

# AEROMATE™ WSC

## 1x1 Valve Controller

9203-2031052



### FEATURES

- ▶ **One or Two Solenoid Valves**  
*pneumatic dual-port valves*
- ▶ **Versatile Valve Control**  
*works up to 100 psi*
- ▶ **Versatile Cycle Control**  
*day-of-week and time-of-day*
- ▶ **One Switch Input**  
*Dry contact or 0-30Vdc logic*
- ▶ **One Pressure Sensor**  
*0-2000 psig full scale range*
- ▶ **Network Ready**  
*Bluetooth 802.15.4 wireless*
- ▶ **Data Logging**  
*selectable sample rate*
- ▶ **Modbus RTU Slave**  
*R/W coils and data registers*

### PC SOFTWARE

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

### APPLICATIONS

- ▶ **Pneumatic Control**
- ▶ **Intermitter / Timer**
- ▶ **Plunger / Gas Lift**
- ▶ **Chemical Injection**
- ▶ **Pipeline Maintenance**
- ▶ **Compressor Control**
- ▶ **Distributed Controls**



**Compact** — AeroMate™ 1x1 Valve electronic controller provides an easy to use, low maintenance solution for pneumatic control combined with integral pressure sensor and switch sensing. Whether the need is for a standalone controller or a component in a wireless, distributed control network, OKC's AeroMate™ 1x1 Valve controller 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 and removable terminal blocks provide simple and easy hook up. Conformal coated electronics, all stainless steel hardware and gold plated contacts round out the 1x1 Valve controller's suite of environmental protection features.

**Features** include one pneumatic solenoid valve, an integral 2000 psig sensor and one switch sensing input. Cycle timing is in hrs:min:sec or day-of-week and time-of-day for standalone valve control. vTagNet™ technology allows collaboration with other wireless sensors and controls. Data monitoring and event logging provide all the ingredients for 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 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.



Open wire tag connectivity and Modbus RTU support.

Onboard 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 9203-2031052** AeroMate front cover assembly and 1x1 valve module shown disassembled. Front cover assembly, shown with wireless kit, is easily removed for routine valve maintenance.

## 1x1 Valve Controller Specifications

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

### Enclosure

Weight	2.1 lbs (0.9 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

	(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 8 Watt Panel - Standard
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 +140°F (-30°C to 60°C)
-----------	------------------------------------

### Pressure Transducer

Pressure	Internal Pressure Sensor 2000 psig FS, 0-5Vdc Non-Ratiometric 1/4-NPT Female Port 316 Stainless Steel Manifold
----------	--

### Pneumatic Control

Number	One Dual-Port Latching Solenoid with SS Armature
Manifold	1/4-NPT Female Ports 316 Stainless Steel
Pressure	100 ± 10 psi Max.

### I/O Connections

Input	Switch Input 0-30 Vdc Normally Closed Sensors +12Vdc Sensor Power 15kV static protection
-------	---

### Wireless

Type	Bluetooth 802.15.4
SNAP	Up to 1000 ft (300 m) LOS
XBee-Pro	Up to 3000 ft (1 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 Display
  - Valve Status.
  - Current cycle and timeout
  - Arrival and Action indicators
- Totals Display
  - V1 close and open totals.
- Plunger History
  - Most recent arrival time.
  - Arrival and Missed count.
  - Last 10 plunger arrival times
- System Info Display
  - Battery, Wireless, EVS voltage.
  - Temperature history.
  - Product Sales Data

### SET Key

- Operation
  - Manual valve override.
  - Sensor gage setup.
  - Clear stored data.
- Timers
  - Cycle timer setup.
  - Advanced setup.
- System Setup
  - Date/Time clock setup.
  - Day of week setup.
  - Wireless network 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.

 **OKC Products, Inc.**

P.O. Box 1560  
Berthoud, CO 80513 USA

p 970.532.1774 f 970.532.1776

[www.okcproducts.com](http://www.okcproducts.com)