

ASHCROFT®

PRESSURE & TEMPERATURE INSTRUMENT QUICK GUIDE



Ashcroft® Inc. – the experts in pressure and temperature measurement

Over 150 years ago, Edward Ashcroft saw the need for safer, more sophisticated pressure and temperature instruments for use in the emerging steam industry. In response, he introduced a then-revolutionary new Bourdon tube pressure gauge.

The rest is history.

Times continue to change and so do the needs of industry. Products manufactured by Ashcroft Inc. have become the benchmark in pressure and temperature measurement and include gauges, thermometers, switches, transducers, transmitters, instrument isolators and diaphragm seals and control and calibration equipment.

Specified around the world for the most demanding requirements, these instruments are widely recognized under the brand names Ashcroft,® Heise,® Willy,® and Weksler.® And you can find them in wastewater treatment facilities, biotech and pharmaceutical labs, medical applications, semiconductor facilities, refineries, power generation plants, food processing plants, pulp and paper mills, chemical manufacturing plants and the host of support companies that serve these industries.

Our team consists of experts ready to help resolve even the most difficult applications and technical issues. If you require

broader specifications than our standard product line offers, our engineers, technical staff and product marketing specialists can work with you to custom fit the right product to the job. Our customer service representatives are highly trained to answer product application questions, offer competitive product cross references and work closely with you to help meet your goals.

We maintain an extensive network of field and in-house sales personnel, local representatives and distributors to ensure you receive quick product delivery and service. Along with our “partner” representatives we offer product training and education, facility surveys, calibration services, seal assembly and answers to your application questions.

Safety is a critical issue, and our instrument audit can improve the safety of your plant. Industry surveys indicate that 20% to 30% of customers’ instruments are misapplied and fail prematurely due to pulsation and vibration, allowing the process media or liquid fill to escape and cause environmental damage or even harm those nearby. Experts from Ashcroft Inc. can help identify areas of concern before they become problems. This important service will help prevent accidents, avoid misapplications and save money and time.

As the leader in technology and innovation we design new products based on current and emerging market requirements as well as individual customer’s requirements. As the industry leader our “firsts” lead the way with breakthrough new product features and value added benefits for the customer.

ASHCROFT® INC.



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**TYPES 2089, 2086, 2084
PRECISION DIGITAL
TEST GAUGE**


ACCURACY
±0.05%, 0.10% or 0.25% of span

CASE SIZE
3"

CASE MATERIAL
300 Series stainless steel

WETTED MATERIALS
316 stainless steel

SOCKET SIZE
1/4 NPT, 1/8 NPT
(others on application)

CONNECTION
Lower (6 o'clock), top, side

RANGES
Vac., 5 psi thru 7000 psi including compound
and absolute

POWER SOURCE
Three AAA alkaline batteries

BATTERY LIFE
1000 hrs.

OPERATING TEMPERATURE
Temperature corrected from 0/150°F
(-18/63°C)

STORAGE TEMPERATURE
-40/180°F (-40/82°C)

AGENCY APPROVALS
CE, EN 50082-1 (1997), FM, CSA

LOOK FOR THESE MARKS ON OUR PRODUCTS



With total error band accuracy including temperature from 0/150°F (-18 to 63°C) applications include metrology labs, gas distribution and transmission and analog test gauge users.

**TYPES 2074, 2174, 2274
INDUSTRIAL
DIGITAL GAUGE**


ACCURACY:
±0.25% of span

CASE SIZE
3", 4 1/2"

CASE MATERIAL
(3") 300 series stainless steel
(4 1/2") fiberglass reinforced thermoplastic
(4 1/2") black painted aluminum

WETTED MATERIALS
17-4 PH stainless steel sensor;
316 stainless steel socket

SOCKET SIZE
1/4 NPT, 1/2 NPT (4 1/2" case only)
Others on application

CONNECTION
Lower (6 o'clock), top, side

RANGES
Vac. and 15 psi thru 20,000 psi including
compound

POWER SOURCE
Battery
(3") Two AA alkaline batteries
(4 1/2") Two C alkaline batteries
Loop powered 4-20mA
Line powered, (12-36 Vdc, 1 amp)

BATTERY LIFE
(3") <1500 hrs.
(4 1/2") <2500 hrs.

OPERATING TEMPERATURE
14/140°F (-10/60°C)

STORAGE TEMPERATURE
-4/158°F (-20/70°C)

AGENCY APPROVALS
CE, EN 50082-1 (1997) optional, FM, CSA,

LOOK FOR THESE MARKS ON OUR PRODUCTS



Available with optional (1) or (2) SPDT switches and 4-20mA output, this gauge is ideal for many industrial applications. This product eliminates the need for unnecessary piping, switches and transducers.

**TYPE DG25
GENERAL PURPOSE
DIGITAL GAUGE**


*Protective Boot Optional

ACCURACY
±0.5% of span or ±0.25% span

CASE SIZE
2 1/2"

CASE MATERIAL
Polycarbonate/ABS

WETTED MATERIALS
17-4 PH stainless steel sensor;
316 stainless steel socket

SOCKET SIZE
1/4 NPT, 1/8 NPT, G1/4A, G1/4B, 9/16-18 UNF
Others on application

CONNECTION
Lower

RANGES
Vac. thru 25,000 psi, including compound

POWER SOURCE
Two AA alkaline batteries

BATTERY LIFE
2000 hrs.

OPERATING TEMPERATURE (Media)
-4/176°F (-20/80°C)

**STORAGE TEMPERATURE
(Batteries Removed)**
-4/140°F (-20/00°C)

AGENCY APPROVALS
CE, EN 61326 (1998)
CE, EN 61326 Annex A (heavy industrial)
UL-61010-1

LOOK FOR THIS MARK ON OUR PRODUCT



This product is an excellent choice for a wide variety of pressure measurement applications. When compared to mechanical gauges the DG25 offers overall enhanced value.

**TYPE 2030 SERIES DIGITAL
SANITARY GAUGE**


ACCURACY
±0.25% of span terminal point accuracy

DIAL SIZE
3"

CASE MATERIAL/FINISH
(3") 300 series SS, electropolished

WETTED MATERIALS
316L stainless steel

TRI-CLAMP CONNECTION
Direct, in-line 1.5", 2.0"; remote
in-line (XRE)

RANGES
15 psi thru 1000 psi including metric,
compound and vacuum

POWER SOURCE
2032 Battery
2132 4-20mA loop powered
2232 12-36 Vdc

BATTERY LIFE
500 hrs.

OPERATING TEMPERATURE
14°F/140°F (-10°C/60°C)

STORAGE TEMPERATURE
-4°F/158°F (-20°C/70°C)



LOOK FOR THIS MARK
ON OUR PRODUCT

Sanitary pharmaceutical, biotech or food applications requiring Tri-Clover type fittings and highly polished stainless steel surfaces.

1084, 3" TEST GAUGE	1082, 4 1/2", 6", 8 1/2" TEST GAUGE	TYPES 2089, 2086, 2084 PRECISION DIGITAL TEST GAUGES	TYPE ATE-2 LCD DIGITAL CALIBRATOR
			
ACCURACY ASME B 40.100 Grade 2A ($\pm 0.5\%$ of span)	ACCURACY ASME B 40.100 Grade 3A ($\pm 0.25\%$ of span)	ACCURACY $\pm 0.05\%$, 0.10% or 0.25% of span	PRESSURE MEASUREMENT ACCURACY ± 0.025 , 0.05 and 0.1% of span
DIAL SIZE 3"	DIAL SIZE 4 1/2", 6", 8 1/2"	CASE SIZE 3"	PRESSURE RANGES 0/0.25 in.H ₂ O through 0/10,000 psi
CASE MATERIAL 300 series polished stainless steel	CASE MATERIAL Aluminum, phenolic, polypropylene	CASE MATERIAL 300 Series stainless steel	PRESSURE TYPES Gauge, compound, vacuum, absolute and differential
MATERIAL 316 stainless steel	WETTED MATERIAL Bronze/brass, Monel	WETTED MATERIALS 316 stainless steel	TEMPERATURE COMPENSATION 20-120°F
SENSING ELEMENT Bourdon tube	SENSING ELEMENT Bourdon tube	SOCKET SIZE 1/4 NPT, 1/8 NPT (others on application)	TEMPERATURE MEASUREMENT Supports most common RTD-type temperature probes and thermocouples
CONNECTION 1/4 NPT lower only	CONNECTION 1/4 NPT (standard) and 1/2 NPT lower or back (optional)	CONNECTION Lower (6 o'clock), top, side	DIMENSIONS 8.7 in. (L) x 5.1 in. (W) x 3.8 in. (H)
RANGES Vac. to 1000 psi	RANGES Vac. to 10,000 psi	RANGES Vac., 5 psi thru 7000 psi including compound and absolute	WEIGHT Max. 2.4 lbs. w/2 pressure modules installed
TEMPERATURE ERROR <.005% per degree F above or below reference temperature of 68°F (20°C)	TEMPERATURE ERROR <.005% per degree F above or below reference temperature of 68°F (20°C)	POWER SOURCE Three AAA alkaline batteries	CASE MATERIAL High impact PC-ABS
		BATTERY LIFE 1000 hrs.	SENSOR MODULE CAPACITY 2 bays for Ashcroft AM2 sensor modules
		OPERATING TEMPERATURE Temperature corrected from 0/150°F (-18/63°C)	DISPLAY 1.5" x 2.5" graphic LCD display with backlight. Can display readings from 2 simultaneous modules
		STORAGE TEMPERATURE -40/180°F (-40/82°C)	ELECTRICAL CONNECTION 4mm banana jacks (one set of test leads provided with each ATE-2)
		AGENCY APPROVALS CE, EN 50082-1 (1997), FM, CSA	UPDATE RATE 100 ms (nominal) with one module installed
		LOOK FOR THESE MARKS ON OUR PRODUCTS 	RESOLUTION $\pm 0.0015\%$ of span, 66,000 counts (max)
		DAMPING Programmable filtering levels one through 16	SERIAL INTERFACE Type: USB
		AGENCY APPROVALS Standard: CE, UL, FCC Optional: FM, CSA, ATEX	AGENCY APPROVALS Standard: CE, UL, FCC Optional: FM, CSA, ATEX
Ideal for use when a quality analog pocket test gauge is required.	1/4% full scale accuracy for test and laboratory applications.	Superior accuracy for test and laboratory applications.	Field or laboratory precision pressure standard for calibrating or setting other instruments and devices. Also used for high accuracy temperature or pressure measurement in critical processes.

**ST-2A LCD
DIGITAL INDICATOR**


PRESSURE MEASUREMENT ACCURACY
 ± 0.025 , 0.05 and 0.1% of span

PRESSURE RANGES
 0/0.25 in.H₂O through 0/10,000 psi

PRESSURE TYPES
 Gauge, compound, vacuum, absolute and differential

TEMPERATURE COMPENSATION
 20-120°F

TEMPERATURE MEASUREMENT
 Supports most common RTD-type temperature probes and thermocouples

DIMENSIONS
 10.9 in. (L) x 6.74 in. (W) x 4.0 in. (H)

PANEL CUTOUT
 6.56 in. x 3.53 in.

WEIGHT
 Max. 4.08 lbs. w/2 pressure modules installed

CASE MATERIAL
 High impact ABS

SENSOR MODULE CAPACITY
 2 bays for Ashcroft AQS "Quick Select" sensor modules

DISPLAY
 2 line LCD, 0.37 in. height per line. Can display simultaneous readings from 2 modules.

ELECTRICAL CONNECTION
 Standard banana jacks

OPERATING TEMPERATURE RANGE
 32° to 120°F

UPDATE RATE
 130 ms (nominal) with one sensor installed

RESOLUTION
 $\pm 0.002\%$ of span, 60,000 counts (max)

ELECTRICAL MEASUREMENTS
 0-20 mA or 0-30 Vdc

Laboratory precision pressure standard for calibrating or setting other instruments and devices. Also used for high accuracy temperature or pressure measurement in critical processes.

**TYPE 1305D
DEADWEIGHT TESTER**


ACCURACY
 $\pm 0.1\%$ of reading

OPERATING PRESSURE
 15 psi to 10,000 psi

OPERATING MEDIA
 1305D: SAE 20 weight automotive or machine oil

1305DH
 Phosphate-based or glycol fluids

O-RING MATERIAL
 1305D: Buna-N (D series)

1305DH
 Ethylene Propylene (DH Series)

PISTON AND CYLINDER MATERIAL
 Stainless steel

WEIGHT MATERIAL
 Non-magnetic die cast zinc

RESERVOIR VOLUME
 Approximately 1.5 pints (0.7 liter)

Special "CD-5" Certification package available (see Price Sheet TE/PS-1)

Primary deadweight pressure standard and hydraulic pressure source for calibration of other pressure instruments.

**TYPE 1327D, 1327CM
GAUGE COMPARATOR**


OPERATING PRESSURE
 0-10,000 psi (maximum) (0-60,000 kPa)

OPERATING MEDIA
 Std.: SAE 20 weight automotive or machine oil
 Opt.: Phosphate-based or glycol fluids
 Distilled water for oxygen service

O-RING MATERIAL
 Standard: Buna N (D Series)
 Optional: Ethylene Propylene (DH Series)

RESERVOIR VOLUME
 Approximately 1.5 pints (0.7 liter)

SPECIFICATIONS TYPE 1327DG

ACCURACY
 $\pm 0.25\%$ F.S.

GAUGE TYPE
 Ashcroft 4 1/2 inch Type 1082 gauges with temperature compensation

Special "CD-4" Certification package available (see Price Sheet TE/PS-1)

SPECIFICATIONS TYPE 1327CM

ACCURACY
 $\pm 0.1\%$ F.S.

GAUGE TYPE
 Ashcroft 6-inch Type A4A with temperature compensation

TEMPERATURE COMPENSATION
 -25°F to +125°F (will maintain $\pm 0.1\%$ F.S. accuracy)

Primary deadweight pressure standard and hydraulic pressure source for calibration of other pressure instruments.

**MODEL PT, DUAL DISPLAY
LCD DIGITAL INDICATOR**


PRESSURE MEASUREMENT ACCURACY
 ± 0.025 , 0.05 and 0.1% of span

PRESSURE RANGES
 0/0.25 in.H₂O through 0/10,000 psi

PRESSURE TYPES
 Gauge, compound, vacuum, absolute and differential

TEMPERATURE MEASUREMENT
 Supports most common RTD-type temperature probes

DIMENSIONS
 7.72 in. (L) x 6 in. (W) x 2.95 in. (H)

PANEL CUTOUT
 5.4 in. x 2.68 in.

