ASHCROFT®

PRESSURE & TEMPERATURE INSTRUMENT QUICK GUIDE

BULLETIN QG-1

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 or 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.

Ashcroft® Product Quick Guide Page Index

Digital Gauges

Test Instruments

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, electropolished

WETTED MATERIALS
316 stainless steel connection

SOCKET SIZE
¼ NPT JIS, DIN, SAE,
(others on application)

CONNECTION
Lower (6 o'clock)

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

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,″ 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))

CONNECTION
Lower (6 o'clock)

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″) >1000 hrs.
(4½″) >3600 hrs.

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

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

AGENCY APPROVALS
CE, EN 50082-1 (1997), FM, CSA, CENELEC-ATEX 100

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 D1005PS GENERAL PURPOSE DIGITAL GAUGE

*Protective Boot Optional

ACCURACY
±0.5% of span

CASE SIZE
2½″

CASE MATERIAL
Noryl®

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

SOCKET SIZE
¼ NPT

CONNECTION
Lower (6 o'clock)

RANGES
Vac. thru 19,999, including compound

POWER SOURCE
Two AAA alkaline batteries

BATTERY LIFE
1000 hrs.

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

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

AGENCY APPROVALS
CE, EN 61326 (1998)
CE, EN 61326 Annex A (heavy industrial)

This product is an excellent choice for a wide variety of pressure measurement applications. When compared to mechanical gauges the D1005PS offers overall enhanced value.

TYPE 1084 3″ TEST GAUGE

ACCURACY
ASME B 40.1 Grade 2A (±0.5% of span)

DIAL SIZE
3″

CASE MATERIAL
300 series polished stainless steel

MATERIAL
316 stainless steel

SENSING ELEMENT
Bourdon tube

CONNECTION
¼ NPT lower only

RANGES
Vac. to 1000 psi

Ideal for use when a quality analog pocket test gauge is required.

Consult factory for guidance in product selection.
Phone 203-378-8281, visit our web site
www.ashcroft.com or email: info@ashcroft.com.

Test Instruments

1082 4½″, 6″, 8½″ TEST GAUGE

ACCURACY
ASME B 40.1 Grade 3A (±0.25% of span)

DIAL SIZE
4½″, 6″, 8½″

CASE MATERIAL
Aluminum, phenolic, polypropylene

WETTED MATERIAL
Bronze/brass, Monel

SENSING ELEMENT
Bourdon tube

CONNECTION
¼ NPT (standard) and
½ NPT lower or back (optional)

RANGES
Vac. to 10,000 psi

¼% full scale accuracy for test and laboratory applications.

TYPES 2089, 2086, 2084 PRECISION DIGITAL TEST GAUGES

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

CASE SIZE
3″

CASE MATERIAL
300 Series stainless steel, electropolished

WETTED MATERIALS
316 stainless steel connection

SOCKET SIZE
¼ NPT JIS, DIN, SAE
(others on application)

CONNECTION
Lower (6 o'clock), 3 and 9 o'clock

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

Superior accuracy for test and laboratory applications.

TYPE ATE-100 LCD DIGITAL CALIBRATOR

LOOK FOR THIS AGENCY MARK ON OUR PRODUCTS

FM APPROVED

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

PRESSURE RANGES
0/0.25 in.H_2O 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
7.88 in. (L) x 4.24 in. (W) x 3.25 in. (H)

WEIGHT
Max. 2.2 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, 0.037 in. height per line. Can display simultaneous readings from 2 modules

ELECTRICAL CONNECTION
Miniature recessed banana jacks (one set of test leads provided with each ATE-100)

UPDATE RATE
130 ms (nominal) with one sensor installed

RESOLUTION
±0.002% of span, 60,000 count (max)

DAMPING (Measurement Averaging)
Programmable averaging from zero through 16 consecutive readings

SERIAL INTERFACE
Type: RS-232 up to 9600 baud

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.H_2O 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, 0.037 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

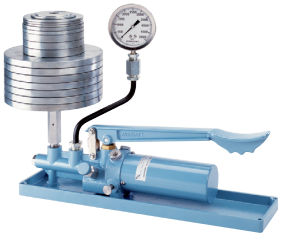
RESOLUTION
±0.002% of span, 60,000 counts (max)

ELECTRICAL MEASUREMENTS
0-50 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.

Test Instruments

TYPE 1305D DEADWEIGHT TESTER



ACCURACY
±0.1% of reading

OPERATING PRESSURE
15 psi to 10,000 psi (100 kPa to 70,000 kPa)

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) (0-70,000 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
±0.25% F.S.

GAUGE TYPE
Ashcroft 4½ inch Type 1082 gauges with temperature compensation

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

SPECIFICATIONS TYPE 1327CM

ACCURACY
±0.1% F.S.

GAUGE TYPE
Ashcroft 6-inch Type A4A with temperature compensation

TEMPERATURE COMPENSATION
–25°F to +125°F (will maintain ±0.1% F.S. accuracy)

Uses either 0.25% or 0.1% "master gauges" 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.H_2O 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, 0.038 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
±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)
2000 / 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

CONSTRUCTION
Aluminum 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.

Test Instruments

Process Gauges

TYPE A4A PRECISION DIAL PRESSURE GAUGE

ACCURACY
±0.10% of span – ASME B40.1, Grade 4A

CASE
Cast aluminum solid front

DIAL SIZE
6″, 8½″, 12″ & 16″

POINTER TRAVEL
350° (15-30,000 psi)
300° (40,000-50,000 psi)
270° (60,000-100,000 psi)

BOURDON TUBE
Bleeder tipped

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

1279 DURAGAUGE® PRESSURE GAUGE

ACCURACY
ASME B 40.1 Grade 2A (±0.5% of span)

DIAL SIZE
4½″

CASE MATERIAL
Phenolic

WETTED MATERIAL
316 stainless steel, bronze/brass, Monel

SENSING ELEMENT
Bourdon tube

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

RANGES
Vacuum, 15 to 30,000 psi, compound

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

1377 DURAGAUGE® PRESSURE GAUGE

ACCURACY
ASME B 40.1 Grade 2A (±0.5% of span)

DIAL SIZE
4½″, 6″, 8½″

CASE MATERIAL
Aluminum

WETTED MATERIAL
316 stainless steel, bronze/brass, Monel

SENSING ELEMENT
Bourdon tube

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

RANGES
Vacuum, 15 to 30,000 psi, compound

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

1379 DURAGAUGE® PRESSURE GAUGE

ACCURACY
ASME B 40.1 Grade 2A (±0.5% of span)

DIAL SIZE
4½″, 6″, 8½″

CASE MATERIAL
Aluminum

WETTED MATERIAL
316 stainless steel, bronze/brass, Monel, Inconel

SENSING ELEMENT
Bourdon tube

CONNECTION
½ NPT (standard) lower or back
¼ NPT (optional)
¼″ HP connection over 30,000 psi

RANGES
Vacuum, 15 to 100,000 psi, compound

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

Process Gauges

2462 DURAGAUGE®™ PRESSURE GAUGE

ACCURACY
ASME B 40.1 Grade 2A (±0.5% of span)

DIAL SIZE
6″

CASE MATERIAL
Polypropylene

WETTED MATERIAL
316 stainless steel, bronze/brass, steel, Monel

SENSING ELEMENT
Bourdon tube

CONNECTION
1/2 NPT (standard) lower or back
1/4 NPT (optional)

RANGES
Vacuum, 15 to 30,000 psi, compound

Usage requiring 1/2% full scale accuracy in chemical, petrochemical, refinery, oil production, other process, power and`general industry.

1259 PROCESS PRESSURE GAUGE

ACCURACY
ASME B 40.1 Grade 2A (±0.5% of span)

DIAL SIZE
4 1/2″

CASE MATERIAL
Polypropylene

WETTED MATERIAL
316 stainless steel, Monel

SENSING ELEMENT
Bourdon tube

CONNECTION
1/2 NPT (standard) lower
1/4 NPT (optional)

RANGES
Vacuum, 15 to 20,000 psi, compound

Usage requiring 1/2% full scale accuracy in chemical, petrochemical, refinery, oil production, other process, power and`general industry.

2279 DURATRAN® PRESSURE TRANSMITTER

ACCURACY
±0.5%

DIAL SIZE
4 1/2″ analog

CASE MATERIAL
Phenolic

WETTED MATERIAL
316 stainless steel, Monel

SENSING ELEMENT
Bourdon tube

CONNECTION – NPT
1/2 NPT (standard) lower

RANGES
Vacuum and compound, 12 to 20,000 psi

ELECTRONIC OUTPUT
- ±.5%Accuracy
- 4-20mA
- FM Class I, Div. 2
- Zero/Span adjust

Two instruments in one! Provides local indication and 4-20mA signal for many industrial applications.

