

# Pressure Instrumentation



Standards  
Calibration  
Indicators  
Controllers  
Intensifiers



**RICE LAKE**  
WEIGHING SYSTEMS

**CONDEC**  
Genuine Quality. Proven Performance.

[www.ricelake.com/condec](http://www.ricelake.com/condec)

**techniCAL**  
expanding possibilities  
866-327-8731  
[www.techniCAL-sys.com](http://www.techniCAL-sys.com)





# Pressure Products Return Authorization Form

888-295-8475 • Fax: 203-364-1556

**VITAL INFORMATION (To Help Us Serve You):**

DATE: \_\_\_\_\_  
YOUR NAME: \_\_\_\_\_  
COMPANY: \_\_\_\_\_  
CUSTOMER NO: \_\_\_\_\_  
PURCHASE ORDER NO: \_\_\_\_\_  
PHONE NUMBER: (     ) \_\_\_\_\_  
FAX NUMBER: (     ) \_\_\_\_\_

**BILL TO ADDRESS:**

ADDRESS: \_\_\_\_\_  
CITY: \_\_\_\_\_  
STATE: \_\_\_\_\_ ZIP: \_\_\_\_\_

**SHIP TO (If Different):**

COMPANY NAME: \_\_\_\_\_  
ADDRESS: \_\_\_\_\_  
CITY: \_\_\_\_\_  
STATE: \_\_\_\_\_ ZIP: \_\_\_\_\_

NAME OF PERSON TO CONTACT ABOUT THIS REPAIR: \_\_\_\_\_

**ITEM (1):**     \*Warranty     \*Repair     \*Calibration     \*Calibration w/data

Description: \_\_\_\_\_ Part #: \_\_\_\_\_ Serial #: \_\_\_\_\_  
Purchase Order #: \_\_\_\_\_  
Problem (please be specific): \_\_\_\_\_

**ITEM (2):**     \*Warranty     \*Repair     \*Calibration     \*Calibration w/data

Description: \_\_\_\_\_ Part #: \_\_\_\_\_ Serial #: \_\_\_\_\_  
Invoice or Sales Order #: \_\_\_\_\_  
Problem (please be specific): \_\_\_\_\_

**ITEM (3):**     \*Warranty     \*Repair     \*Calibration     \*Calibration w/data

Description: \_\_\_\_\_ Part #: \_\_\_\_\_ Serial #: \_\_\_\_\_  
Purchase Order #: \_\_\_\_\_  
Problem (please be specific): \_\_\_\_\_

**ITEM (4):**     \*Warranty     \*Repair     \*Calibration     \*Calibration w/data

Description: \_\_\_\_\_ Part #: \_\_\_\_\_ Serial #: \_\_\_\_\_  
Purchase Order #: \_\_\_\_\_  
Problem (please be specific): \_\_\_\_\_

*\*We perform an initial electrical/mechanical evaluation and submit a quotation on all instruments we receive before performing the Re-Calibration/Repair. Advance not to exceed pricing may also be provided. Initial evaluation fee of \$150.00 will be placed toward cost of re-calibration and/or repair. You would only be charged evaluation fee if you decided not to have the work completed.*

**INTERNAL USE ONLY**

SO # \_\_\_\_\_

**Ship Equipment To:**  
Rice Lake Weighing Systems - CONDEC  
3 Simm Lane  
Door D, Unit 2A  
Newtown, CT 06470

# Warranty Statement ...

---

Condec warrants that all Condec equipment and systems manufactured and sold by Condec and properly installed by an authorized Condec Distributor or Original Equipment Manufacturer (OEM) will operate per written specifications as confirmed by the Distributor/OEM and accepted by Condec. All systems and components are warranted against defects in materials and workmanship for one year.

Condec warrants that the equipment sold hereunder will conform to the current written specifications authorized by Condec. Condec warrants the equipment against faulty workmanship and defective materials. If any equipment fails to conform to these warranties, Condec will, at its option, repair or replace such goods returned within the warranty period subject to the following conditions:

- Upon discovery by Buyer of such nonconformity, Condec will be given prompt written notice with a detailed explanation of the alleged deficiencies.
- Individual electronic components returned to Condec for warranty purposes must be packaged to prevent electrostatic discharge (ESD) damage in shipment. Packaging requirements are listed in a publication, *Protecting Your Components From Static Damage in Shipment*, available from Condec Equipment Return Department.
- Examination of such equipment by Condec confirms that the nonconformity actually exists, and was not caused by accident, misuse, neglect, alteration, improper installation, improper repair or improper testing; Condec shall be the sole judge of all alleged non-conformities.
- Such equipment has not been modified, altered, or changed by any person other than Condec or its duly authorized repair agents.
- Condec will have a reasonable time to repair or replace the defective equipment. Buyer is responsible for shipping charges both ways.
- In no event will Condec be responsible for travel time or on-location repairs, including assembly or disassembly of equipment, nor will Condec be liable for the cost of any repairs made by others.

These warranties exclude all other warranties, expressed or implied, including without limitation warranties of merchantability or fitness for a particular purpose. Neither Condec nor distributor will, in any event, be liable for incidental or consequential damages.

Condec and buyer agree that Condec's sole and exclusive liability hereunder is limited to repair or replacement of such goods. In accepting this warranty, the buyer waives any and all other claims to warranty.

Should the seller be other than Condec, the buyer agrees to look only to the seller for warranty claims.

No terms, conditions, understanding, or agreements purporting to modify the terms of this warranty shall have any legal effect unless made in writing and signed by a corporate officer of Condec and the Buyer.

# Calibration Services ...

---

## CALIBRATION

All new units are shipped with National Institute of Standards and Technology (N.I.S.T.) traceable certification at no additional charge. If written data points are required for new instruments there will be an additional charge.

## RECALIBRATION/REPAIR

Condec is also pleased to offer recalibration and repair services. Standard calibration pricing is provided below. We perform an initial electrical/mechanical evaluation and submit a quotation on all instruments we receive before performing the Re-Calibration/Repair. Advance not to exceed pricing may also be provided. Initial evaluation fee consulted will be placed toward cost of re-calibration and/or repair. You would only be charged evaluation fee if you decided not to have the work completed. All recalibrations include written data points.

Calibration time should be scheduled in advance to provide a rapid turnaround of precision instrument.

- Standard calibration (2000 psi and below).....Consult
- Standard calibration (5000 to 10,000 psi).....Consult
- Standard calibration (above 10,000 psi, always includes written data points).....Consult
- If written data points required.....Consult

*Re-Calibration Services include certification of traceability to the National Institute of Standards and Technology (N.I.S.T.).*

## CYLINDER HYDRO TESTED

DOT 3AL Regulation Title 49 CFR Parts 173 and 178

59531..... UPC5000, UPC5100.....Consult

65622..... Source 3000.....Consult

Terms: Net 30 days upon approved credit.



# Contents

	<b>UPC5000/UPC5010</b> ..... 6 Pressure Calibration Standard		<b>PIN7000/PIN7010</b> ..... 22 Pneumatic Pressure Intensifier
	<b>UPC5100/UPC5110</b> ..... 8 Low Pressure/Vacuum Calibration Standard		<b>PIN8000/PIN8010</b> ..... 24 Pneumatic Source Hi Pressure Intensifier
	<b>UPC5200/UPC5210</b> ..... 10 High Pressure Calibration Standard		<b>SOURCE 3000</b> ..... 26 Portable Pneumatic Pressure Source
	<b>UPS3110</b> ..... 12 Digital Pressure Standard		<b>UVC1000/UVC1010</b> ..... 28 Vacuum Generator/Pressure Controller
	<b>DLR3110</b> ..... 14 Digital Pressure Standard		<b>ORION 2C/ORION 3A</b> ..... 30 Precision Pneumatic Controllers
	<b>UPS3000</b> ..... 16 Digital Pressure Indicator		<b>MPV10K</b> ..... 33 Micro-metering Precision Valve
	<b>UPS3210</b> ..... 18 Digital Pressure Indicator		<b>CONDEC REGulator</b> ..... 35 Designed for Pressure-Reducing Gas Applications
	<b>DLR334</b> ..... 20 Digital Pressure Indicator		<b>CONDEC CYLinderREGulator</b> ..... 36 Designed for In-House Nitrogen Supply Cylinder Pressure-Reducing Applications

## To Place an Order

---

**Telephone Orders:** 888-295-8475

**24-hour Fax Orders:** 715-234-6967

**Please address Purchase Orders or Sales Inquiries to:** Rice Lake Weighing Systems  
Condec Products  
P.O. Box 272  
Rice Lake, WI 54868

## Technical Assistance

---

**Telephone:** 888-295-8475

**24-hour Fax:** 715-234-6967

**Please send Repairs and/or Calibrations to:** Condec  
Door D, Unit 2A  
3 Simm Lane  
Newtown, CT 06470

## Shipping Services & Handling Charges

---

Condec will ship your order as quickly as possible. All shipments are F.O.B. point of shipment. Freight will be prepaid and billed, along with any applicable handling charge, as a separate line item from the equipment.

### **COURIER SERVICE**

#### **Standard Courier Shipping Rates**

When shipping via air services, couriers require that the shipping weight be determined by the greater of the actual weight of the boxed product or its dimensional shipping weight. The formula for calculating dimensional shipping weight is as follows: L x W x H/194 for domestic air shipments and L x W x H/166 for international air shipments. If you do not wish to pay dimensional weight shipping rates you must notify Rice Lake Weighing Systems at the time of the order placement. RLWS takes the added precaution of double boxing some of our electronic products and balances. Even with this added precaution, we suggest that you always ship high-precision and fragile products via air service.

#### **FedEx**

Air freight guaranteed to be at most destinations the next business day (contiguous USA only). Northern Canada up to 2 days. Saturday and Sunday delivery available to most destinations at an extra charge.

#### **FedEx Express Saver**

Ground delivery guaranteed to be at most destinations in 3 business days (contiguous USA only) by 4:30 p.m.

#### **UPS Red**

Air freight guaranteed to be at most destinations the next business day (contiguous USA only). Canadian deliveries 1 to 3 days. Saturday delivery available to most destinations at an extra charge.

#### **UPS Blue**

Air freight guaranteed to be at most destinations in 2 business days (contiguous USA only).

#### **UPS Orange**

Delivery guaranteed to be at most destinations in 3 business days (contiguous USA only).

#### **UPS Ground**

Via truck. Guaranteed Day-Definite Delivery between 1 and 7 days (contiguous USA only).

### **INTERNATIONAL COURIER SERVICE**

#### **FedEx, UPS**

Overseas express air freight. Call for estimated delivery.

### **FORWARDERS**

We can provide service through a forwarder of your choice, or select one of our preferred forwarders.

## Customer Assistance & Service Hours

---

**Weekdays:** 6:30 a.m. to 6:30 p.m. CST

**Saturday:** 8:00 a.m. to noon CST

# Customers Worldwide using CONDEC Pressure Calibration Instruments

Industry		Customers	
<b>AEROSPACE</b>	Honeywell International Inc.	Raytheon Company	The Boeing Company
<b>AUTO</b>	Daimler AG formerly DaimlerChrysler	Fiat	Ford Motor Company
<b>CHEMICALS</b>	Air Products and Chemicals, Inc.	E.I. du Pont de Nemours and Company	The Monsanto Company
<b>COMPUTERS</b>	Hewlett-Packard Company (HP)	International Business Machines (IBM)	Texas Instruments (TI)
<b>CONSUMER GOODS</b>	3M Company	Eastman Kodak Company	Mary Kay Inc.
<b>EDUCATION</b>	Georgia Institute of Technology	Massachusetts Institute of Technology (MIT)	Pennsylvania State University
<b>ELECTRONICS</b>	FUJII Electric Holdings Co., Ltd.	Goldstar is a brand of LG Electronics	Motorola, Inc. (MOT)
<b>FOOD &amp; BEVERAGES</b>	Anheuser-Busch Companies, Inc.	Molson Coors Brewing Company	Hormel Foods Corporation
<b>GOVERNMENT</b>	United States Armed Forces - Army, Navy, Marine Corp., Air Force and Coast Guard		
<b>HEALTHCARE</b>	Guidant Corporation, part of Boston Scientific	C.R. Bard, Inc.	Baxter International Inc. (BAX)
<b>INDUSTRIAL MACHINERY</b>	Allison Engine Company	Caterpillar Inc.	John Deere, brand name of Deere & Company
<b>MAJOR MANUFACTURERS</b>	The General Electric Company (GE)	Eaton Corporation	Michelin brand of Michelin Group
<b>METALS</b>	Rio Tinto Alcan Inc. subsidiary of Rio Tinto Group	ArcelorMittal	Mittal a subsidiary of ArcelorMittal
<b>PETROLEUM</b>	BP plc	Chevron Corporation	ExxonMobil
<b>PHARMACEUTICAL</b>	GlaxoSmithKline plc	Genentech Inc.	Genzyme Corporation
<b>UTILITIES</b>	American Electric Power	Consolidated Edison, Inc.	Pacific Gas and Electric Company (PG&E)
			Pratt & Whitney a United Technologies Company
			General Motors Company
			Union Carbide Corporation
			Unisys Corporation (UIS)
			Procter & Gamble Co. (P&G)
			The University of California, Los Angeles (UCLA)
			Samsung Electronics a brand of The Samsung Group
			Kraft Foods
			National Aeronautics and Space Administration (NASA)
			Johnson & Johnson
			Kawasaki Heavy Industries
			Westinghouse Electric Corporation subsidiary of CBS Corp.
			United States Steel Corp.
			Shell Oil Company subsidiary of Royal Dutch Shell
			Merck & Co., Inc.
			Southern Star Central Gas Pipeline, Inc.

