BARTEC ORB

Process Analyzer

Flash Point Analyzer Model P–500

Credible Solutions for the Oil and Gas Industry

Flash Point Analyzer Model P–500

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.

The flash point temperature is defined as the lowest temperature at which application of an ignition source causes the vapor of specimen of the sample to ignite under specified conditions of test.

BARTEC ORB

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**
- **Capable of handling high sulfur samples**
- **Rapid measuring cycle of 5 minutes**
- **Independent sample and flash chamber temperature control**

APPLICATION

The Flash Point of mid-distillate products is one of the properties that must be maintained and controlled in order to produce and sell products to the market. The ORB P-500 is a state-of-the-art analyzer that implements the newest of electronics and detection principles for a low cost means of monitoring the Flash Point of a product during the refining process.

Special Features:

- Correlates with ASTM D56 (TAG) and ASTM D93 (Pensky Martens Closed Cup)
- Micro–processor controlled
- External programming
- Color graphics screen
- Remote diagnostics over IP

Norms and Standards:

Correlates with:

- ASTM D56
- ASTM D93

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**

Flash Point Analyzer Model P–500

EXPLOSION PROTECTION

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

TECHNICAL DATA

Technology	measurement / small stainless steel flash chamber, spark ignition
Method	correlates with: ASTM D56, ASTM D93
Measuring range	25 to 125°C (77 to 257°F)
Repeatability	± 1°C or better
Reproducibility	≤ ASTM
Measuring cycle	measuring cycle typical 5 min or better
■ **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	less than 90 %

Sample

Quality	filtered 10 µm, without water or moisture
Consumption	0.9 to 6 l/h
Pressure at inlet	1.4 to 10 bar (20 to 150 psi)
Temperature at inlet	min. 10 K below expected FP temperature < 85°C

Utilities

■ **Instrument air**	
Consumption	
Purge	60 l/h at 10 seconds per cycle
Operation	48 to 60 l/h continuous
Pressure at inlet	2.7 to 6.8 bar (40 to 100 psi)
Quality	clean dry, instrument air
■ **Coolant**	None required

Signal outputs and inputs

Analog outputs	Flash Point, sample temperature
Digital outputs	sample FP alarm, analyzer maintenance warning, analyzer fault alarm
Digital inputs	customer alarm, remote standby, stream switch, validation request

Electrical data of signal outputs and inputs

Analog outputs	up to 2 to 4-20 mA self powered and isolated, 1 is standard
Analog inputs	optional
Digital outputs	up to 3 dry contacts programmable, alarm critical, come read, alarm warning
Digital inputs	up to 4 dry contact inputs

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

Important notice P-500 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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