Stainless Steel Case & Industrial Gauges

1008S 40 & 50 mm PRESSURE GAUGE

ACCURACY
ASME B 40.1 Grade B (±3-2-3% of span)

DIAL SIZE
40mm, 50mm

CASE MATERIAL
Stainless steel

WETTED MATERIAL
316 stainless steel

SENSING ELEMENT
Bourdon tube

CONNECTION
1/8 NPT lower or back
1/4 NPT lower or back

RANGES
Vac. to 15,000 psi

Applications include industrial compressors, valve indicarors, firefighting equipment, measurement/control, metal working and hydraulic equipment. Especially suited for pneumatic controllers and transmitters.

1008S 63 & 100mm PRESSURE GAUGE

ACCURACY
ASME B 40.1 Grade B (±3-2-3% of span)

DIAL SIZE
63mm, 100mm

CASE MATERIAL
Stainless steel

WETTED MATERIAL
316L stainless steel

SENSING ELEMENT
Bourdon tube

CONNECTION
1/8 NPT lower or back
1/4 NPT lower or back
1/2 NPT lower (100mm)
JIS, DIN, BSP

RANGES
Vac. to 15,000 psi

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

1009 2½″ & 3½″ DURALIFE® PRESSURE GAUGE

ACCURACY
ASME B 40.1 Grade 1A (±1% of span)

DIAL SIZE
2½″, 3½″

CASE MATERIAL
Stainless steel

WETTED MATERIAL
316L Stainless steel

SENSING ELEMENT
Bourdon tube

CONNECTION
1/8 NPT lower or back
1/4 NPT lower or back
1/2 NPT lower (3½″)
JIS, DIN, BSP

RANGES
Vac. to 15,000 psi

For use on fluid power equipment in oil and gas production, construction, mining, machine tools, logging, pulp and paper, general industrial applications.

X1009 2½″ & 3½″ XMITR™ TRANSMITTER GAUGE

ACCURACY
Electrical output is 1% BFSL including non-linearity, hysteresis and non-repeatability. Gauge is ASME B40.1 Grade 1A 1%

DIAL SIZE
2½″, 3½″

CASE MATERIAL/INGRESS PROTECTION
Stainless steel
IP50 (std.), IP65(XJL)

WETTED MATERIAL
316L stainless steel

SENSING ELEMENT
Bourdon tube with patented transducer technology

CONNECTION
1/8 and 1/4 NPT, G 1/4 lower

RANGES
Compound to 15,000 psi

2 Instruments in 1. Breakthrough func-tionality and value. Stainess steel case, 4-20mA and voltage outputs, cable or Hirschmann conn. CE heavy industrial. Per EN61326, 1998 ANNEX A

Stainless Steel Case & Industrial Gauges

1009 4½″ & 6″ STAINLESS STEEL CASE

IN A RUSH? ASK FOR ASHCROFT GOLD SERVICE

PLUS! Performance

ACCURACY
ASME B 40.1 Grade 1A (±1% of span)

DIAL SIZE
4½″, 6″

CASE MATERIAL
Stainless Steel

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

Stainless steel case Type 1009 applications include boilers, compressors, water blasting equipment, pharmaceutical and food processing equipment.

1109 4½″ GENERAL SERVICE GAUGE

PLUS! Performance

ACCURACY
ASME B 40.1 Grade 1A (±1% of span)

DIAL SIZE
4½″

CASE MATERIAL
Stainless Steel

TUBE MATERIAL
SD – 316 stainless steel
WD – Inconel

SENSING ELEMENT
Bourdon tube

CONNECTION
SD – ½ NPT lower, ¼ NPT lower (optional)
WD – ¼ NPT lower high pressure

RANGES
SD – Vac. to 1500 psi / 2000-20,000 psi
WD – 50,000-100,000 psi

Stainless steel case Type 1109 applications include water jet or water blasting equipment, offshore platform, etc.

1009, 1010, 1017, 1220 HYDRAULIC GAUGES

IN A RUSH? ASK FOR ASHCROFT GOLD SERVICE

PLUS! Performance

1010 GAUGE SHOWN

ACCURACY
ASME B 40.1 Grade 1A (±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

IN A RUSH? ASK FOR ASHCROFT GOLD SERVICE

1220 GAUGE SHOWN

ACCURACY
ASME B 40.1 Grade 1A (±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 or square root readings.

Consult factory for guidance in product selection. Phone 203-378-8281, visit our web site www.ashcroft.com or email: info@ashcroft.com.

Stainless Steel Case & Industrial Gauges

1009, 1010, 1017, 1220 REFRIGERATION GAUGE

1010 GAUGE SHOWN

ACCURACY
ASME B 40.1 Grade 1A (±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 40.1 Grade 1A (±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 40.1 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.

1220 4½˝, 6˝, 8½˝ GENERAL SERVICE GAUGE

ACCURACY
ASME B 40.1 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.

Stainless Steel Case & Industrial Gauges

Differential Gauges

1020S 4½″ XMAS TREE GAUGE

ACCURACY
ASME B 40.1 Grade 1A (±1% of span)

DIAL SIZE
4½″

CASE MATERIAL
Stainless steel

TUBE MATERIAL
316 stainless steel

SENSING ELEMENT
Bourdon tube

CONNECTION
Lower

RANGES
1000/20,000 psi – ½ NPT, ¼ NPT

Uniquely designed to meet rugged oil field applications.

1038, 1339 3½,″ 4½″ DUPLEX GAUGE

1038 GAUGE SHOWN

ACCURACY
ASME B 40.1 Grade A (±2-1-2% of span)

DIAL SIZE
3½,″ 4½″

CASE MATERIAL
Aluminum, cast iron

TUBE MATERIAL
Bronze

SENSING ELEMENT
Bourdon tube

CONNECTION
Lower/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 40.1 Grade A (±2-1-2% of span)

DIAL SIZE
4½,″ 6″

CASE MATERIAL
Aluminum

TUBE MATERIAL
Bronze

SENSING ELEMENT
Bourdon tube

CONNECTION
Lower/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

Application include fills, monitors, flow, leak and level measurements.

1127, 1128 4½,″ 6″ DIFFERENTIAL GAUGES

ACCURACY
ASME B 40.1 Grade A (±2-1-2% of span)

DIAL SIZE
4½,″ 6″

CASE MATERIAL
Aluminum

TUBE MATERIAL
316 stainless steel

SENSING ELEMENT
Bourdon tube

CONNECTION
Lower

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

Application include fills, monitors, flow, leak and level measurements.

Differential Gauges

1130 2˝, 2½˝, 3½˝, 4, 4½˝, 6 DIFFERENTIAL GAUGE

EXPLOSION PROOF SWITCHES AVAILABLE

ACCURACY
±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

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

1131 2˝, 2½˝, 3½˝, 4, 4½˝, 6 DIFFERENTIAL GAUGE

EXPLOSION PROOF SWITCHES AVAILABLE

ACCURACY
±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

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

1132 2½˝, 3½˝, 4, 4½˝, 6 DIFFERENTIAL GAUGE

EXPLOSION PROOF SWITCHES AVAILABLE

ACCURACY
±2% ascending

DIAL SIZE
2½˝, 3½˝, 4˝, 4½˝, 6˝

CASE MATERIAL
Stainless steel

BODY MATERIAL
Aluminum, brass, stainless steel

SENSING ELEMENT
Convoluted diaphragm

CONNECTION
In-line, lower, back

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

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

1133 3½˝, 4, 4½˝, 6 DIFFERENTIAL GAUGES

ACCURACY
±2% ascending

DIAL SIZE
3½˝, 4˝, 4½˝, 6˝

CASE MATERIAL
Stainless steel

BODY MATERIAL
Aluminum, stainless steel

SENSING ELEMENT
Convoluted 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.

Differential Gauges

Stainless Steel Case & Industrial Gauges

1134 4½″ DIFFERENTIAL GAUGE

ACCURACY
±2% ascending

DIAL SIZE
4½″

CASE MATERIAL
Stainless steel

BODY MATERIAL
Glass filled nylon

SENSING ELEMENT
Convoluted 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
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
Lower

RANGES
0-10 IWD to 400 psid

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

1150H 4½″ REID VAPOR GAUGE

ACCURACY
ASME B 40.1 Grade 2A (±0.5% of span)

DIAL SIZE
4½″

CASE MATERIAL
Aluminum

TUBE MATERIAL
316 stainless steel

SENSING ELEMENT
Bourdon tube

CONNECTION
¼ NPT lower

RANGES
15/600 psi

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

Stainless Steel Case & Industrial Gauges

1122 2½″ GAUGE

ACCURACY
ASME B 40.1 Grade A (±2-1-2% of span)

DIAL SIZE
2½″

CASE MATERIAL
Stainless steel

TUBE MATERIAL
Stainless steel

SENSING ELEMENT
Bourdon tube

CONNECTION
¼ NPT lower

RANGES
15/1000 psi

Applications include compressors, pumps and turbines.

