BARTEC ORB

Process Analyzer

Reid Vapor Pressure Analyzer Model P–700

Credible Solutions for the Oil and Gas Industry

Reid Vapor Pressure Analyzer Model P–700

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.

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Your partner for innovative system solutions.

The BARTEC specialists have many years of experience. 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**

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EXPLOSION PROTECTION

Ex protection marking	ATEX: Ex d IIB+H2 T6 Gb NEC: Class I Div 1 Group B, C + D CE 0518

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
Digital inputs	customer alarm, remote standby, stream switch, validation (dry contact)

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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