



AeroMate™ WSC

Wireless Sensors and Controls

9203-2031081 4X Sensor Router

FEATURES:

- **4X Analog Inputs**
4-20 mA or 5 V range
- **+12 Vdc Sensor Power**
logic On/Off power control
- **Data Logging**
sample rate settable
- **Rechargeable Batteries**
replaceable Nimh AA cells
- **Network Ready**
2.4 MHz Zigbee Wireless
- **Four Event Tags**
limit sense event tags
- **Four Analog Tags**
15-bit normalized data
- **ModBus RTU Slave**
R/W coils and data registers

PC SOFTWARE:

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

APPLICATIONS:

- **Voltage Translation**
- **Current Translation**
- **Analog Signal Router**
- **Analog Data Logger**
- **Distributed Controls**
- **Automation Sensors**
- **Compressor Control**
- **Limit Monitoring**

Compact ...

4X sensor and analog router provides a low maintenance solution for analog sensing and control. Whether the need is for data logging, analog translation or a component in a wireless, distributed control network, the AeroMate 4X Sensor 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 AeroMate's suite of environmental protection features.

Features ...

include four analog inputs that are user configurable for 4-20 mA or +5 Vdc full scale range. All four sensor inputs include a logic controlled +12 Vdc power source. Input measurement setup provides high/ low limit selection for "less than", "window" and "greater than" set points. vTagNet technology generates event and analog data tags for monitoring and collaboration with other wireless sensors and controls. Analog 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 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

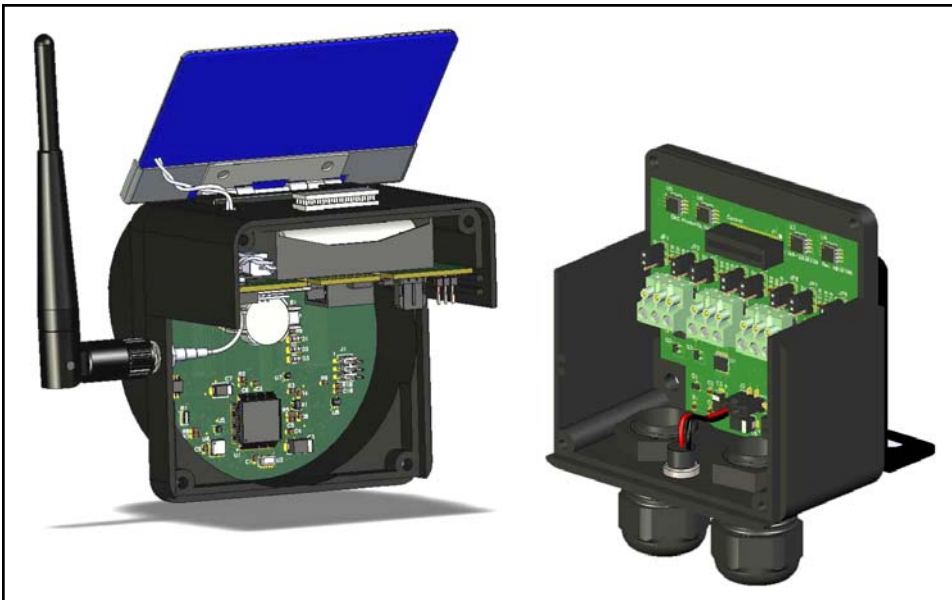
Open wire tag connectivity and ModBus RTU support.

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 9203-2031081. AeroMate front cover assembly and sensor router module shown disassembled. Front cover assembly, shown with wireless kit, is easily removed for routine sensor maintenance.

4X Sensor Router 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	<i>With Batteries Removed:</i> 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	Using 2.5 mm Power Jack:
Range	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	992 Records

Analog Inputs:

Inputs	4X 4-20 mA or 0-5 Vdc 12-Bit ADC conversion 125 ohm current load
Connector	3-Pin (Pwr, Ain, Gnd) Common Ground Removable screw block #24-18 AWG wire
Power	+12 VDC @ 50 mA max. On/Off logic controlled

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
 - Analog input 1,2,3,4 status.
 - Sensor power status.
- Operation Page
 - Battery and charge status.
 - Temperature history.
 - Wireless network status.
- Device Page
 - Device identification.
 - Manufacturing information.
 - Service call information.

SET Key:

- I/O Setup
 - Analog input 1,2,3,4 zero (mV).
 - Analog input 1,2,3,4 span (mV).
 - Analog input 1,2,3,4 scale (mV).
 - Analog input numeric Tags.
- Set Point Setup
 - Gage 1 Low/Hi limits.
 - Set point Event Tags.
 - Gage measurement source.
- System Setup
 - Date/Time clock setup.
 - Wireless network setup.
 - Network & log update setup.
 - Protocol and baud rate 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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