

UPS3000/UPS3110/UPS3210

Digital Pressure Standard



UPS3000

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

Rugged construction and smart features qualify the UPS3000 series digital pressure indicators as the quickest, most cost-effective calibration solution available.

Designed for use in the manufacture, test or calibration of pressure sensitive devices, the UPS3000 series incorporates an exclusive bonded foil strain gauge sensor and microprocessor-based electronic circuitry for long-term stability. In addition, each model offers three independent ranges for accuracy within 0.05%.

Housed in a durable, steel enclosure, the UPS3000 series remains compact and lightweight for a balance of long lasting, portable use. The self-contained rechargeable battery option guarantees over six hours of convenient operation wherever your work takes you. Different technicians can calibrate the same transmitter and get identical results...every time.

From pressure switches to burst discs, relief valves to transmitters, the UPS3000 series promises years of dependable performance at an affordable price.



UPS3110 - Rack-mounted Version of UPS3000 plus patented precision valve assembly and vernier, pressure limit monitor, test port, and test hose.



UPS3210 - Rack-mounted Version of UPS3000

Applications

- Transfer standard
- Pressure monitor
- Pressure switch testing
- Relief valve testing

Standard Features

- Portable table top, panel mount, or 19 inch rack-mount version available
- Available in 10 sets of ranges: 30,000/15,000/6000 psi, 20,000/10,000/4,000 psi, 10,000/5000/2000 psi, 5000/2500/1000 psi, 2000/1000/400 psi, 50/25/10 psi, 1000/500/200 psi, 500/250/100 psi, 100/50/20 psi, 15/7.5/3 psi
- Three independent selectable ranges in each instrument
- $\pm 0.05\%$ F.S. accuracy of each independent selectable range
- 16 gauge painted mild steel case
- No potentiometers or analog adjustments for calibration
- Push button zero
- 0.02% F.S. display resolution typical for each range
- Absolute and/or gauge switch selectable calibration modes
- Multi-conversion unit with 10 conversions standard: inH₂O, mmHg, inHg, kPa, BAR, mBAR, cmH₂O, Kg/cm², and % F.S.

Options/Accessories*

- 57775 Peak hold (A and B calibration modes only)
- 57798 Peak hold (C calibration mode only)
- 57778 Freeze mode
- 57785 0-10 VDC/4-20 mA analog output (AC only models)
- 57788 RS-232 simplex output (AC only models) (No longer available use 57799)
- 57790 Min/Max feature (A and B calibration modes only)
- 57796 Min/Max feature (C calibration mode only)
- 57799 0-10 VDC/4-20 mA analog and RS-232 simplex output (AC only models)
- 55576 Interface cable to APC4000 (UPS3000 only)
- 55590 Interface cable to APC4001 (UPS3210 only)
- 19297 Panel mount adapter kit (UPS3000 only)
- 55844 Spare battery (UPS3000 only)
- 58478 Pressure trap (UPS3110 above 5000 psi operation) Literature sheet PN 58596
- 58483 Pressure trap (UPS3110 above 500 to 2000 psi operation) Literature sheet PN 58609
- 58487 Pressure trap (UPS3110 100 psi and below operation) Literature sheet PN 58621
- 23113** TMU295 ticket printer
- 81076** TM-U220D tape printer
- 15547 25-pin printer interface cable
- 63253 Additional operating manual
- 55279 Additional test port (output) 5 ft. long hose with quick-disconnect plug (SST) on one end and 1/4 in. 37° female AN swivel tube coupling on the other end (UPS3110 500 to 2000 psi operation)
- 55280 Additional test port (output) 4-1/2 ft. long hose with quick-disconnect (SST) plug on one end and 1/4 in. 37° female AN swivel pressure fitting on opposite end (UPS3110 5000 psi and above operation)
- 55281 Additional test port (output) 5 ft. long hose with quick-disconnect plug (brass) on one end and 1/4 in. 37° female AN swivel tube coupling on the other end (UPS3110 100 psi and below operation)

* Some option combinations are not available. Please consult factory for these combinations.