1187, 1188, 1189 LP BELLOWS GAUGES

1188 GAUGE SHOWN

ACCURACY
ASME B 40.1 Grade A (±2-1-2% of span)

DIAL SIZE
1187[1] – 4½″
1188 – 4½″
1189[2] – 4½,″ 6″

CASE MATERIAL
Aluminum, phenolic

TUBE MATERIAL
Brass, 316 stainless steel, Monel

SENSING ELEMENT
Bellows

CONNECTION
1187 – ¼, ½ NPT back
1188 – ¼, ½ NPT lower or back
1189 – ¼, ½ NPT lower

RANGES
10 in.H_2O to 10 psi including vacuum and compound

[1] Back connect only
[2] Lower connect only

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

1490 2½,″ 3½″ LP DIAPHRAGM GAUGE

ACCURACY
ASME B 40.1 Grade A (±2-1-2% of span)

DIAL SIZE
2½,″ 3½″

CASE MATERIAL
Polysulfone

WETTED MATERIAL
Copper, Brass, Polysulfone, RTV, Silicone

SENSING ELEMENT
Diaphragm

CONNECTION
⅛ NPT lower or back
¼ NPT lower or back
Hose barb

RANGES
0/10 in.H_2O to 0/15 psi including vacuum and compound

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

1495 2½,″ 3½″ LP RECEIVER GAUGE

ACCURACY
ASME B 40.1 Grade A (±2-1-2% of span)

DIAL SIZE
2½,″ 3½″

CASE MATERIAL
Polysulfone

WETTED MATERIAL
Copper, Brass, Polysulfone, RTV, Silicone

SENSING ELEMENT
Diaphragm

CONNECTION
⅛ NPT lower or back
¼ NPT lower or 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 printout or square root readings.

Digital Industrial Gauges

Sanitary Gauges

TYPES 2074, 2174, 2274 INDUSTRIAL DIGITAL GAUGE

ACCURACY:
±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), 3, 9 and 12 o'clock

RANGES
Vac.,15 to 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″) >1000 hrs.
(4½″) >3600 hrs.

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

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

AGENCY APPROVALS
CE, EN 50082-1 (1997), FM, CSA,
CENELEC-ATEX 100

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 instrument T's, when switches and/or 40-20mA output is a requirement.

X1032 XMITR™ SANITARY TRANSMITTER GAUGE

ACCURACY
Electrical output is 1% BFSL including non-linearity, hysteresis and non-repeatability. Gauge is ASME B40.1. 1.5% F.S. 100 psi and above, 2% below 100 psi

DIAL SIZE
2½″, 3½″

CASE MATERIAL/INGRESS PROTECTION
Stainless steel, IP50 (std.). Option IP65 (XLJ)

WETTED PARTS
Electro polished 12 to 20 RA surface finish
316L stainless steel

SENSING ELEMENT
Bourdon tube with patented transducer technology

MOUNTING CONNECTION
Lower (1½″ and 2″ Tri-Clover)

RANGES
Compound to 1000 psi

Clean-in-place	(CIP)
Steam-in-place	(SIP)
3A sanitary standard	(3A)

Sanitary pharmaceutical, biotech or food applications requiring Tri-Clover 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″

CASE & RING MATERIAL
300 series stainless steel

TUBE & SOCKET MATERIAL
316 stainless steel

WETTED PARTS
Electropolished 12 to 20RA surface finish (stainless steel)

MOUNTING CONNECTION
Lower (¾″ Tri-Clover)

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 a compact ¾ Tri-Clover fitting with highly polished stainless steel surfaces.

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 (stainless steel)

MOUNTING CONNECTION
Lower, back (1½″ or 2″ Tri-Clover)

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-Clover type fittings and highly polished stainless steel surfaces.

Sanitary Gauges

Commercial Gauges

TYPE 1036 SANITARY GAUGE with TYPE 1037 SANITARY INSTRUMENT FITTING

PLUS! Performance

Clamp not provided. User installed.

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 (stainless steel)

MOUNTING CONNECTION
Lower, back (1½″ Tri-Clover)

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
(1½″ thru 2″ Tri-Clover)

HEAT NUMBER
Stamped on fitting

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

TYPE D1005PS GENERAL PURPOSE DIGITAL GAUGE

*Protective Boot Optional

ACCURACY
±0.5% of span

CASE SIZE
2½″

CASE MATERIAL
Noryl®

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

SOCKET SIZE
¼ NPT

CONNECTION
Lower (6 o'clock), 3, 9 and 12 o'clock

RANGES
Vac. thru 19,999, including compound

POWER SOURCE
Two AAA alkaline batteries

BATTERY LIFE
1000 hrs.

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

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

AGENCY APPROVALS
CE, EN 61326 (1998)
CE, EN 61326 Annex A (heavy industrial)

This product is an excellent choice for a wide variety of pressure measurement applications. When compared to mechanical gauges the D1005PS offers overall enhanced value.

TYPE X1005, TYPE X2001 XMITR™ TRANSMITTER GAUGE

LOOK FOR THESE AGENCY MARKS ON OUR PRODUCTS

ACCURACY
Electrical output is 1% BFSL including non-linearity, hysteresis and non-repeatability. Gauge is ASME B40.100 Grade B (±3-2-3% of span)

DIAL SIZE
Type X1005 2″
Type X2001 2½″, 3½″

CASE MATERIAL/INGRESS PROTECTION
Stainless steel
Type 1005, IP54
Type 2001, IP43 standard, IP54 (XLJ)

WETTED MATERIAL
Bronze/brass

SENSING ELEMENT
Bourdon tube with patented transducer technology

CONNECTION
⅛ and ¼ NPT, G ¼ lower

RANGES
Compound to 600 psi

2 Instruments in 1. Breakthrough functionality and value. Stainless steel case, 4-20mA and voltage outputs, cable or Hirschmann conn. CE heavy industrial. Per EN61326, 1998 ANNEX A

TYPE 1005P/1005/1005S

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

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

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 Power*Flex*™ movement

CONNECTION
⅛ and ¼ NPT back and lower. (1½″ available in ⅛ NPT lower and back only; 4½″ Type 1000 available in ¼ NPT lower 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.

Commercial Gauges

TYPE 1001T PANEL GAUGE

ACCURACY
ASME B 40.100 Grade B (±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 Power*Flex*™ movement

CONNECTION
⅛ 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 (±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 Power*Flex*™ 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 3005/3005P HYDRAULIC GAUGE

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

DIAL SIZE
63mm (2½˝)

CASE MATERIAL
3005 – 304 stainless steel, dry, liquid filled or field fillable
3005P – Black ABS dry or glycerine filled

WETTED MATERIAL
Bronze/brass

SENSING ELEMENT
Bourdon tube; Ashcroft patented Power*Flex*™ movement

CONNECTION
3005 – ¼ NPT lower and back
3005P – ¼ NPT lower
Optional, metric and SAE connection

RANGES
Vac.-15,000 psi and compound

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

TYPE 1005M, XRG AGRICULTURAL AMMONIA

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

DIAL SIZE
2½˝

CASE MATERIAL
Black painted steel
Optional, stainless clad aluminum (Type 1005SM)

WETTED MATERIAL
316 stainless steel/steel

SENSING ELEMENT
Bourdon tube; Ashcroft patented Power*Flex*™ 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.

Commercial Gauges

TYPE 1005M, XR5 REFRIGERANT AMMONIA

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

DIAL SIZE
2½˝, 3½˝

CASE MATERIAL
Black painted steel
Optional, ABS (Type 1005PM); stainless clad aluminum (Type 1005SM)

WETTED MATERIAL
316 stainless steel/steel

SENSING ELEMENT
Bourdon tube; Ashcroft patented Power*Flex*™ movement

CONNECTION
¼ NPT lower

RANGES
30 in.Hg Vac/0/150 psi,
30 in.Hg Vac/0/300 psi
with equivalent ammonia temperature scales

This product was designed to meet the requirements of refrigerant ammonia applications. Features include enhanced leak integrity plus dual scale (psi/temp) dial necessary for these 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 Power*Flex*™ movement

CONNECTION
¼ NPT lower

RANGES
0-300 psi (water), 0-80 psi retard to 250 psi (air)

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

DIAL SIZE
2½˝

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

WETTED MATERIAL
Bronze/brass

SENSING ELEMENT
Bourdon tube; Ashcroft patented Power*Flex*™ movement with Flutter Guard™

CONNECTION
⅛ NPT lower

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

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

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 Power*Flex*™ 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.

Commercial Gauges

TYPE 40DDG/50DDG DIRECT DRIVE GAUGE

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

DIAL SIZE
40mm (1½˝) or 50mm (2˝)

CASE MATERIAL
ABS polycarbonate blend, black

WETTED MATERIAL
Beryllium copper coil, silicone dampened
Integral ABS polycarbonate blend socket
Optional, ⅛ NPT or ¼ NPT brass, throttle plug

SENSING ELEMENT
Spiral wound Bourdon tube

CONNECTION
40mm – ⅛ NPT back
50mm – ⅛ NPT or ¼ NPT back

RANGES
0-60 psi (180° arc);
0-100 psi, 0-160 psi, 0-200 psi, 0-300 psi, 0-400 psi (235° arc)
For optimum gauge life, select a gauge with a full scale pressure range of approximately twice the maximum excursion pressure

Consult factory for high cycle life applications

Typical applications include filter regulator lubricators, portable compressors, air tanks, industrial machinery and a variety of other applications. Excellent shock resistance.

