



The AERO VAC TORRCON Model CONVECTION GAUGE CONTROLLER

The VTI AERO VAC TORRCON Convection Gauge Controller measures vacuum pressure when attached to a Granville-Phillips Model 275 CONVECTRON® gauge tube, InstruTech, Inc. Model CVG101GA Convection gauge tube or equivalent.

The VTI AERO VAC TORRCON displays vacuum measurements from 0.1mTorr to over 900 Torr based on the thermal conductivity of air/nitrogen and controls two relays with independent set points. This is a state-of-the-art controller utilizing a PIC Micro-Controller as the heart of the unit.

Specifications

Pressure Range

- 0.01 E-3 Torr (0.01mTorr) to 999 Torr for Air or Nitrogen. Display range is automatic. (Torr units only).

Pressure Display

- 3 digit bright LED, 1/2" tall with exponent LED.

Display Indicators

- Four Red LED's indicate VAC, ATM, SET POINT 1 and SET-POINT 2.

Process Control Set Points

- Two independent set-points each with:
 - Range 0 to 999 Torr.
 - Independent Relay Output (1A, 30V contacts) C, NO, NC.
 - Screw terminal connections.

VAC, ATM and Set-point adjustment

- Push buttons are provided to input data.
- Increment Up - ATM, VAC and Set Points.
- Increment Down - ATM, VAC and Set Points.
- Enter - choose settings and enter settings.
- Cancel - cancels settings or changes.

Memory

- Non-volatile for ATM, VAC and Set Points.

Vacuum Gauge

- Granville-Phillips 275 CONVECTRON® gauge, InstruTech, Inc. Model CVG101GA Convection gauge tube or equivalent.

Connection Error Detection

- Unit auto-detects missing cable and displays "CbL" on read-out.



Photograph shows typical TORRCON installation, illustrates the clear, easy to read display and shows the simple functionality of the controller.

- Unit auto-detects open gauge tube and displays "EPH" on read-out.

Operating Temperature Range

- +2 to +50 deg. Celsius

Analog Output

- Provides 1 channel Analog Output—0 to 5.0V range, Log (0.5V/decade)

999 Torr = 3.0V
100 Torr = 2.5V
10.0 Torr = 2.0V
1.00 Torr = 1.5V
100 -3 Torr = 1.0V
10.0 -3 Torr = 0.5V
1.00 -3 Torr = 0.0V

RS-232 Interface

- Currently displays Firmware Version. Future expansion may allow remote reading of gauge, remote set point programming and remote atmosphere & vacuum constant adjustment.

Mounting

- 1/8 DIN Enclosure— approximate 6" depth

Power Requirements

- 12-28V AC/DC (non-polarized) input power (at about 600mA)

Self Test feature

- Unit performs self test routine on Power-Up.



AERO VAC PRESSURE MEASUREMENT PRODUCTS

TORRCON Gauge Controller

ORDERING INFORMATION

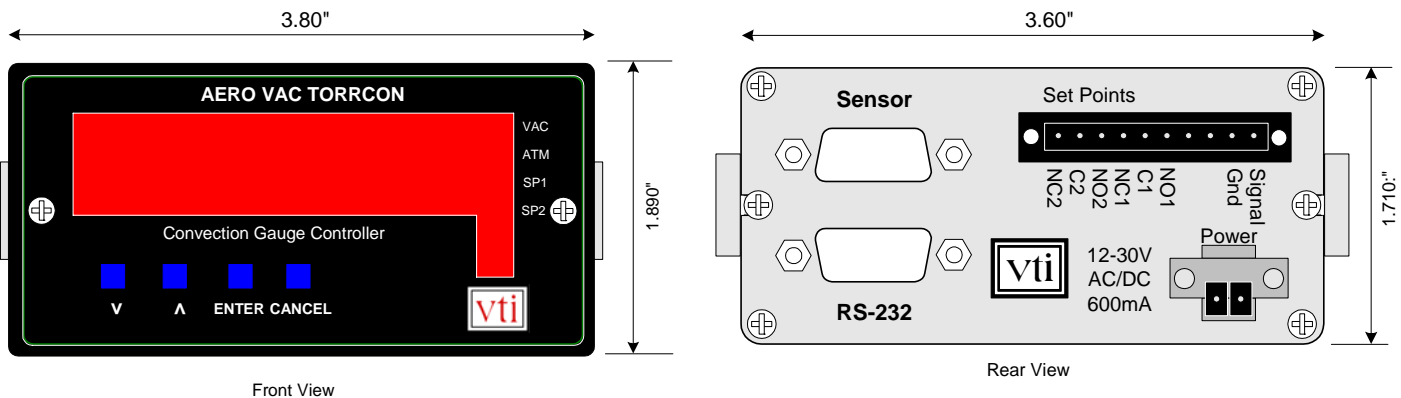
All TORRCON components are detailed in the table below. For an order or RFQ, please provide the part number(s) and do not hesitate to contact VTI if you require any assistance.

Controllers / Accessories	VTI Part Number
VTI TORRCON Convection Gauge Controller/Readout. Includes Gauge Cable and 110VAC-24VDC power adapter (Wall Style).	V-G-CV-0015
VTI TORRCON Convection Gauge Controller/Readout. Requires 24VDC power for operation. Includes Gauge Cable.	V-G-CV-0017
Upgrade Kit to replace model 906 controller with a VTI TORRCON Convection Gauge Controller. Includes Controller/Readout, V-G-CV-A-0008 and V-G-CV-A-0009 Adapter cables and V-G-CV-A-0010 110VAC-24VDC power adapter (In-Line Style).	V-G-CV-0020
Gauge cable for VTI TORRCON Convection Gauge Controller	V-G-CV-A-0006
Gauge Head adapter cable for VTI TORRCON Convection Gauge Controller. Used when upgrading from Terranova 906 controller to a TorrCon controller. Adapts between the 9 pin connector on the TorrCon Controller and the existing 15 pin gauge head cable which may be part of system wiring.	V-G-CV-A-0008
Relay Contact adapter cable for VTI TORRCON Convection Gauge Controller. Used when upgrading from Terranova 906 controller to a TorrCon controller. Adapts between the screw terminal connector on the TorrCon Controller and the existing 15 pin connector which may be part of system wiring.	V-G-CV-A-0011
24VDC Wall Type Power Supply for the VTI TorrCon Convection Gauge Controller.	V-G-CV-A-0007
24VDC In-Line Type Power Supply for the VTI TorrCon Convection Gauge Controller.	V-G-CV-A-0010

Gauge Heads	VTI Part Number
Convection Gauge Tube with 1/4" Female VCR-Type Fitting.	V-G-CV-0014
Convection Gauge Tube with 1/4" Male VCR-Type Fitting.	V-G-CV-0016
Convection Gauge Tube with 1/8" MNPT connection.	V-G-CV-0008
Convection Gauge Tube with QF16 Flange Fitting.	V-G-CV-0012
Convection Gauge Tube with QF25 Flange Fitting.	V-G-CV-0011
Convection Gauge Tube with 2-3/4" Conflat®-type Flange.	V-G-CV-0013

INSTALLATION INFORMATION

For panel mounting, the cut-out dimensions are 3.625"x1.725". All necessary hardware is provided for this.



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