Rate Control

1. High Adjust

• Fast rate adjustment above threshold.

2. Low Adjust

• Slow rate of adjustment below threshold.

3. Threshold

• The percentage of rate error where adjustment changes from fast to slow.

4. Scaling Factor

• A factor used to modify the rate adjustment based on the volume of product being applied. A higher volume of product requires a lower scale factor to reduce the rate of adjustment. The adjustment is exponential – a small change in the scaling factor can produce a very large effect.

5. Max Power

• Maximum power delivered to the motor or valve.

6. Min Power

• The minimum power delivered to the motor or valve.

Adjustment Process:

1. Initial Setup:

• Begin by setting the minimum power required to move the motor or valve. Set the maximum power to 100, reducing it as needed to improve control stability.

2. Scaling Factor Adjustment:

• Next, adjust the scaling factor very slowly until the system overshoots the target. Then reduce the scaling factor to stabilize flow control.

3. Fine-Tuning:

• Lastly, adjust the High, Low and Threshold settings to fine-tune the results.