

**Instrumentation for Water Treatment
and Waste Water Industries**



Ashcroft® pressure, temperature and control instruments

are specifically designed to meet
the demands of the water treatment
and wastewater industries.

And along with our high quality,
rugged instruments, Ashcroft
provides detailed documentation
for your critical engineering and
compliance requirements.

Visit www.ashcroft.com for more
information. Or call us direct at
800-328-8258 and let one of our
experts help you specify the right
instruments for your application.



Pressure Gauges for Water Treatment and Waste Water Industries

PRESSURE GAUGES:

Designed to meet the rigors of water treatment and wastewater applications, the family of Ashcroft® dry, liquid filled and **PLUS!**™ Performance pressure gauges is unsurpassed. Ashcroft Duragauge® process gauges have long been the benchmark when a solid front, ASME grade 2A, ½% accuracy pressure gauge is required. Standard exclusive features like a 400 Series stainless steel movement for longer life, an epoxy coated system for corrosion resistance, and the patented Duratube™ Bourdon tube for superior strength are just a few of the reasons these gauges outlast other gauges in the market place.

When pulsation and vibration are present in the process, the patented **PLUS!**™ Performance option provides the performance of a liquid filled gauge, all in a dry gauge. **PLUS!**™ Performance dampens vibration and pulsation, providing an easy-to-read gauge with no fill lines and a steady pointer. **PLUS!**™ provides a wider temperature range over glycerin fill and eliminates costly specialty fluids, as well as the added expense for disposing of a liquid-filled gauge.

Stainless steel case gauges are offered with a rugged, all welded socket-to-case design for superior strength. When vibration and pulsation are a factor, these gauges are also available with the our patented **PLUS!**™ Performance option as well as the patented PowerFlex™ movement for improved shock resistance.

When a superior, low cost commercial-type gauge with bronze wetted parts is a requirement, Ashcroft commercial gauges are available with the PowerFlex™ movement as well as True Zero™ indication. With True Zero™ indication you can be certain that if your gauge reads zero – there truly is zero pressure in your system. You benefit with increased safety, and reduced replacement costs.

DIFFERENTIAL PRESSURE GAUGES:

Designed to measure the difference between two pressures across filters, strainers or separators, Ashcroft dp gauges offer a unique combination of Bourdon tube design and flexible diaphragm designs. Together, these features provide you with the best value to measure differential pressure on critical applications.

PROCESS GAUGES



MODEL: 1259, 1279, 1279 **PLUS!**™

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

DIAL SIZES: 4½"

CASE TYPE: Solid front, pressure relief back

WETTED MATERIAL
(Optional) 316L 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)

MOUNTING: Stem, surface, flush

WINDOW MATERIAL:
Glass, safety glass, acrylic

POINTER: Micrometer adjustable

PROCESS TEMPERATURE LIMITS:
-40/150°F (-40/66°C)

CRN Listed

STAINLESS STEEL CASE GAUGES



MODEL: 1008S, 1009 and 2008S

ACCURACY: ASME B40.100 and EN837-1 based. 1% full scale, 1.6% full scale

DIAL SIZES: 63mm, 100mm, 2½" and 3½"

CASE TYPE: Solid front, pressure relief back

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

SENSING ELEMENT
Bourdon tube

CONNECTIONS:
¼ NPT lower or lower back

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

MOUNTING:
Stem (direct), panel or surface

WINDOW MATERIAL: Polycarbonate

POINTER: Adjustable and fixed depending on model selected

PROCESS TEMPERATURE LIMITS:
-40/150°F (-40/66°C)

CRN Listed

RoHS Compliant

DIFFERENTIAL PRESSURE GAUGES

COMMERCIAL GAUGES



MODEL: 1005/1005PS, 2071A

ACCURACY: ASME B 40.1 Grade B
1005/1005P: $\pm 3-2-3\%$
2071A: $\pm 2-1-2\%$ (ASME B40.1 Grade A)

DIAL SIZES:
1 1/2" (Models 1005, 1005P)
3 1/2" (Models 1005, 1005P)
4 1/2" (Model 2071A)

CASE TYPE: Open front

WETTED MATERIAL: bronze/brass

SENSING ELEMENT
Bourdon tube

CONNECTION SIZE & LOCATION:
1/8 NPT lower or center back
1/4 NPT lower connect or center back
1/4 NPT lower connect

