

AERO MATE™ WSC

Sensors

9203-2031062



FEATURES

- ▶ **Static Pressure Sensors**
0-2000 psi, non-ratiometric
- ▶ **DP Transmitter**
0-138 InW flowing differential
- ▶ **Two Switch Inputs**
Dry contact or 0-30Vdc logic
- ▶ **Two Switch Outputs**
low side, 20 V @ 2 A drive
- ▶ **Digital Gauge Set Points**
low, window, high
- ▶ **Data Logging**
selectable sample rate
- ▶ **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

- ▶ **Pressure Monitoring**
- ▶ **Flow Measurement**
- ▶ **Digital Switch Gauge**
- ▶ **Check Flow Meter**
- ▶ **Automation Sensors**
- ▶ **Well Head Control**
- ▶ **Gas Allocation Meter**
- ▶ **Compressor Control**



Compact — The AeroMate™ line of sensors with integral switch gauge provides a low maintenance solution for pressure, differential pressure or flow measurement and control. Whether the need is for basic data logging, a digital switch gauge, or as a component in a wireless, distributed control network, the AeroMate sensor product line 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 AeroMate environmental protection features.

Features include two analog sensor inputs and two selectable switch sensor inputs or outputs. Analog sensor inputs are scalable for external voltage output type transducers and includes on-board sensor power. Optional built-in sensors include one or two 2000 psig static pressure transducers or a DP flow transmitter. Digital switch gauge includes High/Low limit selection for "less than", "window" and "greater than" set points. Switch inputs and outputs are 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 vTag-Net™ technology and any sensing and control configuration is only limited by the imagination.



vTAGNET™
TECHNOLOGY

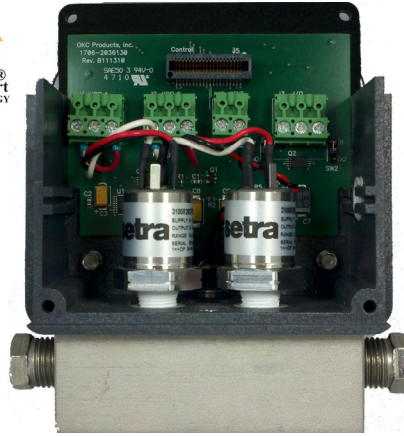
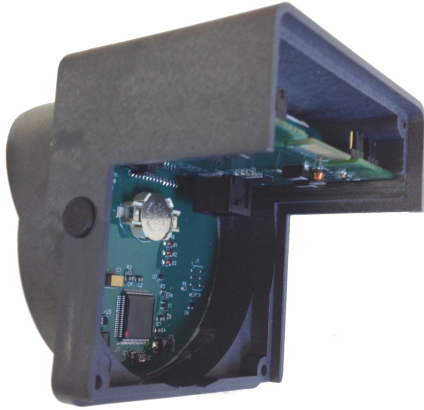
Open wire tag connectivity and Modbus RTU support.

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 9203-2031062 AeroMate front cover assembly and sensor module shown disassembled. front cover assembly, shown with wireless kit, is easily removed for routine sensor maintenance.

Sensor Specifications

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

Enclosure

Weight	2.8 lbs (1.3 kg) Shipping 4 lbs (1.8 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	32k-Byte memory

Analog Inputs

Type	Two (2) 0-5 Vdc, 12-Bit ADC Settable Zero, Range, Scale
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Optional Sensors

Pressure	One or two 0-2000 psig Non-Ratiometric or
Flow	DP Transmitter with ranges 28, 138, 414 and 828 InW
Manifold	1/4-NPT Female Ports 316 Stainless Steel

I/O Connections

Inputs	Switch Input 0-30 Vdc 15kV static protection
Outputs	2x NPN Low Side Switch Max. +20 Vdc @ 2 A

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
 - Pressure (flow) sensor reading.
 - Switch sensor status
 - Switch gauge status.
- Operation Page
 - Battery and sensor power status.
 - Temperature history.
 - Wireless network status.
- Device Page
 - Device identification.
 - Manufacturing information.
 - Service call information.

SET Key

- Set Point Setup
 - Measurement Hi/Low limits.
 - Measurement sensor source.
- I/O Setup
 - Output switch SW1 setup.
 - Output switch SW2 setup.
 - External Vin2 sensor setup.
- Sensor Setup
 - Xdr1 zero, range and scale.
 - Xdr2 zero, range and scale.
- 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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