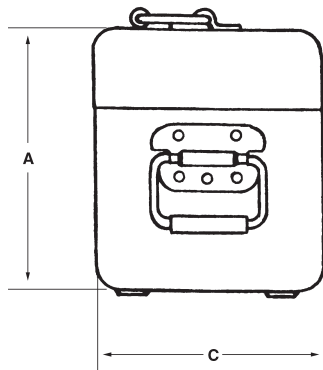
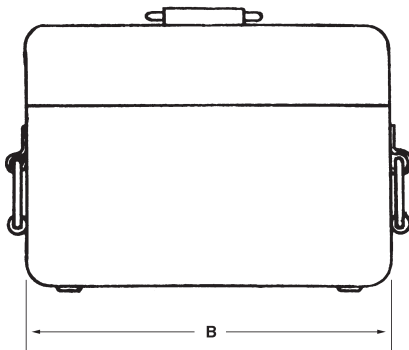


# UPC5100/UPC5110 Low Pressure/Vacuum Calibration Standard



UPC5100



UPC5110 (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.

UPC5100 OVERALL DIMENSIONS	
A	11.5 in (292.10 mm)
B	16.0 in (406.40 mm)
C	10.0 in (254.00 mm)

## STANDARD FEATURES

- Available in self-contained enclosure with carrying handles (UPC5100)
- Five independent selectable ranges in each instrument  $\pm 0$ -28 inHg,  $\pm 0$ -387 inH<sub>2</sub>O, 0-2771 inH<sub>2</sub>O,  $\pm 0$ -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 Device-Under-Test and get identical results
- 
- 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 inHg (w/out external pump) to 100 psi
- Voltage/current display mode for transducer testing
- Quick-disconnect fitting and hose included
- Pneumatic only; no hydraulic fluid or distilled water messes
- Calibration certificate included; traceable to the National Institute of Standards and Technology (NIST)

## 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

## SPECIFICATIONS

### Available Calibration Modes:

Gauge and vacuum

### Overall accuracy:

$\pm 0.05\%$  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°C to 85°C)  
 Relative humidity: 95% non-condensing

### Pressure Media:

Clean dry gaseous nitrogen or clean dry 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 in. nylon tubing, 1/8 in. 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 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: 160 psi  
 Pressure supply gauge: 3000 psi  
 Regulator: 100 psi max  
 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

### UPC5100 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

### Vacuum Converter:

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

### Weight:

UPC5100: Less than 35 lb (15.9 kg) including all hoses and cables

# UPC5100/UPC5110 Low Pressure/Vacuum Calibration Standard

## MODEL/PRICE

MODEL	DESCRIPTION	EST. SHIP WEIGHT	PRICE
UPC5100 †	Portable Low Pressure/Vacuum Calibrator (NIST Traceable)	35 lb	Consult
UPC5110 ††	19 in Rack-Mount Low Pressure/Vacuum Calibrator (NIST Traceable)	35 lb	Consult

† Consult Factory for Availability

†† Discontinued, Consult Factory for Repair/Calibration Service

**UPC5100/UPC5110 Model Numbering Guide**  
 UPC5100/UPC5110 ( ) ( )

**POWER**  
 A = 115 VAC, 50/60 Hz (UPC5110 only)  
 B = 115 VAC, 50/60 Hz & rechargeable internal battery  
 C = 230 VAC, 50/60 Hz (UPC5110 only)  
 D = 230 VAC, 50/60 Hz & rechargeable internal battery

**DISPLAY**  
 A = Light Emitting Diode (LED)  
 B = Liquid Crystal Display (LCD)

**Determine model configuration before ordering**  
**Example: UPC5110AA = UPC5110 (A)115 VAC 50/60 Hz, (A) LED**



60195



58487



55291 - "NO TOOLS REQUIRED"

## OPTIONS/ACCESSORIES

PART #	DESCRIPTION	PRICE
58487	Pressure trap (UPC5100/UPC5110) Literature sheet PN 58621*	Consult
55354	Rechargeable battery kit	Consult
55291	Test port quick-disconnect with 1/4 NPT female (finger tighten to DUT, no tools required)	Consult
60195	Standard test port quick-disconnect hose fitting male coupling body to 1/4 in. NPT female	Consult
63257	Additional operating and maintenance manual	Consult
55281	Additional test port (output) 5 ft. long hose, 2500 psig working pressure, with quick-disconnect plug (brass) on one end and 1/4 in. 37° female AN swivel tube coupling on the other end	Consult
55328 †	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
55336 †	Additional test port (output) 15 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
55341 †	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 in. 37° female AN swivel coupling on the other end	Consult
55313 †	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 SN 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
167474	Output (test) port quick-disconnect adjustable adapter assembly, male coupling body to Female quick-disconnect swivel other end, 100 psig working pressure (for placing between Test Port and Pressure Trap (PN 58487) to allow Trap input/output to be parallel with UPC5100 front panel)	Consult

† Consult Factory for Availability

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