

# AERO MATE™ WSC

## Data Router

9203-2031070



### FEATURES

- ▶ **Analog Voltage Outputs**  
settable zero, span and units
- ▶ **Flexible Unit Conversions**  
*English and metric scales*
- ▶ **Floating Point Calculations**  
*high resolution and precision*
- ▶ **Two Switch Outputs**  
*low side, 20 V @ 2 A drive*
- ▶ **Two Switch Inputs**  
*Dry contact or 0-30Vdc logic*
- ▶ **Digital Gauge Set Points**  
*low, window, high*
- ▶ **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

- ▶ **Switch Translation**
- ▶ **Digital Signal Router**
- ▶ **Analog Voltage Translation**
- ▶ **Switch Event Logger**
- ▶ **Analog Data Router**
- ▶ **Plunger / Gas Lift**
- ▶ **Compressor Control**
- ▶ **Well Head Control**



**Compact** — AeroMate™ 2x switch and 4x analog voltage output router provides a low maintenance solution for switch and analog voltage routing. Whether the need is for a wireless switch sensor or wireless transducer outputs to a SCADA system, the AeroMate Data Router 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 suite of environmental protection features.

**Features** include four analog sensor outputs and two selectable switch sensor inputs or outputs. Analog sensor output zero, range and units are user scalable to accommodate any SCADA system or standalone well head controller's 0-5Vdc sensor input. Two switch I/O terminals are jumper selectable for either switch input sensing or switch output control. Digital switch gauge functions includes high/low limit selection for "less than", "window" and "greater than" set points. Switch inputs and outputs are settable for active High/Low and pulse width configurable.

**Onboard intelligence** is the difference between getting what you want and having to accept what you get. AeroMate's Integrated Device Manager 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

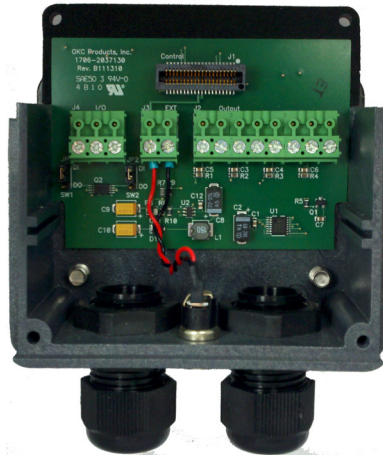
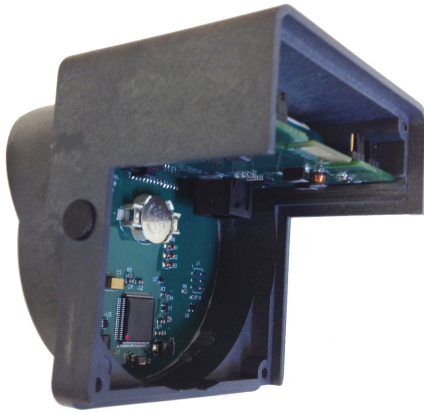
Open wire tag connectivity and Modbus RTU support.

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 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 AeroMate's advanced design. Patented SunSmart® power management technology ensures reliable, long term performance. All connections are protected from static electric shock. A time tested user interface, low power operation and rugged packaging provide a high level of field reliability.

# AERO MATE™ WSC



**P/N 9203-2031070** AeroMate front cover assembly and switch router module shown disassembled. Front cover assembly, shown with wireless kit, is easily removed for routine sensor maintenance.

## Data Router 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 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

Standard	(without wireless module) 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)
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### Log Data Memory

Type	Non-Volatile FRAM
Log Size	23k-Byte memory

### Analog Outputs

Outputs	4x 0-5 Vdc outputs 12-Bit DAC conversion
Settings	Zero, Range and Units
Connector	8-Pin 4x (Aout, Gnd) Common Ground

### I/O Connections

Inputs	2x 0-30 Vdc inputs Normally High or Low 15kV static protection
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or

Outputs	2x NPN Low Side Switch Normally High or Low Max. +20 Vdc @ 2 A
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### Wireless

Type	Bluetooth 802.15.4
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
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## DISPLAY ITEMS

### DATA Key

- Status Page
  - Input / Output switch status.
  - Analog output voltage/units.
- Operation Page
  - Battery voltage status.
  - Temperature history.
  - Wireless network status.
- Device Page
  - Device identification.
  - Manufacturing information.
  - Service call information.

### SET Key

- Switch Setup
  - Switch Hi/Low active state.
  - Input switch time constant.
  - Output switch pulse width.
- Analog Output Setup
  - Zero offset and fs range.
  - Units (psi, InW, kpa, MCF).
  - Output switch Action tag.
- System Setup
  - Date/Time clock setup.
  - Day-of-Week setup.
  - Log update setup.

## 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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