

UPS3110 Digital Pressure Standard



UPS3110 - 19 inch wide rack-mountable version of UPS3000 plus patented precision Orion valve assembly and vernier, pressure limit monitor, test port, and test hose.

NOTE: Pressure limit control and monitor are not required for 5000 psi models and above.

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STANDARD FEATURES

- Available in 8 sets of ranges: 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.
- Different technicians can operate the system and get identical results...every time
- Pneumatic only - no hydraulics or distilled water messes
- Calibration Certificate included - traceable to the National Institute of Standards and Technology (NIST)

APPLICATIONS

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

SPECIFICATIONS

Available Calibration Modes:

Gauge, absolute, or gauge and absolute switch-selectable

Overall Accuracy:

$\pm 0.05\%$ 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

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, $\pm 10\%$, 50/60 Hz voltage selected via transformer taps

Power Consumption:

8 watts, typical

Line Filter:

Line to line and line to neutral

Mounting Styles:

19 inch wide rack-mountable

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:

UPS3110: approximately 15 lb (6.8 kg)

Overall Dimensions:

19 W x 7 H (EIA 4U) x 10 in. deep (482.6 W x 177.8 H (4 HE) x 254 mm) Excluding front handles

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

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MODEL/PRICE

MODEL CONFIGURATION	DESCRIPTION	EST. SHIP PRICE	PRICE
UPS3110 ()A()	5000/2500/1000 psi	18 lb	Consult
UPS3110 ()B()	1000/500/200 psi	18 lb	Consult
UPS3110 ()C()	500/250/100 psi	18 lb	Consult
UPS3110 ()D()*	100/50/20 psi	18 lb	Consult
UPS3110 ()E()*	50/25/10 psi	18 lb	Consult
UPS3110 ()F()	2000/1000/400 psi	18 lb	Consult
UPS3110 ()G()**	10,000/5000/2000 psi	18 lb	Consult
UPS3110 ()J()**	15/7.5/3 psig	18 lb	Consult

* Available in gauge only or absolute only calibration modes.

** Available as gauge only

UPS3110 Model Numbering Guide

UPS3110 () () ()

POWER

A = 115 VAC 50/60 Hz
C = 230 VAC 50/60 Hz

RANGE

A = 5000/2500/1000 psi
B = 1000/500/200 psi
C = 500/250/100 psi
D = 100/50/20 psi*
E = 50/25/10 psi*
F = 2000/1000/400 psi
G = 10,000/5000/2000 psi**
J = 15/7.5/3 psig**

CALIBRATION MODES

A = Gauge only
B = Absolute only
C = Gauge or Absolute, switch selectable

Determine model configuration before ordering

Example: UPS3110ADA = UPS3110 (A)115 VAC 60 Hz (D)100/50/20 psi, (A) gauge only

OPTIONS/ACCESSORIES

PART #	DESCRIPTION	PRICE
57775	Peak hold (A and B calibration modes only)	Consult
57798	Peak hold (C calibration mode only)	Consult
57778	Freeze mode	Consult
57785	0-10 VDC/4-20 mA analog output (AC only models)	Consult
57788	RS-232 simplex output (AC only models)	OBSOLETE
57790	Min/Max feature (A and B calibration modes only)	Consult
57796	Min/Max feature (C calibration mode only)	Consult
57799	0-10 VDC/4-20 mA analog and RS-232 simplex output (AC only models)	Consult
58478	Pressure trap (UPS3110, 5000 psi and above full scale models) Literature sheet PN 58596	Consult
58483	Pressure trap (UPS3110, 500 to 2000 psi full scale models) Literature sheet PN 58609	Consult
58487	Pressure trap (UPS3110, 100 psi and below full scale models) Literature sheet PN 58621	Consult
63253	Additional operating manual	Consult
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)	Consult
55300	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
55304	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
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
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)	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 (UPS3110 100 psi and below operation)	Consult

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



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