

Piecewise Linearization to Enhance Calibration for Gas Applications

Lost And Unaccounted For (LAUF) Gas is no Laughing Matter.
New Technology Helps Reduce LAUF That Can Be Caused by Measurement Errors.

Emerson Elite Coriolis meters ($\pm 0.25\%$ standard gas accuracy) are **2.8x more accurate** than AGA 11 specifications ($\pm 0.7\%$)

2.8x

Accurate and robust gas custody-transfer measurement with Coriolis technology

- Measure gas volume at standard conditions directly from mass and base density — no pressure or temperature measurement required to convert
- Install and calibrate without pipe runs and flow conditioners
- Reduce maintenance demands by eliminating moving parts
- No risk of damage or “seizing” due to surges, pulsating flow or particle contamination
- No need to remove for visual inspection – instead, verify cleanliness with in situ meter zero check

Industry-leading gas measurement performance with Piecewise Linearization for Gas (PWL) to apply adjustments based on valuable third-party gas lab calibrations

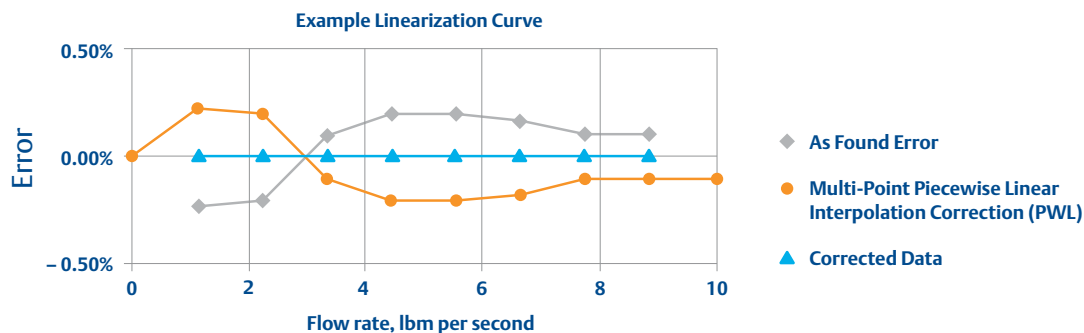
7x

Emerson Elite Coriolis meters with PWL (typically 0.10% verification results*) are **7x more accurate** than AGA 11 spec

(PWL transmitter compatibility: 2700, 5700)

*Actual results will depend on selected gas laboratory reference uncertainty.

Enhanced gas accuracy and linearization for critical applications



Why Emerson?

Every possible small improvement in the accuracy of measuring natural gas can add up to significant value.

	30 MMSCFD Flow Rate	60 MMSCFD Flow Rate	120 MMSCFD Flow Rate
Energy Content	1,050 BTU/scf		
Cost of Gas	\$3.00 USD/ MMBTU		
Value of Gas	\$95K	\$189K	\$378K
Value of Gas	\$35MM	\$69MM	\$138MM
Value of bias error	\$52K/year	\$104K/year	\$208K/year

*Assuming 0.15% improvement with PWL calibration enhancement

Example As Found Data and Resulting Correction Curve



Example SMV report



Did you know you can extend AGA11 calibration intervals with Smart Meter Verification? Learn how:

Emerson.com/smartmeterverification