

TELEDYNE HASTINGS

ELECTRONIC MODULES FOR THERMOCOUPLE VACUUM SENSORS

INSTRUMENTS

Model AVC Controller

AVC FEATURES

- Works With Existing DV-6 and DV-4 Sensors
- Compact Detachable Electronics
- Operates on DC Power 12-30 volts
- 0-1 VDC Output Signal 0.001 to 1 Torr and 0.1 to 20 Torr
- Standard 8 Pin Octal Connector

APPLICATIONS

Processes Requiring Accurate Vacuum Measurement & Control:

- Glove Boxes
- Cryogenics
- Vacuum Furnaces
- Pharmaceutical Production
- Freeze Drying
- Agricultural Processes
- Air Conditioning
- Thermal Food Containers
- Plasma Coating
- Refrigeration (HVAC)
- Accelerators
- Appliance Manufacturing



Model AVC



Gauge Tubes

DESIGN FEATURES

The Model AVC (Active Vacuum Control) is a compact, modular, detachable electronics package designed to provide a continuous analogue output signal (0-1 VDC) from .001 Torr to 1 Torr when attached to the DV-6 sensor and .1 Torr to 20 Torr when attached to the DV-4 sensor. Additionally, an open collector transistor operates an external relay to act as a vacuum switch.

The AVC electronics uses the rugged thermopile sensors which are industry standards on many vacuum applications. It is intended primarily as a vacuum sensing and control element in OEM applications where durability, long life and economical cost are as critical as overall size. Its compact size allows easy installation in space restricted locations. The resulting packaged electronics are independent of the sensing element allowing quick easy trouble shooting and component replacement.

The DV-6 and DV-4 style sensors each provide the standard rugged thermopile sensing element used in many vacuum applications. Each range of sensors is interchangeable without the need for calibration adjustments. They are rugged noble metal sensors which are resistant to corrosion. The sensors can be ordered with a variety of system connections to meet your system's requirements such as VCR[®], KF 16, KF 25, Glass, MiniConflat[™], etc.

Mini-Conflat[™] is a trademark of Varian Associates, Inc.
VCR[®] is a registered trademark of Cajon Company.



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MODELS AVC

AVC SPECIFICATIONS

Range (DV-6)	.001 - 1.0 Torr (N ₂) .001 to 1.3 mbar
Range (DV-4)	.1 - 20 Torr (N ₂) .13 to 20 mbar
Output Signal	0 - 1 VDC Analog
Electrical Connection	4 Conductor Cable (signal and power)
Power Requirements	+12 to +30 VDC @ 50 mA Must be regulated below +13 VDC
Single Set Point Output	Open Collector Transistor 50 mA @ 30 VDC Max
Weight (approx.)	AVC .22 lbs./100 gs
STANDARD METAL DV 4 and DV 6 SENSOR	
Max Pressure	50 psi max.
Tube Installation Position	Any without recalibrating
Tube Operating Range	0° C to 40° C
Tube Leak Test	< 10 ⁻⁸ SCCS
Tube Max Temperature	100° C 40° C (with electronics attached)

Hastings Instruments reserves the right to change or modify the design of its equipment without any obligation to provide notification of change or intent to change.

Selection Chart

When ordering, specify electronics model.
Note: Sensors sold separately.

Order No.

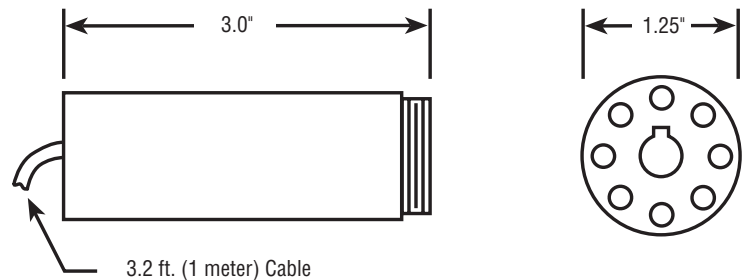
Model	Description
AVC	Active Vacuum Controller (.1 to 20 Torr) or (1 to 1000 mTorr)

Sensors

1 mTorr to 1 Torr	100 mTorr to 20 Torr	Connection
DV-6M	DV-4D	1/8" NPT Standard
DV-6R	DV-4R	1/8" NPT Ruggedized
DV-6M-VCR	DV-4D-VCR	1/4" VCR
DV-6R-CF	—	1.33" Mini Conflat
DV-6M-KF-16	DV-4D-KF-16	KF-16
DV-6M-KF-25	DV-4D-KF-25	KF-25
DV-20	—	Glass - 3/8" O.D.

Request PB 100C-1297 for information on Hastings installation accessories.

Model AVC



Your Customer Service Representative



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