

UPC5200/UPC5210

High Pressure Calibration Standard



UPC5200

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

Providing sophisticated performance in high-pressure applications, the durable UPC5200 is the most effective pressure calibration standard in its class.

The UPC5200 excels in applications presenting pressure levels up to 10,000 psi. Featuring automatic pushbutton calibration, this unit guarantees 0.05% accuracy in three switch-selectable ranges. The exclusive patented precision pressure Orion 3A vernier provides infinite control to obtain exact pressure readings, while a reliable overpressure regulator protects units under test from permanent damage.

The fully-pneumatic UPC5200 is powered by nitrogen and eliminates the mess and oil thermal equilibrium problems common to hand pump hydraulic systems. Clean operation makes this calibrator ideal for use in aerospace, food and beverage, and general industry. The UPC5200 is easy to operate and training can be accomplished in as little as 10 minutes. Different technicians can calibrate the same transmitter and get identical results...every time.

For special high-pressure applications, the portable UPC5200 or 19 inch rack-mount UPC5210 provides the ultimate in dependable, high-precision performance.



UPC5210 Rack-mounted Version of UPC5200

Applications

- Any high-pressure, pneumatic-only application
- Initial test of high-pressure hydraulic systems
- Boiler feed pressure for power plants

Standard Features

- Available in enclosure with carrying handles (UPC5200) or 19 inch rack-mount version (UPC5210)
- Two sets of ranges to choose from: 10,000/5000/2000 psi and 5000/2500/1000 psi
- Three independent selectable ranges in each instrument
- $\pm 0.05\%$ 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
- Different technicians can calibrate the same transmitter and get identical results...every time
- Electronically controlled 10:1 intensifier system
- Easy to operate, training can be accomplished in 10 minutes
- Easy to carry - approximately 51 lb
- Adjustable overpressure protection above input pressure
- Precision pressure vernier control
- Voltage/current display mode for transducer testing
- 32 VDC excitation output
- Non-destructible, finger tip control micro-metering valves for pressure control
- Automatic pushbutton calibration, microprocessor controlled and maintained
- Quick-disconnect fitting and hose included
- Pneumatic only - no hydraulics or distilled water messes
- External pressure cylinder included with UPC5200

Options/Accessories

- 58478.....Pressure trap (UPC5200/UPC5210)
Literature sheet PN 58596
- 63259.....Additional operating and maintenance manual
- 59533.....Additional external pressure cylinder with (83.3 cu ft. 3694 psi test pressure) CGA-580 shutoff valve/ internal rupture disk and carrying handle
- 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
- 55360.....Additional fill port (input) 4 ft. long hose with CGA-580 male nipple on one end and 1/4 in. 37° female AN swivel pressure fitting on opposite end

AVAILABLE PRESSURE CALIBRATIONS:

Gauge

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

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

EXTERNAL PRESSURE CYLINDER SUPPLIED:

Capacity: 88 standard cubic feet
Volume: 960 cubic inches
Rating: 2216 psi

REGULATED PRESSURE GAUGE:

Size: Two and one half-inch diameter
Range: 0-1500

PRESSURE MEDIA FILTER:

Rating: 7 microns, nominal
Type: Field replaceable filter cartridge contained within a stainless steel outer case

CONTROL VALVES:

Type: Micro-metering with positive shut off, adjustable stop and replaceable seat, non-destructible
Material: 300 series stainless steel outer body

INTERNAL PIPING:

Tubing: 1/4 in. O.D. and 1/8 in. O.D., 300 series stainless steel, seamless
Couplings: 300 series stainless steel Swagelok®

OUTPUT TEST PORT:

Style: Quick-disconnect type
Pressure Rating: 10,000 psig minimum, connected or disconnected

PRESSURE HOSES:

Quantity supplied: Two; one input and one output
Length: 4 feet, nominal

BOOSTER PUMP SOLENOID VALVE:

Type: Three-way, normally closed, electronically controlled
Pressure Rating: 1500 psig
Power Requirements: 115 or 230 VAC, 50/60 Hz, 10 watts

ACCUMULATOR GAUGE:

Size: Two and one half-inch diameter
Range: 0-15,000 psi

INPUT PRESSURE REGULATOR:

Pressure Rating: 3000 psig maximum
Output Pressure Range: 0-1000 psi
Construction: Self-relieving, single stage regulator

UPC5200 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

EXTERNAL CARRYING CASE:

Type: Deep-drawn aluminum case with cover and carrying handles
Material Thickness: 0.090 in. nominal
Finish: Grey polyurethane baked-enamel paint, textured finish

CURRENT DISPLAY:

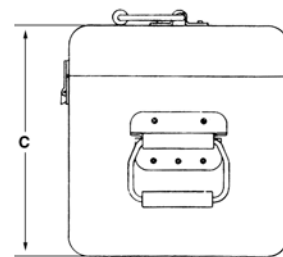
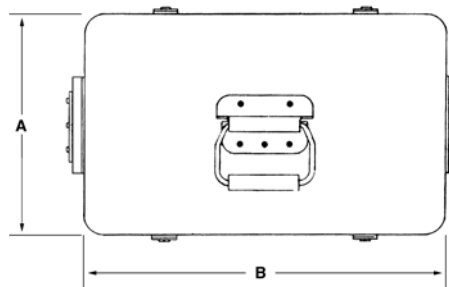
0-20.000 mA counting by 0.005 mA

WEIGHT:

UPC5200: 51 lb (23.1 kg) including all hoses and cables
External cylinder 5 lb (2.26 kg)

UPC5200 OVERALL DIMENSIONS

A = 11 in. (279.40 mm) C = 11.5 in. (292.10 mm)
B = 18.0 in. (457.20 mm)



UPC5210 (not shown) dimensions—excluding front handles:
19 in. (482.6 mm) W x 8.1 in. (205.74 mm) D x 10.5 in. (266.7 mm) H
Rack-mount dimensions are for reference only. Consult factory for cutout dimensions.