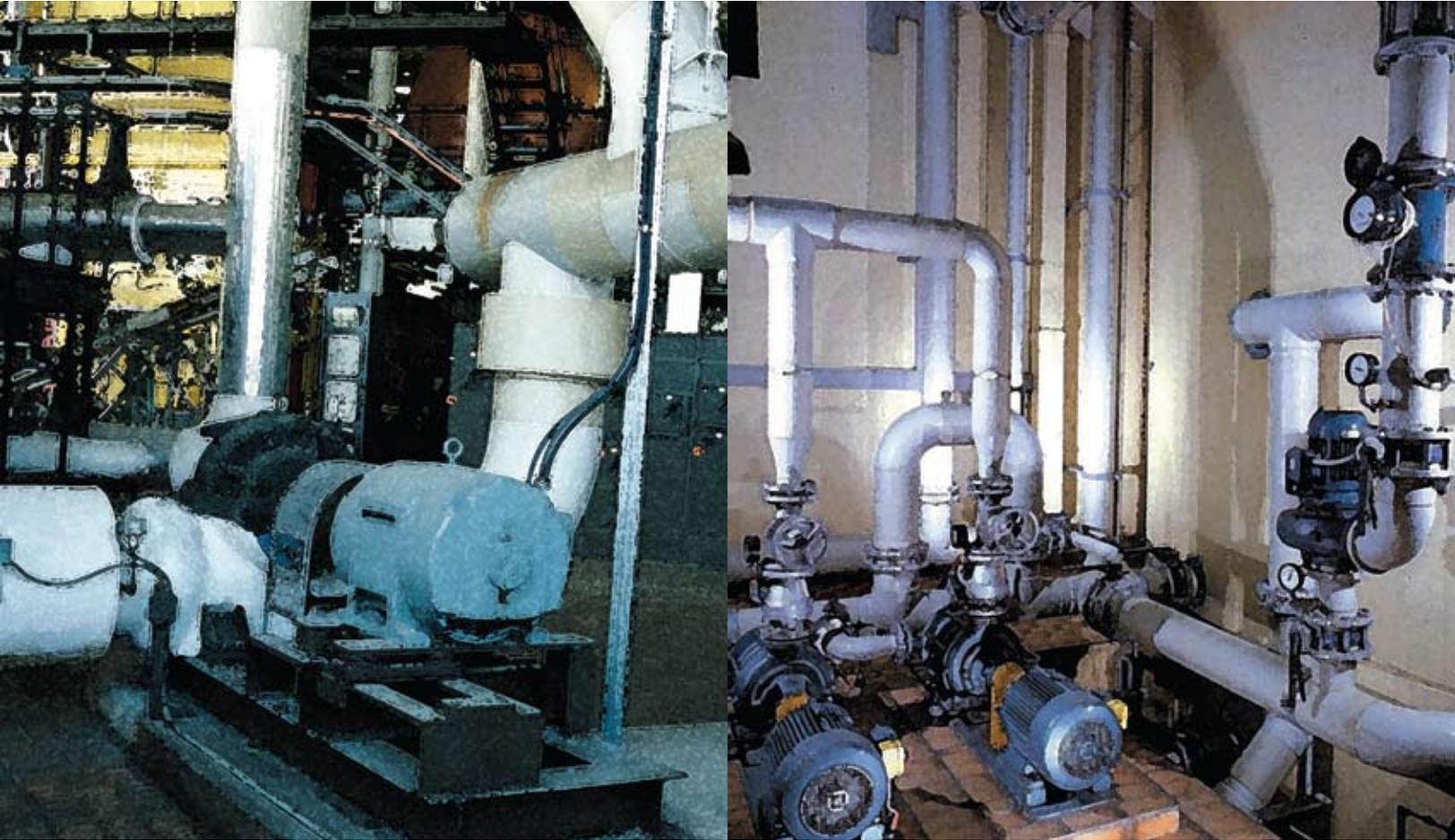


Boilers  
Compressors  
Chillers  
Pipe Systems

# HVAC Pressure and temperature measurement for contractors & applications



**WIKAI**

Part of your business

### Industrial Glass Thermometer Spirit Filled

WIKA industrial glass thermometers are made to last. Features include molded housings, impact resistance and mounted glass tubes to resist shock. Accuracy is guaranteed to within  $\pm 1\%$  of full scale range per ANSI B40.8 and the spring mounted glass window reduces rattling.