PRESSURE RANGES: Vacuum to 6000 psi
including compound (not all types/sizes
available in 1000-6000 psi)

MOUNTING: Type 1005/1005P - stem;
Type 2071A - surface

WINDOW MATERIAL: Type 1005/1005P -
polycarbonate; Type 2071A- glass

POINTER: 1005/1005P - Black aluminum;
Type 2071A - Adjustable, black aluminum

PROCESS TEMPERATURE LIMITS:
-40/150°F (-40/66°C)

CRN Listed

INDUSTRIAL DP GAUGE



MODEL: 1130 Series

ACCURACY: $\pm 2\%$ Ascending

DIAL SIZES: 2" through 6"

CASE MATERIAL: Stainless steel

BODY MATERIAL: Stainless steel,
aluminum or brass

WETTED PARTS: Stainless steel, Teflon,
ceramic, the body material and the
diaphragm material.

DIAPHRAGM MATERIAL:
Buna is standard, Viton or EPDM optional.

CONNECTION SIZE & LOCATION:
1/4 NPT Female, In-line, lower or back.
Optional 1/8 NPT adaptors

PRESSURE RANGES:
0.6 IWD through 150 psid

STATIC PRESSURE: 35-6,000 psi

WINDOW MATERIAL: Glass

POINTER: Black aluminum

SWITCH OPTIONS: SPST, SPDT user
adjustable reed switches, DIN or terminal
strip

PROCESS TEMPERATURE LIMITS:
-40/150°F (-40/66°C)

DP GAUGE



MODEL: 1127/1128

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

DIAL SIZES: 4 1/2", 6"

CASE TYPE Open front

WETTED MATERIAL
(Optional) 316L stainless steel

SENSING ELEMENT
Bourdon tube

CONNECTION
1/2 NPT (standard) lower

RANGES
1127 -10 to 1000 psi differential
1128 - 5 to 500 psid
Alternate units & scales (optional)

MOUNTING: Stem or surface

WINDOW MATERIAL: Glass

POINTER: Adjustable

PROCESS TEMPERATURE LIMITS:
-40/150°F (-40/66°C)

CRN Listed

HI STATIC DP GAUGE



MODEL: 5503

ACCURACY: EN-837 (1.6% full scale)
ASME B 40.100 Grade A (1.6% or $\pm 1\%$ of full
scale)

DIAL SIZE
100mm (4"), 160mm (6")

CASE TYPE Open front

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

CONNECTION: (Optional) 1/4
NPT, 1/2 NPT, G1/4 others

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

MOUNTING: Stem, surface or pipe

WINDOW MATERIAL: Shatterproof glass

POINTER: Adjustable

PROCESS TEMPERATURE LIMITS:
-40/150°F (-40/66°C)

CRN Listed

Digital Gauges, Indicating and Non-Indicating Transmitters for Water Treatment and Waste Water Industries

DIGITAL GAUGES, INDICATING AND NON-INDICATING TRANSMITTERS:

Digital pressure gauges and transmitters incorporate an all-welded sensor to pressure port assembly (socket/ pressure connection) which provides extremely high reliability, stability and durability. This feature provides cycle life expectations beyond 10 million cycles, and is particularly valuable in demanding pump and valve control applications where overpressure is common. Requirements for a wide variety of applications, including water tower and tank level, water storage and distribution, pump and flow measurement, filter monitoring, sludge pumping and dewatering and hydraulic power system applications, are met by the sensing technology which covers full scale pressure ranges from 4" H₂O to 20,000 psi.

Digital gauges feature multiple options such as remote 4-20mA output and/or switching. The number of instruments is reduced, also reducing process breaks. Save on installation costs as well as space and additional pipe cut outs. Rangeable pressure transmitters provide gauge, differential pressure and flow measurement. Easy push button menus drive re-scale, re-zero and loop check functionality. Fixed-range transmitters provide value with compact size and high performance. Optional hazardous area approvals are available when Intrinsically Safe, Non-Incendive or Explosion/Flame Proof approvals are required.

Most of the instruments can be supplied with seals and capillaries to confidently address the most demanding chemical or sludge-based media.

