

PLANTWEB ADVISOR FOR METROLOGY

Verify the Integrity of Flow Measurement Calculations

Plantweb Advisor for Metrology Functionality

Plantweb Advisor for Metrology is Emerson's new modular analytics platform. It is built upon the latest technologies, providing a suite of functions and flexibility that are unprecedented within the measurement world today. This next-generation platform provides a level of standardization and automation of complex tasks that integrate seamlessly across measurement assets and engineering support locations.

The enhanced diagnostic, remote monitoring, predictive capabilities and validation provide greater insight into both process and instrumentation, driving clarity and reducing financial exposure and risk.



Calculation Verification Module

Flow computer calculations require periodic verification to ensure optimal performance. Having an automated, online tool provides an added degree of confidence in the performance of the device. For this purpose, Plantweb Advisor for Metrology offers calculation verification software.

Plantweb Advisor for Metrology

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A Caffe Lyad Orice Product Type Crude Oil Calculation Method NGL - GPA TP 25, 1998 •

Meter Type Orifice Calculate

Density Measurement
Observed Density 620 kg/m² •
Temperature 15 °C •
Gauge Pressure 1 kPa •
Glass Hydrometer Used • Yes No

Flowing Conditions

Flowing Conditions

Gauge Pressure 4000 kPa •
Flowing Temperature 32 °C

Almospheric Pressure 101.325 kPa •

Equilibrium Vapor Pressure

Calculation Mode • Automatic • Manual Absolute Pressure 101.325 kPa •

Camero Pleatwes Addition for Manual Absolute Pressure 101.325 kPa •

Camero Pleatwes Addition for Manual Absolute Pressure 101.325 kPa •

Camero Pleatwes Addition for Manual Sediment And Water Content % 0

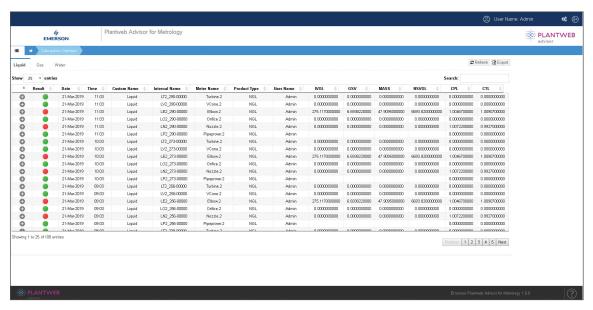
Plantweb Advisor for Metrology gives added confidence in flow computer calculations and detects human errors, such as incorrectly entered constant values.



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This software module interfaces to the flow computer directly and offers dynamic run time and off-line calculations. The following calculations are offered in the software suite:

Gas Calculations	Liquid Calculations
GPA 2172	ASTM D1250 / IP 200
ISO 6976	API MPMS 11.1
AGA 5	API 11.2.1
GPA 2145	API 11.2.2
AGA 8	API 11.2.4 / GPA TP 27
NDC 19, Redlich-Kwong	API 11.2.5 / GPA TP 15
AGA 3 / API MPMS 14.3 Part 1,2,3,4	API 12.2
ISO 5167	
AGA 7	
AGA 10	
ISA 1932	



Example of Calculation Verification for Liquid Orifice Meter

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