**TI.701, TI.901, TI.61102, TI.61104, TI.62102, TI.62104**

Features	blue spirit fill (non-mercury); guaranteed accuracy to within $\pm 1\%$ of full scale range; spring mounted glass window eliminates rattles
7" & 9"	completely adjustable locking case & stem; ranges to 550°F (288°C) in Fahrenheit, Celsius, and dual scale; available with or without thermowell; standard aluminum case
6"	available with brass dual-threaded thermowell socket that fits both 1/2" and 3/4" NPT; ranges -40°F (-40°C) to 400°F (200°C) in Fahrenheit, Celsius, and dual scale

TI.61102 shown



### Type TI.D01 Solar Digital Thermometer

WIKA's spirit-free solar industrial thermometers are an excellent alternative to mercury-in-glass thermometers. Offering fast, accurate and easy-to-read temperature indications, these instruments are completely interchangeable with standard industrial glass thermometers. The solar industrial thermometer has standard ranges of -50°F to 300°F (-50°C to 150°C).

**TI.D01**

Range	-50 to 300°F (-50/150°C)
Accuracy	$\pm 1\%$ of reading or 1° (whichever is greater)
Sensor	glass passivated thermistor - NTC
Lux Rating	10 lux (one foot candle)
Stem	in full compliance with Fed Spec GG-T-321D



### Pocket Test Thermometer

The WIKA Type TI.1005 is a bimetal dial thermometer requiring no power to deliver its quick, accurate readings. The 1" dial is easy-to-read and has a stem length of 5".

Type TI.1006DW is a water-resistant digital thermometer offering both °F & °C readings. It has a "data hold" feature which remembers the last reading. Each thermometer includes a pocket case which can be used to hold the stem.

**TI.1006DW, TI.1005**

Range	<b>TI.1005</b> -40 to 160°F, 0 to 200°F, 50 to 500°F, 0 to 200°C <b>TI.1006DW</b> -40 to 300°F (-40 to 150°C) switchable
Accuracy	$\pm 1\%$ of full scale



TI.1006DW

### Thermowells

Thermowells for temperature instruments are recommended for all processes with pressure, flow, or where corrosive media is present. WIKA thermowells are available from a complete selection of base materials and for threaded, flanged or welded.

**TW.TH, TW.SW, TW.WI, TW.FL, TW.VS, TW.SC**

Process connections	threaded, flanged, welded, sanitary
Instrument connection	1/2" NPSM standard
Shank configurations	stepped, straight, tapered
Bore diameter	.260", .385"
Materials	brass, AISI 304, AISI 316, (other materials available)



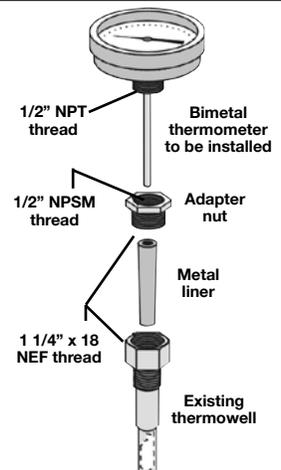
WIKA also carries a full line of thermowells for standard industrial glass and solar industrial thermometers. The thermowells are available in a variety of materials and lengths, and are manufactured to fit stems in compliance with Fed Spec GG-T-321D.

### Type T-85 Thermowell Conversion Kit

**T-85**

This conversion kit offers an easy, inexpensive way to install a WIKA bimetal thermometer in a glass industrial thermometer's thermowell. To order, specify part number TA800-0T85.