WEIGHT
 Depending on configuration
 Max. <4 lbs. w/2 sensors and battery pack

CASE MATERIAL
 High impact ABS

SENSOR CAPACITY
 2 bays for Ashcroft PPT sensors

DISPLAY
 5 digit, 2 line LCD, 0.38 in. height per line. Can display simultaneous readings from 2 modules.

OUTPUT
 Full function RS-232

OPTIONS
Backlit Display; Built-in NiCad Rechargeable Batteries; Handle; Panel Mounting Brackets

OPERATING TEMPERATURE RANGE
 32° to 120°F

TEMPERATURE COMPENSATION
 20-120°F

UPDATE RATE
 130 ms (nominal) with one sensor installed

RESOLUTION
 $\pm 0.002\%$ of span, 60,000 counts (max)

Laboratory precision pressure standard for calibrating or setting other instruments and devices. Also used for high accuracy temperature or pressure measurement in critical processes.

**TYPE AVC-1000 & 3000
VOLUME CONTROLLER**
**TYPE**

AVC-1000 / AVC-3000

RANGE (psi)

vacuum-1000 / vacuum-3000

RESOLUTION (psi)

0.00025 / 0.0005

VOLUME CHANGE (cubic inches)

3.5 / 2.5

MECHANICAL ROTATION (turns)

31 / 61

PROOF PRESSURE (psi)

3000 / 6000

BURST PRESSURE (psi)

6000 min / 12,000 min

OPERATING TEMPERATURE RANGE

20-120°F / 20-120°F

OPERATING MEDIA

Clean, dry noncorrosive gas such as compressed air or nitrogen

CONSTRUCTIONAluminum body, stainless steel, brass
Teflon, Delrin and Buna N

Added to any pneumatic calibration system, the VC works as a "fine tune" device to achieve specific test points not easily attained with the use of a regulator alone. Used in the calibration of any pneumatic pressure instrument up to 3000 psi.

**TYPE A4A PRECISION
DIAL PRESSURE GAUGE**
**ACCURACY**

±0.10% of span – ASME B40.1, Grade 4A

CASE

Cast aluminum solid front

DIAL SIZE

6", 8 1/2", 12" & 16"

POINTER TRAVEL350° (15-30,000 psi)
300° (40,000-50,000 psi)
270° (60,000-100,000 psi)**BOURDON TUBE**

Bleeder tipped

RANGESGauge, compound, vacuum & absolute
0-15-0/100,000 psi

0.1% full scale accuracy is ideal for test and laboratory applications.

**1279 DURAGAUGE®
PRESSURE GAUGE**


ACCURACY
ASME B 40.100 Grade 2A ($\pm 0.5\%$ of span)

DIAL SIZE
4½"

CASE TYPE
Solid front, pressure relief back

WETTED MATERIAL
(Optional) 316 stainless steel, bronze/brass, Monel

SENSING ELEMENT
Bourdon tube

CONNECTION
½ NPT (standard) lower or back
¼ NPT, others (optional)

RANGES
Vacuum, 15 to 30,000 psi, compound
Alternate units & scales (optional)

Consult 1279 Duragauge Datasheet (Bulletin DU-1 1279) for full product details. Available at www.ashcroft.com

Usage requiring ½% full scale accuracy in chemical, petrochemical, refinery, oil production, other process, power and general industry.

**1377 DURAGAUGE®
PRESSURE GAUGE**


ACCURACY
ASME B 40.100 Grade 2A ($\pm 0.5\%$ of span)

DIAL SIZE
4½", 6", 8½"

CASE TYPE
Solid front, pressure relief back

WETTED MATERIAL
(Optional) 316 stainless steel, bronze/brass, Monel

SENSING ELEMENT
Bourdon tube

CONNECTION
½ NPT (standard) lower or back
¼ NPT, others (optional)

RANGES
Vacuum, 15 to 30,000 psi, compound
Alternate units & scales (optional)

Consult 1377 Duragauge Datasheet (Bulletin DU-2 1377) for full product details. Available at www.ashcroft.com

Usage requiring ½% full scale accuracy in chemical, petrochemical, refinery, oil production, other process, power and general industry.

**1379 DURAGAUGE®
PRESSURE GAUGE**


ACCURACY
ASME B 40.100 Grade 2A ($\pm 0.5\%$ of span)

DIAL SIZE
4½", 6", 8½"

CASE TYPE
Solid front, pressure relief back

WETTED MATERIAL
(Optional) 316 stainless steel, bronze/brass, Monel, Inconel

SENSING ELEMENT
Bourdon tube

CONNECTION
½ NPT (standard) lower or back
¼ NPT, others (optional)

RANGES
Vacuum, 15 to 100,000 psi, compound
Alternate units & scales (optional)

Consult 1379 Duragauge Datasheet (Bulletin DU-3 1379) for full product details. Available at www.ashcroft.com

Usage requiring ½% full scale accuracy in chemical, petrochemical, refinery, oil production, other process, power and general industry.

**2462 DURAGAUGE®
PRESSURE GAUGE**


ACCURACY
ASME B 40.100 Grade 2A ($\pm 0.5\%$ of span)

DIAL SIZE
6"

CASE TYPE
Solid front, pressure relief back

WETTED MATERIAL
(Optional) 316 stainless steel, bronze/brass, Monel,

SENSING ELEMENT
Bourdon tube

CONNECTION
½ NPT (standard) lower or back
¼ NPT, others (optional)

RANGES
Vacuum, 15 to 30,000 psi, compound
Alternate units & scales (optional)

Consult 2462 Duragauge Datasheet (Bulletin DU-4 2462) for full product details. Available at www.ashcroft.com

Usage requiring ½% full scale accuracy in chemical, petrochemical, refinery, oil production, other process, power and general industry.

**1259 PROCESS
PRESSURE GAUGE**

ACCURACY

 ASME B 40.100 Grade 2A ($\pm 0.5\%$ of span)

DIAL SIZE

4½"

CASE TYPE

Solid front, pressure relief back

WETTED MATERIAL

(Optional) 316 stainless steel, Monel

SENSING ELEMENT

Bourdon tube

CONNECTION

 ½ NPT (standard) lower or back
¼ NPT, others (optional)

RANGES

 Vacuum, 15 to 20,000 psi, compound
Alternate units & scales (optional)

 Consult 1259 Datasheet (Bulletin PR-1259)
for full product details. Available at
www.ashcroft.com

 Usage requiring ½% full scale accuracy in
chemical, petrochemical, refinery, oil production,
other process, power and general industry.

**1279, 1379, 1377, 2462
RECEIVER GAUGES**

ACCURACY

 ASME B 40.100 Grade 2A ($\pm 0.5\%$ of span)

DIAL SIZES

 4½" - Type 1279, 1377, 1379
6" - Type 1377, 1379, 2462
8½" - Type 1377, 1379

CASE TYPE

Solid front, pressure relief back

WETTED MATERIAL

Bronze/brass (standard)

SENSING ELEMENT

Bourdon tube

CONNECTION

 ½ NPT (standard) lower or back
¼ NPT, others (optional)

RANGES

 (Input) 3-15 psi & 3-27 psi
(Optional) special indication scales

 Consult Receiver Gauge Datasheet (Bulletin
RG-1) for full product details. Available at
www.ashcroft.com

For use with pneumatic transmitters.

**1290 DIRECT DRIVE
PRESSURE GAUGE**

ACCURACY

 ASME B 40.100 Grade 2A ($\pm 0.5\%$ of span)

DIAL SIZES

4½"

CASE TYPE

Solid front, pressure relief back

WETTED MATERIAL

Inconel & 304 stainless steel

SENSING ELEMENT

Bourdon tube (direct drive)

CONNECTION

 ½ NPT (standard) lower or back
¼ NPT, others (optional)

RANGES

 Vacuum, 15 to 2000 psi, compound
Alternate units & scales (optional)

 Consult 1290 Datasheet (Bulletin DD-1 1290)
for full product details. Available at
www.ashcroft.com

 Unique movementless system for harsh applica-
tions exhibiting severe vibration or pulsation
effects.

**T5500 & T6500
PRESSURE GAUGE**

ACCURACY

Std. Class 1, 1% full scale

DIAL SIZE

100mm, 160mm

CASE MATERIAL

304 stainless steel, 316 stainless steel

MOVEMENT

304/303 stainless steel

SENSING ELEMENT

Bourdon tube

CONNECTION

T5500 – lower or back, open front
T6500 – lower only, solid front

RANGES

Vacuum, compound, pressure
psi: –30in. Hg–0, 0–36,000 psi
bar: –1–0, 0–2500 bar

The Ashcroft® T5500 and T6500 all stainless steel process pressure gauge is one of the finest production gauges on the market for industrial use where precise indications are required

**1008S 40 & 50mm
PRESSURE GAUGE**

ACCURACY

ASME B 40.100 Grade B ($\pm 3-2-3\%$ of span)

DIAL SIZE

40mm, 50mm

CASE MATERIAL

Stainless steel

WETTED MATERIAL

316 stainless steel

SENSING ELEMENT

Bourdon tube

CONNECTION

$\frac{1}{8}$ NPT lower or back
 $\frac{1}{4}$ NPT lower or back

RANGES

Vac. to 15,000 psi

Available dry and glycerin filled

Applications include industrial compressors, valve indicators, firefighting equipment, measurement/control, metal working and hydraulic equipment. Especially suited for pneumatic controllers and transmitters located in corrosive environments.

**1008S/SL 63 & 100mm
PRESSURE GAUGE**

ACCURACY

1.6% F. S.

DIAL SIZE

63mm, 100mm

CASE MATERIAL

Stainless steel

WETTED MATERIAL

316L stainless steel

SENSING ELEMENT

Bourdon tube

CONNECTION

$\frac{1}{8}$ NPT lower or lower back
 $\frac{1}{4}$ NPT lower or lower back
 $\frac{1}{2}$ NPT lower (100mm)
JIS, DIN, BSP sockets available

RANGES

Vac. to 15,000 psi

Available dry and glycerin filled

Applications include industrial compressors, firefighting equipment, measurement/control, metal working, hydraulic equipment and panel builders. Can be supplied EN837 compliant.

**1008S/SL 63 & 100mm CENTER
BACK CONNECT GAUGES**

ACCURACY

ASME B 40.100 Grade B ($\pm 3-2-3\%$ of span)

DIAL SIZE

63mm, 100mm

CASE MATERIAL

Stainless steel

WETTED MATERIAL

316L stainless steel

SENSING ELEMENT

Bourdon tube

CONNECTION

$\frac{1}{4}$ NPT center back

RANGES

Vac. to 20,000 psi

Applications include industrial compressors, firefighting equipment, measurement/control, metal working, hydraulic equipment and panel builders requiring center back connections.

1009 2½" & 3½" DURALIFE® PRESSURE GAUGE	2008S/SL 63mm PANEL GAUGE	1009 4½" & 6" STAINLESS STEEL CASE	1109 4½" STAINLESS STEEL CASE
   	 	  	 
ACCURACY ASME B 40.100 Grade 1A (±1% of span)	ACCURACY 1.6% F. S.	ACCURACY ASME B 40.100 Grade 1A (±1% of span)	ACCURACY ASME B 40.100 Grade 1A (±1% of span)
DIAL SIZE 2½", 3½"	DIAL SIZE 63mm	DIAL SIZE 4½", 6"	DIAL SIZE 4½"
CASE MATERIAL Stainless steel	CASE MATERIAL Stainless steel	CASE MATERIAL Stainless Steel	CASE MATERIAL Stainless Steel
WETTED MATERIAL 316L stainless steel, Bourdon tube	WETTED MATERIAL 316L stainless steel	TUBE MATERIAL Bronze, 316 stainless steel, Monel	TUBE MATERIAL 316 stainless steel Inconel
SENSING ELEMENT Bourdon tube	SENSING ELEMENT Bourdon tube	SENSING ELEMENT Bourdon tube	SENSING ELEMENT Bourdon tube
CONNECTION ¼ NPT lower or lower back ¼ NPT lower or lower back ½ NPT lower (3½") JIS, DIN, BSP, tube stub	CONNECTION ¼ NPT only lower back	CONNECTION ¼ NPT lower or back ½ NPT lower or back	CONNECTION ½ NPT lower, ¼ NPT lower (optional) ¼ NPT lower high pressure
RANGES Vac. to 15,000 psi	RANGES Vac., Compound 0-15,000 psi	RANGES Vac. to 30,000 psi	RANGES Vac. to 1500 psi / 2000-20,000 psi 50,000-100,000 psi
Stainless steel and aluminum bronze sockets	Available dry and glycerin filled, with PLUS! Performance		
For use on fluid power equipment in oil and gas production, construction, mining, machine tools, logging, pulp and paper, general industrial applications and panel builders.	The Ashcroft 2008S/SL was designed specifically for the rugged requirements of panel installation. Oil, gas, offshore, environmentally and process challenged applications are the target for these gauge markets.	Stainless steel case Type 1009 applications include boilers, compressors, water blasting equipment, pharmaceutical and food processing equipment.	Stainless steel case Type 1109 applications include water jet or water blasting equipment, offshore platform, etc.

1009, 1010, 1017, 1220
HYDRAULIC GAUGES


1010 GAUGE SHOWN

ACCURACYASME B 40.100 Grade 1A ($\pm 1\%$ of span)**DIAL SIZE**

1009 – 4½", 6"
 1010 – 4½", 6", 8½", 12"
 1017 – 4½", 6"
 1220 – 4½", 6", 8½"

CASE MATERIAL

Stainless steel, aluminum, phenolic

TUBE MATERIAL

Bronze, 316 stainless steel, Monel

SENSING ELEMENT

Bourdon tube

CONNECTION

¼ NPT lower or back
 ½ NPT lower or back

RANGES

Vac. to 30,000 psi

Uniquely designed for rigorous hydraulic services.

1009, 1010, 1017, 1220
RECEIVER GAUGES


1220 GAUGE SHOWN

ACCURACYASME B 40.100 Grade 1A ($\pm 1\%$ of span)**DIAL SIZE**

1009 – 4½", 6"
 1010 – 4½", 6", 8½", 12"
 1017 – 4½", 6"
 1220 – 4½", 6", 8½"

CASE MATERIAL

Stainless steel, aluminum, phenolic

TUBE MATERIAL

Bronze, 316 stainless steel, Monel

SENSING ELEMENT

Bourdon tube

CONNECTION

¼ NPT lower or back
 ½ NPT lower or back

RANGES

3/15 and 3/27 psi

For monitoring pneumatic systems requiring percentage and/or square root readings.