** Consult factory for printer specifications.

AVAILABLE PRESSURE CALIBRATION:

Gauge, absolute, or gauge and absolute

OVERALL ACCURACY:

±0.05% F.S. maximum each range. 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:

Any media compatible with 17-4PH stainless steel

PRESSURE SENSOR TYPE:

Bonded, metal foil strain gauge or equal

PRESSURE CONNECTION:

Pressure fitting; 7/16-20UNF-2A: 37° flare; AN-4
20,000 psi unit and 30,000 psi unit; Autoclave AE F250-C

OVERPRESSURE CAPABILITY:

750% on low range
300% on mid range
150% on high range

NUMERICAL PRESSURE DISPLAY:

Digital type: High intensity, red LED, 0.43 in. high
Active digits: Five full decades
Polarity indication: “-” sign

PRESSURE TO DIGITAL CONVERSION:

Conversion rate: Data updated at the rate of 12 times per second, nominal
Display resolution: Nominally 0.02% of F.S. for each pressure range

INPUT VOLTAGE:

115 or 230 VAC, ±10%, 50/60 Hz voltage selected via transformer taps

POWER CONSUMPTION:

8 watts, typical

LINE FILTER:

Line to line and line to neutral

MOUNTING STYLES:

Table top with rubber feet, panel mounted with adapter kit, or 19 inch rack-mount

CONSTRUCTION:

Single piece outer case with slide out drawer

CASE MATERIAL:

16 gauge, mild steel with textured finish, baked epoxy enamel paint

MULTI-CONVERSION:

10 units can be stepped through at the touch of a button. psi, kPa, mmHg, BAR, mBAR, inHG, cmH₂O, Kg/cm², inH₂O, and % F.S. are included. Replaces analog pressure display.

WEIGHT:

UPS3000: approximately 13 lb (5.8 kg)
UPS3110: approximately 15 lb (6.8 kg)
UPS3210: approximately 13 lb (5.8 kg)

PEAK HOLD:

Last highest pressure reading stored in memory and recalled at the touch of a button. Calibrates burst discs and relief valves.

FREEZE MODE:

External switch contact, change of state, freezes display reading for three seconds. Calibrates pressure switches.

BATTERY:

Self-contained rechargeable battery provides a minimum of six hours of completely portable usage. May be operated or recharged by connecting the power cord to 115 VAC. Handle, power switch, and low battery indicator included with this option. Analog display not included with this option. Also not available in rack-mount models.

OUTPUTS:

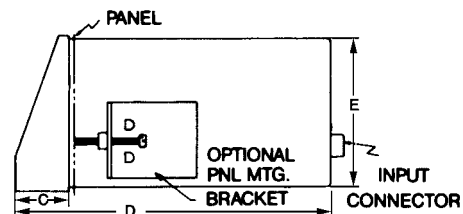
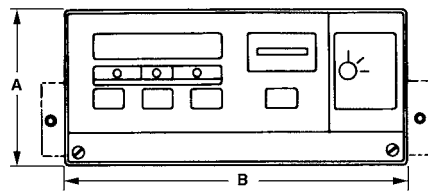
Analog: 4-20 mA, 0-10 VDC, 0-5 VDC
Digital: Parallel BCD, 20 mA loop, RS-232 simplex output

MIN/MAX:

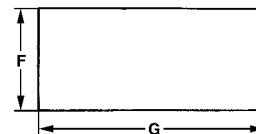
Highest and lowest pressure readings stored in memory and recalled at the touch of a button

UPS3000 DIMENSIONS

- A = 4.93 in. (125.22 mm)
- B = 10.81 in. (274.57 mm)
- C = 1.75 in. (44.45 mm)
- D = 9.9 in. (251.00 mm)
- E = 4.69 in. (119.12 mm)
- F = 4.75 in. (120.65 mm)
- G = 10.62 in. (269.74 mm)



Panel cutout



UPS3110 and UPS3210 (not shown) dimensions—
excluding front handles:
19 in. (482.6 mm) W x 9.1 in. (177.8 mm) H
Rack-mount dimensions are for reference only. Consult factory for cutout dimensions.