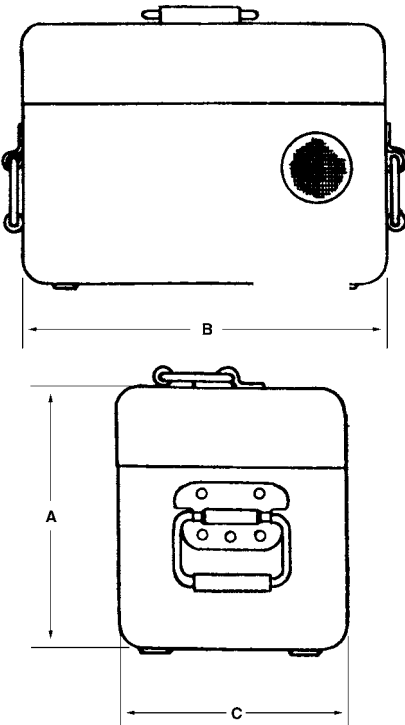
## CONDEC

Door D Unit 2A • 3 Simm Lane • Newtown, Connecticut 06470  
[www.4condec.com](http://www.4condec.com)

# 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	
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 (UPC5000) or 19 inch wide rack-mountable version (UPC5010)
- Six sets of ranges to choose from: 2000/1000/400 psi, 1000/500/200 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 2215 psi nitrogen cylinder
- Voltage/current display mode for transducer testing
- Supplies DC loop power
- Non-destructible, finger tip control micro-metering valves for pressure control
- Quick-disconnect fitting and hose included
- Different technicians can calibrate the same Device-Under-Test and get identical results... every time
- 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. O.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 LED (NIST Traceable)	38 lb	Consult
UPC5000	Portable Pressure Calibrator LCD (NIST Traceable)	38 lb	Consult
UPC5010	(19 in rack-mount version of UPC5000)	38 lb	Consult

**UPC5000/UPC5010 Model Numbering Guide**

UPC5000/UPC5010 ( ) ( ) ( ) ( )

**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
- B = 1000/500/200 psi
- C = 500/250/100 psi
- D = 100/50/20 psi\*
- E = 50/25/10 psi\*
- J = 15/7.5/3 psi\*\*

**CALIBRATION MODE**

- A = Gauge only
- B = Absolute only
- C = Gauge or Absolute

**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

\*\* Available as gauge only unit



55294 - NO TOOLS REQUIRED

## OPTIONS/ACCESSORIES

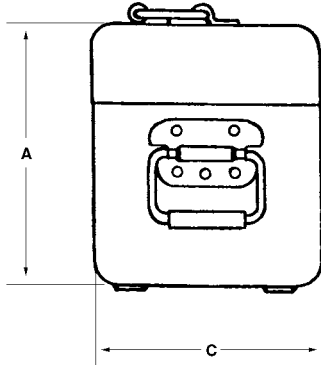
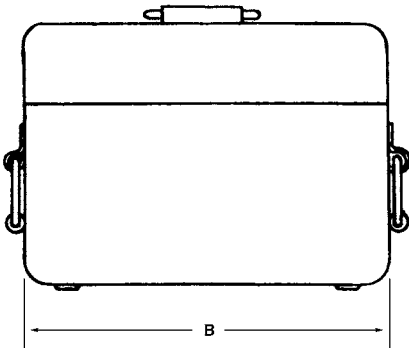
PART #	DESCRIPTION	PRICE
58483	Pressure trap (UPC5000/UPC5010) Literature sheet PN 58609	Consult
55354	Rechargeable battery kit	Consult
63256	Additional operating and maintenance manual	Consult
55294	Test port quick-disconnect male coupling body with 1/4 NPT female swivel (finger tighten to DUT, no tools 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	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
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	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



# 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) or 19 inch wide rack-mountable version (UPC5110)
- 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... every time
- 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 inches Hg (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

### 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

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

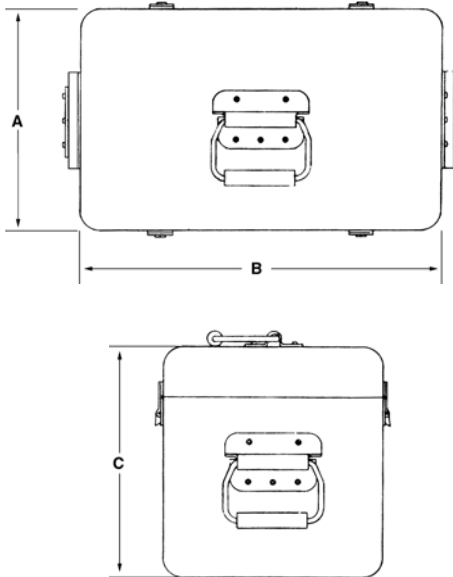
# UPC5200/UPC5210 High Pressure Calibration Standard



UPC5200



UPC5210 - 19 inch wide rack-mountable version of UPC5200



UPC5210 (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)  
 Rack-mount dimensions are for reference only.  
 Consult factory for cutout dimensions.

UPC5200 OVERALL DIMENSIONS	
A	11.0 in. (279.40 mm)
B	18.0 in. (457.20 mm)
C	11.5 in. (292.10 mm)

## STANDARD FEATURES

- Available in enclosure with carrying handles (UPC5200) or 19 inch wide rack-mountable 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
- ±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 Device-Under-Test 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 portable pressure cylinder included with UPC5200
- Calibration Certificate included - traceable to the National Institute of Standards and Technology (NIST)

## APPLICATIONS

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

## SPECIFICATIONS

### Available Calibration Modes:

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

### Vernier Control:

Vernier Volume: 0.4 cubic inch, nominal  
 Vernier Mechanical Rotation: 15 turns, nominal  
 Adjustable Sensitivity: 0.005 psi, minimum

### 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/UPC5210 High Pressure Calibration Standard

## MODEL/PRICE

MODEL	DESCRIPTION	EST. SHIP WEIGHT	PRICE
UPC5200	Portable High Pressure Calibrator (NIST Traceable)	58 lb	Consult
UPC5210	19 in Rack-Mount High Pressure Calibrator (NIST Traceable)	58 lb	Consult

**UPC5200/UPC5210 Model Numbering Guide**  
 UPC5200/UPC5210 ( ) ( ) ( ) ( )

**RANGE**

- A = 10,000/5000/2000 psi, 115 VAC 50/60 Hz
- B = 5000/2500/1000 psi, 115 VAC 50/60 Hz
- C = 10,000/5000/2000 psi, 230 VAC 50/60 Hz
- D = 5000/2500/1000 psi, 230 VAC 50/60 Hz

**CALIBRATION MODE**

- A = Gauge only

**DISPLAY**

- A = Standard, Light Emitting Diode (LED)
- B = Liquid Crystal Display (LCD)

**Determine model configuration before ordering**  
**Example: UPC5200AAA = UPC5200 (A) 10,000/5000/2000 psi, 115 VAC 50/60 Hz, (A) gauge only, (A) LED**

## OPTIONS/ACCESSORIES

PART #	DESCRIPTION	PRICE
58478	Pressure trap (UPC5200/UPC5210) Literature sheet PN 58596	Consult
63259	Additional operating and maintenance manual	Consult
59533	Additional external pressure cylinder with (83.3 cu ft. 2216 psi working pressure) CGA-580 shutoff valve/internal rupture disk and carrying handle	Consult
55542	Standard quick-disconnect test port (output) fitting male plug on one end and 7/16-20 37 DEG (AN-4) JIC male on opposite end w/ internal 40 micron filter, 11000 PSI working pressure (Requires one Cheat Seal 54854)	Consult
151017	Test port (output) quick-disconnect adapter male coupling body, other end 1/4-18 NPT female SST with 40 micron filter, 11000 PSI working pressure	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	Consult
131096	Additional test port (output) 10 ft. long hose with quick-disconnect (SST) plug on one end and 1/4 in. 37° female AN swivel pressure fitting on opposite end	Consult
78939	Additional fill port (input) 5 ft. long hose with CGA-580 male nipple on one end and 1/4 in. 37° female AN swivel pressure fitting on opposite end	Consult
55366	Additional fill port (input) 10 ft. long hose with CGA-580 male nipple on one end and 1/4 in. 37° female AN swivel pressure fitting on opposite end	Consult
55369	Additional fill port (input) 15 ft. long hose with CGA-580 male nipple on one end and 1/4 in. 37° female AN swivel pressure fitting on opposite end	Consult
162561	Additional fill port (input) 20 ft. long hose with CGA-580 male nipple on one end and 1/4 in. 37° female AN swivel pressure fitting on opposite end	Consult
150613	External Cylinder Fill 5 ft. long hose with CGA-580 Type Male Nipple Both Ends 0-3000 PSI Working Pressure (Used For Filling External Pressure Cylinder PN 59533)	Consult
60109	Calibration Module	Consult



59533



151017



58478



55542

# 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.

DIGITAL INDICATORS/GAUGES

## 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: inH<sub>2</sub>O, mmHg, inHg, kPa, BAR, mBAR, cmH<sub>2</sub>O, Kg/cm<sup>2</sup>, 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, cmH<sub>2</sub>O, Kg/cm<sup>2</sup>, inH<sub>2</sub>O, 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

# UPS3110 Digital Pressure Standard

## 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**



58478



58483



58487

## 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.

# DLR3110 Digital Pressure Standard



DLR3110 - 19 inch wide rack-mountable version of DLR334 plus precision patented Orion valve assembly and vernier, test port and test hose, pressure limit control and monitor.\*\*\* Test port may be mounted on front or rear of unit  
 \*\*\* Pressure limit control and monitor are not required for 5000 psi models and above

DIGITAL INDICATORS/GAUGES

## STANDARD FEATURES

- Test port placement may be configured for front or rear of unit
- 115 or 230 VAC operation
- Ranges from vacuum to 10,000 psi
- 20 selectable engineering units
- Freeze mode for pressure switch testing
- 0.05% of reading, 0.1% of reading, or the economical 0.25% of reading model
- Selectable resolution
- Digital outputs: RS-232, RS-422, and RS-485
- Min/Max pressure readings
- Accuracy is percent of reading from 20% of full scale
- 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

- Test stands
- On-site manufacturing pressure monitoring
- Transfer standard
- Low-cost digital data logging of readings

## SPECIFICATIONS

### Overall Accuracy:

0.05% of reading, 0.1% of reading, 0.25% of reading all from 20% of full scale and above. Below 20% of full scale units remain 0.05%, 0.1%, or 0.25% of 20% of full scale range. Includes all effects of linearity, hysteresis, repeatability, and ambient temperature. No temperature effect from 40°F to 140°F. NIST traceable

