

Pressure and Temperature

Instrumentation for sanitary applications



Instrument Requirements

WIKA's unique diaphragm seal design, the INLINE Seal, assures no dead space or contamination points. Our INLINE Seal is available for both sanitary transmitters and gauges. All WIKA solutions meet or exceed stringent sanitary industry standards.

WIKA combines world-class LeanSigma® operations and agile manufacturing to provide you with the industry's shortest lead time. Each one of the over 10 million instruments produced in the U.S.A. annually meets rigorous I.S.O. 9001-2000 standards. Utilizing state-of-the-art equipment, resident engineering and manufacturing technology, WIKA sets the standard for precision, dependability and innovation.

Best Practice Instrumentation for Sanitary Applications

WIKA's best practice of sterile process engineering adds to the profitability and safety of the manufacturing system. Additionally, sterile process engineering may ensure compliance to the validation process within all sanitary approval agencies.

A process flow that is free of contamination requires peripheral components such as pressure and temperature measuring instruments to ensure that the process parameters are within allowable limits.

Sanitary Approval Agencies

The sanitary approval agencies listed below are a few of the major organizations that are referenced during the generation of the design requirements for the facility and process. WIKA's instrumentation meets or exceeds the stringent requirements of these agencies and conforms to cGMP (current Good Manufacturing Practices) guidelines.

FDA (Food and Drug Administration)



3A Sanitary Standards, Inc.



NSF (National Sanitation Foundation)



EHEDG (European Hygienic Equipment Design Group)



ATEX (Directive 94/9/EG)



Electrical Output Signals

In addition to mechanical pressure and temperature instrumentation, WIKA offers a series of pressure switches and precision pressure transmitters. The electronic pressure transmitters feature various output signals and communication protocols to allow full compatibility with the installed facility network system. The most common output signal is 4 to 20 mA, and various others are available. WIKA also offers transmitters with the following communication protocols.



Process Connections

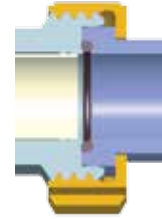
Sanitary connections are designed to be in compliance with the majority of the pharmaceutical, food and beverage and cosmetic cleanliness requirements of the aforementioned agencies. The following are some, but not all, available sanitary connections: Tri-Clover® Tri-Clamp®, Cherry-Burrell®, DIN 11851, DIN 32676, ISO 2852, Varivent®, 4" Tank Spud.



Clamp fitting
Tri-Clamp®



Thread fitting
acc. to DIN 11851



Thread fitting acc. to
DIN 11864-1, Form A

Mechanical Gauge Cases

The external case finish on a mechanical gauge shall comply with the highest sanitary standards. By preference, the cases should be made of stainless steel. Mechanical gauge cases being used in clean rooms and pharmaceutical and biotech industries are often electro polished in order to reduce the external surface area, minimizing the adherence of unwanted particles. The gauge case should also offer sufficient protection against penetration of water and cleaning agents. WIKA mechanical gauges comply to up to NEMA 6 (ingress protection up to IP 68), the optimal rating for thorough wash downs.

Cleanability

The cleanability (CIP/SIP) of the process system is influenced by the quality of the process wetted surfaces. In order to avoid a concentration of pathogenic organisms and/or the formation of biofilms, the surface in contact with the process needs to be passive and free of microscopic faults.

An average surface roughness of $R_a \leq 20\mu\text{m}$ is deemed to be sufficient for the majority of sanitary process fittings (ASME BPE surface designation SFF5). WIKA designs containing a 316L stainless steel electropolished finish have an average surface finish of $R_a \leq 13\mu\text{m}$ ($R_a \leq 20\mu\text{m}$ in the area of the diaphragm weld).



Sanitary Connections

The use of a diaphragm seal adapts non-sanitary process connections to connections that are designed to comply with domestic and international sanitary standards.

Diaphragm seals isolate the pressure measuring instrument (gauge, switch, transducer or transmitter) from the process media. This isolation is achieved by means of a thin flexible diaphragm welded flush to a housing that is in compliance with the preferred sanitary process connection. The sanitary designs ensure the pressure instrument connection to the process media is free of dead space or the dead space is dramatically reduced.

