

INDUSTRIAL 5" , 9" THERMOMETER
INDUSTRIAL THERMOWELL



**INDUSTRIAL 9" THERMOMETER (TIM)
LEAD FREE INDUSTRIAL 9" THERMOMETER (TIM-LF)**



DESCRIPTION & FEATURES:


- Widely specified in the industrial and commercial plumbing trade
- Includes a separable brass or lead free brass thermowell
- Can also be used with TIW/TIW-LF or TDF thermowells
- 3.5" (90mm) and 6" (150mm) stem
- Available in aluminum or Valox® (9") case
- Organic filled tube (magnifying)
- Dual scale (°F & °C)
- Adjustable angle connection and 360° case rotation for easy installation
- Graphite filled bulb chamber for maximum heat conduction
- ASME B40.200 and ASTM E2251 compliant
- CAN/CGSB-14.4-M88 compliant
- ±1% accuracy
- 5 year warranty



APPLICATIONS:

- New construction, plumbing, water lines, boilers, heating, ventilation and air conditioning
- Lead free version for potable water systems

Note: RoHS applies only to 304 SS and 316 SS thermowells

Specifications	
Scale	9" (230mm) aluminum or Valox® case, impact resistant
Lens	Glass (polycarbonate available)
Connection	3/4" NPT with thermowell 1 1/4" - 18 UNF swivel nut (no thermowell)
Scales	Aluminum, painted white with black markings
Bulb Chamber	Tapered cast aluminum with graphite fill
Tube and Sensing Liquid	Glass (magnifying), organic green fluid (other colours optional)
Adjustment	Fully adjustable
Thermowell	TIM: 3/4" Brass, separable socket (SS optional) TIM-LF: 3/4" Lead free brass, separable socket
Accuracy	±1%
Enclosure Rating	IP54
Warning	 WARNING: This product can expose you to chemicals including lead, which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov .

Note: For an Industrial Thermowell, please refer to the Industrial Thermowell product page

TIM Order Codes (products in bold are normally stock in North America)

Stem	Aluminum Case		Valox® Case	
	3.5" (90mm)	6" (150mm)	3.5" (90mm)	6" (150mm)
-40°F to 110°F & -40°C to 40°C	TIM101A	TIM101-6A	TIM101	TIM101-6
0°F to 120°F & -15°C to 50°C	TIM102A	TIM102-6A	TIM102	TIM102-6
0°F to 160°F & -15°C to 70°C	TIM103A	TIM103-6A	TIM103	TIM103-6
30°F to 180°F & 0°C to 80°C	TIM104A	TIM104-6A	TIM104	TIM104-6
30°F to 240°F & 0°C to 115°C	TIM100A	TIM100-6A	TIM100	TIM100-6
30°F to 300°F & 0°C to 150°C	TIM105A	TIM105-6A	TIM105	TIM105-6

Other ranges and connection sizes available upon request. Duct flange available upon request. Union connection available upon request.

Option suffix: B = Blue fill fluid R = Red fill fluid Valox® is a registered trademark of the General Electric Company

TIM-LF Order Codes (products in bold are normally stock in North America)

