

Specification Sheet

McCrometer CONNECT Mini-SAT™ Premium Field Monitoring Station

Features & Benefits:

Satellite Technology

The premium satellite radio makes this station ideal for monitoring essential parameters in remote areas and features a very low latency.

Power Management

Conserves power by going into sleep mode when not transmitting, making solar power an ideal source solution when AC power is not available.

Versatility

Unit has a built in frequency to analog conversion making it compatible with digital outputs from most flow meters and other sensor types.

Value

This robust system is an economical choice for monitoring a limited amount of sensor inputs such as water volume, soil moisture, rain, wind or temperature.



McCrometer CONNECT Mini-SAT Field Monitoring Station shown with optional solar panel and user-supplied mast.

Description

The MINI-SAT Premium Field Station was designed to meet the needs of a broad range of agricultural applications including soil moisture monitoring, weather monitoring and control.

This popular system is housed in a durable waterproof case and is fitted with 8 pulse and 4 digital inputs. These are ideal for users collecting moderate amounts of information wirelessly from remote sites.

This system also offers event reporting to notify users when a specific event has happened in the field. It is compatible with wide a range of pulse and digital sensors, making it an ideal choice for wireless irrigation and crop management.

Specifications

| | | | |
|--------------------------------------|---|--|---|
| I/O-Ports | <p>8x analog in, 0 to 5V DC std. (0 to 10V, 0 to 15V, 0 to 20V, 0 to 500uA, 0 to 1mA, 0 to 20mA jumper configurable)</p> <p>4x digital in, internal 5V pullup (on/off status, accumulator for rain, wind run, flow total etc. Software configurable)</p> <p>4x control out, 100mA sink, 24V DC max (on/off, momentary, repeating momentary, paired. Software configurable)</p> <p>2x RS232 port</p> <p>1x USB port</p> <p>1x RS485 port</p> <p>1x I²C port</p> <p>1x SDI-12 port (Up to 8 data points can be reported)</p> | Connectors on Premium radio board | <p>3x 6-position pluggable header for Computer, Mini Direct, Modem</p> <p>1x 4-position pluggable header for Battery connector</p> <p>1x SMA Antenna connector with integral lightning protection</p> |
| Resolution | 10-Bit @ 0 to 5V | Memory | <p>256 byte electrically erasable internal memory for configuration / accumulator data</p> <p>2 MB MMC removable card for logged data (if required for logging)</p> |
| Measuring method | Synchronous & asynchronous | Antenna | 3dBic, 1616-1626.5MHz, Ground Plane Independent, Magnet Mount |
| Sampling interval | Programmable: 1 minute minimum to days | Tx Output Power | 1.6W average |
| Sensor excitation | 5V switched (regulated), 12V switched (unregulated), 12V continuous (unregulated), 18V switched (unregulated). Jumper configurable | Transmission distance | Low earth orbit satellite |
| Connectors on MultiMINI board | <p>3x 12-position spring clamp pluggable terminal block for Analog and Digital inputs</p> <p>1x 4-position spring clamp pluggable terminal block for RS485 communications (if required)</p> <p>1x 2-position spring clamp pluggable terminal block for Battery charger</p> <p>2x 6-position pluggable header for Controls and RS232</p> <p>4x 4-position pluggable header for RSSI, Aux Data Port, I²C port, Battery connector</p> <p>1x USB connector</p> <p>1x MMC card holder (if required for logging)</p> | Type approvals | Radio Module: FCC, CE Mark, Industry Canada |
| | | Battery | Sealed Lead Acid Absorbed Glass Mat, 12V, 5Ah |
| | | Operating time | Up to 13 days without charging (hourly reporting) |
| | | Temperature range | <p>+14 to +185°F (-10 to +85°C) operating</p> <p>-58 to +185°F (-50 to +85°C) storage</p> |
| | | Case | Polycarbonate, IP 66 (depending on cable entry choice) |
| | | Dimensions | 13.82 x 12.25 x 8.50 in. (351 x 311 x 216 mm) |
| | | Mounting | 2 in. (60 mm) pipe, opt. wall mount |
| | | Weight | 13 lbs. (5.9 kg) |

Ordering Information

| Description | Part Number |
|------------------|--------------|
| Mini-SAT Premium | 630-6030-100 |

Optional Accessories

| Description | Part Number | Description | Part Number |
|---|--------------|---|--------------|
| AC Charger, Internal mount, 1.7A @ 13.8V DC, Input 88-264V AC | 630-0502-000 | Relay, 120 /240V AC solid state, 10A, with safety cover | 629-0500-101 |
| 300 mA solar panel with regulator (13.8V DC nom.) and mounting bracket | 630-5000-003 | Relay Board with 4 relays, 24 to 240V AC solid state, 4A | 629-0500-404 |
| 600 mA solar panel with regulator (13.8V DC nom.) and mounting bracket | 630-5000-006 | Relay Board with 4 relays, 240V mechanical (AC or DC), 3A | 629-0500-314 |
| 1200 mA solar panel with regulator (13.8V DC nom.) and mounting bracket | 630-5000-012 | | |