Part Number  
TA800-0T85



### Type TI.20 2" Utility Grade Thermometer

WIKA's Type TI.20 bimetal thermometer is a high-quality, tamper-proof and economical thermometer designed for limited space and OEM applications.

**TI.20**

Size	2"
Case & stem	304 stainless steel
Stem lengths	2 1/2" to 24"
Case configuration	center back mount
Connection	1/4" NPT
Dial	white aluminum; anti-parallax
Pointer	black aluminum
Accuracy	$\pm 1.0\%$ full scale value (ASME B40.3 Grade A)
Scale	single °F or °C or dual scale
Ranges	-100° to 1000°F (and equivalent Celsius)



### Type TI.33 3" Industrial Tamper-Proof Thermometer

The Type TI.33 is an economical, industrial grade bimetal thermometer ideally used when a weather-resistant, tamper-proof thermometer is required. TI.33 offers performance equal to WIKA's process grade thermometers and are warranted for one year.

#### TI.33

Size	3"
Case & stem	304 stainless steel
Stem lengths	2½" to 24"
Case configuration	center back mount
Connection	½" NPT
Dial	white aluminum; anti-parallax
Pointer	black aluminum
Accuracy	±1.0% full scale value (ASME B40.3 Grade A)
Scale	single °F or °C or dual scale
Ranges	-100° to 1000°F (and equivalent Celsius)



### TI.30 3" Process Grade Thermometer External Re-Calibration Screw

The Type TI.30, WIKA's process grade thermometer, is ideal for most rugged industrial temperature measurement applications. It is hermetically sealed and offers protection from weather and dust. The TI.30 also has an external reset screw and a 7-year warranty.

#### TI.30

Size	3"
Case & stem	304 stainless steel
Stem lengths	2½" to 72"
Case configuration	center back mount
Connection	½" NPT
Window	flat instrument glass
Dial	white aluminum; anti-parallax
Pointer	black aluminum
Accuracy	±1.0% full scale value (ASME B40.3 Grade A)
Scale	single °F or °C or dual scale
Ranges	-100° to 1000°F (and equivalent Celsius)



### TI.31 3" Process Grade Thermometer External Re-Calibration Screw

WIKA's process grade Type TI.31 features a lower mount connection and all the standard process grade bimetal features including a hermetic seal, an external reset and a 7-year warranty.

#### TI.31

Size	3"
Case & stem	304 stainless steel
Stem lengths	2½" to 72"
Case configuration	lower mount
Connection	½" NPT
Window	flat instrument glass
Dial	white aluminum; anti-parallax
Pointer	black aluminum
Accuracy	±1.0% full scale value (ASME B40.3 Grade A)
Scale	single °F or °C or dual scale
Ranges	-100° to 1000°F (and equivalent Celsius)



### 5" All-Angle Process Grade Thermometer External Re-Calibration Screw

WIKA's Type TI.52 has the convenience of an all-angle swivel connection. The hermetically sealed case protects from weather and dust, and is guaranteed against fogging up. The TI.52 also has an external reset screw and a 7-year warranty.

#### Type TI.52

Size	5"
Case & stem	304 stainless steel
Stem lengths	2½" to 72"
Case configuration	adjustable angle
Connection	½" NPT
Dial	white aluminum; anti-parallax
Pointer	black aluminum
Accuracy	±1.0% of full scale (ASME B40.3 Grade A)
Scale	single °F or °C, or dual scale
Ranges	-100° to 1000°F (and equivalent Celsius)

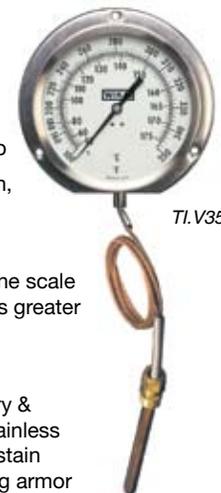


### Type TI.V20/TI.V25, TI.V35/TI.V45 Vapor Thermometer

WIKA's vapor actuated thermometers are highly accurate and provide remote reading. They are available in u-clamp, front flange or back flange case configurations. WIKA's vapor actuated thermometers are well suited for refrigeration, solar heating and water treatment applications. Please consult factory for available ranges and pricing.