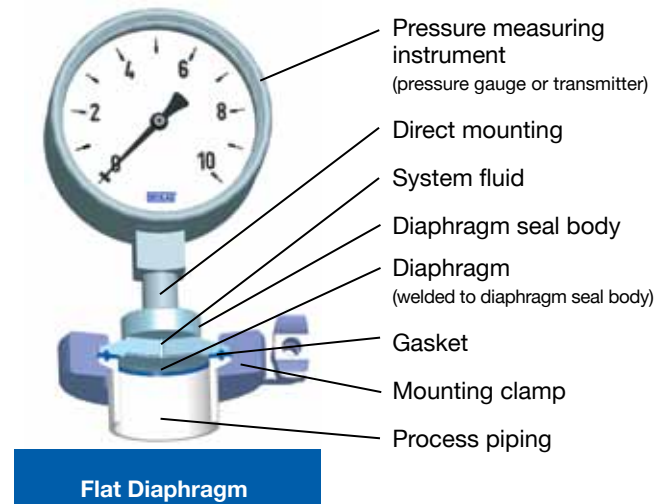
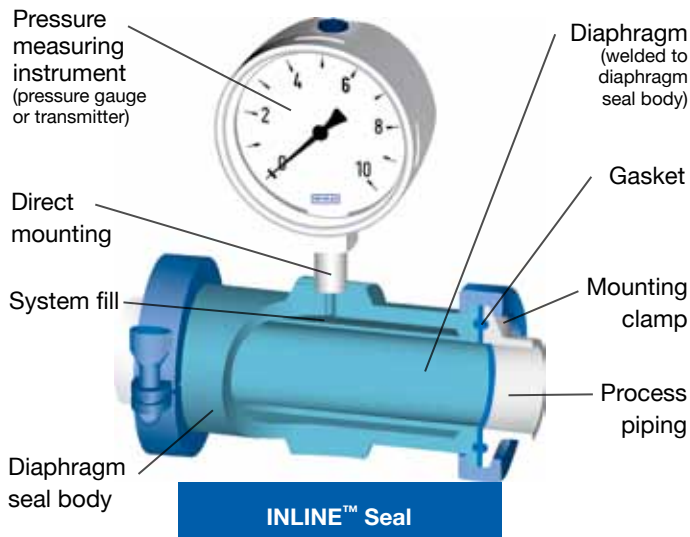
The use of a diaphragm seal provides the option of remote mounting the instrument away from the process for safety concerns or when extreme process temperatures exceed the instrument rating. The diaphragm seal can be attached to the instrument in three basic configurations:

- Instrument direct mounted onto diaphragm seal
- Instrument mounted via cooling element – extreme process temperatures
- Instrument mounted via flexible capillary – remote mount instrument and/or extreme process temperatures

Advantages of Diaphragm Seals

1. Converts instruments with threaded connections so that they meet acceptable sanitary industry standards
2. Various materials of construction and process connections are achieved without total redesign of the pressure measuring instrument
3. Can be used with extreme temperatures to keep the instrument within its operative temperature limits
4. Remove or reduce dead space at the tapping point of the process
5. Additional accessories can be added to the pressure measuring instrument while maintaining sanitary conditions – example:
 - Pressure dampening device to slow the response time, therefore minimizing the fluctuation in the pressure reading
 - Two or more measuring instruments can be installed onto one sanitary diaphragm seal (local and remote readings of pressure and/or temperature)

WIKA provides two types of sanitary seals; the INLINE™ Seal and the Flat Diaphragm Seal, as illustrated below.



INLINE™ diaphragm seal designs exist for flow applications where they become an integral part of the piping system. These seals will not introduce any process turbulence, corners, dead space or obstructions to the flow; thus providing an accurate pressure measurement. INLINE™ seals will also be self draining to assist in the cleaning of the piping system.

The basic flat diaphragm seals are designed to be installed into the process flow by use of a “Tee” or butt weld fitting. This “Tee” type of installation allows a diaphragm with a relative large surface area to be exposed to the process to ensure accurate pressure readings.

