

# VEL-trol II

## ULTRA-LOW RANGE DIFFERENTIAL PRESSURE/ FLOW TRANSMITTER / CONTROLLER

<b>OPTIONS</b>																													
<input type="checkbox"/> Alarms or <input type="checkbox"/> AUTO-purge Mgmt <input type="checkbox"/> Auxiliary Output <input type="checkbox"/> Terminal Cover/Conduit Connection	<b>Display</b> <input type="checkbox"/> 2x20 LCD (std) <input type="checkbox"/> 5x20 LCD	<b>Certification</b> <input type="checkbox"/> Standard <input type="checkbox"/> NIST Traceable	<b>Special Function</b> <input type="checkbox"/> % Deviation <input type="checkbox"/> Differential Flow <input type="checkbox"/> Summed Flow <input type="checkbox"/> Averaged Flow <input type="checkbox"/> Low Select <input type="checkbox"/> High Select	<b>Network</b> <input type="checkbox"/> None (std) <input type="checkbox"/> Modbus TCP/IP over Ethernet <input type="checkbox"/> LonWorks																									
<b>Power</b> <input type="checkbox"/> 24VAC <input type="checkbox"/> 20-40VDC <input type="checkbox"/> 120VAC (via ext transformer)	<b>Controller</b> <input type="checkbox"/> Ext. Setpoint <input type="checkbox"/> P,I,1/2 Control																												
<b>PERFORMANCE SPECIFICATIONS</b>																													
<b>Accuracy.</b> ±0.1% of Natural Span, Including non-linearity, hysteresis, deadband, and non-repeatability.			<b>Transducer Response Time.</b> 0.5 second to reach 98% of a step change.																										
<b>Stability.</b> ±0.5% of Natural Span for six months.			<b>Power Consumption.</b>																										
<b>Temperature Effect.</b> Zero. None; corrected by AUTO-zero. Span. 0.015% of Full Span/°F.			<table border="1" style="margin-left: auto; margin-right: auto; border-collapse: collapse; text-align: center;"> <thead> <tr> <th rowspan="2"></th> <th colspan="2">Standard</th> <th colspan="2">w/AUTO-purge</th> </tr> <tr> <th>In Rush</th> <th>Hold</th> <th>In Rush</th> <th>Hold</th> </tr> </thead> <tbody> <tr> <td>24VAC</td> <td>14.4VA</td> <td>14VA</td> <td>45.6VA</td> <td>33.68VA</td> </tr> <tr> <td>24VDC</td> <td>9.6W</td> <td>9.0W</td> <td>19.92W</td> <td>19.32W</td> </tr> <tr> <td>120VAC</td> <td>19.2VA</td> <td>18.67VA</td> <td>60.8VA</td> <td>44.91VA</td> </tr> </tbody> </table>				Standard		w/AUTO-purge		In Rush	Hold	In Rush	Hold	24VAC	14.4VA	14VA	45.6VA	33.68VA	24VDC	9.6W	9.0W	19.92W	19.32W	120VAC	19.2VA	18.67VA	60.8VA	44.91VA
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<b>Mounting Position Effect.</b> None; corrected by AUTO-zero.																													
<b>FUNCTIONAL SPECIFICATIONS</b>																													
<b>Digital Outputs.</b> Dual Form C dry contacts and dual Form A dry contacts rated for 3 amps at 24VAC/VDC are used for optional Hi/Lo alarm or AUTO-purge activation and acknowledgment.			<b>Power Supply.</b> Standard 24VAC (20-28VAC) or 24VDC (20-40VDC), with automatic selection. Optional 120VAC (100-132VAC), via external transformer.																										
<b>Digital Inputs.</b> Dry contact for soft start command, AUTO-purge external start command, and switch to external setpoint command.			<b>Automatic Zeroing.</b> Accuracy. Within 0.1% of calibrated span. Frequency. Every 1 to 24 hours on 1 hour intervals.																										
<b>Analog Outputs.</b> The single transmitter and controller outputs are individually configurable via jumper for 0-5VDC, 0-10VDC, or 4-20 mAADC. Two additional outputs are optionally available.			<b>Overpressure and Static Pressure Limit.</b> 25 psig.																										
<b>Analog Inputs.</b> Dual inputs are field configurable via jumper for 0-5VDC, 0-10VDC, or 4-20mAADC. For use with optional special function and controller external setpoint.			<b>Circuit Protection.</b> Power input is isolated, fused, and reverse polarity protected.																										
<b>AUTO-purge Management.</b> AUTO-purge cycle is initiated via an external dry contact input, or via an internal timer with field selectable frequencies of 1 to 24 hours, in 1 hour increments. Three internal relays provide remote purge activation & acknowledgment.			<b>Span and Zero Adjustment.</b> Digital, via internally located push-buttons.																										
<b>Controller.</b> Controller output type is P,I,1/D, user selectable forward or reverse acting. Controller setpoint is user selectable as internal or via external analog input.			<b>Displays.</b> Standard 2 line x 20 character backlit graphical LCD provides one line of data display. Optional 5 line x 20 character backlit graphical LCD provides up to 5 lines of data display.																										
<b>Low Pass Filtration.</b> Response time to reach 98% of a step change is adjustable from 2.0 to 250.0 seconds.			LED's indicate CPU activated, AUTO-zero in progress, AUTO-zero over-ranged, AUTO-purge in progress, and auxiliary alarm "on" status.																										
			<b>Humidity Limits.</b> 0-95% RH, non-condensing.																										
			<b>Temperature Limits.</b> -20°F to 180°F Storage. +40°F to 140°F Operating.																										