

Calibration made easy

Fully Automated Calibration System For Vacuum Gauges

AVCS^{3SD}



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VACUUM
metrology systems

simple • fast • cost effective

- Up to 3 NIST traceable transfer Standards with basic accuracy of $\pm 0.05\%$ of the reading
- Fully Automatic pressure control from 1.3×10^{-3} to $1.3 \times 10^{+5}$ Pa (from 1×10^{-5} to $1 \times 10^{+3}$ Torr)
- Control Resolution up to 0.01% of the Set Point
- User or Automatic assignment of calibration points
- RS232, Analog or Ethernet/Modbus inputs for UUT data collection
- Unlimited Calibration recipes and UUT data
- Built in Technical Controls for compliance with CFR Title 21, Part 11
- Secure Log of every operational step and data for clear audit trail
- Secure Database and Calibration Report creator
- Fully compliant with ISO 3567: Vacuum Gauges – Calibration by direct comparison with a reference gauge
- Simultaneous calibration of 3 gauges
- Fast and Repeatable calibrations
- Intuitive User Interface
- Cleanroom compatible, Easy to wheel around
- Built in Calibration & Assets Management Software



Calibration made easy

HIGH ACCURACY TRANSFER STANDARDS

3 NIST traceable Baratron®
690A gauges with basic accuracy
of $\pm 0.05\%$ of the reading

NUMBER OF TEST PORTS

3

BASE PRESSURE

Less than 7×10^{-5} Pa
(5×10^{-7} Torr)

PRESSURE CONTROL RANGE

1.3×10^{-3} to $1.3 \times 10^{+5}$ Pa
(1×10^{-5} to $1 \times 10^{+3}$ Torr)

PRESSURE CONTROL RESOLUTION

Up to 0.01% of set point

PROCESS GAS

Nitrogen or Dry Air

DRY PUMPING SYSTEM

Scroll + Turbomolecular pumps

FULLY ENCLOSED CABINET

Eliminates temperature variations
and removes the uncertainty
contributions caused by the
temperature drift.

CLEANROOM COMPATIBILITY

Fully Compatible

ISO COMPATIBILITY

Fully compliant with ISO 3567:
Vacuum Gauges – Calibration
by direct comparison with
a reference gauge

3 OPERATING MODES AND SERVICE MODE

Automatic mode

- Automatic selection of set points
based on the entered number of set
points per decade
- Automatic processing from lowest
to highest pressure set point

Semi-Automatic mode

- Manual entry of set points prior to
the test
- Automatic processing from lowest
to highest pressure set point

Manual mode

- Manual set point entry (one at a
time) with automatic pressure and
process control
- Each consecutive set point can
be set higher or lower than the
previous one

Service Mode

- Manual control of all valves and
controllers
- Beneficial for step by step system
calibration and troubleshooting

UNITS SELECTION

Torr, Pascal, mBar

UUT DATA ACQUISITION

RS232, Analog or Ethernet/
Modbus

DATA AVERAGING

10 to 99 points

THERMAL TRANSPIRATION

ON/OFF for standards and UUTs

TEST PARAMETERS RECIPES

Unlimited

DATA & SYSTEM SECURITY

Built in Technical Controls
for compliance with
CFR Title 21, Part 11

Secure process recipes database

Secure, searchable Calibration
database

Log of each operational step for
clear audit trail

User Configurable access Level

SAFETY FEATURES

FAIL SAFE Isolation valves keep
Transfer Standards within specified
pressure ranges AT ALL TIMES

PC controls process flow and data
collection

Industrial grade PLC controls
automation and safety

CALIBRATION MANAGEMENT SOFTWARE

- Built in Calibration and Assets
Management Software to ensure
compliance with ISO 900X, ISO/
IEC 17025, ANSI Z540 and other
quality standards
- Create and Print Calibration
Certificates
- View and Track Calibration history
- Create and Save unlimited
Calibration and UUT recipes

