CC-10 Wide Range Active Vacuum Gauge
Part Number: 2-7980-0XX

Operating Specifications [1]	
Operating Range	1 x 10^{-9} Torr to 1000 Torr
Communications	RS-485
Analog Output	0 V to 10 V linear/logarithmic
Programmable Set Points	3 relays
Supply Voltage	+22 V DC to +26 V DC
Maximum Power	8 W
Calibration Medium	Dry air or nitrogen
Overpressure	150 psi
Digital Output Resolution	2 significant digits with exponent
Analog Output Resolution	16 bits
Operating Temperature	0 °C to 50 °C
Storage Temperature	-40 °C to 85 °C
Bakeout Temperature	120 °C (electronics removed)
Response Time	≤ 500 ms
Accuracy	
10^{-9} Torr to 10^{-1} Torr	±0.2 of decade
10^{-1} Torr to 200 Torr	±15% of reading
200 Torr to 1000 Torr	±5% of reading
Analog Output	±10 mV
Display Readable Distance	4 m (13 ft)

Physical Characteristics	
Enclosure Material	Metallized plastic
Electrical Connections	D-Sub 15-pin male
Weight with Sensor	698 g (1.54 lbs) (NW25 Flange)
Weight without Sensor	355 g (0.78 lbs)
Dimensions	3.7” x 2.75” x 6.3” (NW25 Flange)

RS-485 Commands (assume address 0) [2]	
<STX>0R1<CR>	Read units
<STX>0R2<CR>	Read SP1L and SP1H
<STX>0R5<CR>	Read analog output set parameter
<STX>0W1XXXX<CR>	Set pressure unit
<STX>0W2XXXXXXXX<CR>	Set SP1L and SP1H
<STX>0C1<CR>	Crystal gauge atm adjustment
<STX>0S1<CR>	Read pressure data
<STX>0S2<CR>	Read error status

Benefits

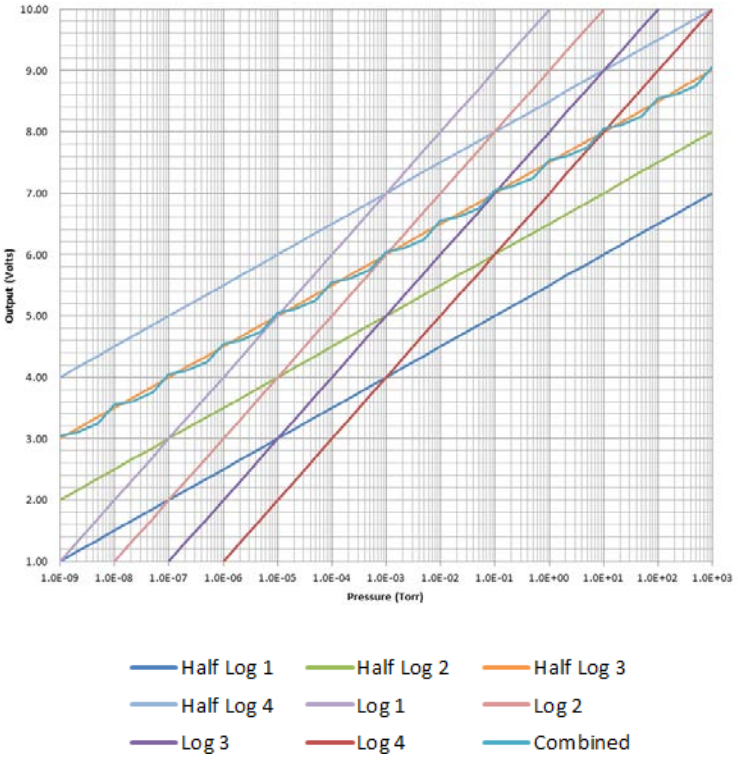
- Wide measurement range
- Compact design
- Easy to read LED display
- Analog and RS-485 communications standard
- Excellent resolution and repeatability
- Superior unit to unit performance
- Excellent customer support

Description

The CC-10 Active Gauge utilizes dual sensor technology to replace multiple conventional vacuum gauges, permitting seamless measurement of twelve decades of pressure. It has a variety of features including a wide range of measurement from 1 x 10^{-9} Torr up to 1000 Torr, RS-485 communications, three programmable set points, and a selectable analog output. The bright LED display makes it easy to read from a distance.

