



AeroMate™ WSC

Wireless Sensors and Controls

9203-2031082 3X Counter

FEATURES:

- **Three Counters**
4-byte binary counters
- **High Count Rate**
up to 10 kHz count rate
- **+12 Vdc Sensor Power**
logic On / Off power control
- **Data Logging**
automatic count data logs
- **Rechargeable Batteries**
replaceable Nimh AA cells
- **Network Ready**
2.4 MHz Zigbee Wireless
- **Six Event Tags**
High and Low counts
- **ModBus RTU Slave**
R/W coils and data registers

PC SOFTWARE:

- **ChartWriter™**
graphical program generator
- **Data Manager**
Data log manager & viewer

APPLICATIONS:

- **Mass flow sensors**
- **RPM monitoring**
- **Stroke counters**
- **Event counting**
- **Distributed Controls**
- **Gas flow sensors**
- **Frequency meter**
- **Frequency converter**

Compact ...

3X pulse counter provides a low maintenance solution for mass flow measurement and control. Whether the need is for basic pulse counting, rpm measurement or a component in a wireless, distributed control network, the AeroMate 3X Counter is the right choice at the right price.

Rugged ...

and durable, AeroMate's molded enclosure protects against harsh weather, corrosive gases, salt spray and physical demands of industrial environments. Watertight bushing or 1/2" conduit and removable terminal blocks provide simple and easy hook up. Conformal coated electronics and gold plated contacts round out the AeroMate WSC's suite of environmental protection features.

Features ...

include three, high count rate, binary pulse counters. Measurements include count rate per second and accumulating counts in a settable sample period. Each sensor hook up includes a +12 VDC sensor power connection with individual power On/Off control. vTagNet technology allows configuration of pulse event and numeric count tags for collaboration with other wireless sensors and controls. Pulse count data logging allows easy integration into remote access and control systems.

Onboard ...

intelligence is the difference between getting what you want and accepting what you have. AeroMate's ChartWriter™ graphical program editor and compiler makes getting what you want as simple as drawing a flow diagram. Combine easy, graphical programming with the flexible vTagNet technology and an intelligent, collaborative sensing and control system is only limited by the imagination.

Flexible Power ...

system uses rechargeable, AA 2500 mA-H Nimh batteries or external 3.6 Vdc to 24 Vdc power source. An external power jack allows easy hook-up to power sources and solar panels for added battery charging. External power sources are used without the AeroMate rechargeable batteries installed.



Graphical flow chart programming utility.

vTagNet™
Technology

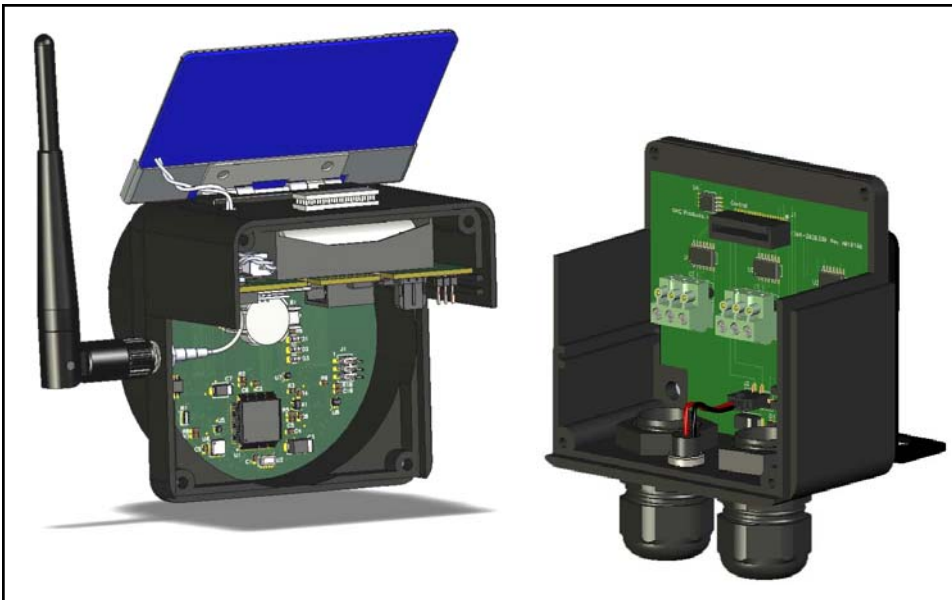
Open wire tag connectivity and ModBus RTU support.