1009, 1010, 1017, 1220
REFRIGERATION GAUGE


1010 GAUGE SHOWN

ACCURACYASME B 40.100 Grade 1A ($\pm 1\%$ of span)**DIAL SIZE**

1009 – 4½", 6"
 1010 – 4½", 6", 8½", 12"
 1017 – 4½", 6"
 1220 – 4½", 6", 8½"

CASE MATERIAL

Stainless steel, aluminum, phenolic

TUBE MATERIAL

Bronze, stainless steel

SENSING ELEMENT

Bourdon tube

CONNECTION⁽¹⁾

¼ NPT lower or back
 ½ NPT lower or back

RANGES

30 in.Hg Vac/150 psi, 30 in.Hg Vac/300 psi

⁽¹⁾ 1017 back connect only

For use on refrigeration equipment utilizing ammonia, freon or other refrigerants.

1010 4½", 6", 8½", 12"
GENERAL SERVICE GAUGE
**ACCURACY**ASME B 40.100 Grade 1A ($\pm 1\%$ of span)**DIAL SIZE**

4½", 6", 8½", 12"

CASE MATERIAL

Stainless steel, aluminum, phenolic

TUBE MATERIAL

Bronze, stainless steel, Monel

SENSING ELEMENT

Bourdon tube

CONNECTION

¼ NPT lower or back
 ½ NPT lower or back

RANGES

Vac. to 30,000 psi

General industrial applications requiring larger dials. Applications include oil monitoring, repair and compressors, etc.

**1017 4½", 6"
GENERAL SERVICE GAUGE**


ACCURACY
ASME B 40.100 Grade 1A (±1% of span)

DIAL SIZE
4½", 6"

CASE MATERIAL
Stainless steel, aluminum, phenolic

TUBE MATERIAL
Bronze, stainless steel, Monel

SENSING ELEMENT
Bourdon tube

CONNECTION
¼ NPT back
½ NPT back

RANGES
Vac. to 30,000 psi

General industrial applications, large dials for easier readings. used on pumps, air or oil monitoring, etc. for panel mount applications.

**1220 4½", 6", 8½"
GENERAL SERVICE GAUGE**


ACCURACY
ASME B 40.100 Grade 1A (±1% of span)

DIAL SIZE
4½", 6", 8½"

CASE MATERIAL
Stainless steel, aluminum, phenolic

TUBE MATERIAL
Bronze, stainless steel, Monel

SENSING ELEMENT
Bourdon tube

CONNECTION
¼ NPT lower or back
½ NPT lower or back

RANGES
Vac. to 30,000 psi

General industrial applications, large dials for easier readings. used on pumps, air or oil monitoring, etc.

**1020S 4½"
XMAS TREE GAUGE**


ACCURACY
ASME B 40.100 Grade 1A (±1% of span)

DIAL SIZE
4½"

CASE MATERIAL
Stainless steel

TUBE MATERIAL
316 stainless steel

SENSING ELEMENT
Bourdon tube

CONNECTION
¼ NPT lower
½ NPT lower

RANGES
Up to 20,000 psi – ½ NPT, ¼ NPT

Uniquely designed to meet rugged oil field applications.

**1038, 1339 3½", 4½",
DUPLIX GAUGE**


1038 GAUGES SHOWN

ACCURACY
ASME B 40.100 Grade A (±2-1-2% of span)

DIAL SIZE
3½", 4½"

CASE MATERIAL
Aluminum, cast iron

TUBE MATERIAL
Bronze

SENSING ELEMENT
Bourdon tube

CONNECTION
¼ NPT lower or back

RANGES
1038A – 3½", 4½" – ¼ NPT 30/1000 psi
1339A – 4½" – ¼ NPT 30/1000 psi
Back conn. only

Uniquely designed to indicate two related pressures on the same dial.

1125, 1125A 4½" DIFFERENTIAL GAUGE


ACCURACY
ASME B 40.100 Grade A ($\pm 2-1-2\%$ of span)

DIAL SIZE
4½" 6"

CASE MATERIAL
Aluminum

TUBE MATERIAL
Bronze

SENSING ELEMENT
Bourdon tube

CONNECTION
¼ NPT lower or back

RANGES
1125 – 4½" 6"⁽¹⁾ – ¼ NPT 20/1000 psi
1125A – 4½" 6"⁽¹⁾ – ¼ NPT 10/0/10 psi-
500/0/500 psi

⁽¹⁾ Lower connect only

Applications include filter monitoring, flow, leak and level measurements.

1127, 1128 4½" 6" DIFFERENTIAL GAUGE


ACCURACY
ASME B 40.100 Grade A ($\pm 2-1-2\%$ of span)

DIAL SIZE
4½" 6"

CASE MATERIAL
Aluminum

TUBE MATERIAL
316 stainless steel

SENSING ELEMENT
Bourdon tube

CONNECTION
¼ NPT lower

RANGES
1127 – 4½" 6" – ¼ NPT 10/1000 psi
1128 – 4½" 6" – ¼ NPT 10/0/00 psi-
400/0/400 psi

Applications include filter monitoring, flow, leak and level measurements.

1130 2" 2½" 3½" 4" 4½" 6" DIFFERENTIAL GAUGE


ACCURACY
 $\pm 2\%$ ascending

DIAL SIZE
2" 2½" 3½" 4" 4½" 6"

CASE MATERIAL
Stainless steel

BODY MATERIAL
Aluminum, brass, stainless steel

SENSING ELEMENT
Piston

CONNECTION
In-line, lower, back

RANGES
0-5 psid to 150 psid

**EXPLOSION PROOF
SWITCH ENCLOSURES
AVAILABLE**

Applications include filter monitoring, flow, leak and level measurement. High pressure, high differential with migration.

1131 2½" 3½" 4" 4½" 6" DIFFERENTIAL GAUGE


ACCURACY
 $\pm 2\%$ ascending

DIAL SIZE
2½" 3½" 4" 4½" 6"

CASE MATERIAL
Stainless steel

BODY MATERIAL
Aluminum, brass, stainless steel

SENSING ELEMENT
Rolling diaphragm

CONNECTION
In-line, lower, back

RANGES
0-5 psid to 100 psid

**EXPLOSION PROOF
SWITCH ENCLOSURES
AVAILABLE**

Applications include filter monitoring, flow, leak and level measurement. High pressure, high differential, no migration.

**1132 2½", 3½", 4", 4½", 6"
DIFFERENTIAL GAUGE**


ACCURACY
±2% ascending

DIAL SIZE
2½", 3½", 4", 4½", 6"

CASE MATERIAL
Stainless steel

BODY MATERIAL
Aluminum, brass, stainless steel

SENSING ELEMENT
Convolute diaphragm

CONNECTION
In-line, lower, back

RANGES
0-1 psid to 60 psid
(including inches of water ranges)

**EXPLOSION PROOF
SWITCH ENCLOSURES
AVAILABLE**

Applications include filter monitoring, flow, leak and level measurement. High pressure, high differential, no migration.

**1133 3½", 4", 4½", 6"
DIFFERENTIAL GAUGE**


ACCURACY
±2% ascending

DIAL SIZE
3½", 4", 4½", 6"

CASE MATERIAL
Stainless steel

BODY MATERIAL
Aluminum, stainless steel

SENSING ELEMENT
Convolute diaphragm

CONNECTION
In-line, lower, back

RANGES
0-1 IWD to 25 IWD

Applications include filter monitoring, flow, leak and level measurement. High pressure, high differential, no migration.

**1134 4½"
DIFFERENTIAL GAUGE**


ACCURACY
±3% ascending

DIAL SIZE
4½"

CASE MATERIAL
Stainless steel

BODY MATERIAL
Glass filled nylon

SENSING ELEMENT
Convolute diaphragm

CONNECTION
Dual (in-line or back)

RANGES
0-0.6 IWD to 60 IWD

Applications include fume hoods, air handlers, filter monitoring, flow and level. Inches of water with no migration.

**5503 100mm & 160mm
DIFFERENTIAL GAUGE**


ACCURACY
±1.6% of span

DIAL SIZE
100mm, 160mm

CASE MATERIAL
Stainless steel

SENSING MATERIAL
316 stainless steel

SENSING ELEMENT
Diaphragm

CONNECTION
¼ NPT lower
½ NPT lower

RANGES
0-16 IWD to 400 psid

Applications include filter monitoring, flow, leak and level measurement requiring high recovery, all stainless steel.

**5509 100mm & 160mm
DIFFERENTIAL GAUGE**


ACCURACY
±2.5% of span

DIAL SIZE
100mm, 160mm

CASE MATERIAL
Stainless steel

SENSING MATERIAL
316 stainless steel

SENSING ELEMENT
Diaphragm

CONNECTION
1/4 NPT lower
1/2 NPT lower

RANGES
0-10 IWD to 400 psid

Applications include filter monitoring, flow, leak and level measurement requiring high recovery, all stainless steel.

1150H 4 1/2" REID VAPOR GAUGE


ACCURACY
ASME B 40.100 Grade 2A (±0.5% of span)

DIAL SIZE
4 1/2"

CASE MATERIAL
Aluminum

TUBE MATERIAL
316 stainless steel

SENSING ELEMENT
Bourdon tube

CONNECTION
1/4 NPT lower

RANGES
15/600 psi

Uniquely designed for testing petroleum products with the Reid vapor process.

1122, 2 1/2" GAUGE


ACCURACY
ASME B 40.100 Grade A (±2-1-2% of span)

DIAL SIZE
2 1/2"

CASE MATERIAL
Stainless steel

TUBE MATERIAL
Stainless steel

SENSING ELEMENT
Bourdon tube

CONNECTION
1/4 NPT lower

RANGES
15/1000 psi

Applications include compressors, pumps and turbines.

**1187, 1188, 1189 LOW
PRESSURE BELLOWS GAUGES**


1188 GAUGE SHOWN

ACCURACY
ASME B 40.100 Grade A (±2-1-2% of span)
Available with optional ASME B40.100 Grade 1A (1% of span)

DIAL SIZE
1187⁽¹⁾ – 4 1/2"
1188 – 4 1/2"
1189⁽²⁾ – 4 1/2", 6"

CASE MATERIAL
Aluminum, phenolic

TUBE MATERIAL
Brass, 316 stainless steel, Monel

SENSING ELEMENT
Bellows

CONNECTION
1187 – 1/4, 1/2 NPT back
1188 – 1/4, 1/2 NPT lower or back
1189 – 1/4, 1/2 NPT lower

RANGES
10 in.H₂O to 10 psi including vacuum and compound

⁽¹⁾ Back connect only
⁽²⁾ Lower connect only

Low pressure monitoring for general industrial applications on air, liquids or gases.

**1490, 2½," 3½" LOW
PRESSURE DIAPHRAGM GAUGE**


ACCURACY
ASME B 40.100 Grade A ($\pm 2-1-2\%$ of span)
Available with optional ASME B40.100
Grade 1A (1% of span)

DIAL SIZE
2½," 3½"

CASE MATERIAL
Polysulfone

WETTED MATERIAL
Copper, Brass, Polysulfone, RTV, Silicone

SENSING ELEMENT
Diaphragm

CONNECTION
¼ NPT lower or center back
¼ NPT lower or center back
Hose barb

RANGES
0/10 in.H₂O to 0/15 psi including vacuum and
compound

Low pressure monitoring of gases including
ovens, burners or medical applications.

**1495, 2½," 3½" LOW
PRESSURE RECEIVER GAUGE**


ACCURACY
ASME B 40.100 Grade A ($\pm 2-1-2\%$ of span)
Available with optional ASME B40.100
Grade 1A (1% of span)

DIAL SIZE
2½," 3½"

CASE MATERIAL
Polysulfone

WETTED MATERIAL
Copper, Brass, Polysulfone, RTV, Silicone

SENSING ELEMENT
Diaphragm

CONNECTION
¼ NPT lower or center back
¼ NPT lower or center back
Hose barb

RANGES
0-100%, 0-10 sq rt
0/10 sq rt/0-100 linear

Low pressure monitoring of pneumatic or air
handling systems requiring linear or square
root readings.

**TYPES 2074, 2174, 2274
INDUSTRIAL DIGITAL GAUGE**


ACCURACY:
 $\pm 0.25\%$ of span

CASE SIZE
3," 4½"

CASE MATERIAL
(3") 300 series stainless steel
(4½") fiberglass reinforced thermoplastic
(4½") black painted aluminum

WETTED MATERIALS
17-4 PH stainless steel sensor;
316 stainless steel socket

SOCKET SIZE
¼ NPT, ½ NPT (4½" case only)
Others on application

CONNECTION
Lower (6 o'clock), top, side

RANGES
Vac. and 15 psi thru 20,000 psi including
compound

POWER SOURCE
Battery
(3") Two AA alkaline batteries
(4½") Two C alkaline batteries
Loop powered 4-20mA
Line powered, (12-36 Vdc, 1 amp)

BATTERY LIFE
(3") 500 hrs.
(4½") 2500 hrs.

OPERATING TEMPERATURE
14/140°F (-10/60°C)

STORAGE TEMPERATURE
-4/158°F (-20/70°C)

AGENCY APPROVALS
CE, EN 50082-1 (1997) optional, FM, CSA

LOOK FOR THESE MARKS ON OUR PRODUCTS



Available with optional (1) or (2) SPDT switch-
es and 4-20mA output, this gauge is ideal for
many industrial applications. This product
eliminates the need for unnecessary instrument
T's, when switches and/or 40-20mA output is
a requirement.

**TYPE DG25
GENERAL PURPOSE
DIGITAL GAUGE**


*Protective Boot Optional

ACCURACY
 $\pm 0.5\%$ of span or $\pm 0.25\%$ span

CASE SIZE
2½"

CASE MATERIAL
Polycarbonate/ABS

WETTED MATERIALS
17-4 PH stainless steel sensor;
316 stainless steel socket

SOCKET SIZE
¼ NPT, ½ NPT, G¼A, G¼B, ¼-18 UNF

CONNECTION
Lower (6 o'clock)
(others on application)

RANGES
Vac. thru 25,000 psi, including compound

POWER SOURCE
Two AA alkaline batteries

BATTERY LIFE
2000 hrs.

OPERATING TEMPERATURE (Media)
-4/176°F (-20/80°C)

**STORAGE TEMPERATURE
(Batteries Removed)**
-4/140°F (-20/00°C)

AGENCY APPROVALS
CE, EN 61326 (1998)
CE, EN 61326 Annex A (heavy industrial)
UL-61010-1A

LOOK FOR THIS MARK ON OUR PRODUCT



This product is an excellent choice for a wide
variety of pressure measurement applications.
When compared to mechanical gauges the
DG25 offers overall enhanced value.

