



Process Analyzer

Reid Vapor Pressure Analyzer Model P-700

Credible Solutions for the Oil and Gas Industry

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Process Analyzer

To remain competitive, today's refiners must employ all optimization and product control techniques available. The use of online physical property analyzers is one of the key features to reach those objectives because they measure important quality properties in the process directly.

Reid Vapor Pressure is a common measure of the volatility of gasoline. It is defined as the absolute vapor pressure exerted by a liquid at 100°F (37.8°C) as determined by the test method ASTM D323. The test method applies to volatile crude oil and volatile nonviscous petroleum liquids, except liquefied petroleum gases.



Your partner
for innovative
system solutions.



The BARTEC
specialists have
many years of expe-
rience. They create
system solutions
that you can rely
on: efficient and
dependable for
decades to come.

Correlates with ASTM

Optional validation sample system

Optional stream switching

Micro samples

APPLICATION

With the introduction of the Clean Air Act and its amendments in 1990 by the Environmental Protection Agency under Title II Emission Standards for Moving Sources, Part A - Motor Vehicle Emission and Fuel Standards, Section 211 Regulation of Fuels - (h) Reid Vapor Pressure Requirements, it has become unlawful to sell, offer for sale, dispense, supply, offer for supply, transport, or introduce into commerce gasoline with a Reid Vapor Pressure in excess of 9.0 pounds per square inch (psi) during the high ozone season (as defined by the Administrator).

Therefore, refineries, pipeline terminals and blending stations require a reliable and accurate analysis system of Reid Vapor Pressure to comply with this regulation. In addition, the very same analysis system will allow the operator to run the blending process in an optimized range, lowering production cost and improving product quality.

**Special Features:**

- Elevated sample temperatures of up to 75°C
- Rapid analysis cycle of 5 to 6 minutes
- Optional True Vapor Pressure Output Module
- Microsamples 0.5 ml/cycle
- Streamswitching
- Validation (micro system)

Norms and Standards:**Correlates with:**

- ASTM D323
- ASTM D4953
- ASTM D5482
- ASTM D5191
- ASTM D6377

Make your decision for a strong partner!

Choose **BARTEC GROUP** also for:

- Fast Loop Systems
- Sample Conditioning Systems
- Validation Systems
- Recovery Systems
- Chillers
- Air Conditioning Systems/HVAC
- Pre Commissioned Analyzer Shelters/
Turn-Key Solutions



EXPLOSION PROTECTION

Ex protection marking ATEX: Ex d IIB+H2 T6 Gb
NEC: Class I Div 1 Group B, C + D
CE₀₅₁₈

TECHNICAL DATA

Technology uses a digitally controlled syringe sample handling system; micro sample 0.5 ml

Method correlates with:
ASTM D323, ASTM D4953, ASTM D5482,
ASTM D5191, ASTM D6377

Measuring range 0 to 2.4 bar (0 to 35 psi)

Repeatability 3.4 mbar (0.05 psi)

Reproducibility ≤ ASTM

Measuring cycle 5 min typical

Measuring temperature 37.8°C (100°F)

■ Electrical data

Nominal voltage 100 to 120 VAC, 1 phase; 50/60 Hz
200 to 240 VAC, 1 phase; 50/60 Hz

Maximum power consumption less than 500 W

■ **Protection class** IP 65

■ Ambient conditions

Ambient temperature operation 5 up to 40°C (41 to 104°F)

Ambient humidity up to 90 %

Sample

Quality clean dry,
filtered less than 10 µm,
no free water

Properties

Consumption 1.2 to 6 l/h

Pressure at inlet 1 to 3.8 bar (55 psi)

Temperature at inlet
Standard 2 to 75°C (35 to 167°F)

Viscosity max. 15 cST

Utilities

■ **Instrument air**
Consumption
Cell Purge 30 l/h

Pressure at inlet 1 bar to 8 bar (14 to 116 psi)

Quality clean dry,
oil and particulate free,
instrument air

■ **Coolant** None required

Signal outputs and inputs

Analog outputs RVP values, analyzer system /
maintenance warning, RVP1, RVP2, TVP
(with option) cell temperature, 2 outputs
standard analysis measurement indication

Digital outputs RVP value alarm, analyzer maintenance
warning, analyzer fault alarm, come read,
in validation, analyzer warning (plus your
listed), 3 dry contacts programmable
customer alarm, remote standby, stream
switch, validation (dry contact)

Digital inputs

Electrical data of signal outputs and inputs

Analog outputs 2 x 4 to 20 mA, self powered and isolated

Digital outputs 250 VAC, max. 3A, 3 dry contacts

Digital inputs dry contact

User interfaces

Display 7" color graphics

Keyboard 5 button magnetic,
no hot work permit required

Connections

Sample inlet 1/4" FNPT

Sample outlet 1/4" FNPT

Vent/Drain 1/4" FNPT

Weight and dimensions

Weight approx. 228 kg (500 lbs)

Dimensions (W x H x D) approx. 940 x 1803 x 762 mm
(37" x 71" x 30" in)

Optional interfaces

Analog outputs optional, cell pressure,
validation result, cell temperature,
additional on request

MODBUS interface TCP/IP or Serial/RTU MODBUS output
available

Important notice P-700 is subject to continuous product improvement, specifications are preliminary and may be subject to change without notice. If your technical data do not comply with existing data, please contact us for technical clarification.



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