

RVP4500 Series Reid Vapor Pressure analyzers

Maximizing gasoline blending profits



Correlation to the laboratory method

- First process RVP analyzer that better matches the laboratory methods by automatically saturating the sample with air before measuring the RVP of the sample

Improved blending with air saturation

- Reduces variable bias between lab and process RVP analyzer from changes in seasonal and octane level blends
- Allows blenders to optimize their blend on the less expensive feeds by safely blending closer to the sweet spot

Ethernet connectivity

- VistaReport, OPC, Modbus

Easy to read display

- Visible display in low light conditions

Different ranges due to variability of the feedstock going to the gasoline blenders

RVP4500	0-20 psi
RVP4501	0-90 psi
RVP4503	0-30 psi
RVP4540	0-225 psi
RVP4550	0-20 psi with air saturation

ASTM method D5482 (off-line mode)

- RVP4500 meets the requirements for this ASTM method

ASTM lab method D1267

- RVP4540 meets the requirements for this ASTM method and measures vapor pressure of LPG or LNG streams

RVP4500 Series

Reid Vapor Pressure analyzers

Application

Usage Reid Vapor Pressure (RVP) is a vapor pressure measurement of gasoline and its feedstocks that is measured at a constant set of conditions which is used to monitor the quantity of light compounds in the gasoline. This measurement is used to reduce the amount of pollution from light compounds such as butane from escaping into the atmosphere and also to make sure there are enough light compounds to make sure car engines will start in cold temperatures.

Description The RVP4500 Series analyzers consist of several models to cover various range requirements. The ranges allow the analyzers to be used not only on the final gasoline blending but also on the various feedstocks to the gasoline blender. The RVP4550 offers a novel air saturation step that simulates the manual air saturation step of the laboratory method for the final gasoline blending operations. The RVP4540 is the version that is used to measure the vapor pressure in LPG and NGL streams.

Physical

RVP4500 Series Process RVP analyzer

Environmental (enclosure):	Protected from weather: IP 54, (NEMA 3 Equivalent)
Ambient temperature range:	0 to +32° C (32 to 90° F), without modification
Humidity:	95% relative humidity, non-condensing
Dimensions:	762.0 mm W x 222.3 mm D x 1371.6 mm H (30.0 in. W x 8.75 in. D x 54.0 in. H)
Weight:	56.7 kg (125 lbs) (minimum, configuration dependent)
Mounting:	Wall: 33 mm (1.3 in.) from wall with brackets Floor: Optional dolly
EMI/RFI considerations:	Conform to Class A industrial environment
Electrical entries:	Side

Performance specifications

RVP4500, 4501, 4503, 4540 & 4550 RVP analyzer

Cycle time:	Without Air Saturation:	8.5 minutes
	With Air Saturation:	10 minutes
Repeatability:	RVP4500/RVP4503/ RVP4550	0.05 psia
	RVP4501	0.20 psia
	RVP4540	1.8 psia
Reproducibility:	RVP4500/RVP4503/RVP4550	0.2 psia
	RVP4501	0.8 psia
	RVP4540	2.8 psia
Operating range :	RVP4500	0-20 psia
	RVP4501	0-90 psia
	RVP4503	0-30 psia
	RVP4540	0-225 psia
	RVP4550	0-20 psia
Pressure transducer:	High Performance, accuracy 0.5% of full scale	
Outputs:	4-20 mA Isolated, 600 ohms maximum	
	Ethernet	
	RS-232 Serial Output	
RVP cell drain:	Cell drain must be unrestricted vent to atmosphere	

Safety area classification

cETLus/ NRTL:	Class I, Division 1; Gas Groups B, C, D Temperature Code T6
ATEX:	Zone 1: CE 0344; II2G, Exd IIB T3
IECEX:	Zone 1; Exd IIB+H2 T6

Power

(Hot, Neutral, Ground)

Voltage:	100 – 240 VAC
Frequency:	50-60 Hz
Power consumption:	150 Watts Startup and Steady-state operation Typical, varies with installed options.

Instrument air

Supply connection:	1/4 inch tube, minimum
Supply pressure:	414 kPa (60 psig) minimum
Quality:	Instrument grade: Clean, Oil Free and -34° C, (-30° F) dew point

Specifications subject to change without notice.

Contact us



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