**TYPE 2030 SERIES DIGITAL
SANITARY GAUGE**


ACCURACY
±0.25% of span terminal point accuracy

DIAL SIZE
3"

CASE MATERIAL/FINISH
(3") 300 series SS, electropolished

WETTED MATERIALS
316L stainless steel

TRI-CLAMP CONNECTION
Direct, in-line 1.5", 2.0"; remote in-line (XRE)

RANGES
15 psi thru 1000 psi including metric, compound and vacuum

POWER SOURCE
2032 Battery
2132 4-20mA loop powered
2232 12-36 Vdc

BATTERY LIFE
500 hrs.

OPERATING TEMPERATURE
14°F/140°F (-10°C/60°C)

STORAGE TEMPERATURE
-4°F/158°F (-20°C/70°C)



Sanitary pharmaceutical, biotech or food applications requiring Tri-Clamp® type fittings and highly polished stainless steel surfaces.

**TYPE 1032 FRACTIONAL
SANITARY GAUGE**


ACCURACY
±3% upscale accuracy; up to ±5% downscale accuracy

DIAL SIZE
2" only

CASE & RING MATERIAL
300 series stainless steel

TUBE & SOCKET MATERIAL
316 stainless steel

WETTED PARTS
Electropolished 12 to 20RA surface finish
316 stainless steel

MOUNTING CONNECTION
Lower (¾" Tri-Clamp®) only

RANGES
30# thru 600#, including compound

Meets EN 10204 : 2004 3.1 requirement for material traceability; documents provided as standard

Sanitary pharmaceutical, biotech or food applications requiring Tri-Clamp® type fittings and highly polished stainless steel surfaces. Can be autoclaved. Standard window glass.

**TYPE 1032
SANITARY GAUGE**


ACCURACY
2½", 3½", 4½" – ±1.5% F.S. for pressure ranges 100 psi and above. ±2.0% F.S. for vacuum, compound and ranges below 100 psi

DIAL SIZE
2½", 3½", 4½"

CASE & RING MATERIAL
300 series stainless steel

TUBE & SOCKET MATERIAL
316 stainless steel

WETTED PARTS
Electropolished 12 to 20 RA surface finish
316 stainless steel

MOUNTING CONNECTION
Lower and back (1½" or 2" Tri-Clamp®)

RANGES
15# thru 1000#, including compound and vacuum

Meets EN 10204 : 2004 3.1 requirement for material traceability; documents provided as standard

Sanitary pharmaceutical, biotech or food applications requiring Tri-Clamp® type fittings and highly polished stainless steel surfaces. Can be autoclaved with polysulfone window.

**TYPE 1036 SANITARY GAUGE
with TYPE 1037 SANITARY
INSTRUMENT FITTING**

TYPE 1036 SANITARY GAUGE

ACCURACY
±1.5% F.S. for pressure ranges 100 psi and above. ±2.0% F.S. for vacuum, compound and ranges below 100 psi

DIAL SIZE
3½"

CASE & RING MATERIAL
300 series stainless steel

TUBE & SOCKET MATERIAL
316 stainless steel

WETTED PARTS
Electropolished 12 to 20 RA surface finish
316 stainless steel

MOUNTING CONNECTION
Lower, back (1½" Tri-Clamp®)

RANGES
15# thru 1000#, including compound and vacuum

TYPE 1037 INSTRUMENT FITTING

CONSTRUCTION
316 L stainless steel

WETTED PARTS
Electropolished 12 to 20RA surface finish

MOUNTING CONNECTION
(½" thru 2" Tri-Clamp®)

HEAT NUMBER
Stamped on fitting

Meets EN 10204 : 2004 3.1 requirement for material traceability; documents provided as standard

Sanitary pharmaceutical, biotech or food applications requiring Tri-Clamp® type fittings with zero deadleg and highly polished stainless steel surfaces.

TYPE 1005P/1005/1005S

ACCURACY

 ASME B 40.100 Grade B ($\pm 3-2-3\%$ of span)

DIAL SIZE

1½", 2", 2½", 3½" (4½" available with steel case/ring and plastic window, Type 1000)

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

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 ¼" NPT back and lower (1½" 1005S available in ½" NPT back only; 1½" 1005/1005P available in ½" NPT lower and back; 4½" Type 1000 available in ¼" NPT only)

RANGES

Vac.-6000 psi and compound*

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

Applications include compressors, filter regulators, medical equipment, automotive diagnostic, beverage dispensing, industrial machinery and a variety of other applications.

**TYPE 1001T
PANEL GAUGE**

ACCURACY

 ASME B 40.100 Grade B ($\pm 3-2-3\%$ of span)

DIAL SIZE

1½", 2", 2½", 3½"

CASE MATERIAL

Black painted steel

WETTED MATERIAL

Bronze/brass.

SENSING ELEMENT

Bourdon tube; Ashcroft patented PowerFlex™ movement

CONNECTION

½" NPT back, ¼" NPT back (1½" not available in ¼" NPT)

RANGES

Vac.-6000 psi and compound*

Note: For panel mount refrigeration gauge (recovery, recycling) specify 1001T, XRR gauge

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

Applications include instrument panels, air-conditioning equipment, air and gas compressors, machine tools and a variety of other applications.

**TYPE 1008A/AL
GENERAL SERVICE GAUGE**

ACCURACY

 ASME B 40.100 Grade B ($\pm 3-2-3\%$ of span)

DIAL SIZE

63mm (2½"), 100mm (4")

CASE & RING MATERIAL

304 stainless steel, dry, liquid filled or field fillable

WETTED MATERIAL

Bronze/brass

SENSING ELEMENT

Bourdon tube; Ashcroft patented PowerFlex™ movement

CONNECTION

 ¼" NPT lower and back
 Optional, metric and SAE connection

RANGES

Vac.-15,000 psi and compound

Applications include hydraulic systems, machine tools, pressure washers/sprayers and a variety of other applications.

**TYPE 1005M, XRG
AGRICULTURAL AMMONIA**

ACCURACY

 ASME B 40.100 Grade B ($\pm 3-2-3\%$ of span)

DIAL SIZE

2½"

CASE MATERIAL

Black painted steel

WETTED MATERIAL

316 stainless steel/steel

SENSING ELEMENT

Bourdon tube; Ashcroft patented PowerFlex™ movement

CONNECTION

 ¼" NPT lower
 Optional, 0.020" orifice stainless steel throttle plug

RANGES

0/60 psi, 0/150 psi, 0/400 psi

This product was designed to withstand rugged agricultural applications. Features include stainless tube and socket, in addition to glass window, necessary for anhydrous ammonia applications.

**TYPE 1005P, XUL
SPRINKLER SERVICE GAUGE**


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

DIAL SIZE
3½"

CASE MATERIAL
ABS/polycarbonate blend

WETTED MATERIAL
Bronze/brass

SENSING ELEMENT
Bourdon tube; Ashcroft patented PowerFlex™ movement

CONNECTION
¼ NPT lower

RANGES
0-300 psi (water), 0-80 psi retard to 250 psi (air), 0-600 psi
Optional, dual and triple scale metric dials

These gauges are UL-393 listed, UL of Canada listed and FM approved for fire protection sprinkler service for either water or air systems.

**TYPE 1007P, XOR
REFRIGERATION MANIFOLD**


ACCURACY
 $\pm 1\%$ at zero, $\pm 2\%$ three fourths of scale, $\pm 5\%$ 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, XR/R gauge

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.

**TYPE 2071
CONTRACTOR GAUGE**


ACCURACY
ASME B 40.100 Grade A (± 2 -1-2% of span)

DIAL SIZE
4½"

CASE & RING MATERIAL
Aluminum with back-flange case, painted black; chrome plated ring

WETTED MATERIAL Bronze/brass soldered, siphon required for steam service

SENSING ELEMENT
Bourdon tube; Ashcroft patented PowerFlex™ movement

CONNECTION
¼ NPT lower
Optional, throttle plugs

RANGES
Vac-600 psi and compound

These gauges are designed to meet the needs of heating, ventilating, plumbing and air-conditioning contractors.

**TYPE 23DDG MINIGAUGE®
PRESSURE GAUGE**


ACCURACY
 $\pm 5\%$ of span

DIAL SIZE
23mm (0.906")

CASE MATERIAL
ABS blend, black

WETTED MATERIAL
Beryllium copper tube/brass socket

SENSING ELEMENT
Spiral wound Bourdon tube

CONNECTION
¼ NPT back with 15mm (9/16") wrench flats.
Optional, throttle plugs, PT ¼" (JIS) and R ¼" (BSPT) threads

RANGES
60 psi-100 psi (180° dial arc)
160 psi-300 psi (235° dial arc)

Consult factory for high cycle life applications

These gauges are perfect for a multitude of applications where a 1½" conventional size gauge is too large, such as mini-FRL's, pneumatic stack valves, air compressors and accessories.

**TYPE 12DDG/15DDG
DIRECT DRIVE GAUGE**

ACCURACY

Standard: $\pm 2\%$ at setpoint
(setpoint is normally 50% of range)
UL listed: $\pm 3.5\%$ of span of middle
three-fifths of scale

DIAL SIZE

1 1/4", 1 1/2"

CASE MATERIAL

Stainless steel, sealed

WETTED MATERIAL

Beryllium copper tube/brass socket

SENSING ELEMENT

Spiral wound Bourdon tube
Optional, silicone dampened tube,
silicone-filled tube

CONNECTION

1/8 NPT back, safety plug in 1500 psi-4000 psi
ranges. Optional, 1/4 NPT back, throttle plugs

RANGES

0/60 psi (180° arc)
0/100 psi, 0/160 psi, 0/200 psi,
0/300 psi, (235° arc)
0/700 psi (200° arc)
0/1,200 psi (180° arc)
0/1,500 psi 0/2,000 psi, 0/3,000 psi,
0/4,000 psi (165° arc)

Consult factory for high cycle life applications

Applications include pumps, air compressors, portable tire inflators, portable oxygen equipment, self-contained breathing apparatus, portable industrial gas cylinders and a variety of other applications.

T H R E A D E D
Specification Matrix

 Ashcroft Diaphragm Seals &
Pressure Instrument Isolators

 F = Female • = AVAILABLE
M = Male


Process Connection Type		Threaded	Threaded w/Flushing Connection	Threaded or Threaded w/Flushing Connection	Threaded or Threaded w/Flushing Connection	Low Pressure Threaded or Threaded w/Flushing Conn.*
Model No.	Code	100/200/300 ⁽¹⁾	101/201/301 ⁽¹⁾	400/401 ⁽¹⁾	500/501 ⁽¹⁾	740/741 ⁽¹⁾
Process Connection Size						
	Female					
	Male					
	¼	F/M	F/M	F/M	F/M	F
	½	F/M	F/M	F/M	F/M	F
	¾	F/M	F/M	F/M	F/M	F
	1	F/M	F/M	F/M	F/M	F
	1½					
	2					
	3					
	4					
	6					
	8					
Diaphragm Materials						
316L stainless steel	S	100 & 200	101 & 201	•	•	•
304L stainless steel	C	100 & 200	101 & 201			
Monel 400	P	100 & 200	101 & 201	•	•	•
Nickel	N	100 & 200	101 & 201			
Carpenter 20	D	100 & 200	101 & 201			
Tantalum	U	100 & 200	101 & 201	•	•	•
Hastelloy B	G	100 & 200	101 & 201	•	•	•
Hastelloy C 22	J	100 & 200	101 & 201	•	•	•
Hastelloy C 276	H	100 & 200	101 & 201	•	•	•
Teflon	T	200 & 300	201 & 301			
Viton	Y	200 & 300	201 & 301			
Kalrez	K	200 & 300	201 & 301			
Titanium	TI	200	201	•	•	•
Halar Coated Monel	R	100	101			
Bottom Housing Materials						
Steel	B	•	•			•
304L stainless steel	C	•	•			
316L stainless steel	S	•	•	•	•	•
Hastelloy B	G	•	•	•	•	•
Hastelloy C 22	J	•	•	•	•	•
Hastelloy C 276	H	•	•	•	•	•
Carpenter 20	D	•	•			•
Monel 400	M	•	•	•	•	•
Inconel 600	W	•	•			
Nickel	N	•	•			
PVC	V	Only ¼ or ½ NPT				
Kynar	KY	Only ¼ or ½ NPT				
Titanium	TI	•	•	•	•	•
Pressure Ratings ⁽¹⁾						
500 psi		Viton or Kalrez diaph.	Viton or Kalrez diaph.		•	
2500 psi		Metal & Teflon® diaph.	Metal & Teflon® diaph.			750 psi
4400 psi				•		
5000 psi	HP	100 & 200 metal diaph.	101 & 201 metal diaph.	401		
9000 psi	HP			400		
Instrument Connection Size						
¼	02T	•	•	•	•	
½	04T	•	•	•	•	•
Filling Fluid						
Glycerin	CG	•	•	•	•	• ⁽⁴⁾
Silicone (direct to 10' capillary)	CK	•	•	•	•	
Silicone (over 10' capillary)	DJ	•	•	•	•	
Halocarbon	CF	•	•	•	•	
Syltherm	HA	•	•	•	•	
Food Grade Silicone	CZ	•	•	•	•	
Distilled Water	FJ	•	•	•	•	
Ethylene Glycol & Water	CT	•	•	•	•	
Propylene Glycol	CV	•	•	•	•	

⁽¹⁾ See Table A on pages 170-171 of OH-1 for instrument compatibility.
Minimum pressure is determined by the instrument that will be attached to the diaphragm seal.

⁽⁴⁾ Glycerin not recommended for vacuum, compound or inches of water.

