

UPC5100/UPC5110

Low Pressure/Vacuum Calibration Standard



UPC5100

Please refer to price schedule 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 35 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 Orion 2D 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. The UPC5100 is easy to operate and training can be accomplished in as little as 10 minutes. Different technicians can calibrate the same transmitter and get identical results...every time.

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

- Available in self-contained enclosure with carrying handles (UPC5100) or 19" rack mounted version (UPC5110)
- Five independent selectable ranges in each instrument $\pm 0-28"$ Hg, $\pm 0-387"$ H₂O, $0-2771"$ H₂O, $\pm 0-96$ kPa, $0-100$ PSI
- Available with Light Emitting Diode (LED) or Liquid Crystal Display (LCD)
- Pressure/Vacuum display resolution 0.02% F.S. typical for each range
- $\pm 0.05\%$ F.S. accuracy for each range
- State-of-the-art push button 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
- Lightweight - less than 35 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**Pressure trap (UPC5100)
Literature sheet PN 58621*
- 55291**Test port quick disconnect with 1/4 NPT female
(finger tighten to DUT, no tools required)
- 63257**Additional operating and maintenance manual
- 55281**Additional test port (output) 5' long hose with quick
disconnect plug (brass) on one end and 1/4" 37°
female AN swivel tube coupling on the other end
- 55282**Additional fill port (input) 5' long hose fitted with
quick disconnect plug (brass) on one end and 1/4"
37° female AN swivel coupling on the other end

* For units prior to S/N A1300 use literature sheet PN 58627

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

UPC5100 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:

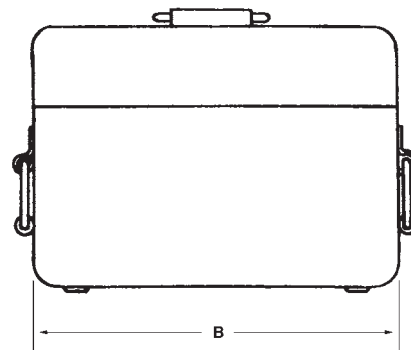
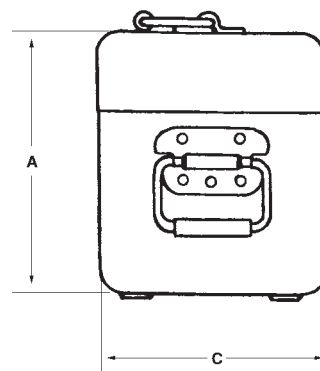
UPC5100: Less than 35 lb (15.9 kg) including two hoses and one cable

UPC5100 OVERALL DIMENSIONS

A = 11.5" (292.10 mm)

C = 10.0" (254.00 mm)

B = 16.0" (406.40 mm)



UPC5110 (not shown) dimensions—excluding front handles: 19" (482.6 mm) W x 8.1" (205.74 mm) D x 10.5" (266.7 mm) H

Rack Mount dimensions are for reference only. Consult factory for cutout dimensions.