AutoMet 580 Data Collection Platform

Flexible - Powerful - Reliable

Our AutoMet 580 Collection Platform is a complete data logger with front panel display which accepts input from any Met One standard sensors, AutoMet sensors and Met One digital serial sensors. Featuring Ethernet and MODBUS connectivity, the AutoMet output is compatible with our COMET, Air Plus and WeatherView Software.

As always, Met One Instruments, Inc. provides your AutoMet based weather stations pre-wired, preprogrammed and pre-tested at no extra charge to get your site up and running faster.

New Features:

- **Powerful connectivity:**
  Ethernet, MODBUS, 12 analog outputs, USB, RS-232C, RS-485

- **Statistical calculations:**
  Avg, min, max, delta, STD DEV, dewpoint & more

- **Matched pyranometer inputs:**
  For global horizontal & plane of array measurements

- **PT-100 platinum temperature inputs:**
  For ultra-accurate and wide range temperature measurements.

Shipped Ready To Install:

As always, Met One Instruments, Inc. provides your AutoMet based weather stations pre-wired, preprogrammed and pre-tested at no extra charge to get your site up and running faster.

AutoMet 580 Data Collection Platform

Met One Instruments, Inc.

1600 Washington Blvd. • Grants Pass, Oregon 97526 • 541.471.7111 • www.metone.com

sales@metone.com

AutoMet 580 Data Collection Platform

Specifications

Analog Sensor Inputs
8 single ended 0-2.5 or 0-5 VDC, with Auto ID sensor option.
2 24BIT matched millivolt level solar radiation sensor inputs.
3 channels PT-100 RTD temperature inputs. 24BIT, 4-wire.

Counter Inputs
2 wind speed counters (frequency selectable as low range, high range,or low AC millivolt)
1 rain gauge channel (de-bounced switch closure)

Specifications

Analog Sensor Inputs
8 single ended 0-2.5 or 0-5 VDC, with Auto ID sensor option.
2 24BIT matched millivolt level solar radiation sensor inputs.
3 channels PT-100 RTD temperature inputs. 24BIT, 4-wire.

Counter Inputs
2 wind speed counters (frequency selectable as low range, high range,or low AC millivolt)
1 rain gauge channel (de-bounced switch closure)

Digital Sensor Inputs
1 digital sensor, up to 8 parameters. RS232 or RS485.
Supported Met One Instruments, Inc. digital sensors include but are not limited to:
AIO 2
MSO-232
597
TACMET II

Voltage Outputs
12 voltage output channels
16 bits unipolar
5.000VDC full scale
(Can be scaled to 1.000 or 2.500 VDC full scale)
+/- 4 millivolts accuracy (of expected reading).

Alarm Outputs
2 alarm channels with N.O. relay contacts
(Max. power 24 VDC at 20 mA)

Communication
Ethernet serial port, 1200-115200 baud
(Default 9600), ASCII, N,8,1
USB for computer communications; shared port with Main RS-232C port
RS-232C main serial port, 1200-115200 baud
(default 9600), ASCII, N,8,1
Printer or computer RS-232C (COM2), 1200-115200 baud
(default 9600), ASCII, N,8,1;
Digital sensor RS232 9600 baud fixed

RS-485 output or digital sensor input, 9600 baud
RS-232 Extra port 1200-115200 baud

Communication Protocols
MODBUS
7500 MetRecord protocol for digital sensors
UIM serial report string

Log Channels
16 logging channels (combination of digital and analog measurements, and calculated values).

Logging Data Capacity
1min data 7.2 days
5min data 36 days
10min data 72 days
15min data 108 days
30min data 216 days
60min data 433 days (1.2 years)

Power Requirement
15VDC ± 20%
50 mA or less (display off)
125mA (display on)

Power Source
120-240VAC, 50-60Hz to 12VDC power supply (included)
Solar panel array and battery (optional)
Battery and AC powered charger (optional)

Display
Backlit LCD with auto time-out
40 character width
8 lines

Keypad
Four operation selection keys
Four motion selection keys
Four function selection keys

Environmental

REV MAR. 2018

Met One Instruments, Inc.

MODEL 136 MultiMet Interface Module

Features:

- o **8 Analog Inputs / 12 Analog Outputs**
- o **3 Met One Digital Sensor Inputs – MET or AIR Sensors**
- o **Data logging**
- o **Multiple Serial Outputs**
- o **MODBUS RTU**
- o **16-BIT Resolution**
- o **Fully Field Configurable / Modifiable**
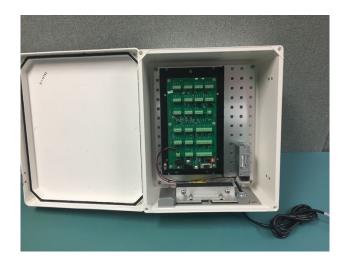- o **Economical**

Met One Instruments Model 136 MultiMet Interface Module is designed to be easily and quickly connected to any of our meteorological sensors[1] and selected particulate AIR sensors. Replacing our 131 Series MultiMet Translators and our legacy Universal Interface module (UIM), the 136 outputs data in both analog and digital formats.