T H R E A D E D
Specification Matrix

 Ashcroft Diaphragm Seals &
Pressure Instrument Isolators

 F = Female ● = AVAILABLE
M = Male


Process Connection Type			Diaphragm Seal	Diaphragm Seal	Diaphragm Seal (w/Flushing Connection)	Diaphragm Seal (w/Flushing Connection)	Female & Male Threaded
Model No.	Code		510 ⁽¹⁾	510HP ⁽¹⁾	511	511HP	311
Process Connection Size							
	Female	Male					
¼	25	02					F/M
½	50	04	M	M	M	M	F/M
¾	75	06					F/M
1	10	08					F/M
1½	15						
2	20						
3	30						
4	40						
6	60						
8	80						
Diaphragm Materials							
316L stainless steel	S		•	•	•	•	•
304L stainless steel	C						
Monel 400	P		•	•	•	•	
Nickel	N						
Carpenter 20	D						
Tantalum	U						•
Hastelloy B	G						
Hastelloy C 22	J						
Hastelloy C 276	H		•	•	•	•	•
Teflon	T						
Viton	Y						
Kalrez	K						
Titanium	TI						
Halar Coated Monel	R						
Bottom Housing Materials							
Steel	B						
304L stainless steel	C						
316L stainless steel	S		•	•	•	•	•
Hastelloy B	G						
Hastelloy C 22	J						
Hastelloy C 276	H		•	•	•	•	•
Carpenter 20	D						
Monel 400	M		•	•	•	•	
Inconel 600	W						
Nickel	N						
PVC	V						
Kynar	KY						
Titanium	TI						
Pressure Ratings ⁽¹⁾							
500 psi							
1000 psi							•
1500 psi			•		•		
2500 psi							
5000 psi	HP			•		•	
9000 psi	HP						
Instrument Connection Size							
¼		02T					•
½		04T	•	•	•	•	•
Filling Fluid							
Glycerin	CG		•	•	•	•	•
Silicone (direct to 10' capillary)	CK		•	•	•	•	•
Silicone (over 10' capillary)	DJ		•	•	•	•	•
Halocarbon	CF		•	•	•	•	•
Syltherm	HA		•	•	•	•	•
Food Grade Silicone	CZ		•	•	•	•	•
Distilled Water	FJ		•	•	•	•	•
Ethylene Glycol & Water	CT		•	•	•	•	•
Propylene Glycol	CV		•	•	•	•	•

⁽¹⁾ See Table A on pages 170-171 of OH-1 for instrument compatibility.
Minimum pressure is determined by the instrument that will be attached to the diaphragm seal.

⁽²⁾ Type 300 series not available with metallic diaphragms.

⁽³⁾ Type 302/303 not available with 1" process size.

T H R E A D E D
Specification Matrix

 Ashcroft Diaphragm Seals &
Pressure Instrument Isolators

 F = Female • = AVAILABLE
M = Male


Process Connection Type		Female Threaded (w/Flushing Connection)	Male/Female Threaded Mini (w/Flushing Connection)	1" Male Flush Mini	Quick Connect	In-line Threaded
Model No.	Code	312	310/315*	330	320/321	104/204
Process Connection Size						
Female	Male					
1/4	25 02	F	F/M			F
1/2	50 04	F	F/M			F
3/4	75 06		M			
1	10 08		M	M		
1 1/2	15				•	
2	20				•	
3	30					
4	40					
6	60					
8	80					
Diaphragm Materials						
316L stainless steel	S	•	•	•	•	•
304L stainless steel	C					•
Monel 400	P		•			•
Nickel	N					•
Carpenter 20	D					•
Tantalum	U	•				•
Hastelloy B	G		•			•
Hastelloy C 22	J					•
Hastelloy C 276	H	•	•			•
Teflon	T					204
Viton	Y					204
Kalrez	K					204
Titanium	TI					•
Halar Coated Monel	R					104
Bottom Housing Materials						
Steel	B					•
304L stainless steel	C					•
316L stainless steel	S	•	•	•	•	•
Hastelloy B	G		•			•
Hastelloy C 22	J					•
Hastelloy C 276	H	•	•			•
Carpenter 20	D					•
Monel 400	M		•			•
Inconel 600	W					•
Nickel	N					•
PVC	V					
Kynar	KY					
Titanium	TI					•
Pressure Ratings ⁽¹⁾						
500 psi						Viton or Kalrez diaph.
1000 psi		•			•	
2500 psi			•			Metal & Teflon® diaph.
3000 psi				•		
5000 psi	HP					
9000 psi	HP					
Instrument Connection Size						
1/4	02T	•	•	•	•	•
1/2	04T	•	•	•	2" only	•
Filling Fluid						
Glycerin	CG	•	•	•	•	•
Silicone (direct to 10' capillary)	CK	•	•	•	•	•
Silicone (over 10' capillary)	DJ	•	•	•	•	•
Halocarbon	CF	•	•	•	•	•
Syltherm	HA	•	•	•	•	•
Food Grade Silicone	CZ	•	•	•	•	•
Distilled Water	FJ	•	•	•	•	•
Ethylene Glycol & Water	CT	•	•	•	•	•
Propylene Glycol	CV	•	•	•	•	•

⁽¹⁾ See Table A on pages 170-171 of OH-1 for instrument compatibility.

Minimum pressure is determined by the instrument that will be attached to the diaphragm seal.

⁽²⁾ Type 300 series not available with metallic diaphragms.

⁽³⁾ Type 302/303 not available with 1" process size.

FLANGED
Specification Matrix

 Ashcroft Diaphragm Seals &
Pressure Instrument Isolators

 F = Female ● = AVAILABLE
M = Male


Process Connection Type		Raised Face Flange	Raised Face Flange w/Flushing Connection	In-Line Flanged	Raised Face Flange *w/Flushing Connection	Low Pressure Flanged *w/Flushing Connection
Model No.	Code	102/202/302 ^(1,2)	103/203/303 ^(1,2)	106/206	402/403*	702/703*
Process Connection Size						
1/4	25					
1/2	50	●	●	●	●	●
3/4	75	●	●	●	●	●
1	10	●	●	●	●	●
1 1/2	15	●	●	●	●	●
2	20	●	●	●	●	●
3	30	●	●	●	●	●
4	40			●		
6	60			●		
8	80			●		
Diaphragm Materials						
316L stainless steel	S	102 & 202	103 & 203	●	●	●
304L stainless steel	C	102 & 202	103 & 203	●		
Monel 400	P	102 & 202	103 & 203	●	●	●
Nickel	N	102 & 202	103 & 203	●		
Carpenter 20	D	102 & 202	103 & 203	●		
Tantalum	U	102 & 202	103 & 203	●	●	●
Hastelloy B	G	102 & 202	103 & 203	●	●	●
Hastelloy C 22	J	102 & 202	103 & 203	●	●	●
Hastelloy C 276	H	102 & 202	103 & 203	●	●	●
Teflon	T	202 & 302	203 & 303	206		
Viton	Y	202 & 302	203 & 303	206		
Kalrez	K	202 & 302	203 & 303	206		
Titanium	TI	202	203	206	●	●
Halar Coated Monel	R	102	103	106		
Bottom Housing Materials						
Steel	B	●	●	●		
304L stainless steel	C	●	●	●		
316L stainless steel	S	●	●	●	●	●
Hastelloy B	G	●	●	●	●	●
Hastelloy C 22	J	●	●	●	●	●
Hastelloy C 276	H	●	●	●	●	●
Carpenter 20	D	●	●	●	●	●
Monel 400	M	●	●	●	●	●
Inconel 600	W	●	●			
Nickel	N	●	●			
PVC	V	1, 1 1/2, 2				
Kynar	KY	1, 1 1/2, 2				
Titanium	TI	●	●		●	●
Pressure Ratings ⁽¹⁾						
500 psi						
2500 psi						
Flange Class						
150, 300, 600, 900 or 1500		●	●	150	●	150, 300, 600
Instrument Connection Size						
1/4	02T	●	●	●	●	●
1/2	04T	●	●	●	●	●
Filling Fluid						
Glycerin	CG	●	●	●	●	●
Silicone (direct to 10' capillary)	CK	●	●	●	●	●
Silicone (over 10' capillary)	DJ	●	●	●	●	●
Halocarbon	CF	●	●	●	●	●
Syltherm	HA	●	●	●	●	●
Food Grade Silicone	CZ	●	●	●	●	●
Distilled Water	FJ	●	●	●	●	●
Ethylene Glycol & Water	CT	●	●	●	●	●
Propylene Glycol	CV	●	●	●	●	●

⁽¹⁾ See Table A on pages 170-171 of OH-1 for instrument compatibility.
Minimum pressure is determined by the instrument that will be attached to the diaphragm seal.

⁽²⁾ Type 300 series not available with metallic diaphragms.

⁽³⁾ Type 302/303 not available with 1" process size.

IN-LINE
Specification Matrix

 Ashcroft Diaphragm Seals &
Pressure Instrument Isolators

 F = Female • = AVAILABLE
M = Male


		Saddle	In-line Socket Weld	In-line Butt Weld	Isolation Ring
		105/205	107/207	108/208	80/81
Process Connection Size		Pipe Size (inches)			
1/4	25		•	•	2.0 Type 80 only
1/2	50		•	•	3.0 12.0
3/4	75		•	•	4.0 14.0
1	10		•	•	5.0 16.0
1 1/2	15		•	•	6.0 18.0
2	20		•	•	8.0 20.0
3	30				10.0
4	40	3"			
6	60	4" and larger			
8	80				
Diaphragm Materials		Inner Flexible Wall			
316L stainless steel	S	•	•	•	Buna N (E)
304L stainless steel	C	•	•	•	Teflon (T)
Monel 400	P	•	•	•	Viton (Y)
Nickel	N	•	•	•	Natural Rubber (NP)
Carpenter 20	D	•	•	•	Silicone (S)
Tantalum	U	•	•	•	
Hastelloy B	G	•	•	•	
Hastelloy C 22	J	•	•	•	
Hastelloy C 276	H	•	•	•	
Teflon	T	205	207	208	
Viton	Y	205	207	208	
Kalrez	K	205	207	208	
Titanium	TI	205	207	208	
Halar Coated Monel	R	105	107	108	
Bottom Housing Materials		Ass'y. Flanges / Code			
Steel	B	•	•	•	Carbon Steel (B)
304L stainless steel	C	•	•	•	316 SS (S)
316L stainless steel	S	•	•	•	CPVC (CP)
Hastelloy B	G	•	•	•	Teflon Enveloped (CT)
Hastelloy C 22	J	•	•	•	Polypropylene (P)
Hastelloy C 276	H	•	•	•	
Carpenter 20	D	•	•	•	
Monel 400	M	•	•	•	
Inconel 600	W	•	•	•	
Nickel	N	•	•	•	
PVC	V				
Kynar	KY				
Titanium	TI				
Pressure Ratings ⁽¹⁾					
500 psi		Viton or Kalrez diaph. only	Viton or Kalrez diaph. only	Viton or Kalrez diaph. only	
2500 psi		Metal & Teflon [®] diaph.	Metal & Teflon [®] diaph.	Metal & Teflon [®] diaph.	
Flange Class					
150, 300, 600, 900 or 1500					150 or 300
Instrument Connection Size					
1/4	02T	•	•	•	1/4 NPT (02T)
1/2	04T	•	•	•	1/2 NPT (04T)
Filling Fluid					
Glycerin	CG	•	•	•	•
Silicone (direct to 10' capillary)	CK	•	•	•	•
Silicone (over 10' capillary)	DJ	•	•	•	•
Halocarbon	CF	•	•	•	•
Syltherm	HA	•	•	•	•
Food Grade Silicone	CZ	•	•	•	•
Distilled Water	FJ	•	•	•	•
Ethylene Glycol & Water	CT	•	•	•	•
Propylene Glycol	CV	•	•	•	•

⁽¹⁾ See Table A on pages 170-171 of OH-1 for instrument compatibility.

Minimum pressure is determined by the instrument that will be attached to the diaphragm seal.

⁽²⁾ Type 300 series not available with metallic diaphragms.

⁽³⁾ Type 302/303 not available with 1" process size.

**MODEL GC31
ULTRA-COMPACT DIGITAL
PRESSURE SENSOR**


ACCURACY: $\pm 1.0\%$ Span
ANALOG OUTPUT: (1-5Vdc)
DISPLAY TYPE: 3½ digit, 10mm LED
STANDARD RANGES (Gauge):
 50 to 1500 psig
STANDARD RANGES (Compound):
 -15 to 15 psig thru -15 to 300 psig
Proof Pressure:
 2X range: 500 psi & below
 1.5X range: 1000 psi & above
Burst Pressure:
 10X range
SWITCH CONTACTS:
 (2) NPN or PNP open collector outputs
MEDIA: Fluids and gases compatible with 304SS (sensor housing) and 17-4 pH SS (sensor diaphragm)
ENVIRONMENTAL RATING: IP40
AGENCY APPROVALS: CE


 LOOK FOR THIS MARK
ON OUR PRODUCT

This ultra-compact pressure sensor is used on a wide variety of applications where consistent, reliable pressure measurement is essential. The GC31 features an integral display, user scalable analog output and two independent switches. Ideal for monitoring and control of pneumatic and hydraulic systems where high cycle life and functionality is required.

**MODEL GC35 ULTRA-COMPACT
DIGITAL PRESSURE SENSOR**


ACCURACY: $\pm 1.0\%$ Span
ANALOG OUTPUT: (4-20mA)
DISPLAY TYPE: 4 digit, 8mm LED
STANDARD RANGES (Gauge):
 50 to 7500 psig
STANDARD RANGES (Compound):
 -15 to 75 psig thru -15 to 300 psig
Proof Pressure:
 Ranges 1500 psig & below: 4X range
 Ranges 3000 psig & above: 2.5X range
Burst Pressure:
 Ranges 1500 psi & below: 10X range
 Ranges 3000 psi & below: 5X range
 Ranges 5000 psi & above: 3X range
SWITCH CONTACTS:
 (2) NPN or PNP open collector outputs
MEDIA: Fluids and gases compatible with 304SS (sensor housing) and 17-4 pH SS (sensor diaphragm)
ENVIRONMENTAL RATING: IP40
AGENCY APPROVALS: CE


 LOOK FOR THIS MARK
ON OUR PRODUCT

Ultra-compact digital pressure sensor, ideal for monitoring pressures within hydraulic presses/stamping equipment and lifts, water/wastewater pressure control and cooling / lubrication systems. This versatile sensor offers a highly visible LED display for local indication. Product features allow the user to configure the analog scaling to any range within the full scale of the sensor range while integrated switches offer actuation and deadband to any points within the full scale range.

**TYPE GC51 RANGEABLE
PRESSURE TRANSMITTER**


ACCURACY: $\pm 0.25\%$ Span (URL)0
ANALOG OUTPUT: 4-20mA (2-wire)
DISPLAY TYPE: 4 digit, 10mm LCD with LED backlight
STANDARD RANGES (Compound):
 -15 to 15 psi thru -15 to 50 psi
STANDARD RANGES (Gauge):
 50 to 7500 psig
Overpressure (Span):

	Proof	Burst
1500 psi and below	200%	500%
3000, 5000 psi	150%	300%
7500 psi	120%	150%

ENVIRONMENTAL RATING:
 IP65 / NEMA 4X
MEDIA: Fluids and gases compatible with 316SS and pH17-4 stainless steel
AGENCY APPROVALS: CE


 LOOK FOR THIS MARK
ON OUR PRODUCT

Compact pressure transmitter used to monitor wet/dry media pressures within process automation, hydraulic systems, compressors, pumps and tank level applications.

