

## **Instrumentation for Air Conditioning, Heating and Refrigeration Industries**

Ashcroft® pressure, temperature and control instruments are specifically designed to meet the stringent demands of the air conditioning, heating and refrigeration industries. And along with our high quality, rugged instruments, Ashcroft provides detailed documentation for your critical engineering and compliance requirements. Visit [www.ashcroft.com](http://www.ashcroft.com) for more information. Or call us direct at 800-328-8258 and let one of our experts help you specify the right instruments for your application.



## Instrumentation for Air Conditioning, Heating & Refrigeration Industries

### PRESSURE GAUGES:

Ashcroft offers a broad line of commercial gauges with the patented PowerFlex™ movement and True Zero™ indication. Independent lab testing shows that the PowerFlex™ movement is more shock resistant than conventional movement gauges. With True Zero™ indication you can be certain that if your gauge reads zero - there is zero pressure in your system.

FlutterGuard™ which eliminates pointer flutter and extends gauge life, comes standard on Type 1007P refrigeration gauges and is available as an optional feature on other commercial gauges. Typical applications include checking or servicing refrigerant levels in automotive, residential or industrial air-conditioning units; refrigerant recovery and reclamation units; refrigerant transport systems, and large scale air-conditioning and chilling equipment. The Type 1008A/AL stainless steel case gauges are an excellent choice in harsh environmental conditions

### INDICATING AND NON-INDICATING PRESSURE TRANSMITTERS:

Ashcroft pressure sensors combine proven reliability and long-term stability to meet stringent demands set by the HVAC/R industry. Our instruments utilize multiple sensing technologies designed to fulfill challenging flow and air pressure measurements from 0.05" H<sub>2</sub>O and up; stainless steel designs where fluid isolation and media compatibility is critical. Various packaging options and custom configurability enable sensor installations in high vibration and shock environments and/or extreme temperature environments.

Rangeable pressure transmitters allow for easy rescaling, re-zero or loop check functionality. Fixed-range product provides value with compact size and high performance. Various models offer pressure ranges in Gauge, Compound or Differential (uni-directional/bi-directional); unit of measure available in English or Metric.

### SWITCHES:

Compressor control, control applications, high alarm and low alarm demand durable, reliable and accurate controls. Ashcroft's line of pressure, differential pressure and temperature switches are designed to meet these demanding requirements. Ashcroft offers NEMA 4X or NEMA 7 and 9 rated enclosures in both epoxy coated die cast aluminum housings, or stainless steel housings to meet these harsh environments. Switches are available with a wide range of micro switches and deadband ranges to meet all applications.

### COMMERCIAL GAUGES



**MODEL:** 1008A/AL, 1005, 1005PS

**ACCURACY:**  
ASME B 40.100 Grade B (±3-2-3% of span)

**DIAL SIZE:**  
1½", 2", 2½", 3½" (4½" available with steel case/ring and plastic window, Type 1000)  
63mm (2½"), 100mm (4")

**CASE MATERIAL:**  
1005P - ABS, black  
1005 - Black painted steel  
1005S - Stainless steel (1½" & 2" only)  
*Optional, color other than black, vent hole, panel mount sleeve for 1005P back connect*  
1008A/AL - 304 stainless steel, dry, liquid filled or field fillable

**RING MATERIAL:**  
1008A/AL - 304 stainless steel

**WETTED MATERIAL:**  
Bronze/brass.  
*Optional sockets, nickel plated, Teflon taped, top or side connections, throttle plugs*

**SENSING ELEMENT:**  
Bourdon tube; Ashcroft patented PowerFlex™ movement

**CONNECTION:**  
½ and ¾ NPT back and lower  
(1½" 1005S available in ¾ NPT back only;  
1½" 1005/1005P available in ¾ NPT lower and back; 4½" Type 1000 available in ¾ NPT only)  
1008A/AL - ¾ NPT lower & back conn. only

**RANGES:** Vac.-15,000 psi and compound\*

\*All ranges listed may not be available in all sizes/connections. Please consult individual spec sheets.

