

Technical Note

00840-1000-4716, Rev AA
January 2010

Rosemount 3051S MultiVariable

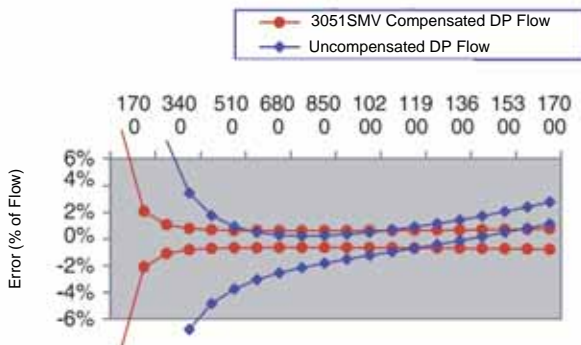
Rosemount 3051S MultiVariable™ Transmitter

SAVE \$288,000 A YEAR IN LOST STEAM BY ELIMINATING MEASUREMENT ERRORS

Eliminate bias error in flow measurement with the Rosemount 3051S MultiVariable Mass and Energy Flow Transmitter.

- *Eliminate Measurement Errors*
The 3051SMV eliminates measurement errors caused by gas expansion.
- *Address Six Flow Rate Measurement Factors*
The 3051SMV accounts for changes in the discharge coefficient, velocity, bore diameter, density, and gas expansion.
- *Eliminate Bias Error*
Real time flow calculations performed by the 3051SMV ensure the greatest DP flow accuracy across the widest operating range of any mass flow transmitter on the market.

Flow Rate Uncertainty Comparison



A steam generation facility provides steam for 80 large office buildings, each with its own transmitter installation.

- *1% of the Lost Steam Is Recovered For Each Installation Each Month*

Steam recovery was more than 1% during low-output months.

- *\$300 Savings Per Installation Per Month*

Total steam dollar flow rate per installation is approximately \$30,000. One percent recovery translates into \$300/month.

- *Billing Efficiency Increases \$288,000 Annually*

The utility in this example saves \$300 monthly at 80 installations.

$$(\$300 \times 80) \times 12 = \$288,000$$

Bias error reduction from advanced flow compensation is only one reason to install the 3051SMV. Accurate measurement of multiple variables, flexible and less intrusive connection configurations, and compact packaging make the 3051SMV an easy choice for DP mass and energy flow measurement installations.

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Process Management

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