The 136 features 12 independent, 16-Bit, voltage output channels. This allows the 136 to function as a powerful, user-configurable signal translator for direct connection to a variety of other recording systems, data loggers, PLC's and DCS's. Serial output formats include USB, RS-232 or RS-485 serial (ASCII), MODBUS RTU and UIM serial report string (ASCII). Analog outputs include 0-1, 0-2.5, 0-5 VDC, and 4-20 mA isolated current loop with our optional DIN rail mount, single channel transmitters, P/N 510695.

User configurable statistical calculations include Averages, Min, Max and Delta Temperature, Standard Deviation, Gusts and Dew Point. There are also two alarm outputs that can be used as either a single alarm or combined in a AND or OR logic output.

The 136 is compatible with simple terminal software for interrogation, data capture data collection.

For automatic data collection Met One's AIR PLUS software is used. The 136 is supplied with our COMET II software.

Communication options, purchased separately, include: network interface, cellular data modem, and radio. Cloud data service is also available

Real Time Data can be displayed by running our WeatherView Software on a PC or Laptop. WeatherView and also provide a Web Page compatible display for viewing current weather data values.

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1 Not compatible with Platinum RTD Temperature Sensors

SPECIFICATIONS

Analog Sensor Inputs
8 single ended 0-2.5 or 0-5 VDC user selectable with Auto ID Sensor option.
2 Millivolt amplifiers (x10 and x100 Solar with selectable 100-ohm loads)

Special Input
2 Frequency Counters (Wind Speed frequency selectable as low range, high range, or low millivolt)
1 Rain Gauge Channel (De-bounced switch closure with pull-up resistor to 5 volts)

Digital Sensor Inputs
8 Digital Sensors, or 16 channels maximum (RS232 on ADA port or RS485 on RS485 port)
Supported Met One Instruments' Digital Sensors (include but are not limited to):

o AIO 2	Sonic Weather Station
o MSO	5 Parameter Weather Station
o 597/598	Temperature/Relative Humidity/Pressure Sensor
o NPM2	Network Particulate Monitor
o ES-642	Remote Dust Monitor
o TACMET II	Military Sonic Weather Station

Voltage Outputs
12 Voltage Output Channels
16 Bits Unipolar
5.000 VDC full scale (or 1.000 or 2.500 VDC full scale) +/- 4 millivolts accuracy (of expected reading). Uncompensated for signal cable voltage gradient.

Alarm Outputs
2 Alarm channels with N.O. relay contacts (Max. power 24 VDC at 20 mA)

Communication
Main RS-232C port, 1200-115200 Baud (Default 9600), ASCII, N,8,1
Printer or Computer RS-232C (COM2), 1200-115200 Baud (Default 9600), ASCII, N,8,1
ADA / Digital Sensor RS232 9600 Baud Fixed
RS-422/485 output or Digital Sensor input, 9600 Baud
RS-232 Extra Port 1200-115200 Baud
USB for computer communications; shared port with Main RS-232C Port

Protocol
7500 Met Record Protocol for Digital Sensors and Serial Communications
UIM Serial Report String
MODBUS
Comet Cloud Services

Log Channels
8 sensor logging channels (Combination of digital and/or analog)
Averages from 1 to 60 Minutes
Max/Min Values
Dew Point
Delta Temperature
Sigma (Yammartino Method)
Rain
Battery Voltage
Gust (3 Second average)

Logging Data Capacity
1Min data 7.2 days
5Min data 36 days
10Min data 72 days
15Min data 108 days
30Min data 216 days

60Min data 433 days (1.2 years)

Power Requirement

12VDC ± 20%

50 mA or less

Weight

2 lbs. (0.91 Kg)

Dimensions

11.5 x 65 x 2.5 inches (292 x 165 x 63.5 mm)

Mounting Holes

1 Inch Centers at 5" x 11"

Available for configuration (All or Separately):

8 Analog Inputs, Rain gauge Input (1), Wind or pulse Inputs (2), 12 Analog Outputs, 2 Alarm Outputs. Data logger with 1 to 60-minute Average Interval, Gust and Sigma Calculation, Delta Temperature.

RS-485 for connection to Met One Instruments' Digital and 7500 Format based sensors.

Software Compatibility:

Comet II (Included)

Air Plus

WeatherView

Any Serial data capture program (Logger has internal menu)

OPTIONS

- Point to point radio
- Cellular data link
- Comet Cloud Service
- Serial data server (Network Connection),
- Stevens GOES Radio
- AC/DC Power supply
- Internal battery backup
- Solar Power Systems.