Type 212.53, 213.53 and 213.40 are ideal choices for Oil and Gas applications requiring an economical dry or liquid-filled pressure gauge. When vibration and/or pulsation are present, the glycerine fill dampens the Bourdon tube and minimizes pointer oscillation, which reduces wear on the gauge movement.

**Stainless Steel Case, Brass Internals, Field Liquid-fillable**

<table>
<thead>
<tr>
<th>Type</th>
<th>Size</th>
<th>Case</th>
<th>Ring</th>
<th>Wetted parts</th>
<th>Window</th>
<th>Liquid fill</th>
<th>Accuracy</th>
</tr>
</thead>
<tbody>
<tr>
<td>212.53</td>
<td>2&quot;, 2½&quot;, 4&quot;</td>
<td>304 SS</td>
<td>Polished stainless steel, crimped-on</td>
<td>Copper alloy</td>
<td>Acrylic</td>
<td>Dry (212.53); glycerine (213.53)</td>
<td>±2/1/2% of span (2&quot;, 2½“); ±1.0% of span (4“)</td>
</tr>
<tr>
<td>213.53</td>
<td>2&quot;, 2½&quot;, 4&quot;</td>
<td>304 SS</td>
<td>Polished stainless steel, crimped-on</td>
<td>Copper alloy</td>
<td>Acrylic</td>
<td>Dry (213.53); glycerine (213.53)</td>
<td>±2/1/2% of span (2&quot;, 2½“); ±1.0% of span (4“)</td>
</tr>
</tbody>
</table>

**Industrial Gauge, Factory-filled Case**

<table>
<thead>
<tr>
<th>Type</th>
<th>Size</th>
<th>Case</th>
<th>Ring</th>
<th>Wetted parts</th>
<th>Window</th>
<th>Liquid fill</th>
<th>Accuracy</th>
</tr>
</thead>
<tbody>
<tr>
<td>213.40</td>
<td>2½&quot;, 4&quot;</td>
<td>Forged brass</td>
<td>Gold-plated ABS (2½“); chrome-plated brass (4“)</td>
<td>Copper alloy</td>
<td>Acrylic</td>
<td>Dry (212.53); glycerine (213.53)</td>
<td>±2/1/2% of span (2½“); ±1.0% of span (4“)</td>
</tr>
</tbody>
</table>

**All Stainless Steel, Field Repairable, Field Liquid-fillable**

Featuring all stainless steel construction, these industrial and process grade gauges ensure long service life in the harshest, most demanding environments. Typical applications include process and chemical industries that require high quality precision instruments.

<table>
<thead>
<tr>
<th>Type</th>
<th>Size</th>
<th>Case</th>
<th>Ring</th>
<th>Wetted parts</th>
<th>Window</th>
<th>Liquid fill</th>
<th>Accuracy</th>
</tr>
</thead>
<tbody>
<tr>
<td>232.54</td>
<td>2½&quot;, 4&quot;</td>
<td>Stainless steel</td>
<td>Stainless steel bayonet, twist-on</td>
<td>316 SS</td>
<td>Safety glass</td>
<td>Dry (232.54); glycerine (233.54)</td>
<td>±2/1/2% of span (2½“); ±1.0% of span (4“)</td>
</tr>
<tr>
<td>233.54</td>
<td>2½&quot;, 4&quot;</td>
<td>Stainless steel</td>
<td>Stainless steel bayonet, twist-on</td>
<td>316 SS</td>
<td>Safety glass</td>
<td>Dry (232.54); glycerine (233.54)</td>
<td>±2/1/2% of span (2½“); ±1.0% of span (4“)</td>
</tr>
</tbody>
</table>

**All Stainless Steel Bourdon Tube**

The type 232.54 Xmas Tree Gauges was specifically designed for “Christmas tree” control assemblies mounted on oil and gas wellheads where harsh environments exist and maintenance must be minimized.

<table>
<thead>
<tr>
<th>Type</th>
<th>Size</th>
<th>Case</th>
<th>Ring</th>
<th>Wetted parts</th>
<th>Window</th>
<th>Liquid fill</th>
<th>Accuracy</th>
</tr>
</thead>
<tbody>
<tr>
<td>232.54</td>
<td>4&quot;</td>
<td>304 SS with vent plug</td>
<td>Polished stainless steel bayonet</td>
<td>316 SS</td>
<td>Laminated safety glass</td>
<td>Dry (232.53); glycerine (233.53)</td>
<td>±2/1/2% of span (2 and 2½“); ±1.0% of span (4“)</td>
</tr>
</tbody>
</table>

**All Stainless Steel, Field Liquid-fillable**

WIKA stainless steel liquid-filled gauges are recognized worldwide as the standard of accuracy and durability for use in fluid power and hydraulic systems. These gauges are ideal for skid systems, panels, compressors and pumps which may produce excessive vibration and pulsation.

