature: -50 - +80 °C
 - Relative Humidity: 0 – 100%RH
 - Air Pressure: 10 – 1100 hPa
 - Wind Speed: 0 – 60 m/s
 - Wind Direction: 0 – 359.9°
 - Solar: 300 –

Weather-induced Soil Conditions

- Inclinometer: \uparrow 15°
- Soil moisture: 0 – 100%
- Soil temperature: -50 - +80 °C

Options – Future Add-on sensors

- Weather-related Road Conditions:
 - Visibility: 0 – 2000 m
 - Waterfilm: 0 – 6000 μ m
- Dust / Air Quality
 - PM2.5 / PM10: 0 – 1000 μ g/m³
 - CO: 0 – 1000 ppm
 - NO2 / O3: 0 – 20 ppm
 - SO2 / VOC: 0 – 100 ppm



Data Transmission



MP700
Wind Speed/Direction
Rainfall, Solar, T/RH/Pres

Solar Pane (Optional)

GPS, Cellular/Wifi

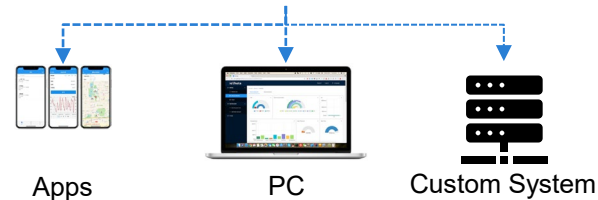
Visibility

Water Film

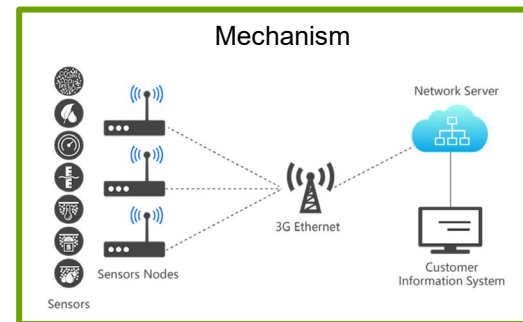
Inclinometer

Soil Moisture

Multiple Depth Soil
Temperature



Manage Sensors	Data Storage	Historical Data Plot	Manage Account
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Sensor Technology

Simple

Compact design
Single cable connection
Maintenance – free operation

Value

Open communication protocols
Cost effective

Reliable

Precision
Stability
Robustness



Flexible

Simple – Complex networks
Customizable to various parameters

Sensor Description

MP601

6-parameter weather station

Wind Speed/Direction/Rainfall

Air Temperature/Relative Humidity/Air Pressure

Robust Housing

Housing parts made by aluminum-alloy
with Teflon coating,
able to stand outdoor for long time

Robust Housing

Housing parts made by high strength
polycarbonate with UV resistance,
able to stand outdoor for long time



Precipitation

Measuring rainfall up to 400mm/h by
means of optical detection

Wind Speed & Wind Direction

Measuring wind with ultrasonic principle, no
moving part, high reliability

Temperature/Humidity/Air Pressure

Protection Shell to ensure both ventilation
for measuring and protecting from rainfall
into sensors.

Plastic material to avoid heat absorption

Connector

One connector plug for both power and
signal, support multiple communication
protocols and outputs



Sensor Description

WS601

6-parameter weather station

Wind Speed/Direction/Rainfall

Air Temperature/Relative Humidity/Air Pressure

Robust Housing
Housing parts made by high strength polycarbonate with UV resistance, able to stand outdoor for long time



Precipitation

Measuring rainfall up to 400mm/h by means of optical detection

Wind Speed & Wind Direction

Measuring wind with ultrasonic principle, no moving part, high reliability

Temperature/Humidity/Air Pressure

Protection Shell to ensure both ventilation for measuring and protecting from rainfall into sensors.

Plastic material to avoid heat absorption

Connector

One connector plug for both power and signal, support multiple communication protocols and outputs



Sensor Description

AWS-Pro

14 parameters

Wind Speed
Wind Direction
Rainfall
Air Temperature
Relative Humidity
Air Pressure
PM2.5
PM10
Noise
TVOC
CO
NO2
SO2
O3

Robust Housing

Housing parts made by aluminum-alloy with Teflon coating, able to stand outdoor for long time

Robust Housing

Housing parts made by high strength polycarbonate with UV resistance, able to stand outdoor for long time



Precipitation

Measuring rainfall up to 400mm/h by means of optical detection

Solar Radiation

Glass dome, measuring range 0-2000 W/m² by means of optical detection
* Not in standard price list

Wind Speed & Wind Direction

Measuring wind with ultrasonic principle, no moving part, high reliability

PM2.5/PM10/Noise

Reliable laser scattering module built inside

Temperature/Humidity/Air Pressure

Protection Shell to ensure both ventilation for measuring and protecting from rainfall into sensors.
Plastic material to avoid heat absorption

Gas Chamber

Aluminum material, max holds 4 gases, robust and anti-corruption

Connector

One connector plug for both power and signal, support multiple communication protocols and outputs



Application /air quality

Visit www.theta-instruments.com for more information.



