

# UPC5000/UPC5010



## Pressure Calibration Standard



Cover provides convenient storage of hoses and fittings.

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

Combining heavy-duty construction and precision performance, the UPC5000 offers flexibility for a variety of pressure calibrating applications.

The compact UPC5000 includes a self-contained nitrogen cylinder and rechargeable battery, as well as all controls, hoses and connections required for rapid on-site calibration. A weight of less than 30 pounds makes this instrument truly portable. Whether your destination is a mountain-side wellhead transmitter or your own standards lab, this system provides industry-leading convenience for calibrating transmitters, transducers, gages, and other pressure sensitive devices.

Each UPC5000 series model is equipped with an exclusive precision vernier that provides infinite control to secure the most accurate readings possible. Three independent selectable ranges provide accuracy within 0.05% up to 2000 psi. Readings appear on a large digital LED display, eliminating parallax, interpolation and operator error. Increased protection is provided by a self-relieving regulator that eliminates costly repairs due to inadvertent pressure overshooting.

Whether working in aircraft manufacturing, electric power supply, or general industry, the UPC5000 performs beyond the standard for accurate, on-site calibration.

## Applications

- Engine test
- Food processing
- Pneumatic system checks
- Aircraft manufacturing, government laboratories, oil industry, electric power plants (nuclear and fossil), and general industry

## Standard Features

- Six models to choose from: 2000/1000/400 psi, 1000/500/200 psi, 500/250/100 psi, 100/50/20 psi, 50/25/10 psi, and 15/7.5/3 psi
- Three independent selectable ranges in each instrument
- Pushbutton calibration guarantees  $\pm 0.05\%$  F.S. accuracy for each range
- Available with Light Emitting Diode (LED) or Liquid Crystal Display (LCD)
- Display resolution on 0.02% F.S. typical 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 (UPC5000) or rack mounted version (UPC5010)
- Lightweight - less than 30 pounds
- Adjustable overpressure protection
- Precision pressure vernier control
- Self-contained 2215 psi nitrogen cylinder
- Voltage/current display mode for transducer testing
- Supplies DC loop power
- Non-destructible, finger tip control micro-metering valves for pressure control
- Quick disconnect fitting and hose included
- Traceable to the National Institute of Standards and Technology (N.I.S.T.)
- Pneumatic only - no hydraulic fluid or distilled water messes

## Options/Accessories

- 58483 ..... Pressure traps (above 100 to 5000 psi operation)
- 58487 ..... Pressure traps (100 psi and below operation)
- 63261 ..... Service manual (UPC5000/5100/5200)
- 63256 ..... Additional operating manual

**AVAILABLE PRESSURE CALIBRATIONS:**

Gage, absolute or gage and absolute

**OVERALL ACCURACY:**

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

**POWER:**

115 or 230 VAC 50/60 Hz and 12 volt, 2.2 min., rechargeable internal, sealed lead acid battery, standard

**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:**

Dry nitrogen, standard

**INTERNAL PRESSURE CYLINDER:**

Capacity: 7.0 standard cubic feet  
Volume: 80 cubic inches  
Rating: 2215 psi

**PRESSURE SUPPLY GAGE:**

Size: 2.0" diameter  
Range: 0-3000 psig

**OVERPRESSURE RUPTURE DISC:**

Rating: 3000 psig  
Material: Stainless steel outer case

**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: 6061-T6 aluminum

**INTERNAL PIPING:**

Tubing: 1/8" O.D., 0.028" wall thickness, copper, seamless  
Couplings: Brass swagelock

**FILL AND TEST PORTS:**

Style: Quick disconnect type  
Pressure Rating: 6300 psig, connected 2000 psi

**PRESSURE HOSES:**

Quantity supplied: Two; one input and one output  
Length: 5', nominal

**VERNIER CONTROL:**

Volume: 0.25 cubic inches  
Material: 300 series stainless steel

**PRESSURE LIMIT MONITOR GAGE:**

Size: 2.0" diameter  
Range: As appropriate for UPC5000 model range utilized

**PRESSURE LIMIT CONTROL:**

Pressure Rating: 3000 psig maximum (inlet)

Output Pressure Range: As appropriate for UPC5000 model range utilized.

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

**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

**UPC5000 OVERALL DIMENSIONS**

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

Consult factory for UPC5010 dimensions.