Options can be set from either four touch controls located on the front of the unit or through RS-485 communications. The simplicity of use and wide measurement range make this unit an excellent choice for a variety of vacuum applications.

Analog Output Behavior



Ratings and Compliance

- CE certified to EN 61010-1, EN 61236-1
- RoHS compliant
- IP40

[1] See the Televac website at www.televac.com for a list of definitions for terms used in the operating specifications. All test data was acquired at 23 °C.

[2] See the CC-10 Instruction Manual for all RS-485 command descriptions and setup instructions.

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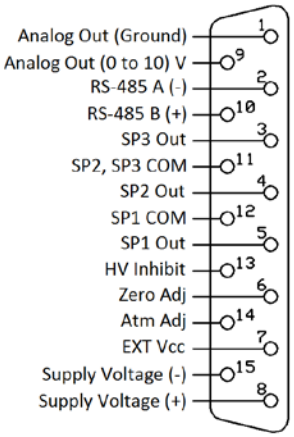
Electrical Connections

Pin	Description
1	Analog Out (Ground)
2	RS-485 A (-)
3	SP3 Out
4	SP2 Out
5	SP1 Out
6	Zero adjust input (signal in)
7	EXT Vcc (signal in)
8	Supply voltage (+)
9	Analog Out (0 to 10) V
10	RS-485 B (+)
11	SP2, SP3 COM
12	SP1 COM
13	HV inhibit signal (signal in)
14	Atm adjust input (signal in)
15	Supply Voltage (-)



Materials Exposed to Vacuum

Molybdenum
Glass
Copper
Stainless Steel
Gold
Chromium
Solder
Fluorocarbon Elastomer
Quartz

Set Points

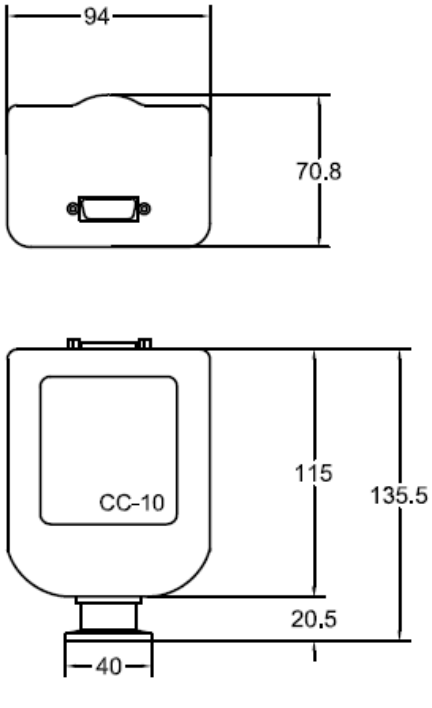
The CC-10 has three set points. All three are optically coupled solid state relays that are rated for 0.12 A at 50 V DC. Each set point has hysteresis characteristics and consists of two set values: upper threshold and lower threshold. LEDs on the front panel display the status of each set point. The high and low threshold values of each of the three set points can be set independently.

Related Products

MM200 Vacuum Sensor Controller - The MM200 controls any Televac vacuum sensor including cold cathode, convection, diaphragm, hot ion, and thermocouple sensors. It also has optional features including up to 8 relay set points and RS-232/RS-485 communications. The large, bright LED display makes it easy to read from a distance. The MM200 is a modular unit, allowing customers to choose a vacuum sensing solution specific to their needs.

Visit the Televac website at www.televac.com for a full list of products and product applications.

Dimensional Drawings



*Dimensions in mm

Ordering Information

CC-10 Part Number	2-7980-0**XX**
Vacuum Fittings	XX
NW25 (DN25 ISO-KF)	31
NW40 (DN40 ISO-KF)	32
2.75” CF (DN40 ISO-CF-M)	52
CC-10 Cable	2-9858-0**XX**
10 ft	10
20 ft	20
35 ft	35
50 ft	50
(90 to 240) V AC / 24 V DC CE Power Supply	2-7900-097
(90 to 240) V AC / 24 V DC CE Power Supply with International Plug Adapters	2-7900-101
Replacement Anode Assembly	2-7900-099
Replacement O-Ring for Anode Assembly	6-4210-260
Remote Display Module	2-7900-098

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