Reliable ...

long term performance is a major benefit gained from the evolution and refinement of the AeroMate's advanced electronics. The patented SunSmart power management technology ensures reliable, long term performance irrespective of battery charge status and temperature. All electrical connections are protected from damaging static electric shock and lightning discharge. A time tested user interface, low power operation and rugged packaging provide a high level of field reliability.

OKC Products®

"Turning good ideas into great sensors and controls."



P/N 9203-2031082. AeroMate front cover assembly and counter module shown disassembled. Front cover assembly, shown with wireless kit, is easily removed for routine sensor maintenance.

3X Counter Specifications:

Manufactured under U.S. Patent No.s 6,194,793 B1 and 6,462,507 B2.



Enclosure:

Weight	2.0 lbs. (0.7 kg.) Shipping 2 lbs. (0.9 kg.)
Dimensions	3.7"W x 5.0"H x 4.2"D (9 cm x 13 cm x 11 cm)
Type	Gasket Sealed NEMA 4X
Material	Thermoplastic Polyurethane

Power:

Standard	3 x AA Battery Holder 2500 mA-H Nimh Cells
Drain	50 mW Average w/o XBee
External	With Batteries Removed: Using 2.5 mm Power Jack 3.6 - 24.0 Vdc @ 50 mW

Charger:

Internal	Two Season Adjustable Shatterproof Solar Panel 3.0 Vdc @ 750 mW
External Range	Using 2.5 mm Power Jack: 4.5 - 8.0 Vdc with 1.2 W max. power dissipation

Display:

Type	32-character LCD Display w/ Auto-Contrast Control
Window	Polycarbonate Coated

Temperature:

Operating	-20°F to +150°F (-30°C to 65°C)
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Log Data Memory:

Type	Non-volatile FRAM
Amount	1X 32kx8 bytes
Log Size	1129 Records

Counter Inputs:

Inputs	3X 5 Vdc range Rising edge triggered
Power	+12 VDC @ 70 mA max. Logic On/Off control

Count Rate:

Frequency	10 kHz.
Counter	4-byte binary 1x10 ⁹ counts
Sample Time	Programmable 1 to 99999 minutes

Wireless:

Type	2.4 GHz, Zigbee
Drain	90 mW Average (XBee)
Range	Interchangeable modules. XBee Up to 300' (100 m) LOS XBee Pro Up to 4000' (1.2 km) LOS

Certifications: (Pending)

CSA	Non-Incendive - Intrinsically Safe for use in Class I Group C and D hazardous locations
Others	(...)

Display Items

DATA Key:

- Status Page
 - Sensor power level.
 - Accumulator counts.
 - Frequency (cps).
 - Minimum frequency (cps).
 - Maximum frequency (cps).
- Operation Page
 - Battery and charge status.
 - Temperature history.
 - Wireless network status.
- Device Page
 - Device identification.
 - Manufacturing information.
 - Service call information.

SET Key:

- Counter Setup
 - Counter 1 numeric tag assignment.
 - Counter 2 numeric tag assignment.
 - Counter 3 numeric tag assignment.
 - Accumulator sample period.

System Setup

- Date/Time clock setup.
- Wireless network setup.
- Network & log update setup
- Default setting re-load..

Control Keys

- PWR** Power On/Off switch.
Loads application program.
- DATA** Selects status, operation and
device displays.
- SET** Selects items and variables
that are user settable.

Set Keys

- Move cursor right.
Selects menu item.
- Increment cursor selection.
Move to next item.
- Decrement cursor selection.
Move to previous item.

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