<table>
<thead>
<tr>
<th>Type</th>
<th>Size</th>
<th>Case</th>
<th>Ring</th>
<th>Wetted parts</th>
<th>Window</th>
<th>Liquid fill</th>
<th>Accuracy</th>
</tr>
</thead>
<tbody>
<tr>
<td>232.53</td>
<td>2&quot;, 2½&quot;, 4&quot;</td>
<td>304 SS</td>
<td>Polished stainless steel, crimped-on</td>
<td>316 SS</td>
<td>Polycarbonate</td>
<td>Dry (232.53); glycerine (233.53)</td>
<td>±2/1/2% of span (2 and 2½“); ±1.0% of span (4“)</td>
</tr>
</tbody>
</table>


Low Pressure Process Gauge

WIKA type 6X2.34 low pressure process gauges offer accurate readings in harsh ambient conditions. They are able to measure the pressure of gaseous media from as low as 10" H2O to 275" H2O (10 psi) or other equivalent units of pressure or vacuum. The finely polished nickel-silver pinion gear and shaft of the movement ensurerepeatable accuracy.

6X2.34

Size
4½"

Case
Black plastic reinforced thermoplastic

Ring
Threaded thermoplastic

Wetted parts
612.34 - brass
632.34 - 316 SS

Window
Acrylic

Liquid fill
Silicone (633.34) for ranges 40" WC and up

Accuracy
± 2/1/2% of full span per ASME B40.1 Grade A

Differential Pressure Gauge, Process Industry

This stainless steel differential pressure gauge is suitable for corrosive environments and gaseous and liquid media that will not obstruct the pressure system.

732.51

Size
4", 6"

Ranges
7" H2O to 400 psi.

Case

Window
Laminated safety glass

Dial
White aluminum with black lettering

Pointer
Black aluminum, adjustable

Differential Pressure Gauge, Piston Style

These piston-style differential pressure gauges are suited for use in applications requiring low/medium differential pressure ranges in combination with high working pressures. The 700.04/05 series is intended for measuring pressure drops across filters, strainers, separators, heat exchangers and gas recovery systems.

700.04 / 700.05

Size
2½", 4½"

Case & bezel
Reinforced plastic

Sensor housing
316L SS or black anodized aluminum

Wetted parts
Aluminum or 316 SS sensor housing
316 SS spring, ceramic magnet,
Buna-N separation diaphragm (700.05)
Viton® sealing rings (700.04)

Window
Acrylic or shatter-resistant safety glass

DP ranges
0…5 psid thru 0…100 psid (700.04)
0…50" H2O thru 0…100 psid (700.05)

Max. working pressure
6,000 psig (700.04)
3,000 psig (700.05)

Accuracy (applied to ascending pressure only)
700.04:  ± 2% of full span
700.05:  ± 3% of full span (ranges 0…15 psid and up)
         ± 5% of full span (ranges below 0…15 psid)
         ± 5% of span (increasing), ranges 50" H2O thru 300" H2O

Differential Pressure Gauge, Dual Diaphragm Style

This dual diaphragm / liquid filled sensor element type gauge is designed for applications requiring low / medium differential pressure ranges in combination with high working pressures. The 732.26 is standard suitable for 02 service and is ideally for cryogenic applications, such as liquid level measurement.

732.26

Size
4½", 6"

Case
Black powder-coated aluminum

Bezel
Stainless steel polished

Sensor housing
316L SS

Wetted parts
316 SS diaphragm

Window
Acrylic or shatter-resistant safety glass

DP ranges
0…100" H2O thru 0…400 psid

Max. working pressure
600 psig

Accuracy
±1% of span
**Electronic Pressure Measurement**

**Explosion-proof Hazardous Area Pressure Transmitter**

The E series transmitters are CSA, FM-approved explosion-proof for Class I, Division I hazardous environments.

**E-10, E-11**

Ranges
5 psi to 15,000 psi, vacuum, compound, absolute

Output
4-20 mA or 1-5V low power

Accuracy
≤0.25% B.F.S.L.

**Intrinsically Safe Hazardous Area Pressure Transmitter**

WIKA’s intrinsically safe transmitters are FM, ATEX and CSA-approved. They are designed for installation in Class I, Division 1 hazardous locations.

**IS-20, IS-21**

Ranges
50 lnWC to 15,000 psi (IS-20), 50 lnWC to 8,000 psi (IS-21) vacuum, compound, absolute

Output
4-20 mA

Accuracy
≤0.25% B.F.S.L.

**Non-incendive Hazardous Area Pressure Transmitter**

Type N-10/N-11 pressure transmitters are specifically designed for gas compressor systems. These transmitters are engineered to meet Class I, Division 2 non-incendive protection in hazardous environments.