TYPE 23DDG MINIGAUGE® PRESSURE GAUGE

ACCURACY
±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
⅛ NPT back with 15mm (9/16˝) wrench flats.
Optional, throttle plugs, PT ⅛˝ (JIS) and R ⅛˝ (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: ±2% at setpoint
(setpoint is normally 50% of range)
UL listed: ±3.5% of span of middle three-fifths of scale

DIAL SIZE
1¼˝, 1½˝

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
⅛ NPT back, safety plug in 1500 psi-4000 psi ranges. *Optional, ¼ 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.

TYPE MFX FIRE EXTINGUISHER GAUGE

ACCURACY
Conforms to applicable UL specs*

DIAL SIZE
1¼˝, 1½˝

CASE MATERIAL
Stainless steel, sealed

WETTED MATERIAL
Beryllium copper/brass

SENSING ELEMENT
Spiral wound Bourdon tube
Optional, silicone-filled tube
Spiral tube, beryllium copper

CONNECTION
⅛ NPT back
Optional, special socket configurations

RANGES
Maximum scale pressure from 200 psi to 1200 psi

*UL 299
UL 626
UL 1058
UL 1093

These products are designed for use on portable fire extinguishers and systems.

Diaphragm Seals/ Instrument Isolators

Specification Matrix

Ashcroft Diaphragm Seals & Pressure Instrument Isolators

● = AVAILABLE





Process Connection Type			Threaded	Threaded w/Flushing Connection	Raised Face Flange	Raised Face Flange w/Flushing Connection	In-line Threaded
Model No.	Code		100/200/300[1]	101/201/301[1]	102/202/302[1]	103/203/303[1]	104/204/304[1]
Process Connection Size (NPT)	Female	Male					
¼	25	02	•	•			•
½	50	04	•	•	•	•	•
¾	75	06	•	•	•	•	•
1	10	08	•	•	•	•	
1½	15				•	•	
2	20				•	•	
3	30				•	•	
4	40						
6	60						
8	80						
Diaphragm Materials							
316L stainless steel	S		100 & 200	101 & 201	102 & 202	103 & 203	104 & 204
304L stainless steel	C		100 & 200	101 & 201	102 & 202	103 & 203	104 & 204
Monel 400	P		100 & 200	101 & 201	102 & 202	103 & 203	104 & 204
Nickel	N		100 & 200	101 & 201	102 & 202	103 & 203	104 & 204
Carpenter 20	D		100 & 200	101 & 201	102 & 202	103 & 203	104 & 204
Tantalum	U		100 & 200	101 & 201	102 & 202	103 & 203	104 & 204
Hastelloy B	G		100 & 200	101 & 201	102 & 202	103 & 203	104 & 204
Hastelloy C 22	J		100 & 200	101 & 201	102 & 202	103 & 203	104 & 204
Hastelloy C 276	H		100 & 200	101 & 201	102 & 202	103 & 203	104 & 204
Teflon	T		200 & 300	201 & 301	202	203	204 & 304
Viton	Y		200 & 300	201 & 301	202	203	204 & 304
Kalrez	K		200 & 300	201 & 301	302	303	304
Titanium	TI		200	201	202	203	204
Halar Coated Monel	PH		100	101	102	103	104
Bottom Housing Materials							
Steel	B		•	•	•	•	•
304L stainless steel	CL		•	•	•	•	•
316L stainless steel	SL		•	•	•	•	•
Hastelloy B	G		•	•	•	•	•
Hastelloy C 22	J		•	•	•	•	•
Hastelloy C 276	H		•	•	•	•	•
Carpenter 20	D		•	•	•	•	•
Monel 400	M		•	•	•	•	•
Inconel 600	W		•	•	•	•	•
Nickel	N		•	•	•	•	•
PVC	V		(Socket Weld or ¼-½ NPT)		1, 1½		
Tantalum Clad SS	SU				•		
Halar® Coated Monel	SH				•		
Teflon	T				1, 1½, 2		
Kynar	KY		Only¼ or ½ NPT		1, 1½, 2		
Titanium	TI		•	•	•	•	•
Pressure Ratings							
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.
5000 psi	HP		100 & 200 metal				
7500 psi							
15000 psi	HP						
Flange Class							
150, 300, 600, 900 or 1500					Kalrez, Teflon, Viton, Kynar 150 only	Kalrez, Teflon, Viton, Kynar 150 only	
Instrument Connection Size							
¼	02T		•	•	•	•	•
½	04T		•	•	•	•	•
Filling Fluid							
Glycerin	CG		•	•	•	•	•
Silicone (direct to 10´ capillary)	CK		•	•	•	•	•
Silicone (over 10´ capillary)	EJ		•	•	•	•	•
Halocarbon	CF		•	•	•	•	•
Syltherm	HA		•	•	•	•	•

[1] Type 300 series not available with metallic diaphragms

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ASHCROFT®

Diaphragm Seals/ Instrument Isolators

Specification Matrix

Ashcroft Diaphragm Seals & Pressure Instrument Isolators

● = AVAILABLE





Process Connection Type			Saddle	In-line Flanged	In-line Socket Weld	In-line Butt Weld	Male/Female Threaded Mini (*Flushing Conn.)	
Model No.	Code		105/205	106/206	107/207	108	310/315*	
Process Connection Size (NPT)	**Female**	**Male**					**Female**	**Male**
¼	25	02			•	•	•	•
½	50	04		•	•	•	•	•
¾	75	06		•	•	•		•
1	10	08		•	•	•		•
1½	15			•	•	•		
2	20			•	•	•		
3	30		3″	•				
4	40		4″ and larger					
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		205	206	207	208		
Viton	Y		205	206	207	208		
Kalrez	K		205	206	207	208		
Titanium	TI		205	206	207	208		
Halar Coated Monel	PH		105	106	107	108		
Bottom Housing Materials								
Steel	B		•	•	•	•		
304L stainless steel	CL		•	•	•	•		
316L stainless steel	SL		•	•	•	•	•	
Hastelloy B	G		•	•	•	•		
Hastelloy C 22	J		•	•	•	•		
Hastelloy C 276	H		•	•	•	•	•	
Carpenter 20	D		•	•	•	•		
Monel 400	M		•	•	•	•	•	
Inconel 600	W		•	•	•	•		
Nickel	N		•	•	•	•		
PVC	V							
Tantalum Clad SS	SU							
Halar® Coated Monel	SH							
Teflon	T							
Kynar	KY							
Titanium	TI		•		•	•		
Pressure Ratings								
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.			
5000 psi	HP							
7500 psi								
15000 psi	HP							
Flange Class								
150, 300, 600, 900 or 1500				150 & 300				
Instrument Connection Size								
¼	02T		•	•	•	•	•	
½	04T		•	•	•	•	•	
Filling Fluid								
Glycerin	CG		•	•	•	•	•	
Silicone (direct to 10´ capillary)	CK		•	•	•	•	•	
Silicone (over 10´ capillary)	EJ		•	•	•	•	•	
Halocarbon	CF		•	•	•	•	•	
Sylthern	HA		•	•	•	•	•	

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Diaphragm Seals/ Instrument Isolators

Specification Matrix

Ashcroft Diaphragm Seals & Pressure Instrument Isolators

● = AVAILABLE





Process Connection Type			Female & Male Threaded		Female Threaded (w/Flushing Conn.)	Quick Connect	1˝ Male Flush Mini	Threaded (*Flushing Conn.)
Model No.	Code		311		312	320/321	330	400/401*
Process Connection Size (NPT)	Female	Male	Female	Male				
¼	25	02	•	•	•	•		•
½	50	04	•	•	•	•		•
¾	75	06		•	•			•
1	10	08		•	•		•	•
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	PH							
Bottom Housing Materials								
Steel	B							
304L stainless steel	CL							
316L stainless steel	SL		•		•	•	•	•
Hastelloy B	G							
Hastelloy C 22	J							•
Hastelloy C 276	H		•		•			•
Carpenter 20	D							
Monel 400	M							•
Inconel 600	W							
Nickel	N							
PVC	V							
Tantalum Clad SS	SU							
Halar® Coated Monel	SH							
Teflon	T							
Kynar	KY							
Titanium	TI							
Pressure Ratings								
500 psi								
2500 psi			1000		1000	•		
5000 psi	HP							
7500 psi								4400
15000 psi	HP							9000
Flange Class								
150, 300, 600, 900 or 1500								
Instrument Connection Size								
¼	02T		•		•	•	•	•
½	04T		•		•	2˝ only	•	•
Filling Fluid								
Glycerin	CG		•		•	•	•	•
Silicone (direct to 10´ capillary)	CK		•		•	•	•	•
Silicone (over 10´ capillary)	EJ		•		•	•	•	•
Halocarbon	CF		•		•	•	•	•
Syltherm	HA		•		•	•	•	•

