

# VALVE-TRONIC Plus™ Electronic Flow Controller

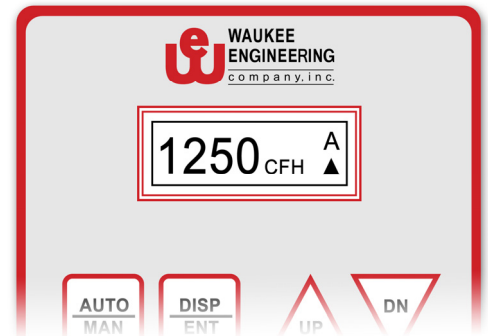
Direct Replacement of Valve-Tronic 3.5



**Valve-Tronic Plus™** is designed for use in highly demanding industrial applications that require accurate flow control and measurement. It can function as a stand-alone controller for basic applications or become an integral part of a process control system for automatic flow control. The *Valve-Tronic Plus™* is available with optional Temperature / Pressure compensation for real-time flow correction, providing the most accurate flow measurement possible.

## Features & Benefits

- Large LCD display provides vital information such as actual flow rate, totalized flow, valve position, alarms, and diagnostic messages
- Simple and intuitive programming menus
- Field programmable engineering units
- Waukee's new magnetic sensor technology immune to problems related with dirty oil
- Configurable to control based on rate of flow or valve position for applications where the Process Variable (PV) is Dew-point, Carbon Potential, etc.
- Standard Modbus TCP for easy integration with control systems
- Optional Temperature / Pressure compensation for added accuracy
- Manual actuation of valve possible
- Easy to install
- Ideal for customers who need to control and data log flow rates for compliance to NADCAP, AMS2750D, or CQI 9
- Field calibration for zero and span
- Advanced polynomial calibration for high accuracy over the entire range of the meter
- Built-in Web Server with remote access to device
- Full PID setpoint control
- Calibration in state-of-art ISO/IEC 17025:2005 accredited laboratory



LCD display provides easy-to-read indication of operation values, parameters and faults. *Valve-Tronic Plus™* measures and controls the actual flow rate in engineering units.



## Applications

- Annealing
- Carburizing
- Gas Blending
- Neutral Hardening
- Nitriding
- Sintering



## Compatibility

- All gas types and mixtures
- Liquids including water, alcohol, and methanol

*If you are unsure of the gas or liquid compatibility of your application, please contact your Waukee representative.*

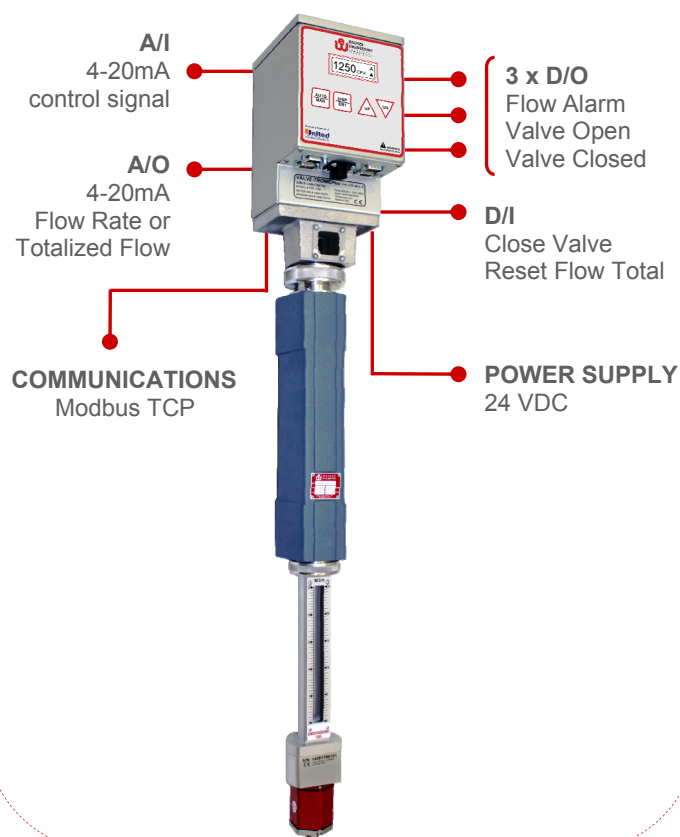
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## Web Server Features

- Remote access to the device via web browser, no special software required
- Intuitive web interface
- Several access levels with passwords
- Access up-to-the-minute information on the current flow, totalized flow, PID feedback, valve position, current mode, errors, and much more
- Easy setup of parameters
- Built-in event log viewer for troubleshooting
- Logs export to CSV format
- Save, upload, back up and restore configuration files
- Option to upload configuration files to multiple controllers



## Control Diagram



## Specifications

<b>Power requirements:</b>	500mA @ 24 VDC ±10%
<b>Digital Input:</b>	1 Input, 24 VDC (programmable)
<b>Digital Output:</b>	3 Outputs, 24 VDC, 1.0A max (programmable)
<b>Setpoint Input Signal:</b>	Isolated 4-20mA
<b>Flow/Totalized Output Signal:</b>	Isolated 4-20mA
<b>Scale:</b>	Air (70°F; 14.7 PSIA / 21°C; 1 bar) Model S: 4-100 CFH (0-3 m <sup>3</sup> /hr) Model M: 10-1500 CFH (0-42 m <sup>3</sup> /hr) Model L: 150-18,000 CFH (4-510 m <sup>3</sup> /hr) Liquid Model SF: 0.2-25 GPH (0.75-95 l/hr)
<b>Turndown Ratio:</b>	Model S: 10:1 Model M: 12.5:1 Model L: 15:1
<b>Accuracy:</b>	† VDE/VDI 3513 sh.2, q <sub>G</sub> =50% Model S/SF: 5% Model M: 4% Model L: 3%
<b>Max Operating Temperature:</b>	Ambient: 140°F (60°C) Media: 200°F (93°C)
<b>Max Pressure:</b>	100 PSIG (7 bar)
<b>Max Operating Pressure:</b>	Model S/SF: 90 PSIG (6 bar) Model M: 75, 90 PSIG (5, 6 bar) Model L: 5, 10, 30, 75 PSIG (1/8, 0.7, 2, 5 bar)
<b>Pressure Drop:</b>	≤ 2" W.C. (5 mbar)
<b>Recommended Diff. Pressure:</b>	≥ 0.5 PSI; 14" W.C. (35 mbar)

† VDE/VDI

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