

ObelMet Advantage



The ObelMet Advantage is a complete weather station which included the Obel data logger and the MaxiMet 600 compact weather station kit, which includes an optical rainfall sensor. This rain sensor has no moving parts, so needs very little maintenance. The system comes with all software for programming, data collection. A battery and solar panel, grounding kit, and lightning rod kit are also included. The ObelMet research grade, weather station ideal for research, commercial, or agricultural applications.

Simple one-pipe, and one-crossbar construction. The sensors require no wiring and minimal assembly tasks with simple hand tools.

Logger, battery and data retrieval software are included and ready to go. Data may be retrieved by a Laptop/Mobile,

Obel proprietary software records data from the innovative Gill MaxiMet™ GMX600



MaxiMet™

MaxiMet is an advanced compact weather station designed and manufactured by Gill Instruments using proven technology to measure meteorological and environmental parameters to international standards. MaxiMet incorporates all the measurement parameters that meet the requirements of users in demanding applications where cost, quality and performance are essential.

Features

- GMX600 Compact weather station Optical Rain Gage Included
- Wind Speed & Direction Measurement
- Air Temperature Measurement
Relative Humidity
Measurement Barometric
Pressure Measurement
- Lightning rod
- 10 W Solar Panel Included
Data Datalogger

Specifications

Technical Specifications

Analog Inputs: 8
Resolution: 24 bits
Digital Inputs: 6
RS232: 2
RS485: 1
SDI-12: 1
Sensor supply: 4
Sleep current: >2mA
RTC: 2PPM

Analog Inputs

Resolution per Channel: 24 bits
Total Number of Inputs: 8 Channels
Voltage Inputs: 8 Channels
4-20mA Inputs: 2 Channel
Differential Inputs: 4 Channels
Range Selection: 1V, $\pm 2.5V$ and 5V

SDI-12

Channels: 1
Maximum Sensors: 20

Wind Speed

Range : 0.1 m/s to 60 m/s
Accuracy : $\pm 3\%$ to 40 m/s,
 $\pm 5\%$ to 60 m/s
Resolution : 0.01 m/s
(0.02 mph)

Wind Direction

Range : 0 to 359°
Accuracy : $\pm 3^\circ$ to 40 m/s,
 $\pm 5^\circ$ to 60 m/s
Resolution : 1°

Air Temperature

Range : -40°C to +70°C
Accuracy : $\pm 0.3^\circ\text{C}$ @ 20°C
Resolution : 0.1 °C (0.1 °F)
Units of measure : °C, °F, °K

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Processor and System

Micro Controller: STM32
Architecture: 32bit Arm Cortex
Flash Memory: 256kb
Ram Memory: 128KB
Speed: 32MHz
Ext. Data Backup: USB Memory Stick
Operating Voltage: 9V to 15Volts DC
Operating Current: Below 120mA @12V
Quist Current: 1mA @15V, 2mA @9V
Op. Temperature: -20° to 60° Degrees
Op. Humidity: 0 to 100%
Real Time Clock: $\pm 2\text{ppm}$
Ext. Data Memory: 8 GB SD Card

Digital Interface

Counters
Channels: 2
Range: 32bit
Frequency
Channels: 2
Range: up to 200KHz

UART

RS232 for Sensors: 1
Rs232 for GSM: 1
Rs485 for Sensors: 3

Relative Humidity

Range : 0-100% RH
Accuracy : $\pm 2\%$ @ 20°C
(10%-90% RH)
Resolution : 1% RH
Units of measure : % Rh, g/m³, g/Kg

Barometric Pressure

Range : 300 to 1100
Accuracy : ± 0.5 hPa @ 25°C
Resolution : 0.1 hPa
Units of measure : hPa, bar, mmHg, inHg

Features

Time sync: GPS
Log storage: Flash
Log Memory: 2 Years
Log recovery: USB
Debug: RS232 / WiFi / USB
LCD: 2 x 16
Keypad: 6 keys
GSM / GPRS Interface
Satellite Transmitter Interface
LED display Interface (Optional)

Firmware

Embedded-OS firmware

Connectors

System Code Programming: 5 pin FRC
PC Communication: USB
GSM Antenna: SMA
Power Supply: 2 PIN
INSAT Transmitter: 9Pin D-sub
Sensors: Phoenix screw type

GSM/GPRS

Network: Dual/Quad Band (2G/4G)
Ethernet: Built in Ethernet support

USB

Type: USB Memory Stick
Format support: .CSV

Rain Gage

Measurement type : Optical
Range : 0-150 mm/hr
Precipitation : 0.2 mm
Resolution
Accuracy : 2%
Sampling Rate : 1 Hz
Units : mm/hr, mm/total,
mm/24 hr, in/hr,
in/total, in/24 hr
Heating : Yes

Environmental

Protection class : IP66
EMC : BS EN 61326: 2013
FCC CFR47 parts
15.109

Operating Temperature : -40°C to +70°C

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