Diaphragm Seals/ Instrument Isolators

Specification Matrix

Ashcroft Diaphragm Seals & Pressure Instrument Isolators

● = AVAILABLE





Process Connection Type			Raised Face Flange (*Flushing Conn.)	Threaded (*Flushing Conn.)	Low Pressure Flanged (*w/Flushing Conn.)	Low Pressure Threaded (*w/Flushing Conn.)	Isolation Ring	
Model No.	Code		402/403*	500/501*	702/703*	740/741*	80/81/85/86	
Process Connection Size (NPT)	**Female**	**Male**					**Pipe Size**	
¼	25	02				•	1.0″	14.0″
½	50	04	•	•	•	•	1.5″	16.0″
¾	75	06	•	•	•	•	2.0″	18.0″
1	10	08	•	•	•	•	3.0″	20.0″
1½	15	•		•			4.0″	
2	20	•		•			5.0″	
3	30	•		•			6.0″	
4	40						8.0″	
6	60						10.0″	
8	80						12.0″	
Diaphragm Materials							**Liner Materials / Code**	
316L stainless steel	S		•	•	•	•	Buna N (E)	
304L stainless steel	C						Teflon (T)	
Monel 400	P		•	•	•	•	Viton (Y)	
Nickel	N						Nordell EPDM (EP)	
Carpenter 20	D						White Neoprene (CR)	
Tantalum	U		•	•	•	•	Natural Rubber (NP)	
Hastelloy B	G			•	•	•		
Hastelloy C 22	J		•	•				
Hastelloy C 276	H		•	•	•	•		
Teflon	T							
Viton	Y							
Kalrez	K							
Titanium	TI			•	•	•		
Halar Coated Monel	PH							
Bottom Housing Materials							**Ass'y Flanges / Code**	
Steel	B			•		•	Carbon Steel (B)	
304L stainless steel	CL						316 SS (S)	
316L stainless steel	SL		•	•	•	•	CPVC (CP)	
Hastelloy B	G				•	•	Teflon Enveloped (CT)	
Hastelloy C 22	J		•	•			Polypropylene (PP)	
Hastelloy C 276	H		•	•	•	•		
Carpenter 20	D				•	•		
Monel 400	M		•	•	•	•		
Inconel 600	W							
Nickel	N							
PVC	V							
Tantalum Clad SS	SU							
Halar® Coated Monel	SH							
Teflon	T							
Kynar	KY							
Titanium	TI			•	•	•		
Pressure Ratings							**Instrument Conn / Code**	
500 psi				•	750	750	1/4 NPT (02T)	
2500 psi							1/2 NPT (0 4T)	
5000 psi	HP							
7500 psi								
15000 psi	HP							
Flange Class								
150, 300, 600, 900 or 1500			•		150-600			
Instrument Connection Size								
¼	02T		•	•	•	•		
½	04T		•	•	•	•		
Filling Fluid								
Glycerin	CG		•	•	•	•	•	
Silicone (direct to 10´ capillary)	CK		•	•	•	•	•	
Silicone (over 10´ capillary)	EJ		•	•	•	•	•	
Halocarbon	CF		•	•	•	•	•	
Syltherm	HA		•	•	•	•	•	

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Quick Guide Transducers & Transmitters

TYPE GC51 RANGEABLE PRESSURE TRANSMITTER

REFERENCE CONDITION: 23°C ±2° (73°F)

ACCURACY: ±0.25% FS (URL)
(Accuracy includes the effects of linearity, hysteresis, and repeatability)
Stability: ±0.25% FS/year
Response Time: 30msec (user adjustable)
Output Resolution: 0.1% FS (URL)
Zero Offset: ⩽ ±0.1% FS/year
Standard Ranges (Compound):
–15 to 15psi, –15 to 30psi, –15 to 50psi
Standard Ranges (Gauge):
0-50psi, 100psi, 150psi, 300psi, 500psi, 1000psi, 1500psi, 3000psi, 5000psi, 7500psi

Temperature Limits:
Storage: –20 to 70°C (–4 to 158°F)
Operating: –10 to 60°C (14 to 140°F)
Compensated: –10 to 60°C (14 to 140°F)
Temperature Effects (–10 to 60°C):
±0.02% FS (URL)/°C from 23°C reference

Overpressure (F.S.):	**Proof**	**Burst**
1500psi and below	200%	500%
3000, 5000psi	150%	300%
7500psi	120%	150%

Vibration: 5g's 150Hz
Shock: 10g's 16ms

Output Signal: 4-20mA (2 Wire)
Supply Voltage: 12-32Vdc
Rangeablility / Adjustment(1):
Zero –10% to +110% FS
Span –10% to +110% FS
(1) Accuracy and output resolution based upon full scale (URL) value
Insulation Resistance: 50Vdc (>100Mohms)
CE Compliance: EN 613261 1997, A1/1998, A2/2001 (Heavy Industrial)

Pressure Connection: ¼ Female NPT
Enclosure: Aluminum
Rating: IP65 / NEMA 4X
Electrical Connection (Options):
– ½ Female NPT Conduit
– Cable Gland (Cable Diameters 0.35˝ to 0.47˝)
Weight: Approx. 1.0 lb
Mounting: Mounting Bracket included
Media: Fluids and gases compatible with 316SS and pH17-4 stainless steel

TYPE GC55 WET/WET DIFFERENTIAL PRESSURE TRANSDUCER

ACCURACY: ± 0.5% FS
(Accuracy includes the effects of linearity, hysteresis and repeatability)
Analog Output (4-20mA or 1-5Vdc):
Response Time: 20msec
Output Resolution: 0.2% FS
Stability: ±0.5%/yr
Pressure Switch Output:
Type: TTL/CMOS up to 40Vdc/200mA
Setting Accuracy: ± 1.0% FS
Number of Contacts: 2
Response Time: 20msec-2.0sec (by user)
Hysteresis: Variable (by user)
Display:
Type: 3½ digits
Accuracy: ± 1.0% FS
Standard Ranges (Differential):

75psi	
100psi	250psi
150psi	300psi

Temperature Limits:
Storage: –20 to 60°C (–4 to 140°F)
Operating: –10 to 50°C (14 to 122°F)
Compensated: –10 to 50°C (14 to 122°F)
Temperature Effects:
Zero/Span: ±0.05%FS/°C (from 23°C reference temperature)

Static (Line) Pressure:

Pressure Range	**Proof**	**Burst**
All	2X FS (URL)	10X FS (URL)

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

Pressure Range	**Proof**	**Burst**
All	2X FS (URL)	10X FS (URL)

Transducer Output Signal	**Supply Voltage**	**Supply Current**
4-20mA (3 wire)	15-27 Vdc	80mA
1-5Vdc (3 wire)	11-27 Vdc	60mA

Switch Contacts: (2) TTL/CMOS relay outputs; Load 200mA (max), 40Vdc; Hysteresis (variable)
Rangeablility / Adjustment(1):
Zero –105% to +105% FS
Span –105% to +105% FS
(1) Accuracy based upon full scale (URL) value

Pressure Connection: ⅛˝ Female NPT (2)
Enclosure: Aluminum
Rating: IP64
Electrical Connection:
External Options:
– ½˝ Female NPT Conduit
– Cable Gland (Cable Diameters 0.16˝ to 0.31˝)
Weight: Approx. 1.0 lb
Mounting: (2) 5.2mm mounting holes (see installation drawings)
Media: Fluids and gases compatible with 304SS (sensor housing) and 17-4 pH SS (sensor diaphragm)

TYPE X1005, TYPE X2001 XMITR™ TRANSMITTER GAUGE

REFERENCE CONDITION: 20°C (68°F)

ACCURACY: Electrical output is 1% BFSL including non-linearity, hysteresis and non-repeatability.
Gauge is ASME B 40.1 Grade B
(±3-2-3% of span)

TEMPERATURE/ENVIRONMENTAL EFFECTS::
Storage: –40 to 105°C (–40 to 221°F)
Operating: –40 to 105°C (–40 to 221°F)
Compensated: –20 to 85°C (–4 to 185°F)
Thermal effect: 3%/100°C (1.4%/100°F) typical (zero and fullscale combined)
Humidity: 0 to 95% relative humidity, non-condensing, no effect.
CE Heavy Industrial

WETTED MATERIALS: Bronze/brass or SS

OUTPUT 4-20mA, 1-5Vdc,
.5-4.5Vdc ratio-metric

INGRESS PROTECTION/ENCLOSURE:
Stainless steel case (2˝, 2.5˝, 3.5˝)
Type X1005, IP54
Type X2001, IP43 std, IP54 (XLJ)