Air quality sensor in smart city grid



Air quality and weather sensors in farm



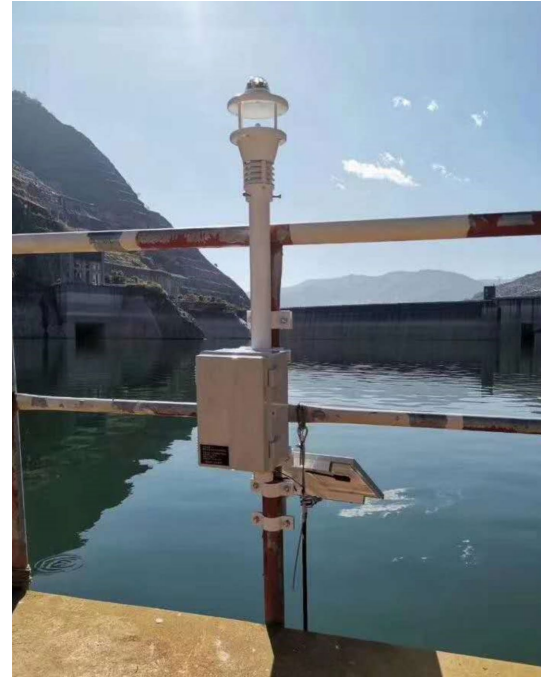
Application /weather



AR300 / bridge



AR300 / mountain



MP601 / dam



Application /weather



MP600 / lake



WS500 / protection zone



WS500 / vehicle

Application /industrial process



iTPFlow 200 in chemical factory

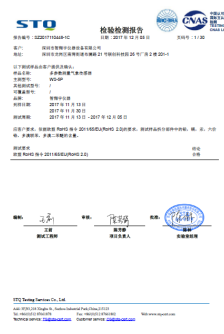


iMassFlow 200

Quality & Certificate



ISO9001



RoHS for WS500



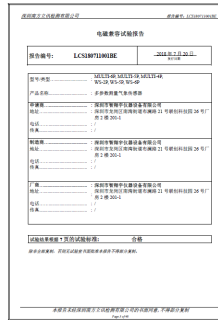
CE MP500, MP200, AR200-FD



CE WS500, WS200



EMC for MP650, MP600, MP500, WS650, WS600, WS200



IP66 for MP500



IP66 for WS200



Quality & Certificate

Certificate from National meteorological instrument inspection center located in Changchun city.

国家气象仪器质量监督检验中心 China National Accreditation Service for Conformity Assessment Appendix of Accreditation Certificate		检测报告 TEST REPORT	
检测报告/TEST REPORT			
客户信息/Client Information:			
委托单位/Client:	深圳市智翔宇仪器设备有限公司		
送样人/Client Representative:	蒋隰		
样品信息/Sample Description:			
样品名称/Sample Name:	多参数测量气象传感器		
规格型号/Specification Model:	MULTI-SP		
样品数量/Sample Quantity:	1		
样品编号/Sample Number:	171400		
样品状态/Sample Condition:	完好		
样品等级/Grade:	合格品		
检测信息/Test Requirement:			
送样日期/Receipt Date:	2017 年 10 月 9 日		
检测类型/Test Classification:	委托检测		
检测依据/Test Standard:	用户委托 (温度、湿度、气压)		
检测日期/Test Date:	2017 年 10 月 9 日~2017 年 11 月 10 日		
检测地址/Address of Test:	吉林省长春市前进大街 1 号		
检测结论/Test Conclusion:			
样品经依据用户委托检测, 检测结果符合要求 (详见附页).			
签发日期: 2017 年 11 月 16 日			
主检: Main Inspector:	许峰	审核: Auditor:	王心春
批准: Approver:	王心春	批准: Approver:	王心春

国家气象仪器质量监督检验中心 China National Accreditation Service for Conformity Assessment Appendix of Accreditation Certificate		检测报告 TEST REPORT	
检测报告/TEST REPORT			
客户信息/Client Information:			
委托单位/Client:	深圳市智翔宇仪器设备有限公司		
送样人/Client Representative:	蒋隰		
样品信息/Sample Description:			
样品名称/Sample Name:	多参数测量气象传感器		
规格型号/Specification Model:	MULTI-SP		
样品数量/Sample Quantity:	1		
样品编号/Sample Number:	151227		
样品状态/Sample Condition:	完好		
样品等级/Grade:	合格品		
检测信息/Test Requirement:			
送样日期/Receipt Date:	2017 年 10 月 9 日		
检测类型/Test Classification:	委托检测		
检测依据/Test Standard:	用户委托 (风向、风速)		
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批准: Approver:	王心春	批准: Approver:	王心春



Quality & Certificate – Test Equipment

Wind Tunnel



Humidity Calibration Device



Temperature Calibration Device



Temperature Cycling Test Device



Temperature Sensor Calibration Device



Air Pressure Calibration Device



Production Site





THETA INSTRUMENTS

Shenzhen THETA Instruments Co., Ltd.

Address: The 1st floor 22 Building, Lianchuang Science
Park, Bulan Rd Longgang Dist Shenzhen China.

Tel: +86 180 3029 3633

Mail: roy.chen@thetainst.com

Web: www.theta-instruments.com