### REFRIGERATION MANIFOLD COMMERCIAL GAUGES



**MODEL:** 1007P

**ACCURACY:** ±1% at zero, ±2% three fourths of scale, ±5% last fourth of scale

**DIAL SIZE:** 2½"

**CASE MATERIAL:**  
ABS, red (high pressure)  
ABS, blue (low pressure)  
*Optional, black, ABS*

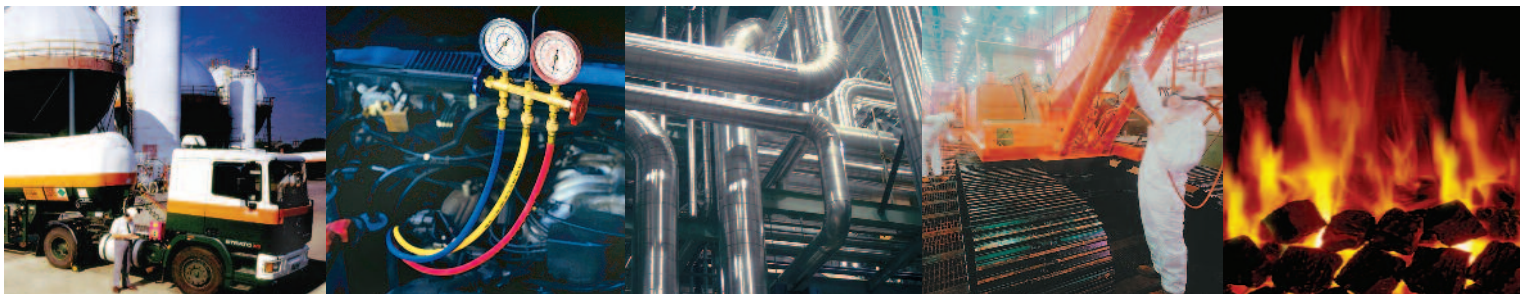
**WETTED MATERIAL:** Bronze/brass

**SENSING ELEMENT:** Bourdon tube; Ashcroft patented PowerFlex™ movement with FlutterGuard™

**CONNECTION:** ¼ NPT lower

**RANGES:**  
Vac/0/120 psi retard to 250 psi, 0/500 psi  
Vac/0/500 psi retard to 800 psi, 0/800 psi  
*Optional, alternate refrigerant ranges*

**NOTE:** for panel mount refrigeration gauges (recovery, recycling) see Type 1001T gauge. Specify 1001T, XRR gauge



# PRESSURE TRANSMITTERS

## NON-INDICATING PRESSURE TRANSMITTER



**MODEL:** CXLdp, DXLdp, IXLdp, XLdp, RXLdp

**ACCURACY (of Span):**

CXLdp: +/-0.4%, +/-0.8%  
 DXLdp: +/-0.25%, +/-0.5%, +/-1%  
 IXLdp, XLdp: +/-0.25%, +/-0.5%  
 RXLdp: +/-1%

**OUTPUT (options include):**

4-20mA, 0-5V, 1-5V, 0-6V, 1-6V, 0-10V, 1-10V

**POWER SUPPLY:** 12-36Vdc

**CASE MATERIAL:**

ABS, Glass-filled Polycarbonate, Stainless Steel / Lexan, 300 Series Stainless Steel

**ENCLOSURE RATING:** NEMA 1, 2, 4X

**PRESSURE CONNECTION:**

1/8" NPT Female NPT, 1/4" Male Barbed, 1/2" Male Barbed

**ELECTRICAL CONNECTION:**

Euro-style Pluggable Terminal Block, Screw Termination, 1/2" Female Conduit

**PRESSURE RANGES:**

Uni-directional: 0.10" to 200" in. H20  
 Bi-directional: +/-0.05" to +/-100" in. H20  
 Proof Pressure: 15 psi to 20 psi  
 Static Pressure: 25 psi to 100 psi

**PROCESS TEMPERATURE LIMITS::**

0/160°F (-18/71°C)