**N-10, N-11**

Ranges
5 psi to 15,000 psi, vacuum, compound, absolute

Output
4-20 mA or 1-5V low power

Accuracy
≤0.25% B.F.S.L.

**Intrinsically Safe**

**IL-10**

WIKA IL-10 intrinsically safe submersible liquid level transmitters are engineered for a wide variety of industrial and municipal liquid level measurement applications installed in hazardous areas. Each transmitter undergoes extensive quality control testing and calibration to achieve high accuracy and reliability.

Ranges
50 lnWC to 400 psi

Output
4-20 mA, 2-wire

Accuracy
≤0.125% B.F.S.L.
Intrinsically Safe Hazardous Area Pressure Transmitter

WIKA's intrinsically safe transmitters are FM, ATEX and CSA-approved. They are designed for installation in Class I, Division 1 hazardous locations.

The IS-20-F has an all stainless steel integral junction box for installation in harsh environments.

The IS-21-F transmitter features a flush diaphragm process connection and is specifically designed for the measurement of viscous fluids or medias containing solids that may clog a NPT process connection.

**IS-20-F, IS-21-F**

*Ranges*
- 50 InWC to 15,000 psi (IS-20-F), 50 InWC to 8,000 psi (IS-21-F)
- Vacuum, Compound, Absolute

*Output*
- 4-20 mA

*Accuracy*
- ±0.25% B.F.S.L

Digital Temperature Transmitter

The T12 digital temperature transmitter is designed for universal use in the oil and gas industry. It offers a high accuracy, galvanic isolation and an excellent EMI protection.

The transmitter can be delivered with either a basic configuration or configured according to customer's specifications.

**T12**

*Input*
- RTD, Thermocouple

*Programming*
- Ranges and sensor programmable using Windows software

*Measurement error*
- ±0.2 °C

*EMC*
- CE

*Output*
- 4-20 mA 2-wire

*Environmental conditions*
- -40...+85°C, -50...+85°C opt. 95% Rh protection

Digital Temperature Transmitter

Via HART® protocol, the T32 temperature transmitter is configurable (interoperable) with a variety of open configuration tools. In addition to the different sensor types (e.g. sensors in accordance with DIN EN 60 751, JIS C1606, DIN 43 760, IEC 60 584 or DIN 43 710), customer specific sensor-curves can also be defined through the input of user-defined linearization data.

**T32 HART®**

*Input*
- RTD, Thermocouple

*Programming*
- Ranges and sensor programmable with Windows software and common asset management systems, and HART® Communicator

*Measurement error*
- ±0.08 °C

*EMC*
- CE, NAMUR NE21

*Output*
- 4-20 mA, HART® protocol

*Environmental conditions*
- -40...+85°C, -50...+85°C opt. 95% Rh protection

Digital Temperature Transmitter

The Fieldbus temperature transmitter type T53.10 with FOUNDATION™ and PROFIBUS® PA Fieldbus Communication is suitable for temperature measurement with resistance thermometers and thermocouples. Resistance and mV measurements with or without customer specific linearization are possible. Difference, average or redundancy temperature measurements can be provided.

**T53.10 PROFIBUS® PA**

*Input*
- Pt 25, Thermocouple

*Programming*
- Ranges and sensor programmable using Windows software

*Measurement error*
- ±0.2 °C

*EMC*
- CE

*Output*
- FOUNDATION™ Fieldbus, PROFIBUS® PA

*Environmental conditions*
- -40...+85°C

95% Rh protection
Mechanical Temperature Measurement
High Precision & Calibration

Process Grade Bimetal Thermometers
WIKA's bimetal process grade thermometers are suitable for nearly every direct-reading thermometer application. Their durable construction ensures reliable readings and long-lasting service. The superior quality of the WIKA types 30, 31, 32, 50, 51 and 52 is reflected in the seven-year warranty.

**TI.30, TI.31, TI.32, TI.50, TI.51, TI.52**

**Size**
3", 5"

**Case & stem**
304 SS

**Stem lengths**
2 1/2" to 72" (call factory for lengths over 72")

**Case configuration**
Back-connected, bottom-connected, adjustable angle

**Connection**
1/2" NPT on 3" and 5" dials (std.)

**Window**
Flat instrument glass

**Dial**
White aluminum; anti-parallax

**Pointer**
Black aluminum

**Accuracy**
±1.0% of span ASME B40.3 Grade A

**Scale**
Single °F or °C or dual scale

**Ranges**
-100°F (-70°C) to 1000°F (500°C), available in dual scale F&C, Fahrenheit only or Celsius only

**External reset**
A slotted hex adjustment head offers screwdriver or wrench use to field calibrate the thermometer

**Fill policy**
WIKA does not recommend continued use of filled instruments at operating temperatures above 400°F(204°C) or below -100°F(-70°C)

**Hermetic seal**
Hermetically sealed per ASME B40.3.; ingress protection IP 65; NEMA 4X; guaranteed not to fog

**Immersion**
For accurate temperature readings, immerse stem a minimum of 2" in agitated liquid or 4" in moving air or gas

**Options**
Dampened movement; min-max pointer; 3/8" stem; 316 SS wetted parts; safety glass; Lexan® and acrylic windows; silicone fill

Gas Actuated Thermometers
WIKA gas actuated dial thermometers are easy-to-read and provide excellent performance throughout their ranges. They provide extremely accurate temperature readings from remote locations or mercury-sensitive environments.