#### Type TI.V20/TI.V25, TI.V35/TI.V45

Dial	2", 2½", 3½", 4½"
Case connection	front flange, back flange, u-clamp
Connection	plain, threaded union, thermowell
Capillary lengths	to 99'
Accuracy	±1% of reading or one scale division, whichever is greater
Ranges	-40°F(-40°C) to 350°F(176°C)
Options	copper bulb, capillary & braided armor; or stainless steel bulb, capillary stain less steel interlocking armor available



TI.V35

## Type TI.801/TI.25 Hot Water Thermometer

The Type TI.801 and TI.25 Hot Water Thermometers are economical and accurate ways to measure water and air temperatures for hydronic heating, boiler and hot water line applications.

### TI.801 Scale Type

Case	Steel
Scale	8" Black lettering on white background Dual F/C left and right of column)
Tube	Glass
Fill	Blue tinted kerosene
Connection	½" NPT Brass Removable Thermowell with set screw
Insertion	1 3/8" Insertion
Accuracy	+/- 1% of full scale



TI.801 Angle



TI.801 Straight

### TI.25 Dial Type

Dial Size	2.5"
Case	Steel
Lens	Glass
Ring	304 Stainless Steel
Connection	standard - ½" NPT Brass Removable Thermowell with set screw option - 3/4" brass sweatwell with stem friction fit
Insertion	1" Insertion
Sensor	Bi-metallic element
Accuracy	+/- 1% of full scale



TI.25



## Type TI.CL Clamp-On Thermometer

The Type TI.CL Clamp-on Thermometer is an economical and accurate method to measure temperature on piping systems that do not have thermowells installed.

### TI.CL

Dial Size	2.5"
Case	Stainless Steel
Lens	Plexiglass
Ring	304SS
Enclosure	IP52
Connection	Clamp-on design with steel spring Standard spring fits 1/2" to 3" pipe additional springs can be used for larger pipe
Sensor	Bi-metallic element
Accuracy	+/- 3% of full scale
Ranges	Part# TC007 - 30°F to 240°F (0°C to 120°C) Part# TC008 - 30°F to 390°F (0°C to 200°C)



TI.CL

## Type 100.1X Tridicators

The Type 100.1X Tridicators measure both pressure and temperature on the same dial for boiler applications.

### 100.1X - 2.5"

Dial Size	2.5"
Case	Black painted Steel
Enclosure	IP50
Lens	Acrylic
Ring	304 Stainless Steel
Connection	¼" NPT CBM brass socket with 2.165" brass stem
Accuracy	3/2/3% for pressure 2.5% for temperature



### 100.1X - 3.0"

Dial Size	3"
Case	Black painted Steel
Enclosure	IP50
Lens	Acrylic
Ring	304 Stainless Steel
Connection	½" NPT CBM or LM brass socket with 2.75" brass stem
Accuracy	3/2/3% for pressure 2.5% for temperature



### Thermowells

Material	Brass (Expandable)
Process Connections	¼" NPT Male or ½" NPT Male

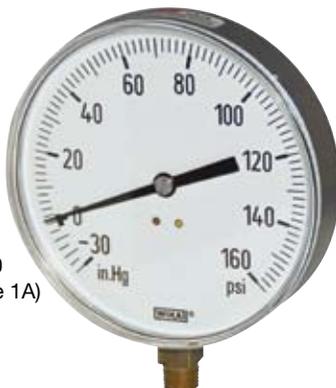


### Type 111.25CT Contractor Gauge

WIKA's Type 111.25CT 4½" gauges are specifically designed for the HVAC market as a contractor's gauge. This gauge features a stainless steel case and snap-in acrylic window, brass wetted parts, an adjustable pointer, and has an accuracy of ± 1.0% of span.

