eralytics

trusted solutions.
re-imagined.

era**vap online**

PROCESS VAPOR PRESSURE TESTING AT ITS BEST

Standards
ASTM D6377, D6378, D6897

Vapor pressure of gasoline and LPG
TVP and bubble point of crude oil

Excellent correlation to other vapor pressure standards
such as ASTM D323, D5188, D5191, EN 13016

eravap online – lab-grade results for your process

The Piston-based Measurement Principle

With this leading-edge measurement principle vapor pressure testing in laboratories made a huge step forward. The built-in piston renders a vacuum pump obsolete and simplifies the measurement. Years of experience in building such laboratory instruments resulted in a ruggedized measurement design now used in **ERAVAP ONLINE** and measuring in full accordance with latest vapor pressure standards.

Highest Durability

Eralytics took the heart of its laboratory vapor pressure tester and enhanced it for even higher durability needed for 24/7 operation. This includes maintenance-free, self-lubricating gears and the continuously monitored lubrication of the piston.
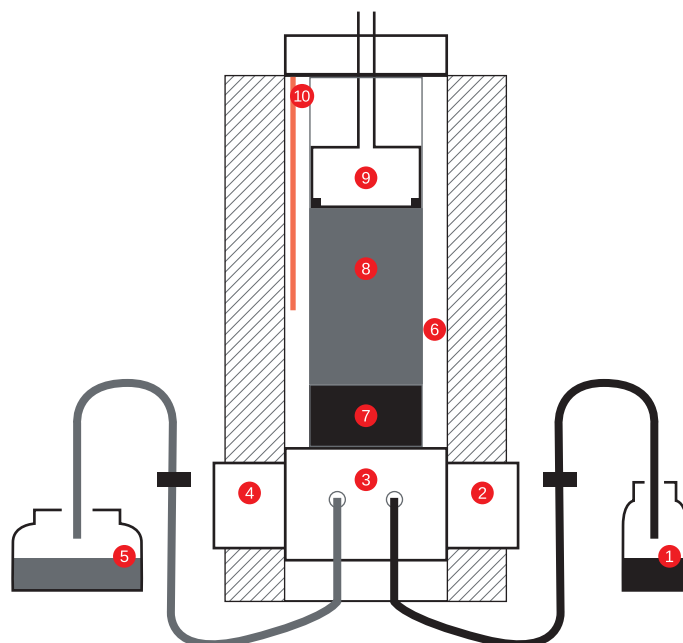
Ex-proof housings according to UL Class 1 Division 1 and ATEX / IECEx Zone 1 are available, meeting all requirements of hazardous environments.

Lab-grade Performance

Since **ERAVAP ONLINE** is measuring according to the latest vapor pressure standards and its measurement cell is based on eralytics' laboratory systems, results from **ERAVAP ONLINE** are identical to laboratory results. There is no need for correlating results in any way.
It clearly outperforms the standard methods in terms of repeatability (r = 0.15 kPa) and reproducibility (R = 0.5 kPa).

1. sample
2. inlet valve
3. manifold
4. outlet valve
5. waste container
6. measuring cell
7. liquid phase
8. gas phase
9. piston with pressure sensor
10. temperature sensor

Minimized Downtime

A spare measurement cell delivered with **ERAVAP ONLINE** minimizes downtimes during calibration or maintenance. While one measurement cell is calibrated and maintained in a safe area, the second one is used for the measurements. They can be swapped in a few simple steps in less than a minute. No tools are required. Measurement cells can be used in any **ERAVAP ONLINE** analyzer as all necessary operating parameters are stored directly on the cell and read by the main unit when connected.

Comprehensive Connectivity

ERAVAP ONLINE offers a wide variety of options to transfer data to a process control system. Modbus communication is possible using its integrated Ethernet or optional RS232 / RS485 connections. Four analog outputs (4 mA–20 mA) can be configured freely to monitor different measurement parameters. Four digital outputs communicate errors and warnings. The main operating steps can be triggered using four digital input ports. In **ERAVAP ONLINE**'s standard operating mode it autonomously measures and sends results over the chosen output channels.