**TI.R45, TI.R60**

**Dial**
4½", 6"

**Case connection**
Front flange, back flange, u-clamp, phenolic turret, direct reading adjustable angle

**Connection**
Variety of connection systems

**Capillary lengths**
Up to 99’

**Ranges**
-320°F(-200°C) to 1200°F(650°C)

**Options**
Dampened movement; bendable extensions up to 18” with sliding union; copper bulb, capillary & braided armor; stainless steel bulb; capillary & spring armor; stainless steel interlocking armor; acrylic or shatterproof glass window

Note: Thermometer pictured with optional thermowell installed.

**Digital Test Gauge**
WIKA gas actuated dial thermometers are easy-to-read and provide excellent performance throughout their ranges. They provide extremely accurate temperature readings from remote locations or mercury-sensitive environments.

**CPG 1000**

**Pressure units**
Displays in 18 standard pressure units with 1 custom unit

**Features**
MIN/MAX, TARE, dampening

**Approvals**
CSA/US intrinsically safe, Class 1, Div. 2 Groups A,B, C, & D; CE approved

**Accuracy**
±0.05% full scale
**Thermowells**

Thermowells for temperature instruments are recommended for all processes where measurement is of a corrosive medium, high pressure or high flow application. WIKA thermowells are available from a complete selection of base materials, as well as shields and coatings, and in threaded, flanged, welded and sanitary connections. WIKA thermowells are offered in .260" and .385" bores. WIKA sanitary thermowells meet the criteria for 3A sanitary standard 09-09 requirements. WIKA also manufactures thermowell conversion kits to adapt different thermowells to new types of thermometers.

**Process connections**
Threaded, flanged, welded, sanitary

**Instrument connection**
½" NPSM standard

**Shank configurations**
Stepped, straight, tapered

**Bore diameter**
.260", .385"

**Materials**
Brass, AISI 304, AISI 316, (other materials available)

**Surface finish**
Brass: 60-100Ra; AISI 304 & AISI 316; sanitary: (AISI 304 & 316): 16-32Ra

**Pressures Snubbers**
Pressure snubbers dampen pressure oscillations, allowing easy reading of the "average" pressure. They also protect the gauge from damaging pulsation and spikes. Available in brass and 316 SS with porous, piston and throttling types.

**Mini-siphon**
The WIKA type 910.24 mini-siphon is specifically designed to replace the old pigtail and coil siphon. The mini-siphon has a thermal barrier which protects the pressure gauge from harmful steam, hot vapors and liquids, and contains a unique inner chamber that reduces pressure surges and "water hammer". By mounting the gauge closer to the process, the mini–siphon is designed to eliminate gauge whip and vibration that is typically found on traditional siphons.

**Adjustable Over-pressure Protector**
Over-pressure protectors protect the pressure gauge from damaging spikes and surges that exceed the rated capacity of the instrument. WIKA over-pressure protectors come in seven selectable ranges from 6 psi to 8,700 psi. Available in 316 SS.

**Siphons**
Siphons protect instruments from high temperature mediums such as saturated steam. The high temperature steam condenses in the siphon, preventing it from damaging the gauge internals. Available in brass, steel or 316 SS. For horizontal (coil) or vertical (pigtail) installations.
For over 60 years, WIKA Instrument Corporation has continuously advanced pressure gauge, transmitter and temperature measurement instrumentation. As the global leader in lean manufacturing, WIKA offers a broad selection of stock and custom instrumentation solutions, which are often available for distribution within days. Producing over 43 million gauges, diaphragm seals, transmitters and thermometers worldwide annually, WIKA’s extensive product line provides measurement solutions for any application. The WIKA sales team, along with its customer service and technical staff members, are ready to share their extensive product and industry knowledge to make your business experience with WIKA productive and progressive.

WIKA provides distinctive service and support to our channel partners and customers:

- Award winning U.S.-based manufacturing, sales and ordering customer service and technical support
- Certified technical specialists who conduct Best Practice Instrument Reviews with performance improvement reports
- An in-house engineering team for product customization and innovation
- Proven capabilities to connect with customer business processes for ordering and inventory management
- Web-based customer service features, including RFQs, literature request and competitor product cross reference