AutoJet® PWM Spray Control Panel

The AutoJet PWM Spray Control Panel provides a convenient way to activate electronic nozzles at a specific frequency and duty cycle. The control panel is specifically designed to drive Spraying Systems Co.’s Pulsajet® Automatic Spray Nozzles and includes a power supply and all components needed for “plug-and-spray” operation. The panel can be used as a stand-alone control panel or may be controlled by a remote external system to drive up to sixteen Pulsajet Spray Nozzles.

Local or Remote Control:

In “Local” mode, spray nozzles are activated by the “Output” switch and PWM duty cycle is controlled using a dial on the front panel. To prevent accidental changes by an operator, a toggle switch inside the cabinet can require duty cycle be controlled using a dial located inside the enclosure. In “Remote” mode, spray nozzles may be activated by a sensor and their duty cycle may be controlled by an external control system such as a PLC.

The Benefits of Pulse Width Modulated (PWM) Flow Control

Flow rate can be controlled very precisely by cycling the electrically-actuated spray nozzle on and off quickly at a controlled frequency. For a duty cycle of 50%, the nozzle is spraying half the time and the flow will be 50% of the maximum flow rate at a given pressure for the nozzle.

Using PWM Flow Control:

- Relatively low flow rates can be generated with larger, clog-resistant spray tips
- Overspray is minimized
- Chemical consumption can be reduced
- Extremely high flow turndown ratios can be achieved at a single pressure

Typical Applications

- Food Processing
- Antimicrobials
- Oil/Water Coating
## Specification

<table>
<thead>
<tr>
<th>Spray Control Panel Functions Output:</th>
<th>Automatic Controls Input:</th>
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</thead>
<tbody>
<tr>
<td>• Off – Power to the unit is off and the system can not spray</td>
<td>• Duty Cycle Control – 0 to 20mA</td>
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<tr>
<td>• On – Power is supplied to the driver and the system sprays if commanded</td>
<td>• On/Off Control – Switch to ground</td>
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</tbody>
</table>

### Control:

- Local – Duty cycle and nozzle state are controlled at the panel (inside or outside dial)
- Remote – Duty cycle and nozzle state are controlled by a remote unit, such as a PLC

### Boost Version:

- PWM Control Signal – Switch to ground

### Power Supply:

- 115 VAC, 60 Hz

### Duty Cycle:

- Minimum 10% – Nozzle sprays only 10% of rated flow at the current spray pressure
- Maximum 90% – Nozzle sprays 90% of rated flow at the current spray pressure

### Internal Controls:

- Frequency – 0.1 to 166 Hz
- Negative Pulse Width – 0.5 to 6.5 ms

### Enclosure:

- Rating – NEMA 12

### Power Supply:

- Ambient Temperature – 32°F to 104°F
- Relative Humidity – up to 95%

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Experts in Spray Technology