

McCrometer CONNECT NanoCourier™ Field Stations

OVERVIEW

McCrometer CONNECT/Automata's NanoCourier™ Field Station is a powerful tool for individual applications, such as sending flow or soil moisture data. Unprecedented economy is achieved by incorporating essential features with compact, all-in-one packaging. The NanoCourier™ field station is available with either spread spectrum or satellite radio with the convenience and flexibility of the data being displayed on McCrometer CONNECT/Automata's custom website. It's extremely low standby current makes the NanoCourier™ ideal for solar sites. In applications that report infrequently, it may be utilized with no charger at all, merely relying on an occasional change of battery.

Although some non-essential features have been stripped out, other key features commonly required for flow monitoring have been enhanced. Most flow meters (and many other frequency mode output devices) are directly supported by the NanoCourier™ and require no additional interface circuitry. A wide variety of configurable parameters adds versatility to many monitoring applications, such as time signal averaging and peak reading over adjustable time frames.

The NanoCourier™ is McCrometer CONNECT/Automata's newest family of Field Stations. It can be networked with Automata's MINI Field Station to accommodate higher end sites.

SPECIFICATIONS

- 2 Analog Inputs:** 0-5V, 0-1mA, 0-20mA
- 1 Frequency Input:** 0-10KHz, active low
- 1 Accumulator Input:** Wind Run Miles, Rain
- 1 Analog Output:** 0-5V, 0-1mA, 4-20mA, user configurable range
- 1 Pulse Output:** (Momentary) open drain FET
- Antenna:** 2dB OMNI Antenna for Spread Spectrum Units (internal)
144-174 MHz Whip Antenna for Satellite Units (external)
- Internal Battery:** 5AmpHour, 12Volts
- Quiescent Current Drain:** 100µAmp. Input = 0 Hz
200µAmp. Input = 400 Hz
- Options:** AC or Solar Panel, 6dB External Yagi or OMNI Spread Spectrum Antenna

NanoCourier™-SS / SSR



NanoCourier™-SAT



Flow Sensor

Port: COM1 **Open (click to close)** **READY** Talk to ID: 250 Set Find ID

Get Station Report Get Full Report Get Complete Configuration

Operation Reporting **Freq Setup** Configuration Diagnostics

Station reports include:

Station report interval (minutes, use 0 to disable reports): 5 Set

Station report interval (seconds, use 0 to disable reports): 0 Set

Report timestamps: OFF

Analog In 1 Scan Time (0-255 minutes, 0=no events): 0 Set

Analog In 1 Delta for Event (0-1023): 10 Set

Analog In 2 Scan Time (0-255 minutes, 0=no events): 0 Set

Analog In 2 Delta for Event (0-1023): 10 Set

Battery Scan Time (0-255 minutes, 0=no checking): 1 Set

Battery Delta for Event (0-1500, hundredths of volts): 10 Set

Analog Output Scan Time (0-255 minutes, 0=no checking): 0 Set

Analog Output Delta for Event (0-1023): 10 Set

Event reports include:

Analog In 1

Analog In 2

Battery Voltage

Analog Output

Pulse count accumulation

Run time (minutes)

Run time (seconds)

Report type

Reporting Modes

Flow Sensor

Port: COM1 **Open (click to close)** **READY** Talk to ID: 250 Set Find ID

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Operation Reporting **Freq Setup** Configuration Diagnostics

Sample Time (2 - 7200 seconds, even values only): 4 Set

Pulse_Inputs/Output divide ratio (1 - 4294967295): 30000 Set

Freq for Min Output (0 - 10000 Hz): 0 Set

Freq for Max Output (1 - 10000 Hz): 1000 Set

Min Analog Output (0 - 999 per mille):
(Set to 200‰ for 4-20 mAmp output) 0 Set

Max Analog Output (1 - 1000 per mille):
(Set to 1000‰ for 4-20 mAmp output) 1000 Set

Analog Output Update Interval (n = 1 - 255 sample times):
n = 1 : Average over sample time
n > 1 : Peak over n samples 1 Set

Analog Calibration (500 - 2000 per mille):
(Set to 1000‰ for nominal calibration) 977 Set

Frequency Input Configurable Parameters

Flow Sensor

Port: COM1 **Open (click to close)** **READY** Talk to ID: 250 Set Find ID

Get Station Report Get Full Report Get Complete Configuration

Operation Reporting **Freq Setup** **Configuration** Diagnostics

PIC Software Version: 11

FlowSensor Software Version: 11.0.0.0

Sensor warmup time (0-10 seconds): 1 Set

Radio warmup time (0-60 seconds): 10 Set

Radio post Tx time (1-60 seconds): 3 Set

Station ID (0-65535): 250 Set

Use Less Power:
(requires two 00 bytes preceding each query message): OFF

Message Format: Standard Condensed

Misc. Configurable Parameters



Email: sales@automata-inc.com • <http://www.automata-inc.com>
 Fax: (530) 478-5881 • Phone: (530) 478-5882 • (800) 994-0380
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