**TYPE GC55
WET/WET DIFFERENTIAL
PRESSURE TRANSDUCER**


ACCURACY: $\pm 0.5\%$ Span
ANALOG OUTPUT: (4-20mA or 1-5Vdc)
DISPLAY TYPE: 3½ digits
STANDARD RANGES (Differential):
 75 to 300 psid
Pressure Range

	Proof	Burst
All	2X Span (URL)	10X Span (URL)

Static (Line) Pressure Effects: None
Single Side (Differential Limits):
Pressure Range

	Proof	Burst
All	2X Span (URL)	10X Span (URL)

MEDIA: Fluids and gases compatible with 304SS (sensor housing) and 17-4 pH SS (sensor diaphragm)
ENVIRONMENTAL RATING: IP66

Compact high-differential pressure transducer for filter monitoring on HVAC hydronic cooling/heating systems and pump controls. Model contains two polysilicon thin film sensors with welded Stainless Steel wetted components to accommodate wet or dry pressure media. The product features a bright LED front panel display for local indication and button to allow the user to select between the dP value and line pressure readings from either sensor.

**A2 HEAVY INDUSTRIAL AND
EXPLOSION PROOF TRANSMITTERS**


ACCURACY: ± 0.25 , ± 0.5 , $\pm 1.0\%$ Span

OUTPUT: 4-20mA, 0-5Vdc, 0-10Vdc, 1-5Vdc, 1-6Vdc, 0.5-4.5Vdc (ratiometric)

STANDARD RANGES:
15 to 7500 psi absolute, 1.5 to 10,000 psig, compound to 100 psig
Overpressure: (Varies w/pressure range)
Proof: up to 2 x Span
Burst: up to 4 x Span

ENVIRONMENTAL RATING:
IP65, IP67*, NEMA 4X, 6, 7, 9

AGENCY APPROVALS: CE

*varies with pressure range



A highly configurable transmitter designed for hazardous location and heavy industrial applications. High performance accuracy and thermal capability over $-20/85^{\circ}\text{C}$ ($-4/185^{\circ}\text{F}$) with additional option of zero and span pots. 316L SS wetted materials are standard.

**A2X EXPLOSION/FLAME PROOF
PRESSURE TRANSMITTER**


ACCURACY: ± 0.25 , ± 0.5 , $\pm 1.0\%$ Span

OUTPUT: 4-20mA, 0-5Vdc, 0-10Vdc, 1-5Vdc, 1-6Vdc, 0.5-4.5Vdc (ratiometric)

STANDARD RANGES:
15 to 7500 psi absolute, 1.5 to 10,000 psig, compound to 100 psig
Overpressure: (Varies w/pressure range)
Proof: up to 2 x Span
Burst: up to 4 x Span

ENVIRONMENTAL RATING:
Ingress Protection Rating: IP65; NEMA 7,9

AGENCY APPROVALS:
Explosion Proof – cUL (USL/CNL):
Flame Proof – ATEX:
Intrinsically Safe – FM (4-20mA) – CE



The Ashcroft® A2X is ideal for a broad spectrum of pressure sensing applications where explosion/flameproof hazardous location ratings are required. The A2X pressure transmitter offers all 316L SS wetted materials and features excellent accuracy and stability for reliable measurements over the life of the instrument.

**A4 INTRINSICALLY
SAFE & NON-INCENDIVE
PRESSURE TRANSMITTER**


ACCURACY: ± 0.25 , ± 0.5 , $\pm 1.0\%$ Span

OUTPUT: 4-20mA

STANDARD RANGES:
15 to 7500 psi absolute, 1.5 to 10,000 psig, compound to 100 psig
Overpressure: (Varies w/pressure range)
Proof: up to 2 x Span
Burst: up to 4 x Span

ENVIRONMENTAL RATING:
Basic IP65, NEMA 4X
All Welded* IP67, NEMA 6 (varies with pressure range)

*(w/o Z/S)

AGENCY APPROVALS: CE
Non-Incendive – FM/CSA:



The Ashcroft® A4 pressure transmitter is ideal for a broad spectrum of pressure sensing requirements where Intrinsically Safe or Non-Incendive hazardous location ratings are required. Designed / manufactured to provide the user with accurate, reliable, and stable output data using an on-board microprocessor programmed during a unique digital compensation process; providing a product that supplies extremely linear and precise performance. 316L SS wetted materials are standard.

**T2 HIGH PERFORMANCE
PRESSURE TRANSMITTER**


ACCURACY: $\pm 0.25\%$ of Span

OUTPUT: 4-20mA, 0-5Vdc, 0-10Vdc, 1-5Vdc, 1-6Vdc, 0.5-4.5Vdc (ratiometric)

STANDARD RANGES:
Pressure Ranges (Span): 30 to 20,000 psig, compound to 300 psig
Overpressure: (Varies w/pressure range)
Proof: up to 3 x Span
Burst: up to 10 x Span

ENVIRONMENTAL RATING:
NEMA 4X, IP65

AGENCY APPROVALS: CE



A robust pressure transducer designed for industrial applications featuring Ashcroft's proven polysilicon thin film pressure sensing element. Product features include voltage and current outputs, a variety of pressure ports and electrical terminations to international standards with excellent accuracy and performance over -40 to 125°C , (-40 to 257°F).

**TYPE G2
OEM PRESSURE TRANSDUCER**

ACCURACY:

±1% Span: through -20/85°C (-4/185°F)
±1.5% Span: through -40/-20°C and
(-40/-4°F) and 85/125°C (185/257°F).

OUTPUT: 4-20mA, 0-5Vdc, 0-10Vdc,
1-5Vdc, 1-6Vdc, 0.5-4.5Vdc (ratiometric)

ENVIRONMENTAL RATING:
NEMA 4X, IP65 and IP67

STANDARD RANGES:

Pressure Ranges (Span): 30 to 20,000 psig,
compound to 300 psig

Overpressure (Varies w/pressure range)

Proof: up to 3 x Span
Burst: up to 10 x Span

AGENCY APPROVALS: CE



A robust pressure transducer designed for OEM applications featuring Ashcroft's proven polysilicon thin film pressure sensing element. Product features include voltage and current outputs, a variety of pressure ports and electrical terminations to international standards with excellent accuracy and performance over -40 to 125°C, (-40 to 257°F).

**KM15 HIGH VOLUME
OEM PRESSURE TRANSDUCER**

ACCURACY:

±0.5% Span, 100 psig and above
±1.0% Span, 75 psig and below

OUTPUT: 1-5Vdc, 1-6Vdc,
0.5-4.5Vdc (ratiometric)

ENVIRONMENTAL RATING: IP67

STANDARD RANGES:

Pressure Ranges (Span): 15 to 7500 psig/s,
compound to 300 psig

Overpressure (Span): Proof Burst
≤ 3000 psig 2 x Span 5 x Span
5000 psig 1.5 x Span 5 x Span
7500 tpsig 1.2 x Span 5 x Span

AGENCY APPROVALS: CE



An economical transducer designed for the high volume OEM. Product features include voltage outputs, a variety of pressure ports and electrical terminations to international standards with excellent accuracy and performance over -30 to 120°C (-25 to 250°F). IP67 ingress rating and 100V/m EMC immunity.

**K1/K2 SERIES
INDUSTRIAL TRANSDUCER**


ACCURACY: ±0.5%, ±1.0% Span

OUTPUT:

K1: 4-20mA, 1.5Vdc, 1-6Vdc, 1-11Vdc
K2: 2, 3, 10, 20 mV/V

ENVIRONMENTAL RATING:
NEMA 1, NEMA 4X

STANDARD RANGES:

Pressure Ranges (Span): 15 to 20,000 psig,
compound to 60 psig

Overpressure (Span): Proof Burst
≤ 2000 psig 2 x Span 8 x Span
3000 to 5000 psig 1.5 x Span 3 x Span
7500 to 20,000 psig 1.2 x Span 1.5 x Span

AGENCY APPROVALS:
Intrinsically Safe – FM (consult factory)



A versatile and proven industrial transducer with an extensive installed base. Wide range of pressure fittings and electrical terminations along with FM hazardous area approvals.

**K8 SERIES
TRANSDUCER w/mV SIGNAL**


ACCURACY: ±0.5%, ±1.0% Span

OUTPUT: Varies from 6-18 mV/V at Span
ratiometric

STANDARD RANGES:

Pressure Ranges (Span): 45 to 20,000 psig
Overpressure (Span): Proof Burst
≤ 2000 psig 2 x Span 2 x Span
3000 to 5000 psig 1.5 x Span 3 x Span
7500 to 20,000 psig 1.2 x Span 1.5 x Span

ENVIRONMENTAL RATING: NEMA 4X

A pressure transducer for applications that can incorporate an unconditioned mV/V output and require the proven benefits of the polysilicon thin film pressure sensing element. A broad range of pressure fittings allow the user design flexibility in packaging.

**KX/KS SERIES
SANITARY TRANSDUCERS**


KX

KS

ACCURACY: $\pm 1.0\%$ Span

OUTPUT:

 KS: 4-20mA, 1-5Vdc, 1-6Vdc; 2, 3, 10, 20 mV/V ratiometric
 KX: 4-20mA, 1-5Vdc, 1-6Vdc

STANDARD RANGES:

Pressure Ranges (Span):

 KS: 30 to 1000 psig, compound to 100 psig
 Kx: 100 to 5000 psig

Overpressure (Span):

Proof	Burst
≤ 2000 psig	2 x Span
3000 to 5000 psig	1.5 x Span
	8 x Span
	3 x Span

ENVIRONMENTAL RATING: NEMA 4X

For use in sanitary, waste-water, food processing and pharmaceutical applications. The KS Series features a 316L stainless steel electropolished Tri-Clamp style diaphragm while the KX Series features several options designed for harsh applications – flush mounted diaphragm, PMC adapter or weldnuts. The polysilicon thin film pressure sensing element offers proven performance and stability.

**MODEL GC30
ULTRA-COMPACT DIFFERENTIAL
PRESSURE SENSOR**

NEW!

ACCURACY: $\pm 1.5\%$ Span

ANALOG OUTPUT: (1-5Vdc)

DISPLAY TYPE: 3½ digit, 10mm LED

STANDARD RANGES (Gauge):
 0.25" I.W.C. to 25" I.W.C.

STANDARD RANGES (Compound):
 ± 0.25 " I.W.C. to ± 25 " I.W.C.

MEDIA: Clean, dry air/gases compatible with Aluminum, ABS, Ceramic, Silicon, and Silicone RTV

SWITCH CONTACTS:
 (2) NPN or PNP open collector outputs

ENVIRONMENTAL RATING: IP40

AGENCY APPROVALS: CE

 LOOK FOR THIS MARK
ON OUR PRODUCT

Ultra-compact pressure sensor is exceptional when monitoring differential pressures in clean rooms, filters, fan speed control and vacuum/suction pressure sensing & control. Consistent, reliable pressure measurement is provided due to the highly reliable SiGlas™ Sensor. The GC30 offers an analog output with two independent, user configurable switches.

**TYPE GC52 RANGEABLE
WET/WET DIFFERENTIAL
PRESSURE TRANSMITTER**

ACCURACY: $\pm 0.50\%$ Span (URL)

OUTPUT SIGNAL: 4-20mA (2 Wire)

DISPLAY TYPE: 4 digit, 10mm LCD with LED backlight

STANDARD RANGES (Bi-Directional, Inches W.C.):
 ± 4 to ± 200 i.w.c.

STANDARD RANGES (Uni-Directional, Inches W.C.):
 0 to 4 thru 400 i.w.c.

STANDARD RANGES
Static (Line) Pressure:

Pressure Range	Proof	Burst
All	300 psi	800 psi

Static (Line) Pressure Effects:

Pressure Range	Effect
≥ 20 " W.C., ± 8 " W.C.	$\pm 0.3\%$ Span/100 psi
8" W.C., ± 4 " W.C.	$\pm 0.7\%$ Span/100 psi
4" W.C.	$\pm 1.5\%$ Span/100 psi

Single Side (Differential) Limits:

Pressure Range	Proof	Burst
≤ 8 " W.C., ± 4 " W.C.	30 psid	130 psid
≥ 20 " W.C., ± 8 " W.C.	100 psid	130 psid

MEDIA: Fluids and gases compatible with 316SS, Viton and Coramic

ENVIRONMENTAL RATING: IP65 / NEMA 4X

AGENCY APPROVALS: CE

 LOOK FOR THIS MARK
ON OUR PRODUCT

Uniquely compact wet/wet differential pressure transmitter, ideal for flow and tank level applications where reliable, low dP measurements are required. This instrument can be adjusted to rearrange the transmitter and offers flow measurement/square root extraction where the flow rate can be displayed and analog signal can be output. Equipped with the patented SiGlas™ 316 Stainless Steel isolated sensor, it can monitor a wide variety of wet or dry media.

**GL42 LOW DIFFERENTIAL
INDICATING
PRESSURE TRANSMITTER**

ACCURACY: $\pm 0.50\%$ or $\pm 1.00\%$ Span

OUTPUT: 4-20mA (2 wire)

STANDARD RANGES:

 Unidirectional: 0.10 to 0/25 I.W.C.
 Bidirectional: ± 0.10 to ± 15 I.W.C.

Overpressure

Proof Pressure:	15 psi
Burst Pressure:	25 psi

ENVIRONMENTAL RATING: NEMA 4X, IPG5

AGENCY APPROVALS: CE

**CXLdp SERIES
DIN/PANEL/WALL MOUNT**

ACCURACY: 0.8% or 0.4% Span

OUTPUT SIGNAL:

 4-20mA, (12-36Vdc),
0-5, 0-010Vdc (24Vac/Vdc)

PRESSURE RANGES (Inches W.C.)

 Unidirectional: 0.10 to 0/25 I.W.C.
Bidirectional: ±0.10 to ±15 I.W.C.