FUNCTIONAL SPECIFICATIONS:
Type X1005 compound to 600 psi.
Type X2001 compound to 600 psi.
Proof Pressure:
0 to 200 psi = 150% full scale
300 to 600 psi = 120%
Burst Pressure:
0 to 200 psi = 10x burst
300 to 600 psi = 3x burst
Vibration: 5g's 50 to 2000 Hz
Shock: 100 g-force per IEC770
Response Time: Less than 10 ms
CE heavy industrial

2 Instruments in 1. Breakthrough func-tionality and value. Stainess steel case, 4-20mA and voltage outputs, cable or Hirschmann conn. CE heavy industrial. Per EN61326, Per 1998 ANNEX A

Transducers & Transmitters

TYPE X1009 XMITR™ ALL SS TRANSMITTER GAUGE

REFERENCE CONDITION: 20°C (68°F)

ACCURACY: Electrical output is 1% BFSL including non-linearity, hysteresis and non-repeatability.
Gauge is ASME B 40.1 Grade 1A (1% of span)

TEMPERATURE/ENVIRONMENTAL EFFECTS:
Storage: –40 to 105°C (–40 to 221°F)
Operating: –40 to 105°C (–40 to 221°F)
Compensated: –20 to 85°C (–4 to 185°F)
Thermal effect: 3%/100°C (1.4%/100°F) typical (zero and fullscale combined)
Humidity: 0 to 95% relative humidity, non-condensing, no effect.
CE Heavy Industrial

WETTED MATERIALS: Bronze/brass or SS

OUTPUT: 4-20mA, 1-5Vdc, .5-4.5Vdc ratio-metric

INGRESS PROTECTION/ENCLOSURE:
Stainless steel case (2″, 2.5″, 3.5″)
Type X1009, IP65 (XLJ)

FUNCTIONAL SPECIFICATIONS:
Type X1009 compound to 15,000 psi.
Proof Pressure:
0 to 600 psi = 125% full scale
1,000 to 15,000 psi = 110%
Burst Pressure:
0 to 1,500 psi = 10x burst
2,000 to 6,000 psi = 3x burst
10,000 to 15,000 psi = 3x burst
Vibration: 5g's 50 to 2000 Hz
Shock: 100 g-force per IEC770
Response Time: Less than 10 ms
CE heavy industrial

2 Instruments in 1. Breakthrough func-tionality and value. Stainess steel case, 4-20mA and voltage outputs, cable or Hirschmann conn. CE heavy industrial. Per EN61326, Per 1998 ANNEX A

A2 HEAVY INDUSTRIAL AND EXPLOSION PROOF TRANSMITTERS

REFERENCE CONDITION: 21°C (70°F)

ACCURACY: Includes non-linearity (Terminal Point Method), hysteresis, non-repeatability, zero offset and span setting errors –
Three accuracy classes based upon sensor Span: ±0.25% ±0.5%, ±1.0%

TEMPERATURE/ENVIRONMENTAL EFFECTS:
Storage: –40 to 125°C (–40 to 257°F)
Operating: –40 to 125°C (–40 to 257°F)
Compensated: –20 to 85°C (–25 to 185°F)
Temperature Effects:
Available 1% to 2% of span over –20 to +85°C (–4 to +185°F)
Humidity: 0 to 100% relative humidity, no effect, with welded enclosure

STABILITY:
≤0.1% Span/yr 316L SS construction
≤0.5% Span/yr 17-4 PH construction

DURABILITY: Greater than 10 million cycles

WETTED MATERIAL(S): 17-4PH SS w/316L SS housing or all 316L SS

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

INGRESS PROTECTION/ENCLOSURE:
Available IP65, IP67, NEMA 4X, 6, 7, 9

FUNCTIONAL SPECIFICATIONS:
Pressure Ranges (F.S.): 15 to 7500 psi absolute, 5 to 10,000 psi g, compound to 100 psi g
Overpressure: (Varies w/pressure range)
Proof: up to 2 x F.S.
Burst: up to 4 x F.S.
Vibration: Random 10 g RMS, 20-2000 Hz; Sweep 50-2000 Hz, 5 g peak
Shock: 100 g peak, 11 ms
Drop Test: No effect 1 meter drop on concrete
Response Time: <2ms
APPROVALS:
CE MARK (STANDARD):
EN 61326: 1997 +A1: 1998 Annex A
Heavy Industrial Immunity (Annex A, Table A.1)
Light Industrial/Residential Emission (Table 4)
EXPLOSION PROOF – UL:
EXPLOSION PROOF:
Class I, Div. 1 & 2, Groups A, B, C and D
Class II, Div. 1 & 2, Groups E, F and G
EXPLOSION PROOF – ATEX:
CE Ex II 2 GD
Ex d IIC T4
INTRINSICALLY SAFE – FM/CSA:
Class I, Div. 1
INTRINSICALLY SAFE, NON-INCENDIVE – FM/CSA:
Class I, Div. 2

A highly configurable transmitter designed for hazardous location and heavy industrial applications. High performance accuracy and thermal capability over –40/125°C (–40/257°F) with additional option of zero and span pots.

T2 HIGH PERFORMANCE PRESSURE TRANSDUCER

REFERENCE CONDITION: 21°C (70°F)

ACCURACY: Includes non-linearity, hys-teresis, non-repeatability – BFSL method: ±0.25% of Span

TEMPERATURE/ENVIRONMENTAL EFFECTS:
Compensated, Operating, Storage: –40 to 125°C (–40 to 257°F)
Total Error Band combined effects of temperature, non-linearity (Terminal Point Method), hysteresis, non-repeatability, zero offset and span setting errors –
±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).
Humidity: 0 to 100% relative humidity, no effect

STABILITY: ≤0.25% Span/yr

DURABILITY: Tested to 50 million cycles

WETTED MATERIALS: 17-4PH SS dia-phragm, 304 SS process connection

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

INGRESS PROTECTION/ENCLOSURE:
NEMA 4X, IP65

FUNCTIONAL SPECIFICATIONS:
Pressure Ranges (F.S.): 30 to 20,000 psi g, compound to 300 psi g
Overpressure: (Varies w/pressure range)
Proof: up to 3 x F.S.
Burst: up to 10 x F.S.
Vibration: Random (20g) over temperature range –40 to 125°C, (–40 to 257°F), exceeds typical MIL STD requirements
Shock: 100 g, 6 ms
Drop Test: No effect 1 meter drop on concrete
Response Time: <1ms
Approvals: CE compliance per EN 61326: 1997 +A1:1997 +A2:2001 Annex A (Heavy Industrial)

A robust pressure transducer designed for industrial applications featuring Ashcroft's proven polysilicon thin film pressure sensing element. 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)

Transducers & Transmitters

TYPE G2 OEM PRESSURE TRANSDUCER

REFERENCE CONDITION: 21°C (70°F)

ACCURACY: Total Error Band combined effects of temperature, non-linearity (Terminal Point Method), hysteresis, non-repeatability, zero offset and span setting errors –
±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).

TEMPERATURE/ENVIRONMENTAL EFFECTS:
See accuracy, previous, for details
Compensated, Operating, Storage:
–40 to 125°C (–40 to 257°F)
Humidity: 0 to 100% relative humidity, no effect

STABILITY: ≤0.25% Span/yr

DURABILITY: Tested to 50 million cycles

WETTED MATERIALS: 17-4PH SS diaphragm, 304 SS process connection

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

INGRESS PROTECTION/ENCLOSURE: NEMA 4X, IP65 and IP67

FUNCTIONAL SPECIFICATIONS:
Pressure Ranges (F.S.): 30 to 20,000 psi g, compound to 300 psi g
Overpressure: (Varies w/pressure range)
Proof: up to 3 x F.S.
Burst: up to 10 x F.S.
Vibration: Random (20g) over temperature range –40 to 125°C, (–40 to 257°F), exceeds typical MIL STD requirements
Shock: 100 g, 6 ms
Drop Test: No effect 1 meter drop on concrete
Response Time: <1ms
Approvals: CE compliance per EN 61326: 1997 +A1:1997 +A2:2001
Annex A (Heavy Industrial)

An economical transducer designed for the high volume OEM. Excellent accuracy and performance over –40/125°C temperature range. IP67 ingress rating and 100V/m EMC immunity.

KM10 HIGH VOLUME OEM PRESSURE TRANSDUCER

REFERENCE CONDITION: 20°C (68°F)

ACCURACY: Includes non-linearity (Terminal Point Method), hysteresis, non-repeatability, zero offset and span setting errors –
±0.5% Span, 100 psig F.S. and above
±1.0% Span, 75 psig F.S. and below

TEMPERATURE/ENVIRONMENTAL EFFECTS:
Storage: –40 to 120°C (–40 to 250°F)
Operating: –40 to 120°C (–40 to 250°F)
Compensated: –30 to 120°C (–25 to 250°F)
Thermal Coefficients:
–30 to 120°C (–25 to 250°F)
Zero 0.01%F.S./°C (±0.0055%F.S./°F)
Span 0.01%F.S./°C (±0.0055%F.S./°F)
Humidity: 0 to 100% relative humidity, no effect

STABILITY: ±0.25% Span/yr

INTERCHANGEABILITY: <0.5% Span.