### Temperature Range:

Operating: 40°F to 140°F (4°C to 60°C)  
 Storage: 0°F to 185°F (-17°C to 85°C)  
 Warm up: 3 minutes to rated accuracy, 15 minutes to complete stability

### Calibration:

Full NIST traceability. Calibration points can be adjustable for operator convenience. Calibration via front panel and/or digital interface

### Resolution:

Adjustable, 50,000 display counts (maximum) of range

### Display Size:

Two-line, six-digit, 0.6 in. high numeric display, eight alpha characters per line, three annunciator light bars, bright red Light Emitting Diode (LED)

### Pressure Hose:

Quantity supplied: One output  
 Length: 4 ft. nominal

### Display Update:

Adjustable, 100 ms maximum

### Media Compatibility:

Any media compatible with 17-4PH or 15-5PH stainless steel

### Overpressure:

200% of range (minimum)

### Power Requirements:

115 or 230 VAC

### Case Material:

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

### Weight:

DLR3110: 19 lb (8.6 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

### DLR3110 Model Numbering Guide

DLR3110 ( ) ( ) ( ) ( ) ( )

#### MOUNTING

- A = 19in rack-mount (with test port on rear of unit, **add'l cost consult**)
- B = 19in rack-mount with test port on front of unit

#### POWER

- A = 115 VAC, 50/60 Hz
- D = 230 VAC, 50/60 Hz

#### RANGE

- |                |                           |                           |                           |
|----------------|---------------------------|---------------------------|---------------------------|
| A = 0-3 psig   | G = 0-250 psig            | M = 0-10,000 psig         | T = 0-250 psia            |
| B = 0-10 psig  | H = 0-500 psig            | <b>add'l cost consult</b> | V = 0-500 psia*           |
| C = 0-15 psig  | J = 0-1000 psig           | N = 0-15 psia             | W = 0-1000 psia*          |
| D = 0-25 psig  | K = 0-2500 psig           | P = 0-25 psia             | Y = 0-2500 psia*          |
| E = 0-50 psig  | L = 0-5000 psig           | R = 0-50 psia             | Z = 0-10,000 psia*        |
| F = 0-100 psig | <b>add'l cost consult</b> | S = 0-100 psia            | <b>add'l cost consult</b> |

#### ACCURACY

- A = 0.05% indicated value from 20% full scale. **Base cost consult**
- B = 0.1% indicated value from 20% full scale\*\*. **Base cost consult**
- C = 0.25% indicated value from 20% full scale. **Base cost consult**

#### OPTIONS

- A = Standard unit which includes multiple conversion units, min/max, freeze mode, RS232, RS422, & RS485
- B = Standard unit plus two relays and setpoints option (**add'l cost consult**)
- C = Standard unit plus selectable scalable analog output (**add'l cost consult**)  
 0-5 VDC, 1-6 VDC, 0-10 VDC, 0-20 mA, and 4-20 mA outputs
- D = Standard unit plus parallel BCD output (**add'l cost consult**)

\*NOTE: Pressure ranges V,W,Y, and Z are not available in the 0.25% accuracy rating.

\*\*NOTE: PSIA not available in 0.1% accuracy models.

#### Determine model configuration before ordering

**Example: DLR3110ADAAA = DLR3110 (A) 19 inch rack-mount, (D) 230 VAC, (A) 0-3 psig, (A) 0.05%, (A) standard unit**

# DLR3110 Digital Pressure Standard

## MODEL/PRICE

MODEL CONFIGURATION	DESCRIPTION	EST. SHIP WEIGHT	PRICE
DLR3110 A( )A( )	19 in rack-mount, test port on rear of unit, 0.05%	19 lb	Consult
DLR3110 A( )B( )**	19 in rack-mount, test port on rear of unit, 0.1%	19 lb	Consult
DLR3110 A( )C( )	19 in rack-mount, test port on rear of unit, 0.25%	19 lb	Consult
DLR3110 B( )A( )	19 in rack-mount, test port on front of unit, 0.05%	19 lb	Consult
DLR3110 B( )B( )**	19 in rack-mount, test port on front of unit, 0.1%	19 lb	Consult
DLR3110 B( )C( )	19 in rack-mount, test port on front of unit, 0.25%	19 lb	Consult

\*\*PSIA not available in 0.1% accuracy models.



58483



58478



58487

## OPTIONS/ACCESSORIES

PRICE	DESCRIPTION	PRICE
58478	Pressure trap (DLR3110, 5000 psi and above) Literature sheet PN 58596	Consult
58483	Pressure trap (DLR3110, 250-2500 psi) Literature sheet PN 58609	Consult
58487	Pressure trap (DLR3110, 3-100 psi) Literature sheet PN 58621	Consult
74843	Additional operating and maintenance manual for DLR3110	Consult
74844	Two relays and setpoint option supplement manual	Consult
74845	Duplex serial protocol 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. (DLR3110 3-100 psi operation)	Consult
55328	Additional test port (output) 10 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. (DLR3110 3-100 psi operation)	Consult
55336	Additional test port (output) 15 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. (DLR3110 3-100 psi operation)	Consult
55341	Additional test port (output) 20 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. (DLR3110 3-100 psi operation)	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 (DLR3110 250-2500 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 (DLR3110 250-2500 psi operation).	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 (DLR3110 250-2500 psi operation).	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 (DLR3110 250-2500 psi operation)	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. (DLR3110 5000 psi and above operation)	Consult
131096	Additional test port (output) 10 ft. long hose with quick-disconnect (SST) plug on one end and 1/4 in. 37° female AN swivel pressure fitting on opposite end. (DLR3110 5000 psi and above operation)	Consult

Additional options available:

Standard unit plus two relays and setpoints

Standard unit plus 0-10 VDC and 4-20 mA outputs

Standard unit plus parallel BCD output



# UPS3000 Digital Pressure Indicator



UPS3000

Additional models available:

UPS3110 - 19 inch wide Rack-Mountable Version of UPS3000 with patented precision ORION valve assembly and vernier.

UPS3210 - 19 inch wide Rack-Mountable Version of UPS3000

## STANDARD FEATURES

- Portable table top, optional panel mount kit 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
- ±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
- Gases or Fluids compatible with 17-4PH may be used
- 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:

±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 or panel mounted with adapter kit

### 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)

### 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

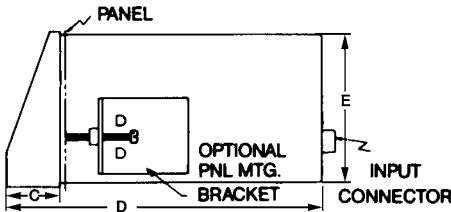
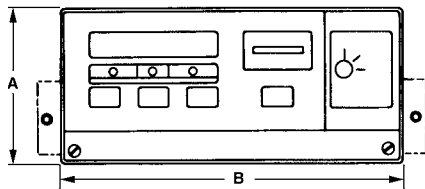
### Outputs:

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

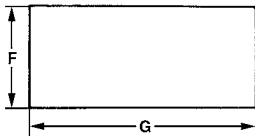
### Min/Max:

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

DIGITAL INDICATORS/GAUGES



Panel cutout



### 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)

# UPS3000 Digital Pressure Indicator

## MODEL/PRICE

MODEL CONFIGURATION	DESCRIPTION	EST. SHIP WEIGHT	LIST PRICE
<b>UPS3000 - non battery models</b>			
UPS3000 ( )A( )	5000/2500/1000 psi	15 lb	Consult
UPS3000 ( )B( )	1000/500/200 psi	15 lb	Consult
UPS3000 ( )C( )	500/250/100 psi	15 lb	Consult
UPS3000 ( )D( )*	100/50/20 psi	15 lb	Consult
UPS3000 ( )E( )*	50/25/10 psi	15 lb	Consult
UPS3000 ( )F( )	2000/1000/400 psi	15 lb	Consult
UPS3000 ( )G( )**	10,000/5000/2000 psi	15 lb	Consult
UPS3000 ( )J( )**	15/7.5/3 psig	15 lb	Consult

\* Available in gauge only or absolute only calibration modes.

\*\* Available as 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) (No longer available use 57799)	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
55576	Interface cable to APC4000 (UPS3000 only)	Consult
19297	Panel mount adapter kit (UPS3000 only)	Consult
55844	Spare battery (UPS3000 only)	Consult
63253	Additional operating manual	Consult

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

### UPS3000 Model Numbering Guide

UPS3000 ( \_ ) ( \_ ) ( \_ )

#### POWER

- A = 115 VAC 50/60 Hz
- B = Battery operation & 115 VAC 50/60 Hz *(add'l consult)*
- C = 230 VAC 50/60 Hz
- D = Battery operation & 220 VAC 50/60 Hz *(add'l consult)*

#### 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: UPS3000ADA = UPS3000 (A) 115 VAC 50/60 Hz, (D) 100/50/20 psi, (A) gauge only**

**UPS3210** Digital Pressure Indicator

UPS3210 - 19 inch wide rack-mountable version of UPS3000

**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: inH<sub>2</sub>O, mmHg, inHg, kPa, BAR, mBAR, cmH<sub>2</sub>O, Kg/cm<sup>2</sup>, and % F.S.
- Different technicians can operate the system and get identical results...every time
- Gases or Fluids compatible with 17-4PH may be used
- 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, cmH<sub>2</sub>O, Kg/cm<sup>2</sup>, inH<sub>2</sub>O, and % F.S. are included. Replaces analog pressure display

**Weight:**

UPS3210: approximately 13 lb (5.8 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

# UPS3210 Digital Pressure Indicator

## MODEL/PRICE

MODEL CONFIGURATION	DESCRIPTION	EST. SHIP WEIGHT	PRICE
UPS3210 ( )A( )	5000/2500/1000 psi	15 lb	Consult
UPS3210 ( )B( )	1000/500/200 psi	15 lb	Consult
UPS3210 ( )C( )	500/250/100 psi	15 lb	Consult
UPS3210 ( )D( )*	100/50/20 psi	15 lb	Consult
UPS3210 ( )E( )*	50/25/10 psi	15 lb	Consult
UPS3210 ( )F( )	2000/1000/400 psi	15 lb	Consult
UPS3210 ( )G( )**	10,000/5000/2000 psi	15 lb	Consult
UPS3210 ( )J( )**	15/7.5/3 psig	15 lb	Consult

\* Available in gauge only or absolute only calibration modes.

\*\* Available as 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) (No longer available use 57799)	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
55590	Interface cable to APC4001 (UPS3210 only)	Consult
63253	Additional operating manual	Consult

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

**UPS3210 Model Numbering Guide**

UPS3210 ( ) ( ) ( ) ( )

**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: UPS3210ADA = UPS3210 (A)115 VAC 60 Hz (D)100/50/20 psi, (A) gauge only**

DIGITAL INDICATORS/GAUGES

# DLR334 Digital Pressure Indicator



DLR334 - Table top model



DLR334 - Table top/panel mount model

Additional model available:

DLR3110 - 19 inch wide Rack-Mountable Version of DLR334 with patented precision ORION valve assembly and vernier.