#### Type 111.25CT

Size	4½"
Case	stainless steel
Wetted parts	copper alloy
Window	snap-in acrylic
Accuracy	±1.0% of span (ASME B40.100 accuracy Grade 1A)

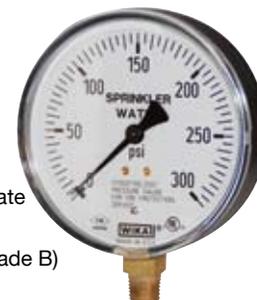


### Type 111.10SP Sprinkler Gauge

WIKA Type 111.10SP 4" gauges are specifically designed and UL and FM approved for fire sprinkler service. This gauge features a black polycarbonate case, acrylic window and brass wetted parts. The 111.10SP has an accuracy of ± 3/2/3% of span.

#### Type 111.10SP

Size	4"
Case	black polycarbonate
Wetted parts	copper alloy
Window	snap-in polycarbonate
Accuracy	±3/2/3% of span (ASME B40.100, Grade B)



### Type 212.53/213.53 Liquid Fillable

The WIKA Type 212.53 2½" gauge, with an accuracy of ±2/1/2% of span, features a stainless steel case and brass wetted parts for protection in harsh environments. The o-ring seal around the connection makes this gauge prepared for liquid filling; however, an option is Type 213.53 2½" gauge which is already available liquid filled.

#### Type 212.53, 213.53

Size	2", 2½", 4"
Case	stainless steel
Ring	polished stainless steel, crimped-on
Wetted parts	copper alloy
Window	polycarbonate
Liquid filling	dry (212.53); glycerine (213.53)
Accuracy	±2/1/2% of span (2", 2½") (ASME B40.100, accuracy Grade A); ±1.0% of span (4") (ASME B40.100, accuracy Grade 1A)



### Type 111.10/111.12 Low Cost Utility Gauge

WIKA's 111.10 lower mount (LM) and 111.12 center back mount (CBM) gauges are designed for long and reliable service under rugged conditions. The Type 111.10 and 111.12 have an accuracy of ± 3/2/3% of span. Both gauges are available in 1½", 2", 3½" and 4" to offer a wide variety of ranges and options.

#### Type 111.10, 111.12

Size	1½", 2", 2½", 3½", 4"
Case	black painted steel
Wetted parts	copper alloy
Window	snap-in acrylic
Liquid filling	not applicable
Accuracy	±3/2/3% of span (ASME B40.100 accuracy Grade B)



111.10



111.12

### Type 700.04 Differential Gauge

This piston-style differential pressure gauge is designed for use with clean liquid or gaseous media where high differential pressure/static process pressures are required. The 700.04 is suitable for measuring pressure drops across a variety of devices, including filters, strainers, separators and heat exchangers. Switches are available.

#### Type 700.04

Size	2½", 4½"
Case & bezel	reinforced plastic
Sensor housing	316L ss or anodized aluminum
Wetted parts	aluminum or 316 ss & ceramic magnet
Window	acrylic or shatter-resistant glass
DP range	0-5 psid thru 0-100 psid
Working pressure	up to 6000 psig (400 bar)
Accuracy	±2% of span (increasing)



700.04 - 2½"



700.04 - 4½"

### Type 611.10 Low Pressure Gauge

WIKA 2½" Type 611.10 low pressure gauges are extremely sensitive and highly accurate. The copper alloy capsule is designed to measure pressure and vacuum of gaseous media. An adjustment screw is located on the dial to re-zero the pointer. The finely polished nickel silver pinion gear and shaft of the movement ensure repeatable accuracy. These gauges are available with a dual or single scale dial. The 611.10 has an accuracy of ±1.5% of span.