Overpressure

 Proof Pressure: 15 psi
Burst Pressure: 25 psi

ENVIRONMENTAL RATING: NEMA 1

MOUNTING: DIN rail or panel mount

MEDIA: Clean, dry and non-corrosive gas

NOT FOR USE ON LIQUIDS

ENVIRONMENTAL RATING: NEMA 1

AGENCY APPROVALS: CE

 LOOK FOR THIS MARK
ON OUR PRODUCT

Static or velocity pressure measurement for flow stations, ducts, building pressure, filter efficiency, van boxes or room pressurization.

**DXLdp SERIES
DIN MOUNT**

ACCURACY: 0.25%, 0.50% or 1.00% Span

OUTPUT SIGNAL:

 4-20mA, (12-36Vdc),
1-5Vdc, 1-6Vdc, 0-5Vdc, 0-10Vdc

PRESSURE RANGES (Inches W.C.):

 Unidirectional: 0.10 to 100 I.W.C.
Bidirectional: ±0.05 to ±100 I.W.C.

Overpressure

 Proof Pressure: 15 psi
Burst Pressure: 25 psi
Max. static (line) pressure: 25 psi

MOUNTING: DIN rail mount:

 EN50022
EN50035
EN50045

MEDIA

 Clean, dry and non-corrosive gas
(consult factory for use on other media)

NOT FOR USE ON LIQUIDS

ENVIRONMENTAL RATING: NEMA 1

AGENCY APPROVALS: CE

 LOOK FOR THIS MARK
ON OUR PRODUCT

Designed for ease of installation and system calibration, the DXLdp is ideal for pharmaceutical plants and other installations where large numbers of air flow and dp measurements are being monitored.

**RXLdp SERIES
REDUCED SIZE**

ACCURACY: 1.00% Span

OUTPUT SIGNAL:

 4-20mA, (12-36Vdc),
1-5Vdc, 1-6Vdc, 0-5Vdc, 0-10Vdc

PRESSURE RANGES (Inches W.C.):

 Unidirectional: 0.10 to 50 I.W.C.
Bidirectional: ±0.05 to ±50 I.W.C.

Overpressure

 Proof Pressure: 15 psi
Burst Pressure: 25 psi
Max. static (line) pressure: 25 psi

MEDIA

 Clean, dry and non-corrosive gas
(consult factory for use on other media)

NOT FOR USE ON LIQUIDS

ENVIRONMENTAL RATING: NEMA 1

AGENCY APPROVALS: CE (optional)

 LOOK FOR THIS MARK
ON OUR PRODUCT

A compact transmitter for comfort control and other HVAC applications.

**XLdp SERIES
HIGH PERFORMANCE**

ACCURACY: 0.25% or 0.50% Span

OUTPUT SIGNAL:

 4-20mA, (12-36Vdc),
1-5Vdc, 1-6Vdc

PRESSURE RANGES (Inches W.C.):

 Unidirectional: 0.10 to 100 I.W.C.
Bidirectional: ±0.05 to ±100 I.W.C.

Overpressure

 Proof Pressure: 15 psi
Burst Pressure: 25 psi
Max. static (line) pressure: 25 psi

MEDIA

 Clean, dry and non-corrosive gas
(consult factory for use on other media)

NOT FOR USE ON LIQUIDS

ENVIRONMENTAL RATING: NEMA 2

AGENCY APPROVALS: CE (optional)

 LOOK FOR THIS MARK
ON OUR PRODUCT

High performance dp transmitter with proven reliability and stability. Excellent for air handling applications including fume hood control and room pressurization.

**IXLdp SERIES
INDUSTRIAL**

ACCURACY: 0.25% or 0.50% Span

OUTPUT SIGNAL:

 4-20mA, 1-5Vdc, 1-6Vdc, ± 5 Vdc, ± 2.5 Vdc

PRESSURE RANGES (Inches W.C.):

 Unidirectional: 0.10 to 200 I.W.C.
 Bidirectional: ± 0.05 to ± 100 I.W.C.

Overpressure

 Proof Pressure: 20 psi
 Burst Pressure: 50 psi
 Max. static (line) pressure: 100 psi

MEDIA

 Clean, dry and non-corrosive gas
 (consult factory for use on other media)

NOT FOR USE ON LIQUIDS

ENVIRONMENTAL RATING: NEMA 4X

AGENCY APPROVALS: FM


A rugged low pressure transmitter in cast 300 series stainless steel enclosure. A good choice for dp monitoring in pollution control, combustion control, and other applications where precision sensing is needed in a tough environment.

**TYPE T5500E PROCESS
GAUGE WITH OUTPUT**

ACCURACY:
OUTPUT SIGNAL:
PRESSURE RANGES:
DIAL SIZE:
CASE MATERIAL:
SENSING ELEMENT:
WETTED MATERIAL:
AGENCY APPROVALS:


Product combines a reliable, local, analog pressure indication with 4-20mA transmitter. The wide selection of system materials and corrosion-proof housing meet a variety of demanding applications including those with vibration and pulsation.

**TYPE DM61
DIGITAL PANEL METER**

ACCURACY: 0.10% of span

DISPLAY: 6 Digit

POWER: 12 or 24 V Power Supply

INPUTS: Field Selectable: 0-20, 4-20mA, ± 10 Vdc, 0-5 Vdc, 1-5 Vdc, 0-10 Vdc, Modbus PV (slave)

BUTTONS/DISPLAY & MIN/MAX VALUES: User-Programmable and User-Defined

ENVIRONMENTAL:

 Operating Temperature Range:
 -40°C to 65°C (-40°F to 149°F)
 Storage Temperature Range:
 -40°C to 85°C (-40°F to 185°F)
 Relative Humidity: 0-90% R.H. non-condensing

ENCLOSURE: 1/8 DIN, high impact plastic, UL 94V-0

CONNECTIONS:

Removable screw terminal blocks accept 12 to 22 AWG wire, RJ45 for external relays, digital I/O, and serial communication adapters

ALARM POINTS: 2 or 4 SPDT (Form C) internal and/or 4 SPST (Form A) external

ALARM DEADBAND: 0-100%, User-Selectable

OPTION:

Expansion Modules For Relays, Digital I/O and USB, RS-232 and RS-485 Communication Adapters



The new Digital Panel Meter is a multi-purpose meter used to control and/or monitor transmitter applications involving level, flow or pressure. The user-friendly/field-programmable device offers a 6 digit LED display, min./max. capability, relay/ alarm functions and password protection; all which complement the expanding Ashcroft transducer line.

**TYPE 4080, 4480
PNEUMATIC TRANSMITTER**

OUTPUT RANGES, PSI: 3-15 & 3-27 (see note below for vacuum application)

SUPPLY AIR REQUIREMENTS:

 18-20 psi for 3-15 psi range;
 30-35 psi for 3-27 psi range

AIR CONSUMPTION SCFM: 0.1

SPEED OF RESPONSE: Time constant of 4 seconds per 500 ft of tubing

AIR CONNECTION: 1/4 NPT Female

ACCESSORIES: See optional features and accessories

TRANSMISSION DISTANCE: 1000 ft

MOUNTING WEIGHT:

Approximate weight 9 lb

REPEATABILITY % OF SPAN: 0.15

ACTUATION: Bourdon Tube

INPUT SENSING ELEMENT MATERIAL: 316 SS

AMBIENT TEMPERATURE EFFECT:
 $1/2\%$ per 50°F
PROCESS CONNECTION:
 $1/2$ NPT (ordering code 04L)

Note: Vacuum application: The transmitted air pressure increases as the measured vacuum approaches zero

The Ashcroft transmitter is a self-nulling motion-balance instrument, using a pneumatic relay operating on the nonbleed force balance principle for converting input pressures into proportional low air pressure signals for transmittal to remote indicators or controllers.

**EI, CI & EL INDUSTRIAL
BIMETAL THERMOMETERS**

ACCURACY

 ASME B 40.3 Grade A ($\pm 1\%$ of span)

DIAL SIZE

EI, CI 2", 3", 5" (EL 3", 5")

STEM/BULB DESIGN

Rigid stem 0.250" dia.

RECALIBRATOR

(EI, EL external), (CI none)

SEALING DESIGN

Hermetically sealed; EL liquid filled

DAMPENING

 Silicone-dampened bimetal coil;
EL liquid filled

CONNECTION LOCATION

 EI rear, lower; Everyangle™ mount
CI rear, lower
EL rear, Everyangle mount

CONNECTION SIZES (NPT)

 Plain
1/4" (2" sizes only)
1/2" and 3/4" fixed or union (3", 5" sizes only)

STEM LENGTH

2 1/2"–60"

RANGES

 –80°F to 1000°F, –50°C to 500°C
EL –40°F to 550°F, –20°C to 300°C

CASE/RING MATERIAL

Stainless steel

CASE/BULB MATERIAL

Stainless steel

WINDOW

EI, CI glass (EL Polycarbonate)

General industrial temperature applications including gases, liquids, and other processes. All stainless steel construction.

**600A & 600B DURATEMP®
THERMOMETERS**

ACCURACY

 ASME B 40.3 Grade A ($\pm 1\%$ of span)

DIAL SIZE

 600A – 4 1/2", 6"
600B – 4 1/2"

STEM/BULB DESIGN

 Rigid stem 0.375" dia. (600B)
Bendable 0.375" dia. (600A)

RECALIBRATOR

Adjustable pointer

SEALING DESIGN

Weatherproof

DAMPENING

Silicone-encapsulated helical Bourdon tube

CONNECTION LOCATION

 600A – rear, lower – remote mount
600B – Everyangle – direct mount

CONNECTION SIZES (NPT)

1/2" fixed or union

STEM LENGTH

6"–36" – 600B

CAPILLARY LENGTH

5'–80' – 600A

RANGES

 –320°F to 1200°F
–200°C to 650°C

CASE/RING MATERIAL

Stainless steel, aluminum, phenol

CASE/BULB MATERIAL

Stainless steel

CAPILLARY MATERIAL

600A– 300 Series stainless steel

WINDOW

Glass

Rugged applications including gases, liquids and other processes. Wide temperature ranges including remote monitoring.

**AR10 & AT10 STANDARD PROCESS
RTD's & THERMOCOUPLES**

SPECIFICATIONS
1. Ashcroft Series: AR10 & AT10
2. Insert Stem Diameter:

3 mm, 4.5 mm, 6 mm, 8 mm

3. Stem Length:

Minimum: 0.05 m (2 in.)

Maximum: 100 m (3937 in.)

4. Sensor Type & Measuring Range:
AR10 RTDs

Pt 100: –200 to +600°C

Pt 1000: –40 to +600°C

AT10 Thermocouples

Type J: –40 to +750°C

Type E: –200 to +800°C

Type K: –200 to +1100°C

Type N: –200 to +1100°C

5. Wiring Configuration
AR10 RTDs

2 wire

3 wire

4 wire

AT10 Thermocouple

2 wire

6. Accuracy Class:
AR10 RTDs (IEC 60751)

Class A

Class B

1/2 Class B

1/3 Class B

AT10 Thermocouples (IEC 60584-2)

Class 1

Class 2

Class 3

AT10 Thermocouples (ANSI MC96.1)

Standard

Special

7. Process Connection

G 1/2 A male

G 3/4 A male

M14 x 1.5 male

M18 x 1.5 male

1/2 NPT male

APPLICATIONS INCLUDE

- Process temperature measurements for liquefied natural gas systems, and power generation systems.
- Exhaust gas temperature measurements for hazardous environments.
- Reactor measurements in petrochemical

**AR20 and AT20 PROCESS
RTD's THERMOCOUPLES**

SPECIFICATIONS
1. Ashcroft Series: AR20 & AT20
2. Insert Stem Diameter: 3 mm, 4.5 mm, 6 mm, 8mm, 1/8", 3/16", 1/4"

3. Stem Length:

Minimum: 0.05 m (2 in.)

Maximum: 100 m (3937 in.)

4. Sensor Type & Measuring Range:
AR20 RTDs

Pt 100: –200 to +600°C

Pt 1000: –40 to +600°C

AT20 Thermocouples

Type J: –40 to +750°C

Type E: –200 to +800°C

Type K: –200 to +1100°C

Type N: –200 to +1100°C

5. Wiring Configuration
AR20 RTDs

2 wire

3 wire

4 wire

AT20 Thermocouple

2 wire

6. Accuracy Class:
AR20 RTDs (IEC 60751)

Class A

Class B

1/2 Class B

1/3 Class B

AT20 Thermocouples (IEC 60584-2)

Class 1

Class 2

Class 3

AT20 Thermocouples (ANSI MC96.1)

Standard

Special

7. Process Connection

1/2 NPT male

APPLICATIONS INCLUDE

- Process temperature measurements for power generation.
- Exhaust gas temperature measurements for diesel engines.
- Bearing temperature measurements for turbines.
- Oven temperature measurements for industrial drying ovens.

**AT30 SKIN TYPE
THERMOCOUPLES**

SPECIFICATIONS

- Ashcroft Series:** AT30
- Insert Stem Diameter:** 6 mm, 8mm, 3/8"
- Stem Length:**
Minimum: 0.25 m (9.84 in.)
Maximum: 550 m (2165 in.)
- Sensor Type & Measuring Range:**
AT30 Thermocouples
Type J -200 to +750°C
Type K -200 to +1100°C
- Wiring Configuration**
AT30 Thermocouples
2 wire
- Accuracy Class:**
AT30 Thermocouples (IEC 60584-2)
Class 1
Class 2
Class 3
AT30 Thermocouples (ANSI MC96.1)
Standard
Special
- Process Connection**
1½ NPT male
Flanged

APPLICATIONS

- Surface temperature measurements for steam lines in power generation processes.
- Wall temperature measurements for reactor vessels in chemical and petrochemical processes.
- Flat surface temperature measurements in industrial processes.

**THREADED
THERMOWELLS**

KEY FEATURES

- Straight, stepped or tapered designs
- One piece bar stock
- Wide selection of sizes, material and dimensions
- Stamped with date code, material and heat numbers

SPECIFICATIONS

Process connection: 1/2, 3/4 and 1 NPT
Bore size: .260", .385"
Instrument connection:
1/2 NPSM
1/2 NPT
Others on request for all above specifications

MATERIALS:

304 stainless steel
316 stainless steel
Brass
Carbon steel
Many other alternate materials available on request.

TESTS & CERTIFICATIONS:

Hydrostatic testing
MTR's
PMI
NACE
Wake frequency calculations

**FLANGED
THERMOWELLS**

KEY FEATURES

- Straight, stepped or tapered designs
- One piece bar stock
- Wide selection of sizes, material and dimensions
- Stamped with date code, material and heat numbers
- Full penetration weld

SPECIFICATIONS

Process connection:
Raised face, flat & ring joint flanges
Ratings:
150#, 300#, 600#, 900#, 1500#, & 2500#
Instrument connection:
1/2 NPSM
1/2 NPT
Others on request for all above specifications

MATERIALS:

304 stainless steel
316 stainless steel
Brass
Carbon steel
Many other alternate materials available on request.