DIGITAL INDICATORS/GAUGES

DIMENSIONS	
<b>DLR334 - Table Top Model</b>	
A	8.46 in. (214 mm)
B	2.94 in. (74.67 mm)
C	10.5 in. (266.70 mm)
<b>DLR334 - Panel Mount or Table Top Model</b>	
A	7.56 in. (192.02 mm)
B	9.14 in. (232.15 mm)
C	3.78 in. (96.01 mm)
D	10.35 in. (262.89 mm)
E	7.38 in. ±0.03 (187.45 mm)
F	3.6 in. ±0.03 (91.44 mm)

## STANDARD FEATURES

- 115 or 230 VAC operation
- Ranges from vacuum to 10,000 psi
- 20 selectable engineering units
- Freeze mode for pressure switch testing
- 0.05% of reading, 0.1% of reading, or the economical 0.25% of reading model
- Selectable resolution
- Digital outputs: RS-232, RS-422, and RS-485
- Min/Max pressure readings
- Accuracy is percent of reading from 20% of F.S.
- Different technicians can operate the unit and get identical results...every time
- Gases or Fluids compatible with 17-4PH or 15-5PH may be used
- Calibration Certificate included - traceable to the National Institute of Standards and Technology (NIST)

## APPLICATIONS

- Test stands
- On-site manufacturing pressure monitoring
- Transfer standard
- Low-cost digital data logging of readings

## SPECIFICATIONS

### Overall Accuracy:

0.05% of reading, 0.1% of reading, 0.25% of reading all from 20% of full scale and above. Below 20% of full scale units remain 0.05%, 0.1%, or 0.25% of 20% of full scale range. Includes all effects of linearity, hysteresis, repeatability, and ambient temperature. No temperature effect from 40°F to 140°F. NIST traceable

### Temperature Range:

Operating: 40°F to 140°F (4°C to 60°C)  
Storage: 0°F to 185°F (-17°C to 85°C)  
Warm up: 3 minutes to rated accuracy, 15 minutes to complete stability

### Calibration:

Full NIST traceability. Calibration points can be adjustable for operator convenience. Calibration via front panel and/or digital interface

### Resolution:

Adjustable, 50,000 display counts (maximum) of range

### Display Size:

Two-line, six-digit, 0.6 in. high numeric display, eight alpha characters per line, three annunciator light bars, bright red Light Emitting Diode (LED)

### Display Update:

Adjustable, 100 ms maximum

### Media Compatibility:

Any media compatible with 17-4PH or 15-5PH stainless steel

### Overpressure:

200% of range (minimum)

### Power Requirements:

115 or 230 VAC

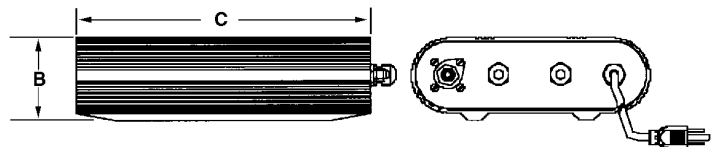
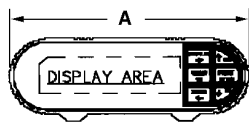
### Case Material:

Single piece extruded aluminum or panel mount sheet metal

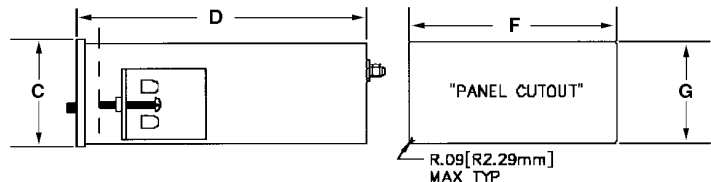
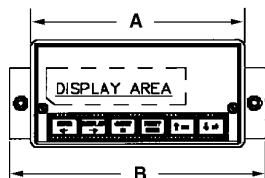
### Weight:

DLR334 Table top: 7.5 lb (3.4 kg)  
DLR334 Panel mount or table top: 8.7 lb (3.9 kg)

TABLE TOP



PANEL MOUNT or Table top



# DLR334 Digital Pressure Indicator

## MODEL/PRICE

MODEL CONFIGURATION	DESCRIPTION	EST. SHIP WEIGHT	PRICE
DLR334 A( ) ( ) AA	Table top, 0.05%, standard unit	9 lb	Consult
DLR334 A( ) ( ) BA****	Table top, 0.1%, standard unit	9 lb	Consult
DLR334 A( ) ( ) CA	Table top, 0.25%, standard unit	9 lb	Consult
DLR334 C( ) ( ) AA	Table top w/rubber feet, 0.05%, standard unit	7 lb	Consult
DLR334 C( ) ( ) BA****	Table top w/rubber feet, 0.1%, standard unit	7 lb	Consult
DLR334 C( ) ( ) CA	Table top w/rubber feet, 0.25%, standard unit	7 lb	Consult
DLR334 D( ) ( ) AA	Panel mount, 0.05% standard unit	7 lb	Consult
DLR334 D( ) ( ) BA****	Panel mount, 0.1% standard unit	7 lb	Consult
DLR334 D( ) ( ) CA	Panel mount, 0.25% standard unit	7 lb	Consult

\*\*\*\*PSIA not available in 0.1% accuracy models

## OPTIONS/ACCESSORIES

PART #	DESCRIPTION	PRICE
19297	DLR334 panel mount adapter kit (included in panel mount models, not available for black extruded model)	Consult
63255	Additional operating and maintenance manual for DLR334	Consult
74844	Two relays and setpoint option supplement manual	Consult
74845	Duplex serial protocol manual	Consult

Additional options available:  
 Standard unit plus two relays and setpoints  
 Standard unit plus 0-10 VDC and 4-20 mA outputs  
 Standard unit plus parallel BCD output

### DLR334 Model Numbering Guide

DLR334 ( ) ( ) ( ) ( ) ( )

**ENCLOSURE**  
 A = Table top unit (single piece aluminum extrusion)\*\*  
 C = Tan Rectangular Table top unit w/rubber feet  
 D = Tan Rectangular Panel mount unit (add'l cost consult)\*\*\*

**POWER**  
 A = 115 VAC, 50/60 Hz  
 D = 230 VAC, 50/60 Hz

**RANGE**

A = 0-3 psig	G = 0-250 psig	M = 0-10,000 psig <b>add'l cost \$700.00</b>	T = 0-250 psia
B = 0-10 psig	H = 0-500 psig	N = 0-15 psia	V = 0-500 psia*
C = 0-15 psig	J = 0-1000 psig	P = 0-25 psia	W = 0-1000 psia*
D = 0-25 psig	K = 0-2500 psig	R = 0-50 psia	Y = 0-2500 psia*
E = 0-50 psig	L = 0-5000 psig <b>add'l cost consult</b>	S = 0-100 psia	Z = 0-10,000 psia*
F = 100 psig			

**ACCURACY**  
 A = 0.05% Indicate value from 20% full scale. **Base cost consult**  
 B = 0.1% Indicate value from 20% full scale\*\*\*\*. **Base cost consult**  
 C = 0.25% Indicate value from 20% full scale. **Base cost consult**

**OPTIONS**  
 A = Standard unit which includes multiple engineering units, min/max, freeze mode, RS-232, RS422, & RS485  
 B = Standard unit plus two relays and setpoints option (add'l cost consult)\*\*  
 C = Standard unit plus 0-10 VDC and 4-20 mA outputs (add'l cost consult)\*\*  
 D = Standard unit plus parallel BCD output (add'l cost consult)\*\*

\*NOTE: Pressure ranges V, W, Y, and Z are not available in the 0.25% accuracy rating.  
 \*\*\*NOTE: Includes panel mount brackets.  
 \*\*\*\*NOTE: PSIA not available in 0.1% accuracy models.

**Determine model configuration before ordering**  
**Example: DLR334ADAAA = DLR334 (A)Table top unit, (D)230 VAC, (A)0-3 psig, (A)0.05%, (A)standard unit**

# PIN7000/PIN7010 Pneumatic Pressure Intensifier



PIN7000



PIN7010

## STANDARD FEATURES

- Available in self-contained enclosure with carrying handles (PIN7000) or 19 inch wide rack-mount version (PIN7010)
- Internal precision pressure intensifier generates up to 10 times input pressure
- Electronically controlled intensifier system
- Precision Condec REG1000 (regulator) to adjust input pressure
- Three gauges to monitor regulated pressure, accumulated pressure, and output pressure
- Patented micro-metering valves for precision pressure adjustment and venting
- Quick-disconnect fittings and hoses supplied for input and output pressure
- Easy to operate, training can be accomplished in 10 minutes
- Different technicians can operate the system and get identical results...every time
- Pneumatic only - no hydraulics or distilled water messes

## APPLICATIONS

- High pressure supply, up to 10,000 psi, for test equipment
- Ideal for fluid-free high pressure calibration
- Works with all major manufacturer's electronic pressure calibrators

## SPECIFICATIONS

### 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

### Regulated Pressure Gauge:

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

### Accumulator and Output Pressure Gauges:

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

### Control Valves :

Type: Micro-metering with positive shut off, adjustable stop and replaceable seat, non destructible  
 Vernier mechanical rotation : 16 turns, nominal  
 Adjustable sensitivity : 0.0005 psi, minimum  
 Vernier torque: Finger tip adjust to 10,000 psi  
 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 Ports:

Style: Quick-disconnect type  
 Pressure rating: 10,000 psig minimum, connected or disconnected  
 Quantity supplied: 1 output Quick-Disconnect p/o output pressure hose mentioned below

### Pressure Hoses:

Quantity supplied: 2; one input and one output  
 Length: 4 ft., nominal each hose

### Booster Pump solenoid valve :

Type: Three-way, normally closed, electronically controlled  
 Pressure rating : 1500 psig  
 Power Requirements:  
 115 VAC, 50 Hz, 10 watts  
 Note: 220 VAC also available

### Input Pressure Condec REG 1000

#### Regulator :

Pressure rating: 3000 psi maximum  
 Output pressure range: 0-1000 psi  
 Construction: Self-relieving, single stage regulator

### External Housing:

PIN7000: Deep drawn aluminum case with cover and handles  
 PIN7010: Sheet aluminum enclosure

### External Finish:

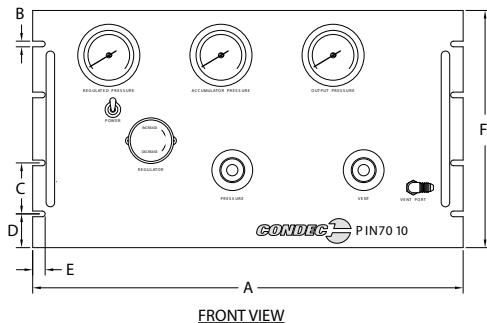
PIN7000: Grey polyurethane baked-enamel paint, textured finish  
 PIN7010: Dark Tan polyurethane baked-enamel paint, textured finish

### Weight:

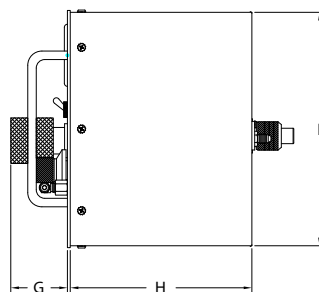
Approximately 40 lb (18.1 kg), nominal including all fitting, hoses and power cord

DIMENSIONS	
A	19.0 in. (482.60 mm)
B	0.25 in. (6.35 mm)
C	2.25 in. (57.15 mm)
D	1.48 in. (37.59 mm)
E	0.55 in. (13.97 mm)
F	10.47 in. (265.93 mm)
G	2.60 in. (66.04 mm)
H	8.00 in. (203.20 mm)
I	10.36 in. (263.24 mm)
J	17.18 in. (436.37 mm)

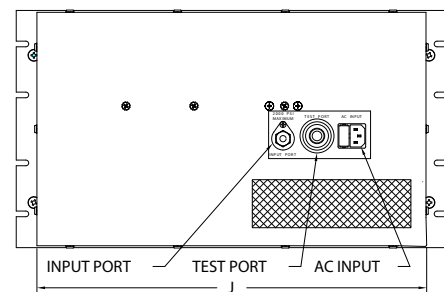
Rack-mount dimensions are for reference only.  
 Consult factory for cutout dimensions



FRONT VIEW



SIDE VIEW



REAR VIEW

PIN7000 dimensions (not shown):  
 18 W x 11 D x 11.5 in. H (457.2 W x 279.4 D x 292.1 mm H)

# PIN7000/PIN7010 Pneumatic Pressure Intensifier

## MODEL/PRICE

MODEL	DESCRIPTION	EST. SHIP WEIGHT	PRICE
PIN7000	Portable Pneumatic Pressure Intensifier	44 lb	Consult
PIN7010	19 inch rack-mount Pneumatic Pressure Intensifier	44 lb	Consult

**PIN7000/PIN7010 Model Numbering Guide**

PIN7000/PIN7010 ( ) ( )

