High Purity & Ultra High Purity Pressure and Weight Measurement
High Purity & Ultra High Purity - Pressure and Weight Measurement

**Superior Quality**

Comprehensive quality control and engineering efforts ensure that every WIKA instrument is built to last.

**Industry Driven Products**

WIKA’s High Purity and Ultra High Purity products are designed to the rigorous standards and recommendations relevant to the manufacturing of photovoltaic cells and modules (ASME, SEMATECH, SEMI, RoHS and NEMA) and to the semiconductor market and its governing agencies (ASME, SEMATECH and SEMI).

**Innovative Custom Designs**

A team of development engineers provide customized designs to meet customer specific applications and requirements.

**Gas Cylinder Scales**

**GCS-1**

WIKA’s Gas Cylinder Scales are engineered and designed for liquid delivery sources used in both indoor and outdoor hazardous and nonhazardous applications.

**Ranges**

- 0 ... 300 lbs (approximately 136 kg)
- 0 ... 100 lbs (approximately 45 kg)
- 0 ... 60 lbs (approximately 27 kg)

**Output**

- 4-20mA (all units), 0-5VDC (only for 300 lbs units)

**Accuracy**

< 0.1% RSS

**Dimensions**

- 9.25” x 9.25” x 1.25”
  (235 mm x 235 mm x 32 mm)

**Ingress Protection**

- NEMA 4 / IP65

**Attachable Indicators**

**WUR-1**

WIKA’s Attachable Indicators provide a local display of the process pressure measured by the transducer. In addition, the indicators provide an analog output signal (current or voltage as provided by the transducer) and two programmable switch points.

**Display Design**

- 7-segment LED (red); 4 digits

**Programmable Pressure Units**

- Bar, PSI, kg/cm², MPa, kPa

**Outputs**

- 4-20mA, 0-5VDC, 0-10VDC
- 2 NPN (open collector) switch points

**Accuracy**

- < 0.5% RSS +/- 1 digit

**Ingress Protection**

- IP65

**Application Examples**

- Photovoltaic production
- Semiconductor, microelectronics and flat panel display production
- Gas panels for OEM tools
- Specialty and bulk-gas distribution
- Gas cabinets, gas panels, gas sticks and valve manifold boxes (VMB)
- Chemical distribution systems

WIKA offers a wide variety of gas and chemical delivery products engineered to the demanding standards of the semiconductor and photovoltaic industries.

**WUR-1**

WIKA’s Gas Cylinder Scales are engineered and designed for liquid delivery sources used in both indoor and outdoor hazardous and nonhazardous applications.

**Ranges**

- 0 … 300 lbs (approximately 136 kg)
- 0 … 100 lbs (approximately 45 kg)
- 0 … 60 lbs (approximately 27 kg)

**Output**

- 4-20mA (all units), 0-5VDC (only for 300 lbs units)

**Accuracy**

- < 0.1% RSS

**Dimensions**

- 9.25” x 9.25” x 1.25”
  (235 mm x 235 mm x 32 mm)

**Ingress Protection**

- NEMA 4 / IP65

**WUR-1**

WIKA’s Attachable Indicators provide a local display of the process pressure measured by the transducer. In addition, the indicators provide an analog output signal (current or voltage as provided by the transducer) and two programmable switch points.

**Display Design**

- 7-segment LED (red); 4 digits

**Programmable Pressure Units**

- Bar, PSI, kg/cm², MPa, kPa

**Outputs**

- 4-20mA, 0-5VDC, 0-10VDC
- 2 NPN (open collector) switch points

**Accuracy**

- < 0.5% RSS +/- 1 digit

**Ingress Protection**

- IP65

**Application Examples**

- Photovoltaic production
- Semiconductor, microelectronics and flat panel display production
- Gas panels for OEM tools
- Specialty and bulk-gas distribution
- Gas cabinets, gas panels, gas sticks and valve manifold boxes (VMB)
- Chemical distribution systems

WIKA’s Gas Cylinder Scales are engineered and designed for liquid delivery sources used in both indoor and outdoor hazardous and nonhazardous applications.