System fill fluids for diaphragm seals

WIKA uses FDA and USP-compliant system fill fluids to transmit pressure from diaphragm seals to the measuring instruments:

Common designation	WIKA code no. KN	Permissible temperature range		S.G. at temperature		Viscosity at temperature	
		Pabs < 1 bar [°C]	Pabs ≥ 1 bar [°C]	[g/cm³]	[°C]	[m²/s · 10 ⁻⁶]	[°C]
Glycerine	KN 7	---	-20 ... +230	1.26	+20	1110	+20
Glycerine/water	KN 12	---	-10 ... +120	1.22	+20	88	+20
Food grade silicone	KN 93	---	0 ... +300	0.97	+20	350	+20
Neobee® M20	KN 59	-20 ... +90	-20 ... +200	0.92	+20	10.1	+25
Mineral oil	KN 92	-20 ... +170	-20 ... +250	0.85	+15	56	+20

Pressure Measurement


WIKA offers fully configured sanitary pressure measurement assemblies, both electrical and analog. These instruments offer completely welded designs with no exposed wetted or non-wetted threads to ensure highest cleanliness standards. The process connection starts as small as 3/4" Tri-Clamp® and as large as a 4" nominal connection. Various industry process connection types are available with the assemblies shown below.

All transmitters include, as a minimum, a stainless steel case with internal zero and span adjustments. Mechanical gauges with a case size of 2.5" and larger have the option of liquid filling the case to extend the operating life of the instrument.


A majority of these assemblies offer an optional integral cooling element between the process connection and the pressure instrument. The cooling element removes the instrument from a process medium containing an extreme temperature (hot or cold) to ensure the instrument doesn't exceed its operative limits.

3A Sanitary Pressure Transmitter

S-10-3A


Ranges:	15 psi to 1,500 psi vacuum, compound	 <p>(S-10-3A-C)</p>
Output:	4-20 mA, 0-5V, 0-10V	
Accuracy:	≤ 0.25% B.F.S.L.	
Process connection:	3/4", 1 1/2" and larger Tri-Clamp®	

Datasheet: [S-10-3A](#)




3A Sanitary Fractional Gauge

M93X.25


Size	2 1/2"	 <p>(Clean Steam option)</p>
Case	polished stainless steel	
Ring	polished stainless steel, crimped	
Wetted parts	316L stainless steel	
Window	polycarbonate or polysulfone	
Process connection	3/4" Tri-Clamp®	
Accuracy	+2/1 1/2% of span	

Datasheet: [M93X.25](#)




3A Sanitary Low Pressure

SA-11


Ranges:	100 InWC to 400 psi, vacuum, compound	
Output:	4-20 mA	
Accuracy:	≤ 0.25% B.F.S.L.	
Process connection:	1 1/2" and 2" Tri-Clamp®	

Datasheet: [SA-11](#)




3A Sanitary Gauge Assembly

M93X.3A


Size	2 1/2", 4"	
Case	stainless steel, electropolished	
Ring	stainless steel, polish	
Wetted parts	316L stainless steel electropolished	
Window	polycarbonate or polysulfone	
Process connection	1 1/2" up to 4" Tri-Clamp®, lower or back mount	
Accuracy	±2/1 1/2% of span (2 1/2"), ±1.0% of span (4")	

Datasheet: [M93X.3A](#)




3A Sanitary Pressure Transmitter

F-20-3A


Ranges:	15 psi to 1500 psi, vacuum, compound	 <p>(3/4" Connection)</p>
Output:	4-20 mA	
Accuracy:	≤ 0.25% B.F.S.L.	
Process connection:	3/4", 1 1/2" and larger Tri-Clamp®	

Datasheet: [F-20-3A](#)




3A Sanitary 3/4" Tri-Clamp®

M932.2C

Size	1 1/2", 2"	
Case	stainless steel	
Wetted parts	316L stainless steel	
Window	glass or acrylic	
Process connection	3/4" Tri-Clamp®, lower or center back mount	
Accuracy	±3/2/3% of span	

Datasheet: [M932.2C](#)



Sanitary diaphragm seals are designed to facilitate ease of assembly and disassembly from its mated fitting to expedite the cleaning process. They are designed to be free of crevices and cavities that could create an area for bacterial growth. The most common sanitary diaphragm seals and fittings are held together by use of a clamp or union nut. All WIKA sanitary diaphragm seals are in compliance with 3A third party criteria.

