



# Process Analyzer

## Viscosity Index Analyzer Model P-950

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 viscosity index is a widely used and accepted measure of the variation in kinematic viscosity due to changes in the temperature of a petroleum product between 40°C and 100°C. A higher viscosity index indicates a smaller decrease in kinematic viscosity with increasing temperature of the product.



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.

Capillary type of viscometer

Correlates with ASTM D445 / ASTM D2270

Certified for installation in hazardous areas

## 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 viscosity analysis system 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:**

- **Customizable 2–4000 cP Sample Range** (kinematic output in cSt)
- **Continuous Sample Viscosity and Viscosity Index output**
- **Does not require atmospheric recovery system**
- **Modbus**
- **Remote Bath Temperature Set Point Change**
- **Up to 8 programmable Viscosity Points**

**Norms and Standards:**

**Correlates with:**

- **ASTM D445**
- **ASTM D2270**

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 II B + H2 [ja II C] T3 Gb  
CSA/CUS Class I Div 1 Group C + D  
CE<sub>0518</sub>

## TECHNICAL DATA

**Technology** dual bath capillary type  
**Method** correlates with:  
ASTM D445, ASTM D2270

**Measuring ranges and temperatures** up to 4000 cP  
**Repeatability** ± 1 % full scale  
**Reproducibility** correlates with:  
ASTM D445, ASTM D2270

**Measuring cycle** continuous  
**Product streams** lube oils, asphalts and bunker fuels

■ **Electrical data**  
**Nominal voltage** 220 VAC, 50/60 Hz, 1 phase Heater and Pumps  
120/220 VAC, 50/60 Hz, 1 phase Electronics

**Maximum power consumption** 30 A, less than 6000 W  
■ **Protection class** IP 65  
■ **Ambient conditions**  
**Ambient temperature** operation 5 to 40°C (41 to 104°F)  
**Ambient humidity** up to 90 %

**Sample**  
**Quality** less than 10 µm, filtered

**Properties**  
**Consumption** 5 l/h (fixed meter in pump)  
**Pressure at inlet** 1.4 to 14 bar (20 to 203 psi)  
**Temperature at inlet** ± 38°C (68°F) of bath temperature  
**Process sample** max temperature 111°C (232°F)

**Utilities**  
■ **Coolant**  
**Consumption** depends on application (consult factory)  
**Temperature** 0 to 50°C (32 to 122°F)  
**Pressure at inlet** 1 to 60 bar (14 to 870 psi)  
**Quality** clean and filtered (10 µm)

## Signal outputs and inputs

**Analog outputs** 3 standard, VI, V40 and V100  
**Digital outputs** up to 3 dry contacts programmable, remote standby, analyzer fault, value alarm  
**Digital inputs** up to 2, customer alarm, remote standby

## Electrical data of signal outputs and inputs

**Analog outputs** 3 standard  
**Digital outputs** 3 standard  
**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

## Weight and dimensions

**Weight** approx. 272 kg (600 lbs)  
**Dimensions (W x H x D)** approx. 1575 x 1938 x 381 mm  
(62" x 76" x 30" in)

## Optional interfaces

**Analog outputs** optional (bath temperature, density)  
**MODBUS interface** TCP/IP or Serial/RTU 485

**Important notice** P-950 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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