ERAVAP ONLINE has four fluid inlet streams that can be configured to be used as sample streams, quality control streams or as cleaning streams for crude oil applications. All settings are easy to configure on the ex-proof touchscreen during installation. Configuration of an online analyzer never was easier.

Applications

Quality control measurements at terminals or refineries belong to **ERAVAP ONLINE**'s standard repertoire. With its multi-stream capabilities **ERAVAP ONLINE** is the ideal tool for blending applications. It can monitor both inlet streams and the blended stream within one instrument. Wether it is blending naptha into viscous crude or butane into gasoline, **ERAVAP ONLINE** is the analyzer of choice.

Standard Model

EP01 ERAVAP ONLINE

Includes 2 measurement cells

Measurement Cells

EP01-M for gasoline, crude oil, LPG

Pressure range: 0 kPa–1 000 kPa (0 psi–145 psi)

EP02-M for gasoline, LPG

Pressure range: 0 kPa–2 000 kPa (0 psi–290 psi)

Sample Conditioning Systems

Up to 4 sample streams per analyzer

EP01-SCG for EP01

Sample conditioning system for gasoline and LPG

EP01-SCC for EP01

Sample conditioning system for crude oil

Ex-proof Configurations

EP01-UL

UL Type X Pepperl+Fuchs system (USA, Canada)

EP01-ATEX/IECEx

ATEX Pepperl+Fuchs system

Technical Specifications of era**vap online**

Available Test Methods	ASTM D6377, D6378, D6897 ASTM D5188, D5191; EN 13016 (without air saturation) Freely programmable methods
Correlation to	ASTM D323, D1267, D2533, D4953, D5190, D5482; IP 394, IP 409; JIS K2258-2; SHT 0769; GOST 52340;
Temperature Range	0 °C – 120 °C (32 °F – 248 °F)
Temperature Stability	0.01 °C (0.02 °F)
Pressure Range	EP01-M: 0 – 1 000 kPa (0 – 145 psi) (gasoline, crude oil, LPG) EP02-M: 0 – 2 000 kPa (0 – 290 psi) (gasoline, LPG)
Pressure Resolution	0.01 kPa (0.0014 psi)
Vapor / Liquid Ratio	Variable from 0.02:1 – 100:1
Precision	Repeatability: r = 0.15 kPa (0.022 psi) Reproducibility: R = 0.5 kPa (0.073 psi)
Cycle Time	Typically 7 min (depending on sample composition)
Inlet Streams	Up to 4 inlet streams (sample, quality control, purging)
Connections	Analyzer inlet 1/8" (gasoline, LPG) or 1/4" (crude oil) compression fittings Sample conditioning system and waste connection 1/2" compression fittings
Process Stream Requirements	Analyzer: 200 kPa – 300 kPa (without sample conditioning system) Sample conditioning system: 300 kPa – 7 000 kPa (min. flow 5.7 L/min)
Interfaces	Modbus via Ethernet, optional RS232 / RS485 4x analog output (4 mA – 20 mA) 4x digital output (24 V, max. 500 mA per port) 4x digital input (24 V)
Explosion Protection	UL Type X or ATEX / IECEx purging system (purge gas Nitrogen)
Display	Industry proven 15" color touchscreen
Automated QC Routine	Built-in quality control tracking
RCS Remote Control Software	Windows® software for remote control from safe areas
Ambient Operating Conditions	-10 °C – 45 °C (14 °F – 113 °F)
Power Requirements	100 – 240 V AC, 50/60 Hz, 8 Amp
Dimensions / Weight	Analyzer: 800 x 700 x 320 mm (31.5 x 27.6 x 12.6 in) / 60 kg (187.4 lb) Sample conditioning system (per stream): 300 x 850 x 150 mm (12 x 34 x 0.6 in) / 15 kg (33 lb)

Due to continuing product development, specifications are subject to change.
All **era**lytics products are manufactured under ISO 9001 regulations and are CE, ROHS and UL/CSA compliant. **www.eralytics.com/eravap-online**

eralytics instruments are available worldwide.
An international network of over 50 authorized and well-trained distributors is ready to answer your inquiries and to offer local support and service.
www.eralytics.com/distribution

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