INDUSTRIAL PRESSURE TRANSDUCER



MODEL: T2

ACCURACY: ±0.25% of span

OUTPUT: Options include, 4-20mA, 0-5V, 0-10V, 1-5V, 1-6V Ratiometric

CASE MATERIAL: 20% glass reinforced nylon, fire retardant to UL94 V1

CASE ENCLOSURE RATING: IP65/NEMA 4X

WETTED MATERIAL: 17-4pH and 304 stainless steel

CONNECTION SIZE: 1/8 NPT male, 1/4 NPT male, 7/16-20 SAE-male, 1/4-19 bsp male, G 1/4 B male/lower connect

PRESSURE RANGES: 30 to 20,000 psi, including compound

PROCESS TEMPERATURE LIMITS: -40/257°F (-40/125°C)



LOOK FOR THIS MARK ON OUR PRODUCTS

HEAVY INDUSTRIAL & HAZARDOUS AREA RATED PRESSURE TRANSMITTER



MODEL: A2/A2X/A4

ACCURACY: ±.25, ±0.5, ±1.0% span options

OUTPUT: Options include, 4-20mA, 0-5V, 0-10V, 1-5V, 1-6V Ratiometric

CASE MATERIAL: 304SS

CASE ENCLOSURE RATING: IP65/NEMA 4X, IP67/NEMA 6

WETTED MATERIAL: Standard: 316LL SS
Optional: 17-4pH SS/316L SS

CONNECTION SIZE: 1/8 NPT male, 1/4 NPT male & female, 1/4 NPT male & female, others on request

PRESSURE RANGES: Vac to 10,000 psi, gauge and absolute ranges available (consult factory)

PROCESS TEMPERATURE LIMITS: -40/257°F (-40/125°C)

HAZARDOUS AREA APPROVALS: Intrinsically Safe & Non-Incendive: FM, CSA
Explosion/Flame proof: cUL, ATEX



LOOK FOR THESE MARKS ON OUR PRODUCTS

DIGITAL GAUGE



MODEL: 2070 Series

ACCURACY:
.25% Full scale, terminal point

CASE SIZES: 3", 4 1/2"

CASE MATERIAL: 3" SS, 4 1/2" fiberglass reinforced thermoplastic or black epoxy coated aluminum

CASE ENCLOSURE RATING:
Weatherproof, IP65

WETTED MATERIAL: 17-4 SS (sensor)

SOCKET MATERIAL:
316 stainless steel

CONNECTION SIZE & LOCATION:
1/4 NPT or 1/2 NPT, (4 1/2" only) lower

PRESSURE RANGES: Vac. to 20,000 psi

MOUNTING: Surface or flush

PROCESS TEMPERATURE LIMITS:
14/140°F (-10/60°C)

DISPLAY TYPE: LCD

DISPLAY DIGITS: Five

POWER OPTIONS:

Battery Powered

4-20mA Loop Powered: 12-36 Vdc, mA with unlimited turndown (within gauge range)

Line Powered: 12-36 Vdc, 2VA max.

Optional: Switching (1) or (2) SPDT switches. Adjustable to 100% of F.S. range

Optional: 4-20mA output



LOOK FOR THESE MARKS ON OUR PRODUCTS

INDICATING RANGEABLE PRESSURE TRANSMITTER



MODEL: GC51

ACCURACY: ±0.25% FS (URL)

OUTPUT: 4-20mA, loop powered

CASE MATERIAL:
Aluminum, epoxy coated

CASE ENCLOSURE RATING:
Weatherproof, IP65/NEMA 4X

WETTED MATERIAL: 17-4pH and 316 stainless steel

CONNECTION SIZE: 1/4 NPT female

PRESSURE RANGES:
Compound: Vac-50 psi
Gauge: 0-7500 psi

PROCESS TEMPERATURE LIMITS:
14/140°F (-10/60°C)

DISPLAY TYPE: LCD

DISPLAY DIGITS: 3 1/2



LOOK FOR THIS MARK ON OUR PRODUCTS

INDICATING RANGEABLE DP PRESSURE/FLOW TRANSMITTER



MODEL: GC52

ACCURACY: ±0.5% FS (URL)

OUTPUT: 4-20mA, loop powered

CASE MATERIAL:
Aluminum, epoxy coated

CASE ENCLOSURE RATING:
Weatherproof, IP65/NEMA 4X

WETTED MATERIAL: Viton, alumina ceramic and 316 stainless steel

CONNECTION SIZE: 1/4 NPT female

PRESSURE RANGES*:
Compound/Bidirectional:
±4" W.C. - ±200" H₂O
Differential/Gauge:
0-4" W.C. - 0-400" H₂O

PROCESS TEMPERATURE LIMITS:
14/140°F (-10/60°C)

DISPLAY TYPE: LCD

DISPLAY DIGITS: 3 1/2

* Flow output and display via square root extraction.