**PROCESS MEDIA:**

Clean, Dry and Non-Corrosive Gas

**CE** LOOK FOR THIS MARK ON OUR PRODUCTS

## INDICATING PRESSURE TRANSMITTER



**MODEL:** GC51, GC52, GC55

**ACCURACY (FS):** GC51: +/-0.25%  
 GC52 / GC55: +/-0.50%

**OUTPUT:** 4-20mA, 1-5V (GC55)

**POWER SUPPLY:**

12-32 Vdc, 15-27Vdc, 11-27Vdc

**CASE MATERIAL:** Aluminum, Epoxy Coated

**ENCLOSURE RATING:** NEMA 4X, IP65, IP66

**DISPLAY:**

GC51/GC52: 4 Digit with LED backlight  
 GC55: 3 1/2 Digit

**PRESSURE CONNECTION:**

1/8" Female NPT, 1/4" Female NPT, 54mm Conversion Joint for 3-way manifold

**ELECTRICAL CONN.:** Conduit, Cable Gland

**PRESSURE RANGES:**

Gauge: (GC51) 50 to 7500 psi, (GC55) 75 to 300 psi  
 Compound: (GC51) -15 to 15 psi, -15 to 30 psi, -15 to 50 psi  
 Differential (GC52):  
 Uni-directional: 4" to 400" in. H20  
 Bi-directional: +/-4" to +/-400" in. H20

**PROOF PRESSURES:**

GC51: 120% to 200% (Depends on range)  
 Static (Line) Proof: GC52: 300psi, GC55: 2X FS

**OPERATING PROCESS TEMPERATURE:** 14/122°F (-10/50°C) to 14/140°F (-10/60°C)

**PROCESS MEDIA:**

Wet/Wet, Fluid and Gases (check compatibility)

**FEATURES:**

Rangeable, GC52: Flow measurement / square root extraction

**APPROVALS:** GC51, GC52: CE

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# SWITCHES

## PRESSURE & DP PRESSURE SWITCHES



**MODEL:** A, B, G, L series

**ACCURACY:**

A series: 2%  
 B, D, G, L-series: 1%

**CASE MATERIAL:**

A series: 304L SS  
 B, D & L series: epoxy coated die cast aluminum  
 G-series: 316L SS

**ENCLOSURE RATING:**

A & B, D series: NEMA 4X, 7, 9, IP66  
 G & L series: NEMA 4, 4X, IP66

**ACTUATOR MATERIAL:**

A-series: 316L SS  
 B, D, G, L series: Buna, Viton, Teflon, 316LSS

**PROCESS CONNECTION:**

A series: 1/8, 1/4 NPT, 7/16-20 SAE  
 B, D, G, L series: 1/8, 1/2 NPT

**RANGE:**

A series: vac to 200 PSI  
 B, GP, LP series: vac to 3000 PSI  
 D series 0 to 600 psid  
 GD, LD series 0 to 400 psid

**OPERATING PROCESS TEMPERATURE:**

A series: 0 to 200°F (-18 to 93°C)  
 B, D, G, L-series: 0 to 300°F (-18 to 149°C)  
 Varies by actuator material

**APPROVALS:**

A, G, L series: CSA, UL, CE, CRN  
 B, D series: CSA, UL, CE, FM, ATEX, IECEx, CRN, Dual seal

**CE** **UL LISTED** **FM APPROVED** **Ex**  
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## TEMPERATURE SWITCHES



**MODEL:** T, G, L series

**ACCURACY:** 1%

**CASE MATERIAL:**

T & L series: epoxy coated die cast aluminum  
 G-series: 316L SS

**ENCLOSURE RATING:**

T series: NEMA 4X, 7, 9, IP66  
 G & L series: NEMA 4, 4X, IP66

**THERMAL SYSTEMS:**

316 SS direct mount  
 316 SS remote mount

**PROCESS CONNECTION:**

1/2 NPT direct mount

**RANGE:**

-40 to 750°F (-40 to 400°C)

**APPROVALS:**

CSA, UL, CE

**SR** **CE** **UL LISTED**  
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## Temperature Instruments, Accessories for Air Conditioning, Heating & Refrigeration Industries