DURABILITY: Tested to 50 million cycles

WETTED MATERIAL(S): 17-4PH SS diaphragm, 304 SS process connection

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

INGRESS PROTECTION/ENCLOSURE: IP67

FUNCTIONAL SPECIFICATIONS:
Pressure Ranges (F.S.): 15 to 7500 psi g/s, compound to 300 psi g

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

Vibration: Random to 1 KHz
Shock: 50 g, 11 ms
Drop Test: No effect 1 meter drop on concrete
Response Time: <1ms
Approvals: CE compliance per EN 61326: 1997 Annex A 1998(A1)
Warm-up Time: <25 ms

An economical transducer designed for the high volume OEM. 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

REFERENCE CONDITION: 20°C (68°F)

ACCURACY: Includes non-linearity (Terminal Point Method), hysteresis, non-repeatability, zero offset and span setting errors –
Two accuracy classes based upon sensor Span: ±0.5%, ±1.0%

TEMPERATURE/ENVIRONMENTAL EFFECTS:
Storage: –54 to 120°C (–65 to 250°F)
Operating: –28 to 82°C (–20 to 180°F)
Compensated: –28 to 71°C (–20 to 160°F)
Thermal Coefficients (20°C/68°F Ref.):

Accuracy Class (Span)	Zero/Span (%F.S./°F)
0.5%	±0.028
1.0%	±0.04

Humidity: 0 to 95% relative humidity, non-condensing, no effect

STABILITY: ±0.50% Span/yr

DURABILITY: 100,000,000 cycles

WETTED MATERIAL(S): 17-4PH SS diaphragm, 316 SS process connection

OUTPUT:
K1: 4-20mA, 1,5Vdc, 1-6Vdc, 1-11Vdc
K2: 2, 3, 10, 20 mV/V

INGRESS PROTECTION/ENCLOSURE: NEMA 1, NEMA 4X

FUNCTIONAL SPECIFICATIONS:
Pressure Ranges (F.S.): 15 to 20,000 psi g, compound to 60 psi g

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

Vibration: 0-2000 Hz at 20 g in any axis
Shock: 100 g, 20 ms
Response Time: <5ms

HAZARDOUS AREA APPROVALS: Available FM Intrinsically Safe and Nonincendive, and UL Intrinsically Safe – consult factory

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

K8 SERIES TRANSDUCER w/mV SIGNAL

REFERENCE CONDITION: 20°C (68°F)

ACCURACY: Includes non-linearity (Terminal Point Method), hysteresis, non-repeatability, zero offset and span setting errors –
Two accuracy classes based upon sensor Span: ±0.5%, ±1.0%

TEMPERATURE/ENVIRONMENTAL EFFECTS:
Storage: –54 to 120°C (–65 to 250°F)
Operating: –28 to 82°C (–20 to 180°F)
Compensated: –28 to 82°C (–20 to 180°F)
Thermal Coefficients (20°C/68°F Ref.):

Accuracy Class (Span)	Zero/Span (%F.S./°F)
0.5%	±0.028
1.0%	±0.04

Humidity: 0 to 95% relative humidity, non-condensing, no effect

STABILITY: ±0.50% Span/yr

DURABILITY: 100,000,000 cycles

WETTED MATERIAL(S): 17-4PH SS diaphragm, 316 SS process connection

OUTPUT: Varies from 6-18 mV/V at F.S. ratiometric

INGRESS PROTECTION/ENCLOSURE: NEMA 4X

FUNCTIONAL SPECIFICATIONS:
Pressure Ranges (F.S.): 45 to 20,000 psi g

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

Vibration: 0-2000 Hz at 20 g in any axis
Shock: 100 g, 20 ms shock in any direction

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.

Transducers & Transmitters

KX/KS SERIES SANITARY TRANSDUCERS

REFERENCE CONDITION: 20°C (68°F)

ACCURACY: Includes non-linearity (Terminal Point Method), hysteresis, non-repeatability, zero offset and span setting errors – ±1.0% Span

TEMPERATURE/ENVIRONMENTAL EFFECTS:

Storage:	–54 to 120°C	(–65 to 250°F)
Operating:	–28 to 82°C	(–20 to 180°F)
Compensated:		
KS	–0 to 50°C	(–30 to 130°F)
KX	–28 to 71°C	(–20 to 160°F)

Thermal Coefficients (20°C/68°F Ref.), (%F.S./°F):
Zero ±0.04
Span ±0.04
Humidity: 0 to 95% relative humidity, non-condensing, no effect

STABILITY: ±0.50% Span/yr

WETTED MATERIAL(S):
KS: 316L SS diaphragm and process connection
KX: 316Ti SS diaphragm and 316 SS process connection

FILL FLUIDS:
KS: USP grade 99.5% glycerine fill
KX: Silicone

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

INGRESS PROTECTION/ENCLOSURE:
NEMA 4X

FUNCTIONAL SPECIFICATIONS:
Pressure Ranges (F.S.):
KS: 30 to 1000 psi g, compound to 100 psig
Kx: 100 to 5000 psi gi g

Overpressure (F.S.):	Proof	Burst
≤ 2000 psig	2 x F.S.	8 x F.S.
3000 to 5000 psig	1.5 x F.S.	3 x F.S.

Vibration: 0-400 Hz at 20 g in any axis
Shock: 20 g, 20 ms in any axis

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

TYPE GC52 RANGEABLE WET/WET DIFFERENTIAL PRESSURE TRANSMITTER

LOOK FOR THESE AGENCY MARKS ON OUR PRODUCTS

REFERENCE CONDITION: 23°C ±2° (73°F)

Accuracy: ±0.50% FS (URL)
(Accuracy includes the effects of linearity, hysteresis, and repeatability)
Stability: ±0.25% FS/year
Response Time: 100msec (adjustable)
Output Resolution: 0.1% FS (URL)
Standard Ranges (Bi-Directional, Inches W.C.): ±4, ±8, ±20, ±40, ±80, ±200
Standard Ranges (Uni-Directional, Inches W.C.): 0-4, 8, 20, 40, 80, 200, 400

Temperature Limits:
Storage: –15 to 65°C (5 to 150°F)
Operating: –10 to 60°C (14 to 140°F)
Compensated: –10 to 60°C (14 to 140°F)
Temperature Effects (–10 to 60°C): ±0.03% FS/C° (from reference, 23°C (73°F)

Static (Line) Pressure:

Pressure Range	Proof	Burst
All	300 psi	1000 psi

Static (Line) Pressure Effects:

Pressure Range	Effect
≥20˝W.C., ±8˝ W.C.	±0.3% FS/100psi
8˝W.C., ±4˝ W.C.	±0.7% FS/100psi
4˝W.C.	±1.5% FS/100psi

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

Vibration: 5g's 150Hz
Shock: 10g's 16ms

Output Signal: 4-20mA (2 Wire)
Supply Voltage: 12-32Vdc
Rangeablility / Adjustment[1]:
Zero –10% to +110% FS
Span –10% to +110% FS
[1] Accuracy and output resolution based upon full scale (URL) value
Insulation Resistance: 50Vdc (>100Mohms)
CE Compliance: EN 613261 1997, A1/1998, A2/2001 (Heavy Industrial)

Pressure Connection: ¼ Female NPT
Enclosure: Aluminum
Rating: IP65 / NEMA 4X
Electrical Connection (Options):
– ½ Female NPT Conduit
– Cable Gland (Cable Diameters 0.35˝ to 0.47˝)
Weight: Approx. 1.0 lb
Mounting: Mounting Bracket included
Media: Fluids and gases compatible with 316SS, Viton and Alumina

DIN/PANEL/WALL MOUNT CXLdp SERIES

LOOK FOR THESE AGENCY MARKS ON OUR PRODUCTS

PRESSURE RANGES (Inches W.C.)
Unidirectional: 0/0.10 to 0/25 I.W.C.
Bidirectional: ±0.10 to ±15 I.W.C.

ACCURACY: 0.8% or 0.4% span

TEMPERATURE LIMITS

Storage:	–40 to 180°F
Operating:	0 to 160°F
Compensated:	–35 to 130°F

OVERPRESSURE

Proof Pressure:	15 psi
Burst Pressure:	25 psi

OUTPUT SIGNAL
4-20mA, (12-36Vdc),
0-5, 0/10Vdc (24Vac)

ENCLOSURE
NEMA 1

MATERIALS
ABS (UL94-5V4)

PRESSURE CONNECTIONS
¼ Brass Barb
⅛ NPT Female

MEDIA
Clean, dry and non-corrosive gas

MOUNTING
DIN rail or panel mount

NOT FOR USE ON LIQUIDS

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

DIN MOUNT DXLdp SERIES

LOOK FOR THESE AGENCY MARKS ON OUR PRODUCTS

PRESSURE RANGES (Inches W.C.)
Unidirectional: 0/0.10 to 0/50 I.W.C.
Bidirectional: ±0.05 to ±25 I.W.C.

