

# UPC5100/UPC5110

## Pressure Vacuum Calibration Standard

**CONDEC**


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" H<sub>2</sub>O, +0-100KPa,  
+0-2700" H<sub>2</sub>O, 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:

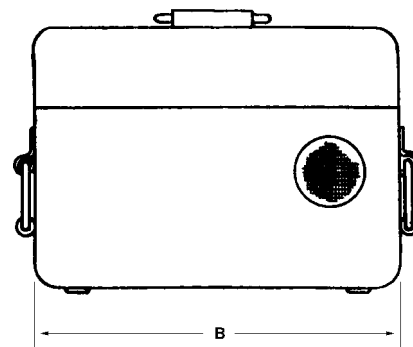
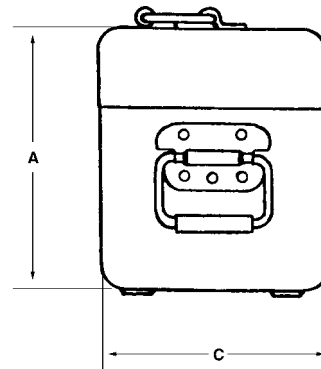
External carrying case: Less than 30 lb (13 kg) including two hoses and one cable  
Unit: Less than 30 lb (13 kg) including all hoses and cable

## UPC5100 OVERALL DIMENSIONS

A = 11.5" (292.10mm) C = 10.0" (254.00mm)

B = 16.0" (406.40mm)

Consult factory for UPC5110 dimensions.



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