Tri-Clamp®

L990.22

Instrument connection	¼" or ½" NPT female, capillary
Process connection	1½" to 4" Tri-Clamp®
Pressure rating	up to 1500 psi*
Suitable pressure	15 psi to 1500 psi
Wetted parts	316L SS, other-consult factory



*proper clamp design mandatory above 600 psi

Datasheet: L990.22



Threaded Sanitary, DIN 11851

L990.18

Instrument connection	¼" or ½" NPT female, capillary
Process connection	DN25, DN80 per DIN 11851
Pressure rating	up to 40 bar
Suitable pressure	15 psi to 600 psi
Wetted parts	316L SS, other-consult factory



Datasheet: L990.18



INLINE™ Seal Tri-Clamp®

L981.22

Instrument connection	¼" or ½" NPT female, capillary
Process connection	¾" to 4" Tri-Clamp®
Pressure rating	up to 600 psi
Suitable pressure	15 psi to 600 psi
Wetted parts	SST, other-consult factory



Datasheet: L981.22



Tank Spud

L990.SD

Instrument connection	¼" or ½" NPT female, capillary
Process connection	4" Tri-Clamp®
Pressure rating	up to 600 psi
Suitable pressure	15 psi to 600 psi
Wetted parts	316L SS, other-consult factory



Datasheet: L990.SD



Varivent®

L990.24

Instrument connection	¼" or ½" NPT female, capillary
Process connection	Form F, Form N
Pressure rating	15 psi to 600 psi
Suitable pressure	-30" Hg to 0 psi up to -30" Hg to 600 psi
Wetted parts	316L SS, other-consult factory



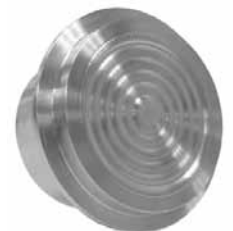
Datasheet: L990.24



"I"- Clamp®

L990.57

Instrument connection	¼" or ½" NPT female, capillary
Process connection	1½" to 3" "I"- Clamp®
Pressure rating	up to 500 psi
Suitable pressure	15 psi to 500 psi
Wetted parts	316L SS, other-consult factory



Datasheet: L990.57



Solutions for special applications meet the highest hygienic standards

Sealgauge® Type 432.55

The Sealgauge® was developed for processes in the pharmaceutical and biotechnology industry with especially high requirements for process safety.

Contamination of the process medium is virtually impossible by using a dry and all-metal measuring cell. This product is an ideal solution for water injection processes. All components exposed to the medium are made of 316L stainless steel and can be electropolished upon request.

This system offers over-pressure protection up to 40X of full scale and the elimination of a system fill fluid behind the diaphragm which results in little or no external temperature influences.



Type 432.55



Model 990.30

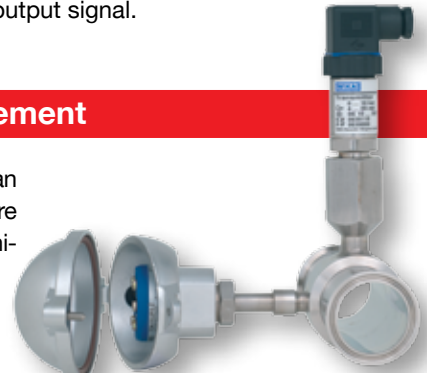
Homogenizers

The mechanical pressure gauge Model 990.30 was especially designed for extremely high static and dynamic pressure loads typically present with homogenizing processes.

This engineered solution allows static pressures up to 20,000 psi with pressure surges exceeding 30,000 psi and ensures a long service life of the instrument. This model is available with either a mechanical pressure gauge or an electronic transmitter 4 ... 20 mA output signal.

Diaphragm INLINE™ Seal with integrated temperature measurement

All the advantages of the WIKA sanitary INLINE™ Diaphragm Seals are combined with an integral temperature measuring sensor. This allows measuring of both pressure and temperature with one unintrusive tapping of the process. This assembly can be supplied with numerous sanitary connections to ensure compliance with a wide variety of hygienic applications.