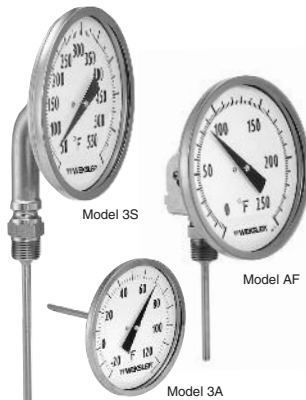
### TEMPERATURE:

Weksler® bimetal and glass thermometers provide superior durability and dependability, precision temperature readings, 1% accuracy, hermetically sealed cases. Our bimetal thermometers can be externally calibrated and are available as tamper resistant.

### ACCESSORIES:

When an instrument requires protection from damaging severe service applications Ashcroft offers an array of accessories.

### BIMETAL THERMOMETER



#### MODEL:

Straight form 3S, 90° Back angle form 3A, Adjustable AF,

**ACCURACY:** 1% of scale range

**DIAL SIZE:** 3" and 5"

#### STEM & BULB DESIGN:

**Standard:** rigid stem .250 dia.  
**Optional:** .385 dia.

**RECALIBRATOR:** External recalibration adjustment.

**SEALING DESIGN:** Hermetically sealed

#### CONNECTION LOCATION:

Rear, lower or Everyangle™

#### CONNECTION SIZE:

½ NPT or ¼ NPT union

**STEM LENGTHS:** 2½" - 24" standard.

**MOUNTING:** Everyangle, rear or lower

**RANGES:** -80 – 1000°F, -50 – 550°C

**CASE & RING MATERIAL:** Stainless steel

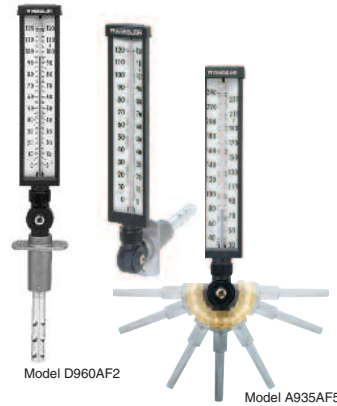
**CASE & BULB MATERIAL:** Stainless steel

#### WINDOW:

**Standard:** glass

**Optional:** plastic window or shatter proof glass

### GLASS THERMOMETER



#### MODEL:

Adjustable angle thermometer, A935AF5  
Air duct thermometer, D960AF2

**ACCURACY:** 1% full scale

#### CASE:

Molded Valox® V-shaped black case for ranges up to and including 300°F.  
Die cast black aluminum V-shaped case for ranges above 300°F.

**SCALE:** White aluminum with bold black graduations and figures.

**FILL:** Mercury free blue liquid in glass with magnifying lens for easy readability.

**STEM LENGTHS:** 3½", 6", 9" & 12"

#### CONNECTION SIZE & LOCATION:

½ NPT & ¼ NPT Union Lower or Rear

#### MOUNTING:

**Adjust angle:** 1¼"-18" NEF swivel nut.

**Air duct:** Protective slotted bulb guard, ¾" diameter aluminum stem and 3" diameter union flange

**Adjustment:** permits case and stem to be rotated 360°

**RANGES:** -40 – 110°F, -50 – 550°F  
-20 – 45°C, 0 – 300°C

**WINDOW:** Glass front excludes dust and dirt



**Thermowells** are required whenever pressure, velocity or corrosive media exist. Using a thermowell allows you to remove your temperature instrument without shutting down the process. Standard thermowells are made from solid bar stock, in threaded, flanged, or weld configurations. Other materials and configurations are available. Traceability, a variety of testing processes and certifications are also available to meet all your needs.

**Pulsation dampeners and snubbers** protect the instrument from potential wear and damage to the instrument caused by process pulsation. Needle valves provide a means for varying the orifice to accommodate various process pulsation conditions.

**Pressure limiting valves** ensure positive, repeatable performance of the instrument by protecting it against overpressure or pressure surges beyond the range of the instrument. The device automatically shuts off when overpressure occurs and is restored when pressure falls below a preset value.

