OKC Products, Inc.

AeroMate™ WSC

2x Pulse Counter

9203-2031082

FEATURES

- **Two Pulse Counters**
  4-byte binary counters
- **High Count Rate**
  up to 32 kHz count rate
- **+12 Vdc Sensor Power**
  logic On/Off power control
- **Flexible Unit Conversions**
  English and metric
- **Two Switch Outputs**
  low side, 20 V @ 2 A drive
- **Two Switch Inputs**
  Dry contact or 0-30Vdc logic
- **Modbus RTU Slave**
  R/W coils and data registers
- **Network Ready**
  Bluetooth 802.15.4 wireless

PC SOFTWARE

- **IDM™ Interactive Utility**
  monitor, logger, tester
- **ChartWriter™**
  graphical program generator

APPLICATIONS

- **Mass Flow Sensors**
- **RPM Monitoring**
- **Stroke Counters**
- **Event Counting**
- **Distributed Controls**
- **Gas Flow Sensors**
- **Frequency Meter**
- **Frequency Converter**

Compact — The 2x switch and 2x pulse counter provides a low maintenance solution for pulse counting applications and control. Whether the need is for basic pulse counter, RPM measurement, as a component in a wireless network or a SCADA system peripheral, the AeroMate™WSC (Wireless Sensors and Controls) 2x 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 accumulated counts within a settable sample period. Each sensor hookup includes a +12 Vdc sensor power connection with individual power On/Off control. Two switch I/O terminals are jumper selectable for switch input sensing or switch output control. Pulse count data logging allows easy integration into remote access and control systems.

Onboard intelligence is the difference between getting what you want and having to accept what you get. AeroMate's Integrated Device Manager (IDM) graphical program editor and compiler make getting what you want as simple as drawing a flow diagram. Combine easy, graphical programming with the flexible vTagNet™ technology and any sensing and control configuration is only limited by the imagination.

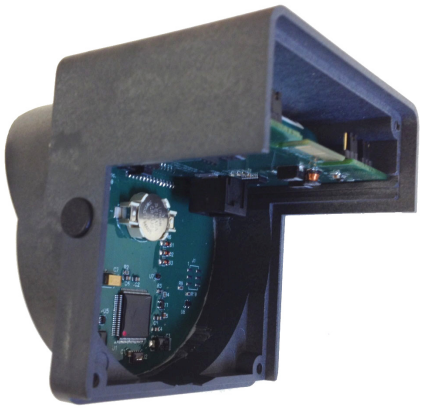
vTagNet™ TECHNOLOGY Open wire tag connectivity and Modbus RTU support.

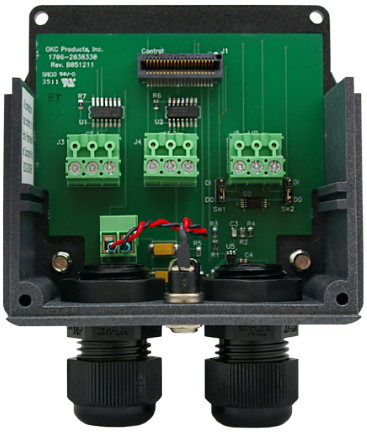
On-board serial RS-232/485 communication port and Modbus compatibility provides easy integration with new or existing SCADA systems.

Flexible power system uses rechargeable, NiMh batteries or an auxiliary power source. An external power jack allows easy hook-up to power sources and solar panels for battery charging. Auxiliary power sources may be used with or without rechargeable batteries installed.

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. This time tested, field proven product design provides a high level of field reliability.

AeroMate™ WSC





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.***

2x Pulse Counter Specifications

Manufactured under U.S. Patents 6,194,793 B1 and 6,462,507 B2

Enclosure

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

Power

(without wireless module)

Standard	Two (2) 4/3-AA Batteries 4000 mAh Nimh Cells
Drain	50 mW Average
External	Jumper Set Input Ranges Low (<6V) or High (>6V) Using 2.5 mm Power Jack

Charging

Solar	Shatterproof Solar Panel 6 Watt Panel - Standard 2 Watt Panel - Optional
Other	Using 2.5 mm Power Jack: 4.5 - 20.0 Vdc with 1.2 W max. power dissipation

Display

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

Temperature

Operating	-20°F to +150°F (-30°C to 65°C)

Log Data Memory

Type	Non-Volatile FRAM
Log Size	32k-Byte memory

Counter Inputs

Inputs	Two +5 Vdc Logic or Switch
Count Rate	0 - 32 kHz ($1x10^9$ Counts)
Sample Timer	Programmable 1 to 99999 Minutes
Device Power	+12 Vdc @ 70 mA max. Logic On/Off Control

I/O Connections

Inputs	2x 0-30 Vdc inputs Normally High or Low 15kV static protection
	OR
Outputs	2x NPN Low Side Switch Normally High or Low Max. +20 Vdc @ 2 A

Wireless

Wireless	Bluetooth 802.15.4
Range	Interchangeable Modules
SNAP	Up to 1000 ft (300 m) LOS
XBee Pro	Up to 4000 ft (1.2 km) LOS

Certifications

CSA	Non-Incendive, Intrinsically Safe for Use in Class 1, Division 1 and 2 Group C and Group D Hazardous Locations

DISPLAY ITEMS

DATA Key

- *Status Page*
  - *Accumulator counts*
  - *Count rate (cps)*
  - *Minimum count rate (cps)*
  - *Maximum count rate (cps)*
  - *Sensor power level*
- *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*
  - *Counter 2 numeric tag*
  - *Counter 3 numeric tag*
  - *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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