Model L983.22

Flush pressure transmitters



Model S-11

Model UT-11

WIKA offers pressure transmitters with threaded process connections that contain a flush diaphragm at the end of the male thread. This design eliminates all cavities within the transmitter that have the potential for bacterial growth and it also minimizes the required cleaning process. This flush diaphragm transmitter design (WIKA model numbers S-11 and UT-11) provides an alternative to a standard threaded transmitter with an installed diaphragm seal.

The weld-in process adaptor that accepts this flush diaphragm connection allows the transmitter diaphragm to be flush with the process medium. This engineered solution complies with EHEDG clean-ability guidelines. One widely used application for this transmitter technology is level measurement on a tank or vessel.

Resistance thermometers

WIKA INLINE™ RTDs provide convenient and accurate temperature readings without obstructing process flow. They are well suited for any process needing in-line temperature readings such as sterilization facilities. TR25 is available with aluminum or stainless steel enclosure heads and can be equipped with analog or digital transmitters (output signals: HART, PROFIBUS PA, Foundation Field bus).



Model TR25

Mechanical pressure gauges meet the highest sanitary standards

The WIKA mechanical gauge product portfolio ranges from the tried and tested Bourdon tube gauge, capsule gauge for absolute pressure, bellows for low pressure and the Sealgauges® for tough applications. These mechanical gauges can be used to measure pressure in three different methods; gauge, absolute and differential pressure.

A number of optional features are readily available to assist in monitoring the process: alarm contact, minimum/maximum pointer and restrictor and mounting flanges, to name a few. Some of these gauges can be adapted with sanitary connections by installing a diaphragm seal or INLINE™ diaphragm seal.

Types 232.53/233.53 are ideal choices for general industrial 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 and extends operating life. Typical applications include hydraulic and pneumatic equipment.

With all stainless steel construction, high quality industrial gauges ensure long service life in the harshest, most demanding environments. Typical applications include process, water, steam, measurement and control equipment. The large 6" diameter of the Type 232.50/233.50 gauge makes it ideal for applications that require dial reading from a distance.

Stainless Steel Case, Stainless Steel Internals, Dry Case

131.11

Size	1½", 2"
Case	304 stainless steel
Wetted parts	316 stainless steel
Window	plastic
Scale ranges	1½": 0 - 30 psi 2": 0 - 15 psi (compound ranges available)
Accuracy	2.5% of full span



[Datasheet: 131.11](#)

Stainless Steel Case, Stainless Steel Internals, Field Liquid Fillable

232.53, 233.53

Size	2½", 4"
Case	stainless steel
Ring	polished stainless steel - crimped-on
Wetted parts	316 stainless steel
Window	acrylic
Liquid filling	none (232.53); glycerine (233.53)
Accuracy	±2/1/2% of span (2½"); ±1.0% of span (4")



[Datasheet: 23X.53](#)

Field Repairable, All Stainless Steel Field Liquid Fillable

232.54, 233.54

Size	2½", 4"
Case	stainless steel
Bayonet ring	stainless steel - twist-on
Wetted parts	316 stainless steel
Window	laminated safety glass
Liquid filling	none (232.54); glycerine (233.54)
Accuracy	±2/1/2% of span (2½"); ±1.0% of span (4")



[Datasheet: 23X.54](#)

All Stainless Steel, Field Liquid Fillable

232.50, 233.50

Size	2½", 4", 6"
Case	stainless steel
Bayonet ring	stainless steel - twist-on
Wetted parts	316 stainless steel
Window	laminated safety glass
Liquid filling	none (232.50); glycerine (233.50)
Accuracy	±2/1/2% of span (2½"); ±1.0% of span (4"); ±1.0% of span (6")



[Datasheet: 23X.50](#)

Mechanical temperature measuring instruments meet the highest hygienic standards

WIKA manufactures bimetal thermometers available in a variety of connections, case sizes and temperature ranges. This flexibility makes WIKA bimetal thermometers the ideal choice for temperature applications.

Twin-Temp, Local and Remote Readings

WIKA's unique Twin-Temp thermometer combines the accuracy, reliability and easy-to-read dial of a bimetal or solar digital thermometer with the precision output and data acquisition capability of a thermocouple or RTD sensor. Every thermowell in your process can have two sensors.

