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, 1⁄2% 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.
**COMMERCIAL GAUGES**

**MODEL:** 1005/1005P, 2071A  
**ACCURACY:** ASME B 40.1 Grade B  
1005/1005P: ±3-2-3%  
2071A: ±2-1-2% (ASME B40.1 Grade A)  
**DIAL SIZES:** 1½” (Models 1005, 1005P)  
3½” (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 or center back  
**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:** +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:**  
1/8 NPT Female, In-line, lower or back.  
Optional 1/4 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 to 150°F (−40 to 66°C)

**DP GAUGE**

**MODEL:** 1127/1128  
**ACCURACY:** ASME B 40.100 Grade A (±2-1-2% of full scale)  
**DIAL SIZES:** 4½”, 6”  
**CASE TYPE:** Open front  
**WETTED MATERIAL:** (Optional) 316L stainless steel  
**SENSING ELEMENT**  
Bourdon tube  
**CONNECTION**  
1/8 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)

**HI STATIC DP GAUGE**

**MODEL:** 5503  
**ACCURACY:** EN-837 (1.6% full scale)  
ASME B 40.100 Grade A (1.6% or ±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.
**DIGITAL GAUGE & INDICATING TRANSMITTER**

**DIGITAL GAUGE**

**MODEL:** 2070 Series

**ACCURACY:** ±.25% Full scale, terminal point

**CASE SIZES:** 3″, 4½”

**CASE MATERIAL:** 3″ SS, 4½” 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:** ¼ NPT or ½ NPT, (4½” 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:** 3½

**POWER OPTIONS:**
- Battery Powered: 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

**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:** ¾ 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:** 3½

* Flow output and display via square root extraction.

**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:** ¾ 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:** 3½

**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:** ¾ 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

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Logo: Ashcroft

Trust the shield.

**Look for these marks on our products**

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**Look for this mark on our products**

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**Look for this mark on our products**

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**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

<table>
<thead>
<tr>
<th>MODEL: A, B, G, L series</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACCURACY:</td>
</tr>
<tr>
<td>A series: 2%</td>
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<tr>
<td>B, G, L-series: 1%</td>
</tr>
<tr>
<td>CASE MATERIAL:</td>
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<tr>
<td>A series: 316L SS</td>
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<tr>
<td>B &amp; L series: epoxy coated die cast aluminum</td>
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<tr>
<td>G-series: 316L SS</td>
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<tr>
<td>ENCLOSURE RATING:</td>
</tr>
<tr>
<td>A series: NEMA 4X, 7, 9, IP67</td>
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<tr>
<td>B series: NEMA 4X, 7, 9, IP68</td>
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<tr>
<td>G &amp; L series: NEMA 4, 4X, IP66</td>
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<tr>
<td>ACTUATOR MATERIAL:</td>
</tr>
<tr>
<td>A-series: 316L SS, Buna, Viton</td>
</tr>
<tr>
<td>B, G, L-series: Buna, Viton, Teflon, 316LSS</td>
</tr>
<tr>
<td>PROCESS CONNECTION:</td>
</tr>
<tr>
<td>A series: ¼, ⅛ NPT, 7/16-20 SAE</td>
</tr>
<tr>
<td>B,GL series: ¼, ⅛ NPT</td>
</tr>
<tr>
<td>RANGE:</td>
</tr>
<tr>
<td>A series: vac to 7500 PSI</td>
</tr>
<tr>
<td>B, G, L series: vac to 3000 PSI</td>
</tr>
<tr>
<td>OPERATING PROCESS TEMPERATURE:</td>
</tr>
<tr>
<td>A series: –40 to 212°F (~–40 to 100°C)</td>
</tr>
<tr>
<td>B, G, L-series: 0 to 300°F (~–18 to 149°C)</td>
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<tr>
<td>Varies by actuator material</td>
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<tr>
<td>APPROVALS:</td>
</tr>
<tr>
<td>G, L series: CSA, UL, CE, CRN</td>
</tr>
<tr>
<td>A, B series: CSA, UL, CE, FM, ATEX, IECEx, CRN, Dual seal</td>
</tr>
</tbody>
</table>

