Automated Distillation Tester

ad-7

Ergonomic, Premium and Versatile

ad-7 automatically performs distillation test of petroleum products as well as narrow boiling range samples. 10.4 inch LCD with touch panel has been adopted for easy and intuitive operation. Peltier system is employed for cooling/heating of the condenser and cylinder room. Premium design for extended pro use.

User-friendliness

- 10.4 inch(*) Color LCD, 4 times larger than previous model.
- Intuitive operation by Touch Panel.
- Advanced data management software; tdas (Tanaka Data Acquisition System).

Safety

- Fire Containment system: Heater shuts down when ultraviolet sensor detects a fire, and CO₂ gas flows into the heater room (if connected to CO₂ source).
- Flask Catcher reduces the risk of breaking vapor tube of flask.
- Overheat protection: Heater shuts down automatically at the upper end of the temperature scale.

Versatility

- 200 test modes
- 5,000 test results
- RS-232C, USB port, Ethernet
## Specifications

- **Test ranges**: Selectable from 0 °C to 300/450 °C (fuel oil) or 0 °C to 200/450 °C (ASTM D850, D1078 with optional accessories)
- **Program control**: Sequence control by microcomputer
- **Display**: TFT-LCD 10.4" Color Touch-Screen with universal design GUI
- **Printer**: Built-in, Thermal type (Paper width: 80 mm, Print width: 72 mm)
- **Barometric correction**: Automatic correction by barometric pressure sensor or manually input
- **Temperature unit**: 0.1 °C or 0.2 °F
- **Temperature sensor**:
  - For Vapor: Pt100
  - For Heater: Thermocouple
  - For Condenser: Pt100
  - For Receiver room: Pt100
- **Heater**: 24 V 600 W Low Mass and Low Voltage Heater, Spiral Type
- **Heater cooling system**: Forced air cooling by propeller fan
- **Condenser**: Brass tube (Standard) or Stainless (Option)
- **Condenser temperature control**: Electronic cooling & heating by Peltier coolers : 0 ~ 69.9 °C
- **Receiver temperature control**: Electronic cooling & heating by Peltier coolers : 10 ~ 50 °C
- **IBP detection**: Photoelectric detection by Infrared LED and phototransistor
- **Liquid level detection**: Photoelectric detection by Infrared LED and phototransistor
  - Distillation rate: 4.5 %/min at factory (Selectable from 2 to 9 % with 0.5 % increment)
  - Control method: PID Control
- **Test mode**: Up to 200 test modes can be recorded
- **Dry point detection**: Manual detection by visual confirmation
  - Or automatic detection by Dry Point Sensor (Option, CRC thermocouple)
- **Safety features**:
  1. Overheat protection activates at the upper end of the temperature scale.
  2. Self-diagnosis for sensor break, test condition and incorrect operations.
  3. Warning device for fire
- **Communication port**:
  - RS-232C x 1ch : For LIMS
  - Ethernet x 1ch : For tdas or LIMS
  - USB x 1ch : For Flash Memory or Firmware update
- **Data storage**: Up to 5,000 test results can be stored.
- **Power source**: AC100V-240V 50 / 60 Hz 15 A
- **Size (W x D x H)**: 430 x 520 x 710 (mm)
- **Weight**: 55 kg

Specifications subject to change without prior notice.

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