LOOK FOR THIS MARK ON OUR PRODUCTS

INDICATING PRESSURE TRANSDUCER WITH SWITCH OUTPUTS



MODEL: GC35

ACCURACY: ±1.0% FS

OUTPUT: 4-20mA(2) NPN or PNP switches

CASE MATERIAL:
Nickel plated aluminum

CASE ENCLOSURE RATING:
IP65 (ranges 150 psi and below)
IP67 (ranges 300 psi and above)

WETTED MATERIAL: 17-4pH and 316 stainless steel

CONNECTION SIZE: 1/4 NPT male

MOUNTING: Lower or back connection

PRESSURE RANGES:
Compound: Vac-300 psig
Gauge: 0-7500 psi

PROCESS TEMPERATURE LIMITS:
-4/158°F (-20/70°C)

DISPLAY TYPE: LED, switch status indicator

DISPLAY DIGITS: Four



LOOK FOR THIS MARK ON OUR PRODUCTS



Switches, Diaphragm Seals for Water Treatment and Waste Water Industries

SWITCHES:

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

DIAPHRAGM SEALS/INSTRUMENT ISOLATORS:

To isolate the process from an instrument in applications including sludge, sewage or chemical media, Ashcroft offers a comprehensive line of diaphragm seals. Ashcroft diaphragm seals are ideal in applications where there is corrosive service, clogging issues, process pulsation and vibration, process pressure spikes, and suspended solids in the process; as well as when there is a need to isolate process for safety, replace process dead leg, and easily clean the seal or isolator. Seal types include threaded, flanged, in-line threaded, in-line flanged, in-line socket weld, in-line butt weld and saddle seals. Also available is a complete offering of isolation rings or Iso-Rings and isolation spools or Iso-Spools.

PRESSURE SWITCHES



MODEL: A, B, G, L series

ACCURACY:

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

CASE MATERIAL:

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

ENCLOSURE RATING:

A series: NEMA 4X, 7, 9, IP67
B series: NEMA 4X, 7, 9, IP66
G & L series: NEMA 4, 4X, IP66

ACTUATOR MATERIAL:

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

PROCESS CONNECTION:

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

RANGE:

A series: vac to 7500 PSI
B, G, L series: vac to 3000 PSI

OPERATING PROCESS TEMPERATURE:

A series: -40 to 212°F (-40 to 100°C)
B, G, L-series: 0 to 300°F (-18 to 149°C)
Varies by actuator material

APPROVALS:

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



LOOK FOR THESE MARKS ON OUR PRODUCTS



A series: SIL 3 capable

DIFFERENTIAL PRESSURE SWITCHES



MODEL: B, G, L series

ACCURACY: 1%

CASE MATERIAL:

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

ENCLOSURE RATING:

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

ACTUATOR MATERIAL:

Buna, Viton, Teflon, 316LSS

PROCESS CONNECTION: 1/4, 1/2 NPT

RANGE:

B series: 0 to 600 PSID
G, L series: 0 to 400 PSID

OPERATING PROCESS TEMPERATURE:

0 to 300°F (-18 to 149°C)
Varies by actuator material

APPROVALS:

G, L series: CSA, UL, CE, CRN
B series: CSA, UL, CE, FM, ATEX, IECEx, CRN



LOOK FOR THESE MARKS ON OUR PRODUCTS

TEMPERATURE SWITCHES



MODEL: B, G, L series

ACCURACY: 1%

CASE MATERIAL:

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

ENCLOSURE RATING:

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

THERMAL SYSTEMS:

316 SS direct mount
316 SS remote mount

PROCESS CONNECTION:

½ NPT direct mount

RANGE:

-40 to 750°F (-40 to 400°C)

APPROVALS:

CSA, UL, CE



LOOK FOR THESE MARKS ON OUR PRODUCTS

DIAPHRAGM SEALS



MODEL: 100, 200, 300, 310, 400 & 510

TYPES:

Threaded, flanged, all-welded, in-line

DIAPHRAGM MATERIALS:

316L stainless steel, 304L stainless steel, K-Monel, Nickel, Carpenter 20, Tantalum, Hastelloy B, Hastelloy C, Teflon, Viton, Kalrez, Titanium, Halar Coated Monel, Gold Plated 304L stainless steel depending on style

