

UPC5100/UPC5110



Pressure Vacuum Calibration Standard



UPC5100

Please refer to price pages for part numbers and part numbering guide.

Designed for quick, convenient and accurate performance, the UPC5100 pressure calibration standard takes portability to a new level.

By incorporating self-contained pressure and vacuum sources, the UPC5100 eliminates the hassle and mess of hauling around extra hoses and pumps. Everything required for immediate operation is right at your fingertips. Weighing less than 30 pounds, the UPC5100 is easily transported for on-the-go operation.

Each UPC5100 is equipped with five switch-selectable measurement ranges for vacuum and low-pressure applications from 27 inches Hg vacuum to 100 psi. The patented precision vernier control allows the operator to rapidly secure the most accurate pressure value possible. Increased protection is provided by a self-relieving regulator that eliminates costly repairs due to inadvertent pressure overshooting.

From aerospace, to health care, to general industry, the portable UPC5100 provides everything you need for fast, accurate calibration regardless of where the job takes you.

Applications

- Aircraft manufacturing, government laboratories, oil industry, electric power plants (nuclear and fossil), and general industry
- Pharmaceutical validation and calibration
- Bio-medical quality assurance
- Condenser vacuum

Standard Features

- Five independent selectable ranges in each instrument
- Available with Light Emitting Diode (LED) or Liquid Crystal Display (LCD)
- Display resolution on 0.02% F.S. typical for each range
- $\pm 0.05\%$ F.S. accuracy for each range
- State-of-the-art pushbutton calibration. No analog potentiometers or adjustments required.
- Different technicians can calibrate the same transmitter and get identical results...every time
- Easy to operate, training can be accomplished in 10 minutes
- Available in self-contained enclosure with carrying handles (UPC5100) or rack mounted version (UPC5110)
- Lightweight - less than 30 pounds
- Adjustable overpressure protection
- Precision vernier control
- Self-contained nitrogen cylinder and vacuum converter provides 27" Hg (w/out external pump) to 100 psi
- Voltage/current display mode for transducer testing
- Quick disconnect fitting and hose included

Options/Accessories

- 58487 UPC5100 Pressure traps (100 psi and below operation)
- 63261 Service manual (UPC5000/5100/5200)
- 63257 Additional operating manual

PRESSURE RANGES:

+0-30" Hg, +0-400" H₂O, +0-100KPa,
+0-2700" H₂O, 0-100 psi

AVAILABLE PRESSURE CALIBRATIONS:

Gage and vacuum

OVERALL ACCURACY:

±0.05% F.S. maximum. Accuracy statement includes all effects of linearity, hysteresis, repeatability and ambient temperature

TEMPERATURE RANGE:

Operating: 40°F to 140°F (4° C to 60° C)
Storage: 0°F to 185°F (-17° to 85° C)
Relative humidity: 95% non-condensing

PRESSURE MEDIA:

Nitrogen or shop air

PRESSURE MEDIA FILTER:

Rating: 7 microns nominal
Type: Field replaceable filter cartridge

CONTROL VALVES:

Type: Micro-metering with positive shut off, adjustable stop and replaceable seat, non-destructible
Material: Aluminum/stainless steel

INTERNAL PIPING:

Tubing: 5/32" nylon tubing, 1/8" copper
Fittings: Brass

TEST PORT:

Style: Quick disconnect type
Pressure rating: 600 psi maximum, connected or disconnected

PRESSURE HOSE:

Quantity supplied: One output
Length: 5', nominal

VERNIER CONTROL:

Volume: 0.25 cubic inches
Material: Aluminum/stainless steel

PRESSURE LIMIT MONITOR GAGE:

Size: 2.0" diameter
Range: 160 psi
Pressure supply gage: 3000 psi
Regulator: 100 psi max.
Construction: Self-relieving, single stage regulator

INTERNAL PRESSURE SENSOR:

Type: Bonded, metal foil strain gage or equal

Sensitivity: 3 mV/V, nominal

Construction: Completely weld sealed stainless steel outer body and pressure cavity

EXTERNAL CARRYING CASE:

Type: Aluminum case with cover and carrying handle
Material thickness: 0.090" nominal
Finish: Grey polyurethane baked enamel paint, textured finish

CURRENT DISPLAY:

0-20.000 mA counting by 0.005 mA

VACUUM CONVERTER:

Capable of generating 27" Hg vacuum stand alone or 30" Hg with external vacuum pump

WEIGHT:

External carrying case: Less than 30 lb (13 kg) including two hoses and one cable
Unit: Less than 30 lb (13 kg) including all hoses and cable

UPC5100 OVERALL DIMENSIONS

A = 11.5" (292.10mm) C = 10.0" (254.00mm)
B = 16.0" (406.40mm)

Consult factory for UPC5110 dimensions.

