BARTEC ORB

Process Analyzer

No Flow Point Analyzer Model P–840/P–840LT

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.

The no flow point (correlating to pour point) is the temperature where a product (as it is cooled) stops flowing.

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.

- **Operating range –76 to 77°F (–60 to 25°C)**
- **Rapid analysis cycles of 10 to 45 minutes**
- **Superior repeatability of less than 0.5°F (0.25°C)**
- **High pressure sample detection cell eliminates the need for atmospheric recovery**
- **Stream switching and validation**
- **Remote diagnostics over IP**

APPLICATION

Given today's highly competitive environment, oil refiners are demanding instrumentation that aids in the optimization of the refining process. Therefore, refineries require a reliable and accurate analysis system of the No Flow (Pour Point) temperature to meet the required specifications. This analysis will allow the operators to optimize the refining process and therefore lower production costs while improving product quality.

Special Features:

- Internal Cyro Cooler or Peltier Cooling
- High pressure detection cell
- No Sample Recovery
- Rapid Cycle Times
- Reliable pressure detection system

Norms and Standards:

Compliant with:

- ASTM D7346

Correlates with:

- ASTM D97

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 II B T6 Gb CSA/CUS Class I Div 1 Group B, C + D CE 0518

TECHNICAL DATA

Technology	differential pressure sensing system
Method	compliant with: ASTM D7346 correlates with: ASTM D97
Measuring range	-60 to 25°C (-76 to 77°F)
Repeatability	0.25°C
Reproducibility	compliant with: ASTM D7346 correlates with: ASTM D97
Measuring cycle	less than 20 min typical
■ **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	600 W
■ **Protection class**	IP 65
■ **Ambient conditions**	
Ambient temperature	-20 to 40°C (-4 to 104°F)
Ambient humidity	up to 90 %

Sample

Quality	clean and filtered, no free water
Consumption	60 to 120 l/h
Pressure at inlet	min of 2 bar (29 psi), up to 15 bar (217 psi)
Temperature at inlet	-15°C to 85°C (5 to 185°F)

Utilities

■ **Instrument air**	
Consumption Vortec Purge	If air cooled cyro then 25 CFM 12 l/h
Pressure at inlet	24 bar (350 psi)
Quality	plant air
■ **Coolant**	
Consumption	if liquid cooled cyro then 240 l/h (air cooled cyro unit / no coolant)
Temperature	-10 to 40°C (14 to 104°F)
Pressure at inlet	1 to 20 bar (14 to 290 psi) (min 2 bar different)
Quality	clean and filtered

Signal outputs and inputs

Analog outputs	Pour Point / No Flow Point, cell temperature, pressure signal
Digital outputs	come read, analyzer fault, Pour Point alarm, 3 A
Digital inputs	customer alarm, remote standby, stream switch, validation

Electrical data of signal outputs and inputs

Analog outputs	1 standard 4-20 mA self powered and isolated, 1 optional
Digital outputs	up to 3 dry contacts 250 VAC, 3 A
Digital inputs	up to 4 dry contact, customer alarm, remote standby, stream switch, validation

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

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 (pressure, cell temperature)
MODBUS	TCP IP / Serial RTU

Options

P–840	Peltier Cooling System
P–840LT	Cryo-Cooler System

Important notice P-840/P-840LT 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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