TT.30, TT.32, TT.50, TT.52

Size	3", 5"
Case	adjustable angle case or back-connected case
Stem	1/4" O.D.
Length	T/C 2 1/2" to 48"; RTD 4" to 48"
Connection	1/2" NPT
Range	-100°F(-70°) to 550°F(260°C) in Fahrenheit, Celsius, and dual scale. Type K thermocouple or 100 Ohm RTD is standard. Types J, E, and T are optional.



Datasheets: TT.30, TT.32, TT.50, TT.52

Thermowells

Thermowells for temperature instruments are recommended for all processes where measurement is of a corrosive medium. WIKA thermowells are available from a complete selection of base materials, as well as shields and coatings, and in sanitary connections. WIKA thermowells are offered in .260" and .385" bores. WIKA sanitary thermowells meet the criteria for USDA and 3A sanitary standard 74-03 requirements.

TW.SC

Process connections	sanitary
Instrument connection	1/2" NPSM standard
Shank configurations	stepped, straight, tapered
Bore diameter	.260", .385"
Materials	AISI 316, (other materials available)
Surface finish	AISI 316: 16-32Ra



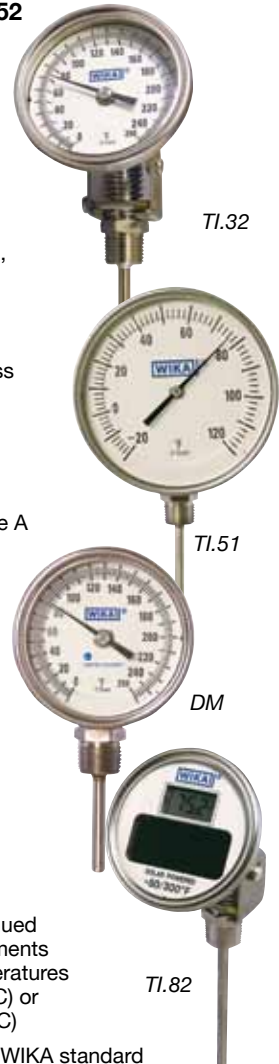
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Process Grade Bimetal Thermometers

WIKA process grade bimetal thermometers are suitable for nearly every direct-reading thermometer application. Their durable construction and finish ensure reliable readings and long-lasting service. The superior quality of the WIKA Types 30, 31, 32, 50, 51, 52 are reflected in the seven-year warranty.

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

Size	3", 5"
Case & stem	304 stainless steel
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	dual °F/°C; single °F or °C
Ranges	-100°F(-70°C) to 1000°F(500°C), 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)
Pressure	pressure rating on WIKA standard 1/4" stem thermometers (1/4" O.D.x.020 wall tubing) is 1450 psi working external pressure
Hermetic seal	hermetically sealed per ASME B40.3., 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 (as shown); min-max pointer; 3/8" stem; 316 stainless steel wetted parts; safety glass; Lexan® and acrylic windows; silicone fill



Datasheets: TI.30, TI.31, TI.32, TI.50, TI.51, TI.52

Process Grade Bimetal Options

Dampened Movement

Engineered solution providing benefits of case fill in a dry configuration. This silicone-free option provides dampening in tough environments at all available temperature ranges. Available in all process grade models.

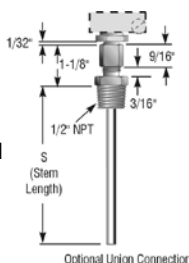


Maximum or Minimum Indicating Pointer

This option allows the operator to view what the highest or lowest temperature has been in the process. High vibration environments are not recommended.

Adjustable Union Connection

The WIKA Adjustable Union Connection allows for the installation of a Type 32 or 52 adjustable angle thermometer without rotating the case. Ideal for use in a confined space.

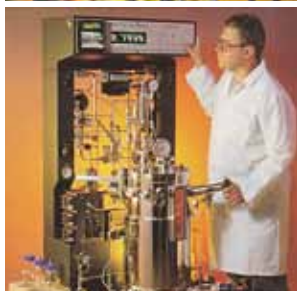


Left, Right or Top Connection

All WIKA 3" and 5" bottom connected thermometers are available with the connection oriented to the left, right or top.

