

CANNON® DVR 1000 SERIES DIGITAL VACUUM REGULATORS



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- ◆ Solid-state components—contains no mercury
- ◆ Preset for vacuum viscometry per ASTM D 2171
- ◆ Horizontal or vertical configuration
- ◆ Convenient keypad controls

The CANNON DVR 1000 Series Digital Vacuum Regulators are designed for precise measurement and control of vacuum at 300 mm Hg below atmospheric pressure. Unlike other vacuum regulators, the solid-state DVR-1000 and DVR-1500 models use no mercury.

The DVR meter displays the amount of vacuum in mm/Hg or one of nine other units of measurement selected using a keypad on the meter.

In asphalt laboratories the Digital Vacuum Regulator (DVR) may be used in conjunction with Cannon-Manning, Asphalt Institute, and Modified Koppers vacuum viscometers (see pages 48-49 for information on the

9724-H50, -R50, -W50 series) for measurement of highly viscous materials such as asphalt cement at 60°C (140°F) according to ASTM D 2171. The DVR is also useful in other laboratory systems where accurate measurement and control of vacuum is required. Two basic versions of the DVR are available. The DVR-1500 is equipped with an internal vacuum pump and does not require an external vacuum source. The DVR-1000 uses the customer's in-house vacuum system.

The internal set points for the instrument gauge are preset at CANNON to regulate vacuum at 300 ± 0.5 mm Hg below atmospheric pressure (the vacuum required by ASTM D 2171). These set points may be altered to fit the user's specific needs within the DVR's operating range of 28 to 410 mm Hg below atmospheric pressure.

Both the DVR-1000 and DVR-1500 are available in either horizontal or vertical configurations (the horizontal version will support the weight of a constant temperature bath like the CANNON CT-1000 or CT-2000).

The instrument housing is made of durable enameled steel and is supported on non-slip rubber feet.

DVR 1000 Series Specifications

Dimensions:	470 mm wide x 458 mm deep x 172 mm high (18.5 x 18 x 6.75 inches) [in the horizontal position]
Weight:	20 kg (45 lbs)
Range:	Preset at 300 mm Hg below atmospheric pressure, but may be adjusted to accurately control from 28 mm to 410 mm Hg below atmospheric pressure
Reading Accuracy:	± 0.05% of reading ± the least significant digit (includes combined effects of linearity, repeatability, hysteresis, and temperature) [NIST certification is supplied]
Vacuum Regulation Accuracy:	± 0.5 mm Hg (as required by ASTM D 2171)
Operating Temperature:	0 to 40°C (32 to 104°F)
Upper/Lower Safety Limit:	746 mm Hg below atmospheric pressure

Order Information

Catalog #	Item Description
9726-T20	DVR-1000H (DVR w/o vacuum pump, horizontal orientation, 120V, 100 watts)
9726-T23	DVR-1000HF (DVR w/o vacuum pump, horizontal orientation, 240V, 100 watts)
9726-T25	DVR-1000V (DVR w/o vacuum pump, vertical orientation, 120V, 100 watts)
9726-T27	DVR-1000VF (DVR w/o vacuum pump, vertical orientation, 240V, 100 watts)
9726-T60	DVR-1500H (DVR w/ vacuum pump, horizontal orientation, 120V, 175 watts)
9726-T63	DVR-1500HF (DVR w/ vacuum pump, horizontal orientation, 240V, 175 watts)
9726-T65	DVR-1500V (DVR w/ vacuum pump, vertical orientation, 120V, 175 watts)
9726-T67	DVR-1500VF (DVR w/ vacuum pump, vertical orientation, 240V, 175 watts)