

DENSITY/RELATIVE DENSITY OF LIGHT HYDROCARBONS BY PRESSURE THERMOHYDROMETER

Test Method

Density and relative density measurements of light hydrocarbons, including LPG, are used for transportation, storage and regulatory purposes. The measurement is made by floating a thermohydrometer in a sample that has been introduced into a pressure cylinder.

Pressure Hydrometer Cylinder

- Conforms to ASTM D1657 and related specifications
- Built-in safety relief valve

Transparent plastic cylinder mounted between machined aluminum end plates and surrounded by stainless steel safety guard. Use together with ASTM 310H Thermohydrometer to determine density or relative density of LPG and light hydrocarbons. Equipped with inlet, outlet and vapor vent valves for admitting sample and purging cylinder. End plates have positive sealing buna-N O-rings and are joined by sturdy steel support rods. Top plate detaches easily without tools for insertion or removal of thermohydrometer. Safety relief valve prevents unsafe pressure build-up inside cylinder. Mounted on a finished steel base.

Specifications

Conforms to the specifications of:
 ASTM D1657; GPA 2140;
 IP 235; ISO 3993; NF M 41-008
 Safety relief valve: 200psi (1.4MPa)

Dimensions

dia.xh.in.(cm)
 8 $\frac{1}{2}$ x23 $\frac{3}{4}$ (21x60)
 Net Weight: 5 lbs (2.3kg)

Ordering Information

Catalog No. K26150	Pressure Hydrometer Cylinder
Accessories	
251-000-001	ASTM 101H Thermohydrometer Nominal Relative Density Range: 0.500 to 0.650 Standard Temperature, °F: 60/60 Temperature Range, °F: 30 to 90
251-000-004	ASTM 310H Thermohydrometer Density Range kg/m ³ : 500-650 Standard Temperature, °C: 15 Temperature Range, °C: 0 to 35



K26150 Pressure Hydrometer Cylinder

Constant Temperature Water Bath

- Conforms to ASTM D1657 and related specifications
- Mechanically refrigerated for convenient sub-ambient temperature operation

Immerses two Pressure Hydrometer Cylinders at 60°F (15°C) for density and relative density determinations of LPG and other light hydrocarbons. Mechanically refrigerated cooling system maintains sub-ambient temperature. Thermistor activated solid state temperature controller and 750W copper immersion heater maintain bath temperature with $\pm 0.5^\circ\text{F}$ ($\pm 0.2^\circ\text{C}$) stability. A $\frac{1}{20}$ hp ball bearing stirrer circulates the bath medium to assure temperature uniformity. Stainless steel tank is fiberglass insulated. Equipped with overflow standpipe/drain. Steel exterior has a durable polyurethane enamel finish.

Specifications

Conforms to the specifications of: ASTM D1657; IP 235; ISO 3993
 Controller Sensitivity: $\pm 0.5^\circ\text{F}$ ($\pm 0.2^\circ\text{C}$)
 Capacity: two (2) K26150 cylinders
 Electrical Requirements: **CE**
 115V 60Hz, Single Phase, 12.5A
 220-240V 50 or 60Hz, Single Phase, 6.4A

Dimensions

lxwxh.in.(cm)
 Bath interior: 12x18x22(30x46x56)
 Overall: 18x20x49 (46x51x124)
 Net Weight: 158 lbs (71.7kg)

Shipping Information

Shipping Weight: 186 lbs (84.4kg)
 Dimensions: 15.4 Cu. ft.

Ordering Information

Catalog No. K25900	Constant Temperature Water Bath, 115V 60Hz
K25990	Constant Temperature Water Bath, 220-240V 60Hz
K25995	Constant Temperature Water Bath, 220-240V 50Hz
Accessories	
250-000-12F	ASTM 12F Thermometer. Range -5 to +215°F
250-000-12C	ASTM 12C Thermometer. Range -20 to +102°C

For NIST traceable certified thermometers, please refer to the ASTM Thermometer section on pages 184 through 191.