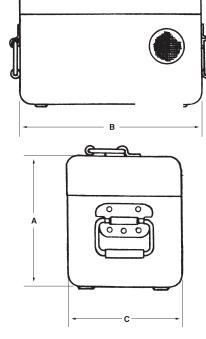
# UPC5000/UPC5010 Pressure Calibration Standard



Cover provides convenient storage of hoses and fittings.





UPC5010 (not shown) dimensions—excluding front handles): 19 W x 8.1 D x 10.5 in. H (482.6 W x 205.74 D x 266.7 mm H) Rack-mount dimensions are for reference only. Consult factory for cutout dimensions.

UPC5000 OVERALL DIMENSIONS			
Α	11.5 in (292.10 mm)		
В	16.0 in (406.40 mm)		
С	10.0 in (254.00 mm)		

## STANDARD FEATURES

- Available in self-contained enclosure with carrying handles (UPC5000)
- Six sets of ranges to choose from: 2,000/1,000/400 psi, 1,000/500/200 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
- ±0.05% F.S. accuracy of each independent selectable range
- Available with Light Emitting Diode (LED) or Liquid Crystal Display (LCD)
- Pressure display resolution 0.02% F.S. typical for each range
- State-of-the-art push button calibration No analog potentiometers or adjustments required
- · Lightweight, less than 33 pounds

- · Adjustable overpressure protection
- Precision pressure vernier control
- Self-contained 2,215 psi nitrogen cylinder
- Voltage/current display mode for transducer testing
- Supplies DC loop power
- Non-destructible, finger tip control micrometering valves for pressure control
- · Quick-disconnect fitting and hose included
- Different technicians can calibrate the same Device-Under-Test and get identical results
- Calibration Certificate included; traceable to the National Institute of Standards and Technology (NIST)
- Pneumatic only; no hydraulic fluid or distilled water messes

## **APPLICATIONS**

- · Engine test
- Food processing
- · Pneumatic system checks

 Aircraft manufacturing, government laboratories, oil industry, electric power plants (nuclear and fossil), and general industry

# **SPECIFICATIONS**

#### **Available Calibration Modes:**

Gauge, absolute or gauge 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, 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°C to 85°C) Relative humidity: 95%, non-condensing

#### Pressure Media:

Clean dry gaseous nitrogen, standard

#### Internal pressure cylinder:

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

## Pressure supply gauge:

Size: Two-inch diameter Range: 0-3000 psig

#### **Overpressure Rupture Disc:**

Rating: 3000 psig, nominal 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: Aluminum/stainless steel

## Internal piping:

Tubing: 1/8 in. 0.D., 0.028 in. wall thickness, copper, seamless Couplings: Brass Swagelok®

## Fill and Test Ports:

Style: Quick-disconnect type Fill Port Pressure Rating: 3000 psig connected, 2000 psig disconnected Test Port Pressure Rating: 5000 psig

#### **Pressure Hoses:**

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

#### **Vernier Control:**

Volume: 0.25 cubic inches Vernier Mechanical Rotation: 16 turns, nominal Adjustable Sensitivity: 0.0005 psi, minimum Material: Aluminum/stainless steel

## **Pressure Limit Monitor Gauge:**

Size: Two-inch diameter Range: As appropriate for UPC5000/UPC5010 model range utilized

#### **Pressure Limit Control:**

Pressure Rating: 3000 psig maximum (inlet) Output Pressure Range: As appropriate for UPC5000/ UPC5010 model range utilized Construction: Self-relieving, single stage regulator

#### **Internal Pressure Sensor:**

Type: Bonded, metal foil strain gauge or equal Sensitivity: 3 mV/V, nominal Construction: Completely weld sealed stainless steel outer body and pressure cavity

#### **UPC5000 External Carrying Case:**

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

#### **Current Display:**

0-20.000 mA counting by 0.005 mA

#### Weight

UPC5000: Less than 33 lb (14.9 kg) including all hoses and cables



# UPC5000/UPC5010 Pressure Calibration Standard

# **MODEL/PRICE**

MODEL	DESCRIPTION	EST. SHIP WEIGHT	PRICE
UPC5000 †	Portable Pressure Calibrator (NIST Traceable)	38 lb	Consult
UPC5010 #	(19 in rack-mount version of UPC5000)	38 lb	Consult

<sup>†</sup> Consult Factory for Availability and Pricing, unless otherwise noted

