



## Description

Automata's NEW NanoCourier™ Transmitter is a powerful tool for specific applications, such as sending flow or soil moisture data. Unprecedented economy is achieved by incorporating essential features and all-in-one small packaging. The NanoCourier™ Transmitter is available with Spread Spectrum or Satellite Telemetry. The data can be transmitted back to the home/office computer or be made available via the Internet. Extremely low standby current makes the NanoCourier™ ideal for solar sites. In applications reporting infrequently it may be utilized with no charger at all.

Although non essential features are stripped out, some key features commonly required for flow monitoring are enhanced. Most flow meters and many other frequency output devices are directly supported by the NanoCourier™ with no additional interface circuitry required. It includes a set of configurable parameters that add versatility to many monitoring applications. Examples include time averaging and peak reading over adjustable times.

The NanoCourier™ is Automata's newest family of Field Stations. It can be networked with Automata's MINI Field Station to accommodate some higher end sites in the system. Automata continues to develop new products to aid in the management of the water and agricultural industry.



## FEATURES

- Low Power Consumption
- Ideal for Solar Sites
- Economical
- Efficient for Specific Applications
- Satellite or Spread Spectrum Telemetry capability
- Coming Soon –GSM Option
- Fits into Existing MINI Field Stations Networks
- Ideal for Flow Monitoring
- Ideal for Soil Moisture Monitoring
- Adapts to any Flow Meter

SPECIFICATIONS:	
2 analog inputs	0-5 volts, 0-1 mA, 0-20 mA
1 frequency input	0-10KHz, active low
1 analog output	open drain FET, scaleable
1 pulse output	0-5V,0-1mA,4-20mA,user configurable range
Antenna	2dB OMNI Antenna for Spread Spectrum Units (internal) 132-174 MHz Whip Antenna for Satellite Units (external)
Internal battery	5AmpHour, 12Volts
Quiescent current drain	100µAmp. Input = 0 Hz 200µAmp. Input = 400Hz
Options	
Solar Panel, Control capability and External Yagi,Omni Spread Spectrum Antennas	

### Reporting Modes

**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:

- Analog In 1 Station report interval (minutes, use 0 to disable reports): 5  Set
- Analog In 2 Station report interval (seconds, use 0 to disable reports): 0  Set
- Battery Voltage Report timestamps: OFF
- Analog Output Analog In 1 Scan Time (0-255 minutes, 0=no events): 0  Set
- Pulse count accumulation Analog In 1 Delta for Event (0-1023): 10  Set
- Pulse count remainder
- Run time (minutes) Analog In 2 Scan Time (0-255 minutes, 0=no events): 0  Set
- Run time (seconds)
- Report type Analog In 2 Delta for Event (0-1023): 10  Set

Event reports include:

- Analog In 1 Battery Scan Time (0-255 minutes, 0=no checking): 1  Set
- Analog In 2 Battery Delta for Event (0-1500, hundredths of volts): 10  Set
- Battery Voltage
- Analog Output Analog Output Scan Time (0-255 minutes, 0=no checking): 0  Set
- Pulse count accumulation
- Run time (minutes)
- Report type Analog Output Delta for Event (0-1023): 10  Set

### Frequency Input Configurable Parameters

**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): 0  Set  
(Set to 200‰ for 4-20 mAmp output)

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

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

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

### Misc. 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: OFF    
(requires two 00 bytes preceding each query message):

Message Format:  Standard  Condensed