Additional Options


- Heavy duty 3/8" stems and 3/16" stems with 2 1/2" x 1/4" OD sensitive portion available
- Thermometers may be ordered with sharp tips for piercing media to be measured
- 316 stainless steel wetted parts are available
- Acrylic, Lexan, shatterproof and glass windows
- Certificates of Conformance, Origin and Calibration available



Laboratory Thin Stem Thermometers

WIKA laboratory thin stem thermometers deliver fast, accurate readings. They are high-quality, economical thermometers designed for laboratory and OEM applications.

TI.T17, TI.T20


Size	1 3/4", 2"	
Case & stem	304 stainless steel	
Stem lengths	5", 8", 12", 18"	TI.T17
Connection	plain, 7/16" hex hub with no threads	
Window	flat instrument glass	
Dial	white aluminum	
Pointer	black aluminum	
Accuracy	1.0% full scale value	
Scale	dual °F/°C; single °F or °C	
Ranges	-100°F (-70°C) to 1000°F(500°C), in dual scale F&C, Fahrenheit only or Celsius only	
External reset	externally adjustable on plain connection	
Options	stem lengths, threaded connections, scales and dial markings, Lexan® window, beaker clip, stem tip	

Datasheet: [TI.T17, TI.T20](#)

Pocket Thermometer

Type TI.1005 is a bimetal dial thermometer for quick, accurate readings. The thermometer includes a pocket case which can be used to protect the stem and is popular in the food service industry for food temperature safety monitoring.

TI.1005


Accuracy	±1% of full scale	
Case	stainless steel	
Stem	.142" diameter	
Length	5"	
Range	-40/160°F; 0/220°F; 50/550°F	
Pointer	aluminum with matte red finish	

Datasheet: [TI.1005](#)

Digital Pocket Thermometer

Type TI.1006DW is a water-resistant, impact-resistant digital pocket thermometer offering both Fahrenheit and Celsius readings, with a unique "data hold" feature that "remembers" the last reading. Range is from -40° to 300°F and -40° to 150°C. Battery is included.

TI.1006DW

Accuracy	±1% of full scale	
Case	plastic	
Stem	.157" diameter	
Length	3"	
Range	-40/300°F (-40/150°C) switchable	
Power	battery	

Datasheet: [TI.1006DW](#)

Transmitters / Switches

WIKA's pressure transmitters and switches feature fully-welded measuring cells without any internal sealing elements, most with stainless steel cases, moisture and vibration protection, and all are calibrated prior to shipment. WIKA offerings include fixed ranged transmitters along with programmable ranges and linearity (horizontal tank level). Pressure switches are fully programmable to fine tune with the process. A wide range of digital indicators are available to accessorize the pressure transmitter.

Standard Industrial Pressure Transmitters

These rugged pressure transmitters are designed for use in harsh environments where accuracy, reliability, and repeatability are critical. Applications include hydraulics and pneumatics and numerous other processing operations.

S-10

Ranges	50 InWC to 40,000 psi, vacuum, compound, absolute
Output	4-20 mA 2-wire, 0-5 V 3-wire, 0-10 V 3-wire
Accuracy	≤0.25% B.F.S.L.
S-11	flush diaphragm version
IS-20-S/IS-21-S	intrinsically safe version



Datasheet: [S-10, IS-20](#)



Panel Mount Digital Indicator

The DI-15 features a .40" red LED display and compact size for installation in tight spaces. User-adjustable digital filtering improves readability during rapid pressure changes. All programming is stored in an E²PROM, making power failure reprogramming unnecessary.

DI-15

Display	4 digit, .40" red LED
Power	9-28 VDC
Accuracy	±0.5% of span ± 1 digit



Datasheet: [DI-15](#)

Field Case Pressure Transmitters

The Type F-20 pressure transmitter features an integral stainless steel junction box for installation in washdown and harsh environments.

