



AeroMate™ WSC

Wireless Sensors and Controls

9203-2031061 1X Transducer

FEATURES:

- **One Pressure Sensor**
0-2000 psig, non-ratiometric
- **Two Switch Outputs**
Low Side, 20V @ 2 A Drive
- **Three Digital Set Points**
Low, Window, High eTags
- **Data Logging**
selectable sample rate
- **Rechargeable Batteries**
replaceable Nimh AA cells
- **Network Ready**
2.4 MHz Zigbee Wireless
- **vTagNet Technology**
open wire tag connectivity
- **ModBus RTU Slave**
R/W coils and data registers

PC SOFTWARE:

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

APPLICATIONS:

- **Digital Pressure Gage**
- **Digital Switch Gage**
- **Pressure Data Logger**
- **Distributed Controls**
- **Automation Sensors**
- **Well Head Control**
- **Compressor Control**
- **Plunger / Gas Lift**

Compact ...

static pressure sensor and switch gage provide a low maintenance solution for pressure sensing and control. Whether the need is for data logging, a digital switch gage or a component in a wireless, distributed control network, the AeroMate 1X Transducer 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. Stainless steel pressure connection manifold provide protection against corrosive gasses and liquids. Conformal coated electronics and gold plated contacts round out AeroMate's suite of environmental protection features.

Features ...

include a 2000 psig pressure transducer, a auxiliary switch or analog sensor input and two switch outputs. Measurement setup allows high/ low limit and source selection for "less than", "window" and "greater than" set points. Switch outputs are active High/Low and pulse width configurable. vTagNet technology provides numeric and set point event tags for collaboration with other wireless sensors and controls. Sensor data logging allows easy integration with 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 mAh 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.



ChartWriter™ flow chart programming utility.

vTagNet™
Technology

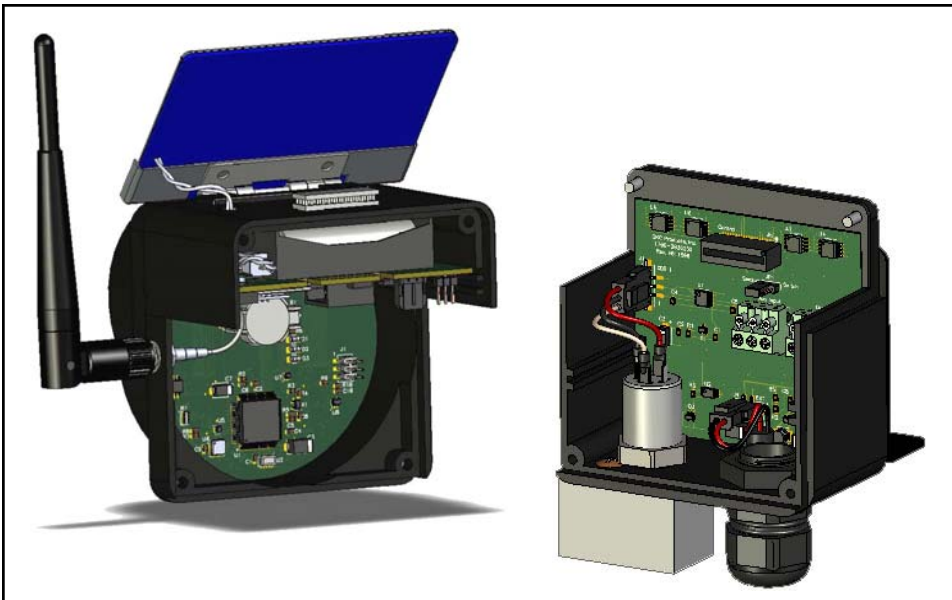
Open wire tag connectivity and ModBus RTU support.

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 9203-2031061. AeroMate front cover assembly and sensor module shown disassembled. Front cover assembly, shown with wireless installed, is easily removed for sensor maintenance.

1X Transducer Specifications:

Manufactured under U.S. Patent No.s 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 (9 cm x 13 cm x 11 cm)
Type	Gasket Sealed NEMA 4X
Material	Thermoplastic Polyurethane

Power:

Standard	3 x AA Battery Holder 2500 mAh 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	3x-32kx8 bytes
Log Size	3276 Records

Pressure Sensors:

Sensor	0-2000 psig Non-Ratiometric
Accuracy	±0.25% FS
Manifold	1/4-NPT female ports 316 stainless steel

I/O Connections:

Auxiliary	Analog input 0-5 Vdc or switch input 0-30 Vdc Power Out: +12 Vdc
Outputs	2X NPN low side switch Max. +20 Vdc @ 2 A Common Ground

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	Intrinsically Safe - Class I Group C and D
Others	(...)

Display Items

DATA Key:

- Status Page
 - Sensor XRD1 reading.
 - External Vin2 sensor reading.
 - Sensor power and switch status.
- Operation Page
 - Battery and charge status.
 - Temperature history.
 - Wireless network status.
- Device Page
 - Device identification.
 - Manufacturing information.
 - Service call information.

SET Key:

- Set Point Setup
 - Measurement Low/Hi limits.
 - Measurement sensor source.
 - Measurement event tags.
- I/O Setup
 - Output switch SIG1 setup.
 - Output switch SIG2 setup.
 - External Vin2 sensor setup.
- System
 - Date/Time clock setup.
 - Wireless network setup.
 - Network & log update setup.
 - Sensor log sample rate setup.
 - WHIP or ModBus protocol

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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