BOTTOM HOUSING MATERIALS:

Steel, 304L stainless steel, 316L stainless steel, Hastelloy B, Hastelloy C, Carpenter 20, Monel 400, Inconel 800, Nickel, PVC, Kynar, Titanium depending on style

PRESSURE RATINGS: to 9,000 psi

INSTRUMENT CONNECTION SIZES:

¼ or ½ NPT

PROCESS CONNECTION SIZES:

¼" thru 8" depending on style

SYSTEM FILL MATERIALS: Glycerin,

Silicone, Halocarbon, Syltherm

CRN Listed

ISOLATION RING



TYPE 80 ISOLATION-RING

MODEL: Model: 80/81

TYPES: Isolation-Ring – bolt thru or wafer design

LINER MATERIALS: Buna N, Viton, Teflon, Nordell (EPDM), natural rubber

FLANGE MATERIALS: Steel, 316SS

PRESSURE RATING 150 Class and 300 Class Flanges

INSTRUMENT CONNECTION SIZES:

¼, ½ NPT

PROCESS CONNECTION SIZES:

Isolation-Ring (Type 80) – 2" thru 20",
Isolation-Ring (Type 81) – 2" thru 10"

SYSTEM FILL MATERIALS: Glycerin, Silicone, Halocarbon, Syltherm

CUSTOMIZED PRODUCT SERVICE



Multiple Instrument Assemblies:

When you need multiple instruments, attached to a single diaphragm seal, isolation ring or spool, Ashcroft has an extensive product offering. Consult the factory for availability at 800-328-8258.

Digital Gauge Assembly:

The Ashcroft industrial digital gauge combines three instruments in one to give you local indication, 4-20 mA output, and one or two SPDT switches. When attached to a diaphragm seal or isolation ring or spool, this assembly offers digital indication and an extensive list of menu options, all standard. The multiple instrument and digital gauge assemblies save you instrument and installation costs, as well as space and additional pipe cut-out (s).

Temperature Instruments, Accessories for Water Treatment & Waste Water Industries

BIMETAL THERMOMETER



TEMPERATURE:

Ashcroft® bimetal and Duratemp® gas actuated thermometers provide superior durability and dependability, precision temperature readings, 1% accuracy, hermetically sealed cases, and a Maxivision® dial to eliminate parallax error, ensuring accurate temperature readings. Our bimetal thermometers can be externally calibrated and are available as tamper resistant. The Everyangle™ connection allows you to rotate the dial 360° and angle it 180°. The Duratemp gas actuated thermometer offers direct or remote mounting with no head error regardless of the mounting configuration.

ACCESSORIES:

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

MODEL: EI series

ACCURACY: 1% full span

DIAL SIZE: 2", 3" and 5"

DIAL: Maxivision® anti-parallax

CASE STYLE: Hermetically sealed

CASE & STEM MATERIAL: 304 SS

STEM LENGTHS: 2"-24" standard. Longer lengths available on application.

CONNECTION SIZE & LOCATION: 1/8, 1/4 NPT or 1/4 NPT union, back, lower or everyangle

MOUNTING: Everyangle, rear or lower

RANGES: -80/120°F - 200/1000°F
-50/50°C - 100/500°C

WINDOW: Heavy duty glass

DURATEMP® THERMOMETER



MODEL: Duratemp®

ACCURACY: 1% full span

DIAL SIZE: 4 1/2", 6" and 8"

DIAL: Maxivision® anti-parallax

CASE STYLE & MATERIALS: 5 case styles in stainless steel, aluminum and phenolic

BULB MATERIAL & SIZE: 316 SS, 3" long x 3/8" OD bulb

BULB STYLES: Rigid extension or 12", 18" or 24" bendable extension

CONNECTION SIZE & LOCATION: 1/2 NPT & 1/2 NPT Union Lower or Rear

MOUNTING: Direct or remote, surface and flush

RANGES: -320/200°F - 400/1200°F
-200/100°C - 200/650°C

WINDOW: Glass

CAPILLARY: 300 Series SS spring armor, line lengths of 5-80 ft in standard increments



Brass Thermowell



Stainless Steel Thermowell



Pulsation Dampner Model 1106



Pressure Snubber Model 1112



Pressure Limiting Valve Model 255/2550



Steel Needle Valve Model 7001

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

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

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



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