F-20

Ranges	30" - 0 inHg to 60,000 psi
Output	4-20 mA 0-5 V 3-wire, 0-10 V 3-wire
Accuracy	≤ 0.25% B.F.S.L.
F-21	flush diaphragm version
IS-20-S/IS-21-S	intrinsically safe version



Datasheet: [F-20, IS-20](#)



Attachable Loop Powered Local Indicator

The A-AI-1 is designed for use with the 4-pin DIN 43650 "L" plug supplied with Tronic industrial and Eco-Tronic 4-20 mA output pressure transmitters. User-adjustable digital filtering stabilizes the display during rapid pressure changes. All set-up data is stored in an E²PROM, so reprogramming is unnecessary after a power failure.

A-AI-1

Display	-1999 to +9999 user-programmable
Power	loop powered with 3 VDC drop
Application	for use with WIKA industrial and ECO-1 pressure transmitters with DIN plug



Attachable Loop Powered Local Indicator

Datasheet: [A-AI-1](#)

UniTrans™

The UniTrans™ has a turndown capability of up to 20:1, a 0.15% accuracy and an integral temperature sensor. An intrinsically safe version is also available with a HART communications interface.

UT-10, UT-11, IUT-10, IUT-11

Ranges	5 psi to 15,000 psi
Output	4-20 mA
Accuracy	≤0.15% B.F.S.L. (pre-turndown)



IUT-10 intrinsically safe version available

Datasheets: [UT-10, UT-11, IUT-10, IUT-11](#)



Solid State Pressure Switch

The PSD-10 combines the function of a pressure switch, digital gauge, and pressure transmitter in a compact, durable case. It is supplied with one or two user-programmable switch points and an optional 4-20 mA analog output. Built-in LEDs on the front panel indicate switch status.

PSD-10

Ranges	-14.7 psi to 9,000 psi
Display	4-digit LED, 0.35" high
Switch points	user programmable



Datasheet: [PSD-10](#)

High Precision & Calibration Test Equipment

WIKA offers a wide range of testing and calibration instruments: pressure and temperature, analog, electrical, portable and laboratory. Mechanical gauges can be supplied with accuracies as stringent as $\pm 0.1\%$ of full span and electrical devices as stringent as $\pm 0.006\%$ of full span. With NIST and EN traceable products, WIKA can provide the required equipment to maintain metrology and calibration laboratories.

High Precision Gauge

332.54

Accuracy $\pm 0.25\%$ of span
 -30 inHG to 800 psi
 $\pm 0.5\%$ of span
 1000 psi to 20,000 psi

Size 4" dial

Pressure ranges -30 inHG - 20,000 psi



Datasheet: 332.54

Process Calibrator

CPH 6200

Accuracy 0.2% (Calibration Certificate included)

Option Intrinsically Safe
 Version EEx ib IIC T4

Pressure ranges 0 ... 100 mbar up to 0 ... 1,000 bar



Datasheet: CPH 6200

Wally Box Digital Calibrators

65-2000, 65-2000-II

Accuracy 0.02% of span

Range -10 ... 100 psi
 (-0.7 ... 7 bar)



65-2000



65-2000 II

Datasheet: 65-2000, 65-2000 II

Hand Held Pressure Indicator

CPH 6000

Accuracy 0.025% (Calibration Certificate included)

Software PC and complete service sets (includes pressure generators) available

Measuring ranges 0 ... 250 mbar to 0 ... 1,000 bar



Datasheet: CPH 6000





For over 60 years, WIKA Instrument Corporation has been advancing the world of pressure and temperature instrumentation. Regarded as the global leader, WIKA has pioneered many diverse products for a broad range of industries, end-users and OEM applications. Our success is reflected in our commitment to Lean methodology, product innovation and customer focus.

By combining world-class LeanSigma[®] operations, state-of-the-art proprietary technology, agile manufacturing and resident engineering, WIKA delivers made-to-order products with minimal lead times and tremendous flexibility. Additionally, the WIKA TRONIC LINE[®] has a continuously expanding array of electronic transmitters and transducers to meet the emerging demands of integrated and automated systems.

Talk to us to learn about our Total Performance commitment for your pressure and temperature measurement requirements.

To find your nearest WIKA distributor,
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call toll-free **1-888-WIKA-USA (945-2872)**

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