Freezing Point Tester (FPT)

DESIGNED TO MEASURE FREEZING POINT WITH PRECISION

Ducom Freezing Point Analyzer is designed to precisely determine the freezing point of aviation fuels, engine coolants, antifreeze products, brake fluids and other petroleum products. It features a built-in CFC-free cooling system capable of cooling down to -90°C.

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Technical Specifications

MEASURING PARAMETERS

- Temperature: °C/°F
- Measuring Range: +80°C to -90°C (410/2 SA)
- Resolution: 0.01°C
- Accuracy: ±0.1°C
- Repeatability/Reproducibility: as per standard methods or better

TEMPERATURE MEASUREMENT

- PT100, Class A

OPERATING RANGE

- Ambient to 32°C
- Max. R.H. 80%

STIRRER

A micro-motor drives all the mechanical system 3 coils stirrer made of brass.

MEASURING DEVICES

- Freezing Point Principle: According to the methods, the sample is cooled down and stirred. The solid hydrocarbon crystals formation are detected by means of a light beam through fiber optic reflected thanks to a mirror. As soon as crystals are detected, the sample is warmed up until their complete disappearance.
- Freezing Point Device: Light pulsed emission on I.R spectrum through a coaxial fibber optic. Coaxial fibber optic equipped with a mirror

DIMENSIONS AND WEIGHT

- 34 x 60 x 80 cm (WxDxH), 34 kg

ELECTRICAL SUPPLY

- 220V + 15% / 50 to 60 Hz (or) 115V + 15% / 60 Hz

Test Standards

- **ASTM D852:** Standard Test Method for Solidification Point of Benzene
- **ASTM D1177:** Standard Test Method for Freezing Point of Aqueous Engine Coolants
- **ASTM D1655:** Standard Specification for Aviation Turbine Fuels

- **ASTM D2386:** Standard Test Method for Freezing Point of Aviation Fuels
- **ASTM D5972:** Standard Test Method for Freezing Point of Aviation Fuels (Automatic Phase Transition Method)
- **ASTM D7154:** Standard Test Method for Freezing Point of Aviation Fuels (Automatic Fiber Optical Method)
- **IP 16:** Determination of the Freezing Point of Aviation Fuels - Manual Method
- **IP 435:** Determination of the Freezing Point of Aviation Turbine Fuels by the Automatic Phase Transition Method
- **IP 528:** Determination of the Freezing Point of Aviation Turbine Fuels - Automated Fiber Optic Method
- **IP 529:** Determination of the Freezing Point of Aviation Fuels - Automatic Laser Method
- **ISO 3013:** Petroleum Products - Determination of the Freezing Point of Aviation Fuels

Features

AUTOMATED SYSTEM

Fully computer-controlled system with software to monitor and control the test parameters.

COOLING SYSTEM

Insulated cooling jackets

Integrated CFC-free, double stage system

SAFETY FEATURES

Pressure controller for 1st stage and 2nd stage motor compressor

Thermostat for 2nd stage activation

Thermo-switch for each cooling / heating jacket

Motor compressors equipped with internal overload devices

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Questions?

Our experienced and knowledgeable staff can help you.

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