**POWER**

A = 115 VAC, 50/60 Hz  
 B = 230 VAC, 50/60 Hz

**OPTIONS**

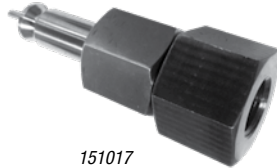
A = Standard, 10,000 psi max output

**Determine model configuration before ordering**

**Example: PIN7000AA = PIN7000 (A) 115 VAC (A) Standard**



59533



151017



55542



58478

## OPTIONS/ACCESSORIES

PART #	DESCRIPTION	PRICE
63258	Additional operating & maintenance manual	Consult
59533	External portable pressure cylinder with (83.3 cu ft. 2216 psi working pressure) CGA-580 shutoff valve/ internal rupture disk and carrying handle	Consult
58478	Pressure trap (PIN7000/PIN7010) Literature sheet PN 58596	Consult
55542	Standard quick-disconnect test port (output) fitting male plug on one end and 7/16-20 37 DEG (AN-4) JIC male on opposite end w/ internal 40 micron filter, 11000 PSI working pressure (Requires one Cheat Seal 54854)	Consult
151017	Output (test) port quick-disconnect adapter male coupling body, other end 1/4-18 NPT female SST with 40 micron filter, 11000 PSI working pressure, for mating between CONDEC DPDG and PIN7000 or PIN7010	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	Consult
131096	Additional test port (output) 10 ft. long hose with quick-disconnect (SST) plug on one end and 1/4 in. 37° female AN swivel pressure fitting on opposite end	Consult
78939	Additional fill port (input) 5 ft. long hose with CGA-580 male nipple on one end and 1/4 in. 37° female AN swivel pressure fitting on opposite end	Consult
55366	Additional fill port (input) 10 ft. long hose with CGA-580 male nipple on one end and 1/4 in. 37° female AN swivel pressure fitting on opposite end	Consult
55369	Additional fill port (input) 15 ft. long hose with CGA-580 male nipple on one end and 1/4 in. 37° female AN swivel pressure fitting on opposite end	Consult
162561	Additional fill port (input) 20 ft. long hose with CGA-580 male nipple on one end and 1/4 in. 37° female AN swivel pressure fitting on opposite end	Consult
150613	External Cylinder Fill 5 ft. long hose with CGA-580 Type Male Nipple Both Ends 0-3000 PSI Working Pressure (Used For Filling External Pressure Cylinder PN 59533)	Consult



# PIN8000/PIN8010 Pneumatic Source Hi Pressure Intensifier



PIN8000

## STANDARD FEATURES

- Available in self-contained enclosure with carrying handles (PIN8000) or 19 inch wide rack-mount version (PIN8010)
- Internal precision pressure intensifier generates up to 10 times input pressure
- Electronically controlled intensifier system
- Two output (test) ports, for connecting to Device-Under-Test as well as a precision calibration standard (works with all major brand pressure calibrators, digital gauges or indicators)
- Precision Condec REG1000 (regulator) to adjust input pressure
- Three gauges to monitor regulated pressure,

accumulated pressure, and output pressure

- Patented micro-metering valves with vernier for precision (.0005 psi) for pressure adjustment and venting
- Quick-disconnect fittings and hoses supplied for input and output pressure
- Easy to operate, training can be accomplished in 10 minutes
- Different technicians can operate the system and get identical results...every time
- Pneumatic only - no hydraulics or distilled water messes

## APPLICATIONS

- High pressure supply, up to 10,000 psi, for test equipment
- Ideal for fluid-free high pressure calibration

- Works with all major manufacturer's electronic pressure calibrators

## SPECIFICATIONS

### 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

### Regulated Pressure Gauge:

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

### Accumulator and Output Pressure Gauges:

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

### Control Valves:

Type: Micro-metering with positive shut off, adjustable stop and replaceable seat, non destructible  
Vernier mechanical rotation : 16 turns, nominal  
Adjustable sensitivity : 0.0005 psi, minimum  
Vernier torque: Finger tip adjust to 10,000 psi  
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 Ports:

Style: Quick-disconnect type  
Pressure rating: 10,000 psig minimum, connected or disconnected  
Quantity supplied: 2 output Quick Disconnects (one, p/o output pressure hose mentioned below)

### Pressure Hoses:

Quantity supplied: 2; one input and one output  
Length: 4 ft., nominal each hose

### Booster Pump solenoid valve:

Type: Three-way, normally closed, electronically controlled  
Pressure rating : 1500 psig  
Power Requirements:  
115 VAC, 50 Hz, 10 watts  
Note: 220 VAC also available.

### Input Pressure Condec REG 1000 Regulator:

Pressure rating: 3000 psi maximum  
Output pressure range: 0-1000 psi  
Construction: Self-relieving, single stage regulator

### External Housing:

PIN8000: Deep drawn aluminum case with cover and handles  
PIN8010: Sheet aluminum enclosure

### External Finish:

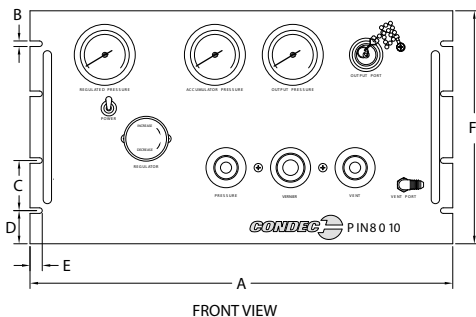
PIN8000: Grey polyurethane baked-enamel paint, textured finish  
PIN8010: Dark Tan polyurethane baked-enamel paint, textured finish

### Weight:

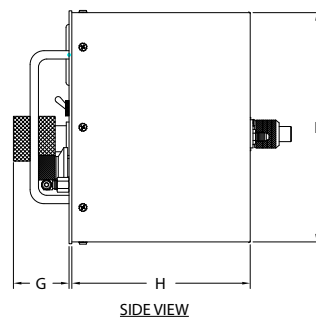
Approximately 40 lb (18.1 kg), nominal including all fitting, hoses and power cord

DIMENSIONS	
A	19.0 in. (482.60 mm)
B	0.25 in. (6.35 mm)
C	2.25 in. (57.15 mm)
D	1.48 in. (37.59 mm)
E	0.55 in. (13.97 mm)
F	10.47 in. (265.93 mm)
G	2.60 in. (66.04 mm)
H	8.00 in. (203.20 mm)
I	10.36 in. (263.24 mm)
J	17.18 in. (436.37 mm)

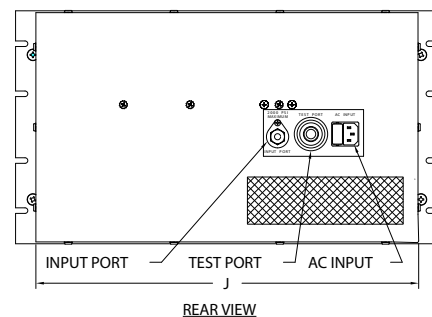
Rack-mount dimensions are for reference only. Consult factory for cutout dimensions



FRONT VIEW



SIDE VIEW



REAR VIEW

PIN8000 dimensions (not shown):  
18 W x 11 D x 11.5 in. H (457.2 W x 279.4 D x 292.1 mm H)

# PIN8000/PIN8010 Pneumatic Source Hi Pressure Intensifier

## MODEL/PRICE

MODEL	DESCRIPTION	EST. SHIP WEIGHT	PRICE
PIN8000	Portable Pneumatic Source Hi Pressure Intensifier	44 lb	Consult
PIN8010	19 inch rack-mount Pneumatic Source Hi Pressure Intensifier	44 lb	Consult

**PIN8000/PIN8010 Model Numbering Guide**

PIN8000/PIN8010 ( ) ( )

**POWER**

A = 115 VAC, 50/60 Hz  
 B = 230 VAC, 50/60 Hz

**OPTIONS**

A = Standard, 10,000 psi max output

**Determine model configuration before ordering**

**Example: PIN8000AA = PIN8000 (A) 115 VAC (A) Standard**



120462 - "HANDS FREE VIEWING"

151017



159683 - "HANDS FREE VIEWING"

## OPTIONS/ACCESSORIES

PART #	DESCRIPTION	PRICE
63258	Additional operating & maintenance manual	Consult
59533	External portable pressure cylinder with (83.3 cu ft. 2216 psi working pressure) CGA-580 shutoff valve/ internal rupture disk and carrying handle	Consult
58478	Pressure trap (PIN8000/PIN8010) Literature sheet PN 58596	Consult
55542	Standard quick-disconnect test port (output) fitting male plug on one end and 7/16-20 37 DEG (AN-4) JIC male on opposite end w/ internal 40 micron filter, 11000 PSI working pressure (Requires (included) one Cheat Seal 54854)	Consult
151017	Output (test) port quick-disconnect adapter male coupling body, other end 1/4-18 NPT female SST with 40 micron filter, 11000 PSI working pressure, for mating between CONDEC DPDG and PIN8000 or PIN8010	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	Consult
131096	Additional test port (output) 10 ft. long hose with quick-disconnect (SST) plug on one end and 1/4 in. 37° female AN swivel pressure fitting on opposite end	Consult
78939	Additional fill port (input) 5 ft. long hose with CGA-580 male nipple on one end and 1/4 in. 37° female AN swivel pressure fitting on opposite end	Consult
55366	Additional fill port (input) 10 ft. long hose with CGA-580 male nipple on one end and 1/4 in. 37° female AN swivel pressure fitting on opposite end	Consult
55369	Additional fill port (input) 15 ft. long hose with CGA-580 male nipple on one end and 1/4 in. 37° female AN swivel pressure fitting on opposite end	Consult
162561	Additional fill port (input) 20 ft. long hose with CGA-580 male nipple on one end and 1/4 in. 37° female AN swivel pressure fitting on opposite end	Consult
120462	Output (test) port quick-disconnect adjustable adapter assembly, 1/8 NPT Male (Finger Tighten) to 1/4-37 Degree AN-4 swivel other end, 5000 psig working pressure (for hands-free display reading when used between PIN8000 Quick-Connect 55542 and Hand-Held or Digital Gauge with 1/8 NPT Female thread, requires (included) one Cheat Seal 54854)	Consult
159683	Output (test) port adjustable adapter assembly, female (finger tighten) 1/4 NPT to 1/4-37 degree AN-4 swivel other end, 5000 psig working pressure (for hands-free display reading when used between PIN8000 Quick-Connect 55542 and Device with 1/4 NPT Male)	Consult
150613	External Cylinder Fill 5 ft. long hose with CGA-580 Type Male Nipple Both Ends 0-3000 PSI Working Pressure (Used For Filling External Pressure Cylinder PN 59533)	Consult



55542



58478



59533

# Source 3000 Portable Pneumatic Pressure Source



Note: Consult factory with your specific Test Port configuration requirements.



"106594 - NO TOOLS REQUIRED"



"107288 - NO TOOLS REQUIRED"

DIMENSIONS	
A	18.0 in. (457.2 mm)
B	11.5 in (292.1 mm)
C	7.2 in. (182.8 mm)

## STANDARD FEATURES

- Self-contained nitrogen cylinder
- "Overpressure protection" Condec REG 3000 regulator limits pressure to costly units under test
- Charge your internal nitrogen cylinder to 3000 psi with provided adapter fitting
- Two output (test) ports, for connecting to Device-Under-Test as well as a precision calibration standard (works with all major name brand pressure calibrators, digital gauges or indicators)
- Precisely dial into required pressures with patented valve assembly
- 15.2 cubic feet of nitrogen at 3000 psi
- Aluminum carrying case
- Front panel gauges inform operator of internal cylinder pressure level
- Different technicians can operate the system and get identical results...every time
- Pneumatic only - no hydraulics or distilled water messes

## APPLICATIONS

- Works with all major manufacturer's electronic pressure calibrators
- Truly portable pneumatic source to 3000 psi
- Nitrogen source for a full day of calibrating

## SPECIFICATIONS

### Internal Pressure Cylinder:

15.2 cubic feet of nitrogen at 3000 psig  
133 cubic inches, 3000 psig rating, 5000 psig test pressure, 6061 aluminum material

### Storage Temperature:

0°F to 185°F (-17.8°C to 85°C)

### Pressure Media:

Clean dry gaseous nitrogen or equal

### Pressure Regulator:

3000 psig, single stage, self venting, non-bleed

### Pressure Gauges:

(2) Two-inch diameter, 0-4000 psig

### Rupture Disc:

3200 psig nominal, stainless steel outer case

### Pressure Filter:

20 micron nominal, field replaceable

### Control Valves:

Orion 2C, micro-metering valve, replaceable soft seat, aluminum and stainless steel