**Ranges**

- 0 … 300 lbs (approximately 136 kg)
- 0 … 100 lbs (approximately 45 kg)
- 0 … 60 lbs (approximately 27 kg)

**Output**

- 4-20mA (all units), 0-5VDC (only for 300 lbs units)

**Accuracy**

- < 0.1% RSS

**Dimensions**

- 9.25” x 9.25” x 1.25”
  (235 mm x 235 mm x 32 mm)

**Ingress Protection**

- NEMA 4 / IP65
Ultra High Purity Transducers

**WUC-10, WUC-15, WUC-16**

The ultra compact design of the WUC series transducer meets the smallest product footprint requirements. The space-saving design easily replaces comparable transducers, making it the perfect fit for new equipment and retrofit projects.

**Ranges**
- 15 psi to 5,000 psi
  - (and other equivalent pressure units)
  - Vacuum, compound, absolute, gauge

**Output**
- 4-20mA, 0-5VDC, 0-10VDC

**Accuracy**
- < 0.20% RSS

**Ingress Protection**
- NEMA 4 / IP65
  - (side access zero point adjustment)

---

**WU-20, WU-25, WU-26**

The WU-2 series transducer combines state-of-the-art digital transducer concepts with analog-like output signals to provide the safest and most accurate pressure measurements necessary for today’s demanding market requirements.

**Ranges**
- 15 psi to 5,000 psi
  - (and other equivalent pressure units)
  - Vacuum, compound, absolute, gauge

**Output**
- 4-20mA, 0-5VDC, 0-10VDC

**Accuracy**
- < 0.15% RSS

**Ingress Protection**
- NEMA 4 / IP65
  - (side access zero point adjustment)

---

**WU-10, WU-15, WU-16**

**Ranges**
- 15 psi to 5,000 psi
  - (and other equivalent pressure units)
  - Vacuum, compound, absolute, gauge

**Output**
- 4-20mA, 0-5VDC, 0-10VDC

**Accuracy**
- < 0.25% RSS

**Ingress Protection**
- NEMA 3 / IP54
  - (side access zero point adjustment)
### High Purity Gauges

**130.15**

The 130.15 is the ideal gauge for specialty gas, high purity and PV applications in systems using NPT connections.

**Gauge Type**
Bourdon tube

**Size**
- 2" (53 mm)
- 1½" (40 mm)

**Accuracy**
- 2": 2/1/2 % of span (ASME B40.100 Grade A)
- 1½": 3/2/3 % of span (ASME B40.100 Grade B)

**Case**
- 304 stainless steel, electropolished

**Wetted Surface**
- 316L stainless steel
- Ra < 1.0µm (Ra < 40µinch)-internal

**Connection Type and Position**
- ¼" NPT Lower Mount and Center Back Mount

**Testing**
- Helium leak tested 1 x 10⁻⁹ scc/sec (inboard)

**Cleanliness**
- ASME B40.1, level IV (for oxygen service)

**Packaging**
- Single nylon bag, nitrogen purged

### Ultra High Purity Gauges

**230.15**

The 230.15 is the right choice for specialty gas, high purity, PV and SEMI applications in systems using face-seal connections.

**Gauge Type**
Bourdon tube

**Size**
- 2" (53 mm)
- 1½" (40 mm)

**Accuracy**
- 2": 2/1/2 % of span (ASME B40.100 Grade A)
- 1½": 3/2/3 % of span (ASME B40.100 Grade B)

**Case**
- 304 stainless steel, electropolished

**Wetted Surface**
- 316L stainless steel electropolished
- Ra < 0.25µm (Ra < 10µinch)

**Connection Type and Position**
- ¼” face seal, Lower Mount and Center Back Mount

**Testing**
- Helium leak tested 1 x 10⁻⁹ scc/sec (inboard)

**Cleanliness**
- Special cleaning according to SEMI spec

**Packaging**
- Cleaned, nitrogen purged and double bagged in clean room

### Ultra High Purity Gauges

**230.25**

The 230.25 is best suited for applications that insist on VIM/VAR wetted parts and face-seal connections.

**Gauge Type**
Bourdon Tube

**Size**
- 2” (53 mm)
- 1½” (40 mm)

**Accuracy**
- 2": 2/1/2 % of span (ASME B40.100 Grade A)
- 1½": 3/2/3 % of span (ASME B40.100 Grade B)

**Case**
- 304 stainless steel, electropolished

**Wetted Surface**
- 316L stainless steel VIM/VAR, electropolished
- Ra < 0.25µm (Ra < 10µinch)

**Connection Type and Position**
- ¼” face seal, Lower Mount and Center Back Mount

**Testing**
- Helium leak tested 1 x 10⁻⁹ scc/sec (inboard)

**Cleanliness**
- Special cleaning according to SEMI spec

**Packaging**
- Cleaned, nitrogen purged and double bagged in clean room

### Ultra High Purity Gauges

**432.25**

The 432.25 is the perfect gauge for low pressure, point-of-use applications. The gauge’s diaphragm design reduces particle generation and increases dry-down times.