ACCURACY: 0.25% or 0.50% span

Non-lin (Term.Pt.)	±0.20	±0.40
(B.S.F.L.)	±0.15	±0.30
Hysteresis	±0.02	±0.02
Non-Repeatability	±0.03	±0.05

TEMPERATURE LIMITS

Storage:	–40 to 180°F
Operating:	–20 to 160°F
Compensated:	–35 to 135°F

OVERPRESSURE

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

OUTPUT SIGNAL
4-20mA, 1-5Vdc, 1-6Vdc, 0-5, 0/10Vdc

ENCLOSURE
NEMA 1

MATERIALS
Glass-filled Polycarbonate (UL94-V-1)

PRESSURE CONNECTIONS
⅛ NPTF Brass

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

MOUNTING
DIN rail mount:
EN50022
EN50035
EN50045

NOT FOR USE ON LIQUIDS

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.

Transducers & Transmitters

REDUCED SIZE RXLdp SERIES

PRESSURE RANGES (Inches W.C.)
Unidirectional: 0/0.10 to 0/50 I.W.C.
Bidirectional: ±0.05 to ±25 I.W.C.

ACCURACY CLASS F.S.	1%
Non-lin (Term.Pt.)	±0.80
(B.S.F.L.)	±0.60
Hysteresis	±0.05
Non-Repeatability	±0.10

TEMPERATURE LIMITS

Storage:	–40 to 180°F
Operating:	0 to 160°F
Compensated:	+40 to 125°F

OVERPRESSURE

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

OUTPUT SIGNAL
4-20mA, 1-5Vdc, 1-6Vdc, 0-5, 0/10Vdc

ENCLOSURE
NEMA 1

MATERIALS
Case is Stainless Steel
Cover is Polycarbonate

PROCESS CONNECTIONS
¼″ Barbed Stainless Steel
⅛″ Barbed Stainless Steel
⅛ NPTF Stainless Steel

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

NOT FOR USE ON LIQUIDS

A compact transmitter for comfort control and other HVAC applications.

HIGH PERFORMANCE XLdp SERIES

PRESSURE RANGES (Inches W.C.)
Unidirectional: 0/0.10 to 0/50 I.W.C.
Bidirectional: ±0.05 to ±25 I.W.C.

ACCURACY CLASS F.S.	0.25%	0.50%
Non-lin (Term.Pt.)	±0.20	±0.40
(B.S.F.L.)	±0.15	±0.30
Hysteresis	±0.02	±0.02
Non-Repeatability	±0.03	±0.05

TEMPERATURE LIMITS

Storage:	–40 to 180°F
Operating:	–20 to 160°F
Compensated:	+35 to 135°F

OVERPRESSURE

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

OUTPUT SIGNAL
4-20mA, 1-5Vdc, 1-6Vdc

ENCLOSURE
NEMA 2

MATERIAL
300 Series Stainless Steel

PROCESS CONNECTIONS
¼″ Barbed Stainless Steel
⅛″ Barbed Stainless Steel
¼ NPTF Stainless Steel

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

NOT FOR USE ON LIQUIDS

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

INDUSTRIAL IXLdp SERIES

PRESSURE RANGES (Inches W.C.)
Unidirectional: 0/0.10 to 0/200 I.W.C.
Bidirectional: ±0.05 to ±100 I.W.C.

ACCURACY CLASS F.S.	0.25%	0.50%
Non-lin (Term.Pt.)	±0.20	±0.40
(B.S.F.L.)	±0.15	±0.30
Hysteresis	±0.02	±0.02
Non-Repeatability	±0.03	±0.05

TEMPERATURE LIMITS

Storage:	–40 to 210°F
Operating:	–20 to 185°F
Compensated:	0 to 160°F

OVERPRESSURE

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

APPROVALS (optional)
FM-IS & Nonincendive

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

ENCLOSURE
NEMA 4X

MATERIAL
300 Series Cast Stainless Steel

PROCESS CONNECTIONS
¼ NPTF St. St.

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

NOT FOR USE ON LIQUIDS

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.

2279 DURATRAN® PRESSURE TRANSMITTER

ACCURACY
±0.5%

DIAL SIZE
4½″ analog

CASE MATERIAL
Phenolic

WETTED MATERIAL
316 stainless steel, Monel

SENSING ELEMENT
Bourdon tube

CONNECTION – NPT
½ NPT (standard) lower

RANGES
Vacuum and compound, 12 to 20,000 psi

Two instruments in one! Provides local indication and 4-20mA signal for many industrial applications.

Temperature Instruments

FT POCKET TEST COMMERCIAL THERMOMETERS

ACCURACY
ASME B 40.3 Grade A (±1% of span)

DIAL SIZE
1″

STEM/BULB DESIGN
Rigid stem 0.142″ dia.

RECALIBRATOR
External

SEALING DESIGN
Hermetically sealed

DAMPENING
Silicone-dampened bimetal coil

CONNECTION LOCATION
Rear

CONNECTION SIZES (NPT)
Plain

STEM LENGTH
5″

RANGES
–80°F to 550°F
–30°C to 300°C

CASE/RING MATERIAL
Stainless steel (no ring)

CASE/BULB MATERIAL
Stainless steel

WINDOW
Polycarbonate

Applications include sample testing of food vats, cooking or air duct temperature use. Compact and portable.

EI, CI & EL INDUSTRIAL BIMETAL THERMOMETERS

ACCURACY
ASME B 40.3 Grade A (±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
¼ (2″ sizes only)
½ and ½ union (3,″ 5″ sizes only)

STEM LENGTH
2½″-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 proc-esses. All stainless steel construction.

600A & 600B DURATEMP® THERMOMETERS

ACCURACY
ASME B 40.3 Grade A (±1% of span)

DIAL SIZE
600A – 4½″, 6″
600B – 4½″

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)
½″ 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.

2400E & 2410E DIGITAL THERMOMETERS

RESOLUTION
1°

UPDATE TIME
3 readings per second

CASE SIZE
2.030″ dia. x 1.39″

CASE
ABS and acrylic

VIBRATION
50 to 200 Hz @ 2.5g no effect

RANGE
–40°F to 199°F,
0°F to 250°F, –40°C to 120°C

AMBIENT TEMP. LIMIT
–30°F to 160°F (–34°C to 71°C)

ZERO & SPAN
±10% of operating range through two single-turn potentiometers located on the back of the thermometer's module

POWER
110 Vac input – 6 Vdc regulated output (220 Vac or 24 Vac optional)

HUMIDITY LIMITS
Up to 100% RH @ 140°F max.

APPROVALS
UL recognized (File: E103515),
NSF C-2, CSA (File: Natl/C, LR 76285-2)

SENSOR
Laser trimmed 2000 ohm RTD
0.250″ dia. x 2.54″ long 300 series stainless steel with 8′ wire cable

WEIGHT
Display – 35g (0.08lb)
Power Supply – 211g (0.5lb)

Applications include freezers, coolers and food storage equipment where remote monitoring and solid state digital readout is preferred.

Pressure and Temperature Switches

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.H_2O diff. thru 600 psid
H-Series Pressure: 1000 – 7500 psi

U.L. and CSA LISTED

*Registered trademark of E. I. DuPont

LOOK FOR THIS AGENCY MARK 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.H_2O diff. thru 600 psid

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

LOOK FOR THIS AGENCY MARK 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. 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.H_2O diff. thru 400 psid

U.L. and CSA LISTED

LOOK FOR THIS AGENCY MARK 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.H_2O diff. thru 400 psid

U.L. or CSA LISTED

LOOK FOR THIS AGENCY MARK 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. 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.

Pressure and Temperature Switches

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.H_2O diff. thru 400 psid

U.L. and CSA LISTED

CE
LOOK FOR THIS AGENCY MARK ON OUR PRODUCTS

IN A RUSH? ASK FOR ASHCROFT GOLD SERVICE

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

U.L. and CSA LISTED

CE
LOOK FOR THIS AGENCY MARK ON OUR PRODUCTS

IN A RUSH? ASK FOR ASHCROFT GOLD SERVICE

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 ½ NPTF pressure connection makes retrofit on existing installations quick and easy.

MINIATURE PRESSURE SWITCHES

A-SERIES

FEATURES

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

Switch Function:
Single setpoint, fixed deadband, factory set SPDT contacts (or)
Single setpoint, fixed deadband, field-adjustable SPDT contacts

Wetted Material:
Brass
(Buna N, Viton® or Teflon® actuator)
Stainless steel

Ranges:
Vac thru 2000 psi.

U.L. and CSA LISTED

IN A RUSH? ASK FOR ASHCROFT GOLD SERVICE

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

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

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

IN A RUSH? ASK FOR ASHCROFT GOLD SERVICE

The Ashcroft N-Series electronic pressure switch combines the popular K-Series poly-silicon 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 LOCATONS

LOOK FOR THIS AGENCY MARK ON OUR PRODUCTS

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 EEx d IIC T6

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.

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.

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