### Piping:

All stainless steel, seamless

### Test Ports:

(2) Two, 5000 psig rated 3000 psig operating, 300 series stainless steel

### Pressure Fittings:

Input fitting: 1/4 in. 37° female AN swivel on one end and 1/8 in. NPT male on other, to go to customer input hose

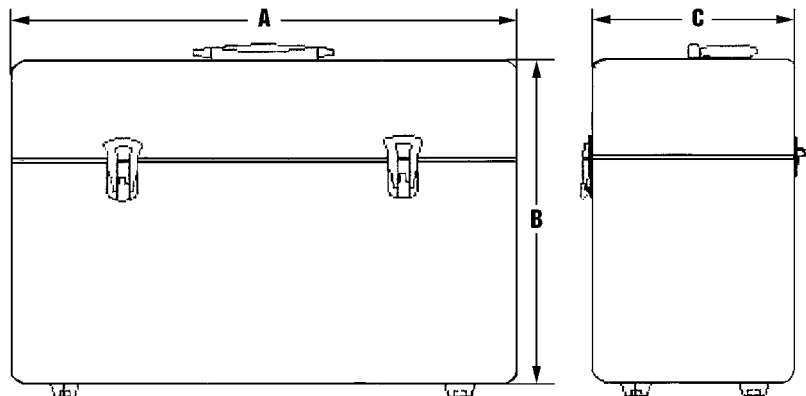
Output test ports: stainless steel quick-disconnect on one end and 1/4 in. NPT female on other, to go to customer output hose

### Case:

All aluminum case with latched cover and handle

### Weight:

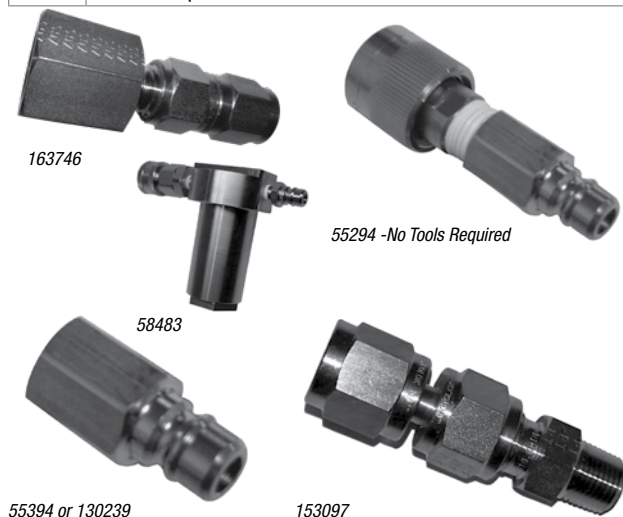
25 lb (9.07 kg)



# Source 3000 Portable Pneumatic Pressure Source

## OPTIONS/ACCESSORIES

PART #	DESCRIPTION	PRICE
79423	Source 3000 tool/hose canvas carrier (fits in top cover of unit)	Consult
78939	Fill port hose (input) 5 ft. long hose with CGA-580 male nipple on one end and 7/16-20 JIC 37° female AN-4 swivel on other end	Consult
55366	Fill port hose (input) 10 ft. long hose with CGA-580 male nipple on one end and 7/16-20 JIC 37° female AN-4 swivel on other end	Consult
55369	Fill port hose (input) 15 ft. long hose with CGA-580 male nipple on one end and 7/16-20 JIC 37° female AN-4 swivel on other end	Consult
162561	Fill port hose (input) 20 ft long hose with CGA-580 male nipple on one end and 7/16-20 JIC 37° female AN-4 swivel on other end	Consult
166399	Fill port hose (input) 5 ft. long hose with CGA-580 male nipple on one end and Swagelok female QC4 Quick-Disconnect on other end, for Source 3000 (PN 98916)	Consult
166405	Fill port hose (input) 10 ft. long hose with CGA-580 male nipple on one end and Swagelok female QC4 Quick-Disconnect on other end, for Source 3000 (PN 98916)	Consult
67248	Output (test) port 5 ft. long hose with quick-disconnect plug (SST) on one end and 7/16-20 JIC 37° female AN-4 swivel on other end, for Source 3000 (PN 65315)	Consult
161925	Output (test) port 10 ft. long hose with quick-disconnect plug (SST) on one end and 7/16-20 JIC 37° female AN-4 swivel on other end, for Source 3000 (PN 65315)	Consult
161926	Output (test) port 15 ft. long hose with quick-disconnect plug (SST) on one end and 7/16-20 JIC 37° female AN-4 swivel on other end, for Source 3000 (PN 65315)	Consult
161927	Output (test) port 20 ft. long hose with quick-disconnect plug (SST) on one end and 7/16-20 JIC 37° female AN-4 swivel on other end, for Source 3000 (PN 65315)	Consult
166413	Output (test) port 5 ft. long hose with Swagelok male QC4 Quick-Disconnect on one end and 1/4 inch male NPT on other end, for Source 3000 (PN 98916)	Consult
166420	Output (test) port 10 ft. long hose with Swagelok male QC4 Quick-Disconnect on one end and 1/4 inch male NPT on other end, for Source 3000 (PN 98916)	Consult
65546	Additional operation and maintenance manual	Consult
58483	Pressure trap, for Source 3000 (PN 65315) Literature sheet PN 58609	Consult
54854	Additional cheat seal (used with fill port hose 78939)	Consult
153097	Standard Input (fill) port input hose fitting, female 7/16-20 AN-4, 37 degree swivel to 1/8-27 NPT male SST 10,000 PSI working pressure for Source 3000 (PN 65315) input port (Consult factory for additional fill port adapters.)	Consult
163746	Adapter fitting, female 7/16-20 AN-4, 37° degree swivel to 1/4-18 NPT female SST 8,000 PSI working pressure (for Source 3000 PNs 65315 or 98917 input (fill) port, Source 3000 PN 131385 input (fill) and output (test) ports; requires (included) one Cheat Seal 54854)	Consult
55294	Output (test) port male quick-disconnect adapter assembly, male coupling body to (finger tighten) 1/4 female NPT other end, 5000 PSIG working pressure (for quick changing between various DPDG models, when used between Source 3000 (PN 65315) test port adjustable adapters and CONDEC DPDG gauge)	Consult
55394	Standard output (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	Output (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
106594	Output (test) port quick-disconnect adjustable adapter assembly, male coupling body to 1/8 NPT Swivel other end, 5000 psig working pressure (for hands-free display reading when used between Source 3000 (PN 65315) test port and CONDEC 3030, see pictorial on previous page)	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 hands-free display reading when used between Source 3000 (PN 65315) test port and CONDEC DPDG gauge or pressure trap 58483, see pictorial below)	Consult
166421	Output (test) port quick-disconnect adjustable adapter assembly, one end Swagelok Quick-Disconnect QC4 male coupling body other end 1/4 NPT male Swivel 5000 PSI working pressure (for hands-free display reading when used between Source 3000 (PN 98916) test port and DUT with 1/4 NPT female port.	Consult



## MODEL/PRICE

PART #	DESCRIPTION	EST. SHIP WEIGHT	PRICE
65315	Source 3000 pneumatic pressure source (Buna-N Seals & Standard Female Quick-Disconnect Output (test) Ports and 7/16 -20 AN-4 male Fill Port) Note: Fill Port requires one (supplied) Cheat Seal PN 54854	29 lb	Consult
98916	Source 3000 with Swagelok QC4 Quick-Disconnect Female Output (test) Ports and QC4 Quick-Connect Male Fill Port (Buna-N Seals)	29 lb	Consult
98917	Source 3000 with Ralston male quick-test/check-valve Output (test) Ports and Standard 7/16 -20 AN-4 male Fill Port Notes: Output (test) Ports mate with Ralston QT or QS series hoses. Fill Port requires one (supplied) Cheat Seal PN 54854 (Buna-N Seals)	29 lb	Consult
131385	Source 3000 with 7/16 -20 AN-4 Male Output (test) Ports and Fill Port (Buna-N Internal Seals) Note: Each Port requires one (3 supplied) Cheat Seal PN 54854	29 lb	Consult

Note: Consult factory with your specific Test Port configuration requirements.

# UVC1000/UVC1010 Vacuum Generator/Pressure Controller

VACUUM GENERATOR



UVC1000



UVC1010, 19 inch wide rack-mount

UVC1000 DIMENSIONS	
A	5.70 in. (144.78mm)
B	8.14 in. (206.75mm)
C	6.10 in. (154.94mm)
D	1.30 in. (33.02 mm)
E	0.80 in. (20.32 mm)
F	0.30 in. (7.62 mm)

Consult factory for UVC1010 dimensions.



55291

## STANDARD FEATURES

- 2 modes of operation: vacuum or pressure
- 29 inches Hg vacuum from shop air supply
- Lightweight design
- Built-in vacuum converter and pressure regulator
- Available as standard (UVC1000) or 19 inch wide rack-mount version (UVC1010)
- Two test (output) fittings

## APPLICATIONS

- Hazardous environments
- Source for calibration of compound gauges
- Low-cost alternative to vacuum pump
- Need for precise vacuum or pressure control

## SPECIFICATIONS

### Pressure Media:

Filtered shop air

### Pressure Input:

100-160 psi\*, 4.2 SCFM, AN-4 37° flared tube setting

### Pressure Limit Monitor Gauge:

Size: Two-inch diameter  
Range: 0-160 psi

### Vacuum Monitor Gauge:

Size: Two-inch diameter  
Range: 0-30 inches Hg

### Regulator:

Aluminum/brass 0-100 psi output pressure

### UVC1000 Case:

16 gauge painted steel

### Pressure/Vacuum Selector:

Brass

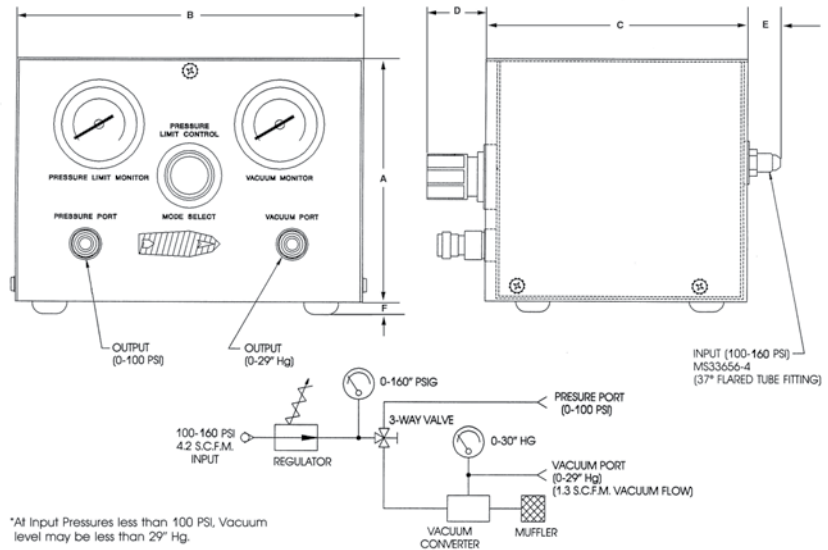
### Fittings:

Brass, two quick-disconnect male coupling to 1/4 inch female NPT  
Internal Tubing: 250 psi rated tubing

### Weight:

UVC1000: 6.6 lb (2.9 kg)  
UVC1010: Approximately 7 lb (3 kg)

\*At input pressures less than 100 psi, vacuum level may be less than 29 inches Hg.