TESTS & CERTIFICATIONS:

Hydrostatic testing
MTR's
PMI
NACE
Wake frequency calculations
Dye penetrant test

**SOCKET-WELD
THERMOWELLS**

KEY FEATURES

- Straight, stepped or tapered designs
- One piece bar stock
- Wide selection of sizes, material and dimensions
- Stamped with date code, material and heat numbers

SPECIFICATIONS

Process connection: 3/4 and 1 pipe sizes
Bore size: .260", .385"
Instrument connection:
1/2 NPSM
1/2 NPT
Others on request for all above specifications

MATERIALS:

304 stainless steel
316 stainless steel
Brass
Carbon steel
Many other alternate materials available on request.

TESTS & CERTIFICATIONS:

Hydrostatic testing
MTR's
PMI
NACE
Wake frequency calculations

**SINGLE SETPOINT
WATERTIGHT ENCLOSURES**

B-SERIES


FEATURES
Enclosure:

Watertight epoxy-coated aluminum NEMA 4, 4X, IP66

Switch Function:

Single setpoint, fixed deadband, SPDT (or)
Single setpoint, fixed deadband, (2) SPDT (DPDT action)

Wetted Materials:

Stainless steel and Buna, *Teflon® or Viton® (or)
All-welded stainless steel (or)
All-welded Monel

Ranges:

Pressure: vac. thru 3000 psi
Temperature: -40°F thru 750°F
Differential Pressure: 30 in.H₂O diff. thru 600 psid
H-Series Pressure: 1000 – 7500 psi

U.L. and CSA LISTED

*Registered trademark of E. I. DuPont

LOOK FOR THESE MARKS ON OUR PRODUCTS



General purpose switches for most industrial and process applications. Models are available for steam and fuel pressure-limit controls on boilers and burners. Ideal for compressors, turbines, filters, blowers, etc.

**SINGLE SETPOINT EXPLOSION
PROOF ENCLOSURES**

B-SERIES


FEATURES
Enclosure:

Explosion proof, NEMA 7/9, IP66

Switch Function:

Single setpoint, fixed deadband, SPDT (or)
Single setpoint, fixed deadband, (2) SPDT (DPDT action)

Wetted Materials:

Stainless steel, Buna, Teflon® or Viton® (or)
All-welded stainless steel (or)
All-welded Monel

Ranges:

Pressure: vac. thru 3000 psi
Temperature: -40°F thru 750°F
Differential Pressure: 30 in.H₂O diff. thru 600 psid

U.L. or CSA LISTED, ATEX and IECEx models for Hazardous locations now available.

Dual Seal Rating now available

LOOK FOR THESE MARKS ON OUR PRODUCTS



Ashcroft 700 series has been developed for most applications found in process plants U.L. or CSA LISTED.

All models have similar performance characteristics to the popular Ashcroft B400 Series switch line, which has been used throughout the world's plants and mills for over 25 years. They feature rugged, reliable diaphragm-sealed piston actuators, snap-acting contacts and all-popular wetted materials and process connections. Dual Seal Rating models available. Optional hermetically sealed contacts, Monel or fire-safe actuators and scores of options allow you to choose a model for any application.

**DUAL SETPOINT
WATERTIGHT ENCLOSURES**

L-SERIES


FEATURES
Enclosure:

Watertight epoxy-coated aluminum NEMA 4, 4X, IP66

Switch Function:

Single setpoint, fixed deadband, SPDT contacts (or)
Single setpoint, fixed deadband, (2) SPDT contacts (DPDT action) (or)
Single setpoint, adjustable deadband, SPDT contacts (or)
Dual setpoint, fixed deadband, (2) SPDT contacts, (DPDT action)

Wetted Materials:

Stainless steel and Buna, Teflon® or Viton® (or)
All-welded stainless steel (or)
All-welded Monel

Ranges:

Pressure: vac. thru 3000 psi
Temperature: -40°F thru 750°F
Differential Pressure: 30 in.H₂O diff. thru 400 psid

U.L. and CSA LISTED

LOOK FOR THESE MARKS ON OUR PRODUCTS



Easy-to-use L-Series switches are specifically suited for the OEM seeking more features in a snap-acting switch. Single or dual setpoints and fixed or adjustable deadband models with many wetted materials and electrical ratings are offered. This snap-acting switch also replaces older mercury models and is cost effective.

L-Series switches are ideal for blowers, generators, scrubbers, precipitators, compressors and turbines.

**DUAL SETPOINT EXPLOSION
PROOF ENCLOSURES**

P-SERIES


FEATURES
Enclosure:

Watertight epoxy-coated aluminum explosion-proof NEMA 7/9, IP66

Switch Function:

Single setpoint, fixed deadband, SPDT contacts (or)
Single setpoint, fixed deadband (2) SPDT contacts (DPDT action) (or)
Single setpoint, adjustable deadband, SPDT contacts (or)
Dual setpoint, fixed deadband (2) SPDT contacts, (DPDT action)

Wetted Materials:

Stainless steel and Buna, Teflon® or Viton® (or)
All-welded stainless steel (or)
All-welded Monel

Ranges:

Pressure: vac. thru 3000 psi
Temperature: -40°F thru 750°F
Differential Pressure: 30 in.H₂O diff. thru 400 psid

U.L. or CSA LISTED

Dual Seal Rating now available

LOOK FOR THESE MARKS ON OUR PRODUCTS



More varieties and more features are available in the highly reliable P-Series switch which is especially suited for process and refinery applications. Dual chamber design allows setpoint changes to be made safely, even with power connected. Features include NEMA 4X/ NEMA 7/9 enclosure, with single or dual setpoints, fixed or adjustable deadbands, with many wetted materials and electrical ratings. Dual Seal Rating models available. Optional, all-welded stainless steel or Monel actuators are ideal for applications requiring NACE or fire-safe conformance. Optional UL listed, hermetically sealed switch contacts improve safety and reliability.

**WATERTIGHT STAINLESS
STEEL ENCLOSURES**
G-SERIES

FEATURES
Enclosure:

Watertight 316 stainless steel NEMA 4, 4X, IP65

Switch Function:

Single setpoint, fixed deadband, SPDT contacts (or)
Single setpoint, fixed deadband (2) SPDT contacts (DPDT action) (or)
Single setpoint, adjustable deadband, SPDT contacts (or)
Dual setpoint, fixed deadband (2) SPDT contacts (DPDT action)

Wetted Materials:

Stainless steel and Buna, Teflon® or Viton® (or)
All-welded stainless steel (or)
All-welded Monel

Ranges:

Pressure: vac. thru 3000 psi
Temperature: -40°F thru 750°F
Differential Pressure: 30 in.H₂O diff. thru 400 psid

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The stainless steel enclosure offers greater corrosion protection for this high-performance switch in breweries, dairies, chemical and petrochemical plants, offshore rigs and pulp and paper mills. Our standard diaphragm-sealed piston actuators and a variety of wetted materials are available in these pressure, temperature and differential pressure switches.

**COMPACT EXPLOSION
PROOF PRESSURE**
F-SERIES

FEATURES
Enclosure (Body):

Explosion-proof, anodized aluminum NEMA 7/9, IP66

Switch Function:

Single setpoint, field-adjustable fixed deadband, SPDT contacts (or)
Single setpoint, field-adjustable fixed deadband, (2) SPDT contacts (DPDT action)

Wetted Materials:

316 stainless steel pressure connection and choice of:
Buna N, Teflon® or Viton® diaphragm and O-ring (or)
All-welded 316 stainless steel diaphragm

Ranges:

Pressure: vac. thru 4000 psi

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LOOK FOR THESE MARKS ON OUR PRODUCTS



Compact size facilitates mounting in panels and other installations where space is a premium.

Standard hermetically sealed switch element and sealed conduit connection eliminate the possibility of condensation entering the enclosure from the conduit. Standard 1/2 NPTF pressure connection makes retrofit on existing installations quick and easy.

**MINIATURE WATERTIGHT
PRESSURE SWITCHES**
A-SERIES

FEATURES
Enclosure:

NEMA 4X watertight, IP67

Switch Function:

Single setpoint, fixed deadband, factory set SPDT or DPDT contacts, not field adjustable (or)
Single setpoint, fixed deadband, field-adjustable SPDT or DPDT contacts

Wetted Material:

316 stainless steel piston w/Buna N or Viton® or 316 stainless steel welded diaphragm actuator)
Single Switch – SPDT
Dual Switch DPDT (not available with “S” actuator) with <100 psi range

Ranges:

Vac thru 15,000 psi.

U.L. and CSA LISTED
SIL 3 capable

LOOK FOR THESE MARKS ON OUR PRODUCTS



You should consider Ashcroft A-Series pressure switches for use on heavy vehicles, engines and compressors, electronics processing and medical equipment, food and beverage processing equipment, garbage compactors, machine tools, or any equipment where space is a consideration. This series is especially suitable for OEM configuration.

**MINIATURE EXPLOSION
PROOF PRESSURE SWITCHES**
A-SERIES

FEATURES
Enclosure:

NEMA 7/9 explosion proof, IP66

Switch Function:

Single setpoint, fixed deadband, factory set SPDT or DPDT contacts, not field adjustable (or) Single setpoint, fixed deadband, field-adjustable SPDT or DPDT contacts

Wetted Material:

Stainless steel
(Buna N, Viton® or welded diaphragm actuator)
Single Switch – SPDT
Dual Switch DPDT (not available with “S” actuator) with <100 psi range

Ranges:

Vac thru 15,000 psi.

U.L. and CSA LISTED
AM, ATEX, IECE, SIL 3 capable

LOOK FOR THESE MARKS ON OUR PRODUCTS



You should consider Ashcroft A-Series pressure switches for use on heavy vehicles, engines and compressors, electronics processing and medical equipment, food and beverage processing equipment, garbage compactors, machine tools, or any equipment where space is a consideration. This series is especially suitable for OEM configuration.

**ELECTRONIC PRESSURE
SWITCHES**
N-SERIES

FEATURES
Enclosure:

NEMA 4X watertight or NEMA 7/9 explosion proof, IP66

Switch Function:

Single setpoint with adjustable deadband

Wetted Material:

Stainless steel

Ranges:

60 thru 20,000 psi. Deadbands as low as 0.1% of range.

Optional process and setpoint indication and 4-20mA transmitter output now available.

The Ashcroft N-Series electronic pressure switch combines the popular K-Series polysilicon thin film pressure transducer sensor and rugged, epoxy-coated enclosures. The result is a highly reliable pressure switch that is ideal for high cycle, high pressure, or difficult deadband applications.

Typical applications include: machine tools, injection molding machines, presses, pumps, hydraulic systems, turbines, and compressors.

**STANDARD DIFFERENTIAL
PRESSURE SWITCH**


Small size and high overpressure capability make our differential pressure switch ideal for most process and industrial applications. Minimum static working pressures of 500 psi allow use on the most difficult filter applications.

We use a unique combination of diaphragm-sealed piston actuators to get our high static pressure performance in 12 ranges.

For inches of water ranges, we use a large diaphragm for sensitivity which results in lower, more conventional working pressure. Consult the factory for application assistance on differential pressure switch selection.

**ATEX APPROVAL
FOR HAZARDOUS LOCATIONS**


ATEX is a European designation that deals with standards for equipment and protective systems intended for use in potentially explosive atmospheres. This approval is required for switches intended for use in hazardous locations, especially important to OEMs who export to Europe and contractors specifying or purchasing products for European applications.

XCN option adds special features to Ashcroft 700-Series switch enclosures that meet the requirements for the highest levels of security and danger, such as:

- Special locking device requiring an Allen wrench to remove cover
- Special vents that blow out should the diaphragm rupture, thus preventing pressure build-up in the enclosure
- Special conduit plug requiring an Allen wrench for removal
- Available on pressure, temperature and d/p models
- Meets explosion class Ex d IIC T6
- IECEx models available
- Dual Seal Rating models available



LOOK FOR THIS MARK
ON OUR PRODUCTS

**U.L. LISTED STEAM
LIMIT CONTROL**


The Ashcroft steam-limit control switch is designed for use on boilers equipped with electrically operated burners. The limit control is an adjustable pressure-operated switch set to stop burner operation when the recommended safe boiler working pressure is exceeded.

We recommend a stainless steel diaphragm for steam service. A pigtail siphon should also be used to reduce the possibility of high temperature affecting switch performance. This listing is available for setpoints up to 300 psi.



LOOK FOR THIS MARK
ON OUR PRODUCTS

**U.L. LISTED PRESSURE
LIMIT CONTROL**


The Ashcroft medium-pressure gas and oil limit control switch is designed for use with air, LP gas, natural gas, #1 and #2 fuel oil and #6 oil preheated to 240°F. This limit control is an adjustable pressure-operated switch with a secondary chamber to prevent fuel from entering the switch enclosure in the unlikely event that the diaphragm develops a leak. The control shuts down a fuel pump in high or low pressure conditions.



LOOK FOR THIS MARK
ON OUR PRODUCTS

**DDS-SERIES DIFFERENTIAL
PRESSURE SWITCH
DIAPHRAGM SENSING ELEMENT**

FEATURES
Ranges:

0-6 IWD TO 0-150 IWD

Static Pressure Ranges:

250 PSI or 1500 PSI

Rugged:

NEMA 4X & 12 Housing Std.
Class I, Div. I, Gr. C & D Available SPDT or DPDT Contacts

Maximum Ambient Temperature:

180°F

Minimum Ambient Temperature:

-20°F

Pressure Connection:

1/4 NPT Female

Electrical Connection:

3/4 NPT Female

Housing:

Cast Aluminum

Deadband:

Fixed

Sensitivity:

1% of range

Drift:

<1% of range (100,000 operations)

Weight:

Approximately 6 lbs.

Contact Ratings:

15A-125, 250, 480 VAC (general purpose
other micro switches available)

Contact Listings:

UL Listed

Port Material:

Aluminum or Stainless Steel

Diaphragm Material:

Buna N, Viton or Teflon

Setpoint Adjustment:

Screw type, field adjustable



LOOK FOR THIS MARK
ON OUR PRODUCTS

The Ashcroft DDS-Series differential pressure switch is designed to sense low differential pressures between high pressure sources.



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additional products/specifications
and a complete list of our operations,
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www.ashcroft.com