#### Type 611.10

Size	2½"
Case	black painted steel
Wetted parts	copper alloy
Window	snap-in acrylic/zero adjustment screw on dial
Accuracy	±1.5% of span



### Type 2XX.34 Process Gauge

WIKA process gauges have the construction, materials, and engineering it takes to perform under tough conditions. These gauges are engineered to deliver years of accurate service, while withstanding vibration, corrosive media, hostile environments, and a wide range of temperatures. The 4½" 2XX.34 has an accuracy of ±0.5% of span.

#### Type 2XX.34

Size	4½", 6"
Case	black fiberglass reinforced thermoplastic
Ring	threaded thermoplastic
Wetted parts	copper alloy 316SS monel
Window	acrylic
Accuracy	±0.5% of span (ASME B40.100 accuracy Grade 2A)



Field fillable

### Type 910.12.100/200/300 Snubbers

WIKA's porous snubbers are intended to suppress the effect of pressure pulses and pressure peaks and incorporate a fixed mesh disk.

#### Type 910.12.100 Porous Snubbers



WIKA's piston snubbers are suitable for general purpose applications and are supplied with five pistons to adapt to different applications.

#### Type 910.12.200 Piston Snubbers



WIKA's adjustable snubbers are provided with an adjustable needle valve and will considerably increase the service life of a pressure gauge at extreme operating conditions.

### Type 910.15.100/200 Siphons

Gauge siphons protect gauges 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 stainless steel. For horizontal (coil) or vertical (pigtail) installations.

#### Type 910.15.100 Pigtail Siphon



#### Type 910.15.200 Coil Siphon



**Materials** brass, steel A120 (schedule 40), Steel A106B (schedule 80 & 160), 316 stainless steel (schedules 80 & 160), Chrome Moly steel (A335 P22), XX Heavy

**Media temperature reduction** approximately 75°F for each 1 foot lineal section of pipe; actual reduction dependent on process/application variables.

### Type 910.11.100 Mini-Needle Valve

Mini-needle valves isolate the pressure gauge from the pressure medium and act as a throttling device. They can also effectively dampen pulsation.

#### Type 910.11.100

**Operating temperature** media: max. 200°F (+93°C); min. 0°F (-18°C)

**Brass model pressure rating** 200 psi

**Valve body** brass

**Bonnet** brass

**Valve stem** brass

**Handle** knurled knob, brass

**Handle bolt** brass, 360

**Stem seals** Viton® o-ring, Teflon® back-up ring



### Brass Ball Valve

Economical isolation valve for pressure instruments on non-corrosive processes.

#### Type BVB11

**Pressure rating** 200 psi

**Operating temperature** media: max 200°F (+93°C); min. -10°F (-23°C)

**Valve body** brass

**Handle** plastic covered plated steel, lever type

**Stem seals** none

**Standard threaded connection size** 1/4" NPT Male x 1/4" NPT Female



### Type 910.14.100 P & T Plug

Pressure & Temperature plugs allow multiple process sampling ports, without the addition of instruments. Equipped with a self-sealing pierceable rubber diaphragm and rated at 1000 psi and 200°F (350°F available).

#### Type 910.14.100

**Pressure rating** 1000 psi

**Pressure connection** 1/4" NPT or 1/2" NPT male

**Material** brass body; neoprene or norel diaphragm core

**Self-sealing diaphragm material** Neoprene or norel

**Temperature rating** Neoprene 32-200°F max.; Norel 32-350°F max.





As the world's leader for pressure and temperature instrumentation, WIKA Instruments Ltd. combines Canadian manufacturing with WIKA's global network of production sites, subsidiaries and distributors to deliver the most extensive product line in the industry. Other WIKA manufacturing facilities are in Germany (head office), Switzerland, Brazil, South Africa, Poland, China, India and the US.

For more than 50 years WIKA has been recognized for being innovative and supplying quality products. Annually, WIKA produces more than 30 million instruments worldwide. Currently, there are more than 300 million WIKA measuring devices in use.

WIKA's dedication to improving products and services is seen in continuous product engineering and development. The results are the highest quality, longest lasting instruments available designed to meet our customers' requirements.

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