**UVC1000/UVC1010** Vacuum Generator/Pressure Controller

**MODEL/PRICE**

PART #	DESCRIPTION	EST. SHIP WEIGHT	PRICE
56085	UVC1000-1, Portable table top Vacuum generator/Pressure Controller	12 lb	Consult
59415	UVC1010-1, 19 inch rack-mount Vacuum Generator/Pressure Controller	19 lb	Consult

**OPTIONS/ACCESSORIES**

PART #	DESCRIPTION	PRICE
55281	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	Consult
69481	Additional operating and maintenance manual	Consult
60195	Standard test port quick-disconnect hose fitting male coupling body to 1/4 in. NPT female (brass)	Consult
55291	Test port male quick-disconnect with 1/4 NPT female (finger tighten to DUT, no tools required)	Consult

VACUUM GENERATOR

# Orion 2C/Orion 3A Precision Pneumatic Controllers



Orion 2C cased version 89216 shown with digital Gauge and optional adapters 55394 and 120422



Orion 2C cased version 89216 shown with optional quick-disconnect adjustable adapter, 120422



Orion 2C/Orion 3A Cased Controller Literature sheet available - 121189



"120462 - HANDS FREE VIEWING"



"120422 - HANDS FREE VIEWING"

## STANDARD FEATURES

- System working pressure:  
Orion 2C, non-cased/cased versions:  
Up to 3000 psi  
Orion 3A, non-cased version: Up to 10,000 psi  
Orion 3A, cased version: Up to 10,000 psi based on model
- Orion 2C: Aluminum body, Buna-N o-rings standard  
Orion 3A: Stainless steel body, Viton o-rings standard
- Precision patented vernier to precisely "dial in" a selected pressure
- Fingertip closed system pressure adjustment to better than 0.0005 psi
- Soft seat construction and adjustable stop - immune to over tightening
- Two low-torque, fine micro-metering valves with positive shut off
- Two test ports allow for multiple applications:
- Non-cased models (see below for optional seal plug)
- Cased models, # of test ports based on version

## APPLICATIONS

- Gas applications
- Operation to 10,000 psi, based on model
- Test stands
- OEM pressure control applications

## SPECIFICATIONS ORION 2C

**Pressure Range:**

0-3000 psi and vacuum

**Proof Pressure:**

4000 psi

**Pressure and Vent Valve Orifice:**

0.032

**Cv Factor:**

0.007

**Mechanical Rotation:**

3.5 turns, nominal

**Torque:**

Finger tip adjust

**Vernier Volume:**

0.5 cubic inch, nominal

**Vernier Mechanical Rotation:**

16 turns, nominal

**Adjustable Sensitivity:**

0.0005 psi, minimum

**Vernier Torque:**

Finger tip adjust to 3000 psi

**Construction:**

Body: Aluminum, clear anodize

Knobs: Aluminum, black anodize

O-rings: Buna-N standard, others available

Ports:

Orion 2C (uncased version, 55283):

Test port #1, input port and output port -fitting (59716)

for 1/8" OD tube

Test port #2, 7/16-20 UNF female (MS33649-04)

straight thread. Optional: use one each 68862 &

61035 to plug

Orion 2C (cased version, 89216):

Input port, two test ports and vent port - male 7/16-20

AN-4, stainless steel

All other parts 300 series stainless steel

**Case Material**

16 gauge painted steel

## SPECIFICATIONS ORION 3A

**Pressure Range:**

0-10,000 psi and vacuum (uncased version, 55287)

0-6000 psi and vacuum (cased version, 159874)

0-10,000 psi and vacuum (cased version, 113949)

**Proof Pressure:**

15,000 psi (uncased version, 55287)

9000 psi (cased version, 159874)

11,000 psi (cased version, 113949)

**Pressure and Vent Valve Orifice:**

0.032

**Cv Factor:**

0.007

**Mechanical Rotation:**

3.5 turns, nominal

**Torque:**

Finger tip adjust

**Vernier Volume:**

0.4 cubic inch, nominal

**Vernier Mechanical Rotation:**

15 turns, nominal

**Adjustable Sensitivity:**

0.005 psi, minimum

**Vernier Torque:**

Finger tip adjust to 10,000 psi

**Construction:**

Body: 300 series stainless steel

Knobs: Aluminum, black anodize

O-rings: Viton standard, others available

Ports:

Orion 3A (uncased version, 55287)

Test port #1, input port and output port - stainless

steel fitting (59731) for 1/8 in. OD tubing

Test port #2, 7/16-20 UNF female (MS33649-04)

straight thread. Optional: use one each 68862 &

54854 to permanently plug

Orion 3A (cased version, 159874):

Input port, two test ports and vent port - 7/16-20 AN-4

males, stainless steel

Orion 3A (cased version, 113949):

Input port and two test ports- stainless steel fitting for

1/4 in. OD tubing

Vent port - stainless steel fitting for 1/8 in. OD tubing

All other parts 300 series stainless steel

**Case Material**

16 gauge painted steel

# Orion 2C/Orion 3A Precision Pneumatic Controllers

## MODEL/PRICE

PART #	DESCRIPTION	EST. SHIP WEIGHT	PRICE
55283	Orion 2C, vacuum-3K PSI (with Buna-N O-rings) NOTE: to seal test port #2 order 1 ea. 68862 & 61035 or for 1/8 tube fitting order 1 ea. 54854 & 59982	6 lb	Consult
55287	Orion 3A, vacuum-10K PSI (with Viton O-rings) NOTE: to seal test port #2 order 1 ea. 68862 & 54854 or for 1/8 tube fitting order 65485	10 lb	Consult
89216	Cased Orion 2C, vacuum-3K PSI (with Buna-N O-rings) Ports; 2 outputs (1 each front and rear), 1 input, 1 vent, all ports 7/16-20 AN-4 male NOTE: Cheat Seal 54854 used for all ports.	8 lb	Consult
159874	Cased Orion 3A, vacuum-6K PSI (with Viton O-rings) Ports; 2 outputs (1 each front and rear), 1 input, 1 vent NOTE: Cheat Seal 54854 used for all ports.	12 lb	Consult
159875	Cased Orion 3A, vacuum-7500 PSI (with Viton O-rings) Ports; 2 outputs (1 each front & rear 1/8 NPT male), 1 input 1/8 NPT male, 1 vent 7/16-20 AN-4 male	12 lb	Consult
159876	Cased Orion 3A, vacuum-7500 PSI (with Viton O-rings) Ports; 2 outputs (1 each front & rear 1/4 NPT male), 1 input 1/4 NPT male, 1 vent 7/16-20 AN-4 male	12 lb	Consult
113949	Cased Orion 3A, vacuum-10K (with Viton O-rings) Ports; 2 outputs (1 each front & rear) & 1 input for 1/4 tube, 1 vent for 1/8 tube - Note: Replacement Nut/Ferrule Kit order 159958 for output or input port, 160142 for vent port.	12 lb	Consult



55394 or 130239

## OPTIONS/ACCESSORIES

PART #	DESCRIPTION	PRICE
68859	Additional adjustment and maintenance manual	Consult
68862	Seal plug for Orion test port #2 (non-cased Orion 2C requires O-ring 61035 Buna-N (STD) or 55596 Viton, non-cased Orion 3A requires one Cheat Seal 54854)	Consult
55596	O-ring, Viton (used with non-cased Orion 2C and seal plug 68862)	Consult
61035	O-ring, Buna-N (used with non-cased Orion 2C and seal plug 68862)	Consult
54854	Cheat Seal (used with non-cased Orion 3A, seal plug 68862, Cased Orion 3A 159874, adapters 120422 and 120462)	Consult
58499	Replacement Orion 2C, Buna-N O-ring kit	Consult
55277	Replacement Orion 3A, Viton O-ring kit	Consult
120422	Test port quick-disconnect adjustable adapter assembly, Female Quick-Disconnect to 7/16-20, 37 degree AN-4 swivel other end, 3000 PSI (for hands-free display reading when used between Orion 2C cased unit Test Port and Hand-Held or Digital Gauge utilizing Quick-Disconnect Fitting PN 55394 or 130239, see pictorial on previous page, requires one Cheat Seal 54854)	Consult
120462	Test port quick-disconnect adjustable adapter assembly, 1/8 NPT Finger Tighten to 7/16-20, 37 degree AN-4 swivel other end, 5000 psig working pressure (for hands-free display reading when used between Orion 2C cased unit test port and Hand-Held or Digital Gauge with 1/8 NPT Female thread, see pictorial on previous page, requires one Cheat Seal 54854)	Consult
55394	Standard output (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	Output (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

Please consult factory for availability of these non-standard O-ring materials:  
Ethylene-propylene Neoprene Silicone

Consult factory for Orion 3A (cased or non-cased version) dimensions.



# Orion 2C/Orion 3A Precision Pneumatic Controllers

PRECISION CONTROLLERS



Orion 2C

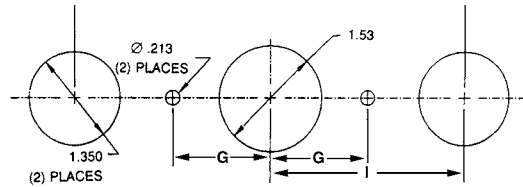
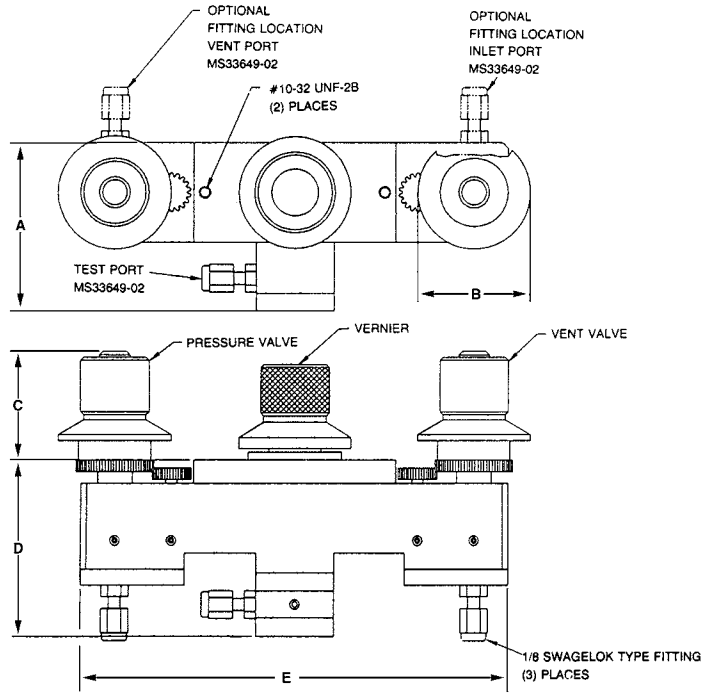


Orion 3A

Test Port #2, see Options/Accessories

Test Port #2, see Options/Accessories

ORION 2C NON-CASED VERSION  
PN 55283

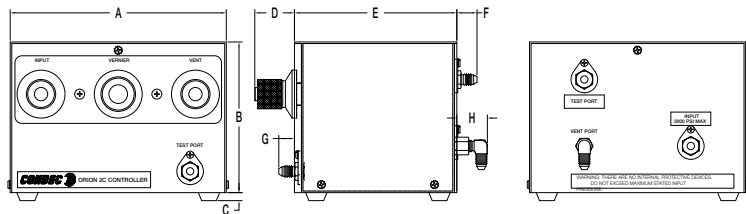


RECOMMENDED HOLE PATTERN FOR ORION 2C

ORION 2C NON-CASED DIMENSIONS	
A	2.70 in. (68.58 mm)
B	1.82 in. (46.22 mm)
C	1.75 in. (44.45 mm)
D	2.80 in. (71.12 mm)
E	6.90 in. (175.26 mm)
F	5.80 in. (147.32 mm)
G	1.45 in. (36.83 mm)
I	2.90 in. (73.66 mm)

ORION 2C CASED DIMENSIONS	
A	8.14 in. (206.75 mm)
B	5.70 in. (144.78 mm)
C	0.30 in. (7.62 mm)
D	1.50 in. (38.10 mm)
E	6.10 in. (154.94 mm)
F	0.80 in. (20.32 mm)
G	0.60 in. (15.24 mm)
H	1.15 in. (29.21 mm)

ORION 2C CASED VERSION  
PN 89216



Consult factory for Orion 3A (cased or non-cased version) dimensions.