**Gauge Type**
Diaphragm

**Size**
- 2” (53 mm), 1½” (40 mm), 1⅛” (28 mm)

**Accuracy**
- 2”: 3/2/3 % of span (ASME B40.100 Grade B)
- 1½”: 4/3/4 % of span (ASME B40.100 Grade C)
- 1⅛”: 4/3/4 % of span (ASME B40.100 Grade C)

**Case**
- 304 stainless steel, electropolished

**Wetted Surface**
- 316L stainless steel electropolished
- Ra < 0.25µm (Ra < 10µinch)

**Connection Type and Position**
- ¼” face seal, flow-through
- 1⅛” C seal

**Testing**
- Helium leak tested 1 x 10⁻⁹ scc/sec (inboard)

**Cleanliness**
- Special cleaning according to SEMI spec

**Packaging**
- Cleaned, nitrogen purged and double bagged in clean room

---

**Mechanical Pressure Measurement**

**Ultra High Purity Gauges**

**230.15**

The 230.15 is the right choice for specialty gas, high purity, PV and SEMI applications in systems using face-seal connections.

**Gauge Type**
Bourdon tube

**Size**
- 2” (53 mm)
- 1½” (40 mm)

**Accuracy**
- 2": 2/1/2 % of span (ASME B40.100 Grade A)
- 1½": 3/2/3 % of span (ASME B40.100 Grade B)

**Case**
- 304 stainless steel, electropolished

**Wetted Surface**
- 316L stainless steel electropolished
- Ra < 0.25µm (Ra < 10µinch)

**Connection Type and Position**
- ¼” face seal, Lower Mount and Center Back Mount

**Testing**
- Helium leak tested 1 x 10⁻⁹ scc/sec (inboard)

**Cleanliness**
- Special cleaning according to SEMI spec

**Packaging**
- Cleaned, nitrogen purged and double bagged in clean room

---

**Ultra High Purity Gauges**

**432.25**

The 432.25 is the perfect gauge for low pressure, point-of-use applications. The gauge’s diaphragm design reduces particle generation and increases dry-down times.

**Gauge Type**
Diaphragm

**Size**
- 2” (53 mm), 1½” (40 mm), 1⅛” (28 mm)

**Accuracy**
- 2": 3/2/3 % of span (ASME B40.100 Grade B)
- 1½”: 4/3/4 % of span (ASME B40.100 Grade C)
- 1⅛”: 4/3/4 % of span (ASME B40.100 Grade C)

**Case**
- 304 stainless steel, electropolished

**Wetted Surface**
- 316L stainless steel electropolished
- Ra < 0.25µm (Ra < 10µinch)

**Connection Type and Position**
- ¼” face seal, flow-through
- 1⅛” C seal

**Testing**
- Helium leak tested 1 x 10⁻⁹ scc/sec (inboard)

**Cleanliness**
- Special cleaning according to SEMI spec

**Packaging**
- Cleaned, nitrogen purged and double bagged in clean room

---

**call 1-888-WIKA-USA or visit www.wika.com/uhp**
Indicating Pressure Switch Gauges

Used in gas delivery applications, WIKA's Indicating Pressure Switch (IPS) Gauges are available with either a magnetic reed or inductive switch alarm contact. Alarm contacts provide safe and reliable monitoring and control of process gases.

### Magnetic Reed Switch Gauges

<table>
<thead>
<tr>
<th>230.15, 230.25 + 851.3 Alarm Contact</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Gauge Type</strong></td>
</tr>
<tr>
<td><strong>Switch Type</strong></td>
</tr>
<tr>
<td><strong>Size</strong></td>
</tr>
<tr>
<td><strong>Accuracy</strong></td>
</tr>
<tr>
<td><strong>Case</strong></td>
</tr>
</tbody>
</table>
| **Wetted Surface** | 230.15: 316L stainless steel electropolished Ra < 0.25μm (Ra < 10µinch)  
230.25: 316L stainless steel VIM/VAR electropolished Ra < 0.25μm (Ra < 10µinch) |
| **Connection Type and Position** | 230.15: ¼" face seal Lower Mount and Center Back Mount (NPT option available)  
230.25: ¼" face seal Lower Mount and Center Back Mount |
| **Testing** | Helium leak tested 1 x 10⁻⁹ scc/sec (inboard) |
| **Cleanliness** | Special cleaning according to SEMI spec |
| **Packaging** | Cleaned, nitrogen purged and double bagged in clean room |