### DIFFERENTIAL PRESSURE SWITCHES

<table>
<thead>
<tr>
<th>MODEL: B, G, L series</th>
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</thead>
<tbody>
<tr>
<td>ACCURACY: 1%</td>
</tr>
<tr>
<td>CASE MATERIAL:</td>
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<tr>
<td>B &amp; L series: epoxy coated die cast aluminum</td>
</tr>
<tr>
<td>G-series: 316L SS</td>
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<tr>
<td>ENCLOSURE RATING:</td>
</tr>
<tr>
<td>B series: NEMA 4X, 7, 9, IP66</td>
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<tr>
<td>G &amp; L series: NEMA 4, 4X, IP66</td>
</tr>
<tr>
<td>ACTUATOR MATERIAL:</td>
</tr>
<tr>
<td>Buna, Viton, Teflon, 316LSS</td>
</tr>
<tr>
<td>PROCESS CONNECTION:</td>
</tr>
<tr>
<td>¼, ⅛ NPT</td>
</tr>
<tr>
<td>RANGE:</td>
</tr>
<tr>
<td>B series: 0 to 600 PSID</td>
</tr>
<tr>
<td>G, L series: 0 to 400 PSID</td>
</tr>
<tr>
<td>OPERATING PROCESS TEMPERATURE:</td>
</tr>
<tr>
<td>0 to 300°F (~–18 to 149°C)</td>
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<tr>
<td>Varies by actuator material</td>
</tr>
<tr>
<td>APPROVALS:</td>
</tr>
<tr>
<td>G, L series: CSA, UL, CE, CRN</td>
</tr>
<tr>
<td>B series: CSA, UL, CE, FM, ATEX, IECEx, CRN</td>
</tr>
</tbody>
</table>

**Look for these marks on our products:**

- A series: SIL 3 capable
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.

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).

Multiple Instrument Assemblies:

- **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

Digital Gauge Assembly:

- **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

**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, Kairez, 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

**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

CRN Listed

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**B Series**
1% accuracy
- **Enclosure Rating:** B & L series: epoxy coated die cast aluminum
- **Thermal Systems:** 316 SS direct mount
- **Process Connection:** ½ NPT direct mount
- **Range:** –40 to 750°F (~–40 to 400°C)
- **Approvals:** CSA, UL, CE

**G Series**
- **Enclosure Rating:** G-series: 316L SS
- **Thermal Systems:** 316 SS direct mount
- **Process Connection:** ½ NPT direct mount
- **Range:** –40 to 750°F (~–40 to 400°C)
- **Approvals:** CSA, UL, CE

**L Series**
- **Enclosure Rating:** L series: epoxy coated die cast aluminum
- **Thermal Systems:** 316 SS direct mount
- **Process Connection:** ½ NPT direct mount
- **Range:** –40 to 750°F (~–40 to 400°C)
- **Approvals:** CSA, UL, CE

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**B & L series:**
- **Material:** Epoxy coated die cast aluminum
- **Temperature:** –40 to 750°F (~–40 to 400°C)
- **Rating:** CSA, UL, CE


**BIMETAL THERMOMETER**

**DURATEMP® 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.

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**MODEL:** E1 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:** ¼, ¼ NPT or ⅜ NPT union, back, lower or everyangle  
**MOUNTING:** Everyangle, rear or lower  
**RANGES:** -40/120°F - 200/1000°F  
-50/50°C - 100/500°C  
**WINDOW:** Heavy duty glass

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**MODEL:** Duratemp®  
**ACCURACY:** 1% full span  
**DIAL SIZE:** 4½”, 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 ⅜” OD bulb  
**BULB STYLES:** Rigid extension or 12”, 18” or 24” bendable extension  
**CONNECTION SIZE & LOCATION:** ½ NPT & ½ 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

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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.