## **UPC5000/UPC5010 Model Numbering Guide** UPC5000/UPC5010 ( $_{\top}$ )( $_{\top}$ )( $_{\top}$ )( $_{\top}$ ) POWER-A = 115 VAC, 50/60 Hz (UPC5010 only) B = 115 VAC, 50/60 Hz & internal rechargeable battery C = 230 VAC, 50/60 Hz (UPC5010 only) D = 230 VAC, 50/60 Hz & internal rechargeable battery RANGE -A = 2000/1000/400 psi (all units \$13,250) B = 1000/500/200 psi C = 500/250/100 psiD = 100/50/20 psi\* $E = 50/25/10 \text{ psi}^*$ $J = 15/7.5/3 \text{ psi}^{**}$ **CALIBRATION MODE-**A = Gauge only (\$11,295 - all except RANGE A) B = Absolute only (\$13,250 - consult availability) C = Gauge or only (\$13,250 - consult availability) DISPLAY-A = Standard, Light Emitting Diode (LED) B = Liquid Crystal Display (LCD) **Determine model configuration before ordering Example: UPC5000BDAA = UPC5000 (B)**115 VAC 50/60 Hz & internal rechargeable battery, (D)100/50/20 psi, (A) gauge only, (A) LED \* Available in gauge only or absolute only calibration modes (consult for availability) \*\* Available as gauge only unit (consult for availability)



55294 - NO TOOLS REQUIRED

## **OPTIONS/ACCESSORIES**

PART #	DESCRIPTION	PRICE
58483	Pressure trap (UPC5000/UPC5010) Literature sheet PN 58609	Consult
55354	Rechargeable battery kit	Consult
63256	Additional operating and maintenance manual	Consult
55294	Test port quick-disconnect male coupling body with 1/4 NPT female swivel (finger tighten to DUT, no tools required)	Consult
55394	Standard test port quick-disconnect fitting, male coupling body/female 1/4 NPT, 5000 psig working pressure (for mating between DUT, Hand-Held or Digital Gauge and UPC5000 or Source 3000 (PN 65315))	Consult
130239	Test port quick-disconnect fitting, male coupling body/female 1/8 NPT, 6500 psig working pressure (for mating between DUT, Hand-Held or Digital Gauge and UPC5000 or Source 3000 (PN 65315)	Consult
55279	Additional test port (output) 5 ft. long hose with quick- disconnect plug (SST) on one end and 1/4 inch 37° female AN swivel tube coupling on the other end.	Consult
55300 <sup>†</sup>	Additional test port (output) 10 ft. long hose with quick-disconnect plug (SST) on one end and 1/4 inch 37° female AN swivel tube coupling on the other end	Consult
55310 †	Additional test port (output) 20 ft. long hose with quick-disconnect plug (SST) on one end and 1/4 inch 37° female AN swivel tube coupling on the other end.	Consult
57716	Fill port quick-disconnect female coupling body to 1/4 NPT Female	Consult
55282	Additional fill port (input) 5 ft. long hose, 2500 psig working pressure, fitted with quick-disconnect plug (brass) on one end and 1/4 inch 37° female AN swivel coupling on the other end.	Consult
55313 <sup>†</sup>	Fill port (input) 10 ft. long hose fitted with quick- disconnect plug (brass) on one end and 1/4 inch 37° female AN swivel coupling on the other end	Consult
55319 †	Fill port (input) 15 ft. long hose fitted with quick- disconnect plug (brass) on one end and 1/4 inch 37° female AN swivel coupling on the other end.	Consult
55322 †	Fill port (input) 20 ft. long hose fitted with quick- disconnect plug (brass) on one end and 1/4 inch 37° female AN swivel coupling on the other end	Consult
60109	Calibration Module	Consult
107288	Output (test) port quick-disconnect adjustable adapter assembly, male coupling body to Female quick-disconnect swivel other end, 3000 psig working pressure (for placing between Test Port and Pressure Trap (PN 58483) to allow Trap input/output to be parallel with UPC5000 front panel)	Consult
60242	Adapter fitting, for fill port hose, one end 1/4 inch male NPT and 7/16-20 male AN on the other end. 4000 psi working pressure (for connecting fill port hose to CGA-580 Inlet Connector)	Consult

<sup>†</sup> Consult Factory for Availability and Pricing, unless otherwise noted





<sup>††</sup> Discontinued, Consult Factory for Repair/Calibration Service