### Inductive Switch Gauges

<table>
<thead>
<tr>
<th>130.15, 230.15, 230.25 + 830.1E Alarm Contact</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Gauge Type</strong></td>
</tr>
<tr>
<td><strong>Switch Type</strong></td>
</tr>
<tr>
<td><strong>Size</strong></td>
</tr>
<tr>
<td><strong>Accuracy</strong></td>
</tr>
<tr>
<td><strong>Case</strong></td>
</tr>
</tbody>
</table>
| **Wetted Surface** | 130.15: 316L stainless steel Ra < 1.0μm (Ra < 40µinch)-internal  
230.15: 316L stainless steel electropolished Ra < 0.25μm (Ra < 10µinch)  
230.25: 316L stainless steel VIM/VAR, electropolished Ra < 0.25μm (Ra < 10µinch) |
| **Connection Type and Position** | 130.15: ¼" NPT Lower Mount and Center Back Mount  
230.15: ¼" face seal Lower Mount and Center Back Mount  
230.25: ¼" face seal Lower Mount and Center Back Mount |
| **Testing** | Helium leak tested 1 x 10⁻⁹ scc/sec (inboard) |
| **Cleanliness** | 130.15: ASME B40.1, level IV (for oxygen service)  
230.15: Special cleaning according to SEMI spec  
230.25: Special cleaning according to SEMI spec |
| **Packaging** | 130.15: Single nylon bag, nitrogen purged  
230.15: Cleaned, nitrogen purged and double bagged in clean room  
230.25: Cleaned, nitrogen purged and double bagged in clean room |
Pressure Gauges for High Purity and Ultra High Purity Applications

<table>
<thead>
<tr>
<th>HP</th>
<th>UHP</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Model</strong></td>
<td></td>
</tr>
<tr>
<td>130.15</td>
<td>230.15</td>
</tr>
<tr>
<td><strong>Nominal size</strong></td>
<td></td>
</tr>
<tr>
<td>1½” (40 mm)</td>
<td>2” (53 mm)</td>
</tr>
<tr>
<td>2” (53 mm)</td>
<td></td>
</tr>
<tr>
<td><strong>Window type / material</strong></td>
<td></td>
</tr>
<tr>
<td>snap-in / polycarbonate</td>
<td>twist-lock / polycarbonate</td>
</tr>
<tr>
<td></td>
<td>snap-in / polycarbonate</td>
</tr>
<tr>
<td><strong>Scale range</strong></td>
<td></td>
</tr>
<tr>
<td>-1 … 0 bar</td>
<td>-30 inHg … 0 psi</td>
</tr>
<tr>
<td></td>
<td>0 … 1000 bar</td>
</tr>
<tr>
<td><strong>Accuracy</strong></td>
<td></td>
</tr>
<tr>
<td>Class according to ASME B40.1</td>
<td></td>
</tr>
<tr>
<td>Grade B</td>
<td>Grade A</td>
</tr>
<tr>
<td>% of span</td>
<td>± 3/2/3</td>
</tr>
<tr>
<td><strong>Design</strong></td>
<td></td>
</tr>
<tr>
<td>Gauge type</td>
<td>Bourdon tube gauge</td>
</tr>
<tr>
<td><strong>tube or diaphragm material</strong></td>
<td>316L stainless steel</td>
</tr>
<tr>
<td><strong>Measurement system design</strong></td>
<td>standard design</td>
</tr>
<tr>
<td><strong>Socket or lower part material</strong></td>
<td>316L stainless steel</td>
</tr>
<tr>
<td><strong>Pointer</strong></td>
<td>black, aluminum</td>
</tr>
<tr>
<td><strong>Dial</strong></td>
<td>white, aluminum</td>
</tr>
<tr>
<td><strong>Case</strong></td>
<td>304 stainless steel electropolished</td>
</tr>
<tr>
<td><strong>Window</strong></td>
<td>polycarbonate</td>
</tr>
<tr>
<td><strong>Wetted surface treatment</strong></td>
<td>O₂ cleaned acc. ASME Level IV</td>
</tr>
<tr>
<td>Bourdon tube</td>
<td>Dynaflow extrude hone passivated after welding</td>
</tr>
<tr>
<td>Measuring system</td>
<td>Ra &lt; 0.5µm (Ra &lt; 20µinch)</td>
</tr>
<tr>
<td><strong>Process connection</strong></td>
<td></td>
</tr>
<tr>
<td>Standard</td>
<td>1/4” NPT male</td>
</tr>
<tr>
<td>wetted surface finish: Ra &lt; 1.0µm (Ra &lt; 40µinch) - internal</td>
<td>wetted surface electropolished Ra &lt; 0.25µm (Ra &lt; 10µinch)</td>
</tr>
<tr>
<td><strong>Option</strong></td>
<td></td>
</tr>
<tr>
<td>1/4” face seal</td>
<td>1/4” NPT male</td>
</tr>
<tr>
<td>weld stub</td>
<td>weld stub</td>
</tr>
<tr>
<td><strong>Cleaning treatment</strong></td>
<td></td>
</tr>
<tr>
<td>Production environment</td>
<td>manufactured on standard work floor</td>
</tr>
<tr>
<td>Calibration medium</td>
<td>pure nitrogen</td>
</tr>
<tr>
<td>Cleanliness</td>
<td>ASME B40.1, level IV (for oxygen service)</td>
</tr>
<tr>
<td>Packing</td>
<td>single nylon bag, nitrogen purged</td>
</tr>
<tr>
<td><strong>Alarm contacts</strong></td>
<td></td>
</tr>
<tr>
<td>Inductive switch</td>
<td>830.1E(NPN)</td>
</tr>
<tr>
<td>Magnetic reed switch</td>
<td>851.3</td>
</tr>
</tbody>
</table>