# MPV-10K Micro-metering Precision Valve



Consult factory for additional O-ring materials:  
 Buna-N  
 Ethylene-propylene  
 Silicone  
 Neoprene

## APPLICATIONS

- Gas and fluid applications
- High purity systems
- Medical and Bio-chemical gas analysis
- Natural gas systems
- Semi-conductor production
- Pollution analysis instrumentation
- Process plant instrumentation
- Solvent systems
- Chromatography
- Mass spectroscopy
- Research laboratory sampling
- Oxygen service
- Machine cutting tools

## STANDARD FEATURES

- Fine micro-metering valve with positive shut off
- Adjustable stop, soft seat. No over tightening
- Stainless steel
- Finger tip adjust - even at 10,000 psi
- Viton O-rings standard; other materials available by request
- Valve can be panel or bracket mounted

## SPECIFICATIONS

### Pressure Range:

Vacuum to 10,000 psi

### Proof Pressure:

15,000 psi

### Orifice Size:

0.032

### Cv Factor:

0.007

### Mechanical Rotation:

10 turns, nominal

### Torque:

Finger tip adjust

### Volume:

0.5 cubic inch, nominal

### Sensitivity:

0.0005 psi, minimum

### Construction:

Body: 303 stainless steel  
 All other parts: 304 stainless steel  
 Knob: Black anodized aluminum

### Description of O-ring Materials:

**Viton (V):** Standard supplied material. High temperature, compatible with wide range of fluids and chemicals: Acids, oils, fuels, solvents, gases, U.V. light, and ozone.

**Buna-N (BN):** For general applications, petroleum base lubricants, hydraulic oils, gasoline, fuels, alcohol, L.P. gases, water and many other media. Order by request.

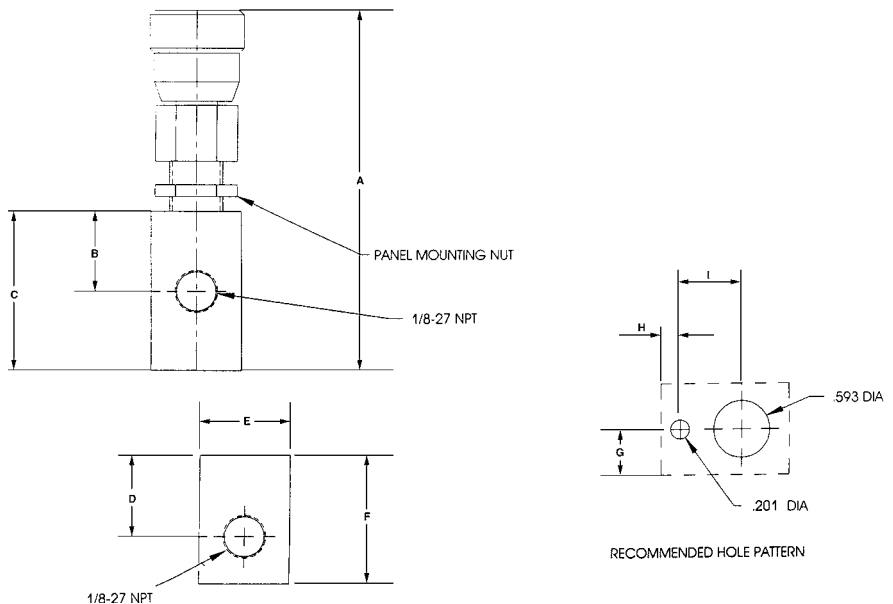
**Ethylene - Propylene (EP):** For hot water, steam, dilute acids, alcohols, alkalis, ketones, phosphate, and brake fluids. Order by request.

**Silicone (S):** Compatible with air, oxygen, ozone, and others. For high temperature applications. Order by request.

**Neoprene (C):** For refrigeration gases (Freon®, ammonia), CO<sub>2</sub>, chlorine, ozone, sunlight exposure. F.D.A. approved for food and beverages, odorless, tasteless and non toxic. Order by request. See literature sheet PN 65308

*NOTE: Some O-Ring materials may not be rated for 10,000 psi.*

DIMENSIONS	
A	3.80 in. (96.52 mm)
B	0.853 in. (21.66 mm)
C	1.70 in. (43.18 mm)
D	0.85 in. (21.59 mm)
E	0.95 in. (24.13 mm)
F	1.35 in. (34.29 mm)
G	0.48 in. (12.19 mm)
H	0.20 in. (5.08 mm)
I	0.65 in. (16.51 mm)



**MPV-10K** Micro-metering Precision Valve**MODEL/PRICE**

PART #	DESCRIPTION	EST. SHIP WEIGHT	PRICE
57168	MPV-10K standard unit with Fluorocarbon "Viton"	2 lb	Consult
54803	MPV-10K with "Buna-N" O-ring	2 lb	Consult
54906	MPV-10K with Ethylene-propylene	2 lb	Consult
57161	MPV-10K with Silicone	2 lb	Consult
57122	MPV-10K with Neoprene	2 lb	Consult

**OPTIONS/ACCESSORIES**

PART #	DESCRIPTION	PRICE
68859	Additional adjustment and maintenance manual	Consult
55277	Replacement Fluorocarbon "Viton" O-ring kit, Standard for Orion 3A & MPV-10K Literature sheet PN 65308 (for material uses)	Consult
58499	Replacement Nitrile "Buna-N" O-ring kit, Standard for Orion 2C & Orion 2D Literature sheet PN 65308 (for material uses)	Consult
58506	Replacement Ethylene-Propylene O-ring kit Literature sheet PN 65308 (for material uses)	Consult
58509	Replacement Silicone O-ring kit Literature sheet PN 65308 (for material uses)	Consult
58515	Replacement Neoprene O-ring kit Literature sheet PN 65308 (for material uses)	Consult

# CONDEC REGulator Series Designed for Pressure-Reducing Gas Applications



For further information, request lit sheet 104858

## STANDARD FEATURES

- Same quality Regulator as used in our Portable Pressure Calibrators
- Low Torque required by operator for pressure adjustment
- Single Stage, Venting Type with spring controlled piston
- Integral inlet filter used to promote long life when used in clean systems
- Adjustable Panel Mounting, see diagram on next page for dimensional requirements
- May be integrated with one of our Burst Discs and/or Pressure Relief Valves for FAIL SAFE operator safety when installing in a system. When integrated with one of our CONDEC patented fingertip-adjustable Orion Series or MPV Needle Valves, you will have the advantages of proper regulation of your source, as well as precise finger-tip adjustment of your downstream system output

## SPECIFICATIONS

### Data:

Maximum Primary (inlet) Pressure:  
3000 psig (206.9 Bar)  
4 Ports Standard:  
2 Inlet Ports - 1/4-18 NPT  
2 Outlet Ports - 1/4-18 NPT  
Operating Temperature:  
0°F to +140°F (-18°C to +60°C)

### Materials:

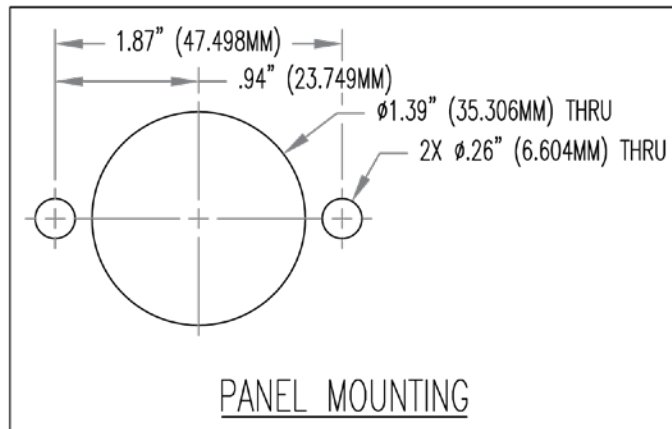
Body: Aluminum  
Cartridge Valve: Teflon, Brass, Stainless Steel  
Seals: Nitrile

### Dimensions

Height: Approximately 7-1/2 inches (190 mm) when fully opened  
Body Diameter: 2 inches (50.8 mm)  
Port Dimensions From Bottom of Base: 13/32 in. (10.3 mm)  
Panel Mount Adjustment (from bottom of regulator base to rear surface of panel) 3 to 4 inches (76.2 mm to 101.6 mm)

## MODEL/PRICE

PART #	DESCRIPTION	EST. SHIP WEIGHT	PRICE
115811	REG 500 maximum 3000 PSIG Input, 0-500 PSIG Output	6.5 lb	Consult
106061	REG 1000 maximum 3000 PSIG Input, 0-1000 PSIG Output	6.5 lb	Consult
106062	REG 2000 maximum 3000 PSIG Input, 0-2000 PSIG Output	6.5 lb	Consult
104793	REG 3000 maximum 3000 PSIG Input, 0-3000 PSIG Output	6.5 lb	Consult



# CONDEC CYLinderREGulator



For further information, request lit sheet 125283

## STANDARD FEATURES

- Same Condec "REG" series regulator as used in our Portable Pressure Calibrators and Source 3000
- Low Torque required by operator for pressure adjustment
- Single Stage, Venting Type with spring controlled piston
- Integral inlet filter used to promote long life when used in clean systems
- CGA-580 fitting for direct connection to the In-House cylinder
- 1/4 inch 37 degree male output port connection

## APPLICATIONS

- Gas applications
- In-House nitrogen cylinder regulation

## SPECIFICATIONS

**Maximum Primary (inlet) Pressure:**  
3000 psig (206.9 Bar)

**Pressure Media:**  
Clean dry gaseous nitrogen or equal

**Operating Temperature:**  
0°F to +140°F (-18° to +60°C)

**Pressure Regulator:**  
3000 psig, single stage, self venting, non-bleed

**Pressure Gauges:**  
(2) two-inch diameter, 0-4000 psig

**Pressure Fittings:**  
Input: CGA-580 Brass, mates with customer's nitrogen cylinder Output 7/16-20, 37 degree Flare Male JIC, Steel, Trivalent Chromium Zinc finish

## MODEL/PRICE

PART #	DESCRIPTION	EST. SHIP WEIGH	PRICE
124511	CYLREG 3000, maximum 3000 PSIG Input, 0-3000 PSIG Output	10 lb	Consult
152333	CYLREG 2000, maximum 3000 PSIG Input, 0-2000 PSIG Output	10 lb	Consult
152317	CYLREG 1000, maximum 3000 PSIG Input, 0-1000 PSIG Output	10 lb	Consult
152041	CYLREG 500, maximum 3000 PSIG Input, 0-500 PSIG Output	10 lb	Consult

## OPTIONS/ACCESSORIES

PART #	DESCRIPTION	PRICE
55282	UPC5000/UPC5100 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 degree female AN swivel coupling on the other end	Consult
55251	5 ft. long hose, 2500 psig working pressure, fitted with Male 1/8-27 NPT on one end and 1/4 inch 37 degree female AN swivel coupling on the other end	Consult
55253	10 ft. long hose, 2500 psig working pressure, fitted with Male 1/8-27 NPT on one end and 1/4 inch 37 degree female AN swivel coupling on the other end	Consult
55254	15 ft. long hose, 2500 psig working pressure, fitted with Male 1/8-27 NPT on one end and 1/4 inch 37 degree female AN swivel coupling on the other end	Consult
55256	20 ft. long hose, 2500 psig working pressure, fitted with Male 1/8-27 NPT on one end and 1/4 inch 37 degree female AN swivel coupling on the other end	Consult
67250	5 ft. long hose, 3000 psig working pressure, fitted with Male 1/4-18 NPT on one end and 1/4 inch 37 degree female AN swivel coupling on the other end	Consult
161922	10 ft. long hose, 3000 psig working pressure, fitted with Male 1/4-18 NPT on one end and 1/4 inch 37 degree female AN swivel coupling on the other end	Consult
58476	Universal steel fitting kit (max working pressure based on individual fitting, see Lit Sheet 63548)	Consult
54854	Cheat Seal (used when connecting hose to CYLREG output port)	Consult
180505	Adapter Fitting, 3,000 PSI working pressure, Female Swagelok QC4 Quick Disconnect on one end and 1/4-18 NPT Female on the other end (used when connecting hose 67250 or 161922 to Source 3000 PN 98916 Input Fill Port)	Consult



**techniCAL**  
eXpanding possibilities

866-327-8731  
[www.techniCAL-sys.com](http://www.techniCAL-sys.com)



**Corporate Address:**

230 W. Coleman St. • Rice Lake, WI 54868 • USA

**Division Address:**

Rice Lake Weighing Systems - CONDEC  
3 Simm Lane • Door D, Unit 2A • Newtown, CT 06470  
888-295-8475 • FAX: 203-364-1556  
[www.ricelake.com/condec](http://www.ricelake.com/condec)

© Rice Lake Weighing Systems PN 64749  
Specifications subject to change without notice.