Legend: **Standard** | **Standard +** | **Standard ++**

Call 1-888-WIKA-USA or visit www.wika.com/uhp
<table>
<thead>
<tr>
<th>UHP</th>
<th>UHP Flow-through gauges</th>
</tr>
</thead>
<tbody>
<tr>
<td>230.25</td>
<td>432.25</td>
</tr>
<tr>
<td>1½” (40 mm)</td>
<td>2” (53 mm)</td>
</tr>
<tr>
<td>1½” (28 mm)</td>
<td>1½” (40 mm)</td>
</tr>
<tr>
<td>2” (53 mm)</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Model</th>
<th>Nominal size</th>
<th>Window type / material</th>
<th>Scale range</th>
<th>Accuracy</th>
</tr>
</thead>
<tbody>
<tr>
<td>130.15</td>
<td>1½” (40 mm)</td>
<td>twist-lock / polycarbonate</td>
<td>-1 … 0 bar</td>
<td>± 3/2/3</td>
</tr>
<tr>
<td>230.15</td>
<td>2” (53 mm)</td>
<td>twist-lock / polycarbonate</td>
<td>-30 inHG ... 0 psi</td>
<td>± 2/1/2</td>
</tr>
<tr>
<td>230.25</td>
<td>1½” (40 mm)</td>
<td>twist-lock / polycarbonate</td>
<td>-1 … 4 bar</td>
<td>± 3/2/3</td>
</tr>
<tr>
<td>432.25</td>
<td>2” (53 mm)</td>
<td>twist-lock / polycarbonate</td>
<td>-1 … 9 bar</td>
<td>± 2/1/2</td>
</tr>
</tbody>
</table>

**Design**

- **Gauge type**: Bourdon tube gauge
- **Tube or diaphragm material**: 316L stainless steel
- **Measurement system design**: gap free design
- **Socket or lower part material**: 316L stainless steel
- **Pointer**: black, aluminum
- **Dial**: white, aluminum
- **Case**: 304 stainless steel electropolished
- **Window**: polycarbonate

**Bourdon tube**

- O2 cleaned acc. ASME Level IV
- Internal surface passivated (ASTM A967)

**Diaphragm gauge**

- Dynaflow extrude hone, passivated and electropolished after welding. Ra < 0.25µm (Ra < 10µin)
- All wetted surface of lower part electropolished. Ra < 0.25µm (Ra < 10µin)

**Process connection**

- Standard: 1/4” NPT male, 1/4” face seal
- Option: 1/4” face seal, 1/4” NPT male

**Cleaning treatment**

- Manufactured on standard work floor, manufactured in cleanroom
- Wetted surface electropolished, Ra < 0.25µm (Ra < 10µin)

**Alarm contacts**

- Inductive switch: 830.1E(NPN)
- Magnetic reed switch: 851.3

Visit www.wika.com/uhp
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 40 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