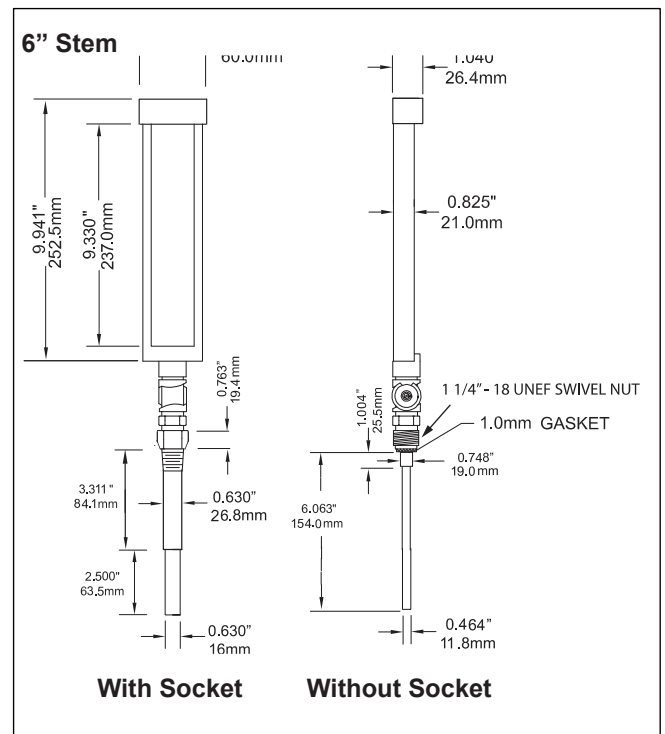
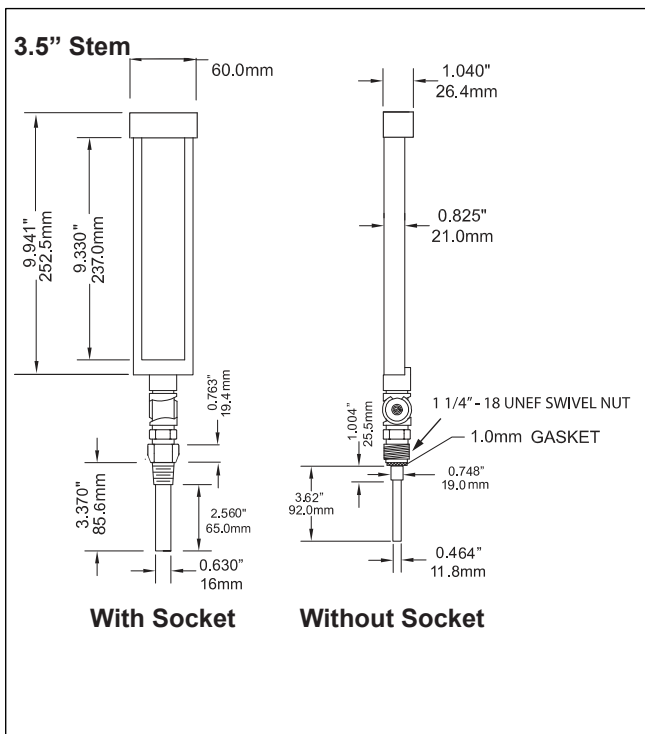
Stem	Aluminum Case		Valox® Case	
	3.5" (90mm)	6" (150mm)	3.5" (90mm)	6" (150mm)
-40°F to 110°F & -40°C to 40°C	TIM101ALF	TIM101-6ALF	TIM101LF	TIM101-6LF
0°F to 120°F & -15°C to 50°C	TIM102ALF	TIM102-6ALF	TIM102LF	TIM102-6LF
0°F to 160°F & -15°C to 70°C	TIM103ALF	TIM103-6ALF	TIM103LF	TIM103-6LF
30°F to 180°F & 0°C to 80°C	TIM104ALF	TIM104-6ALF	TIM104LF	TIM104-6LF
30°F to 240°F & 0°C to 115°C	TIM100ALF	TIM100-6ALF	TIM100LF	TIM100-6LF
30°F to 300°F & 0°C to 150°C	TIM105ALF	TIM105-6ALF	TIM105LF	TIM105-6LF

Other ranges available upon request.

Option suffix: B = Blue fill fluid R = Red fill fluid Valox® is a registered trademark of the General Electric Company

TIW-LF Thermowell Order Codes (products in bold are normally stock in North America)

Stem Length	Overall Length	Material	Insertion Length	3/4" NPT Connection
3.5" Without Lagging	4.25" (108mm)	Lead Free Brass	2.5" (63mm)	TIW01LF
6" Without Lagging	6.75" (172mm)	Lead Free Brass	5" (127mm)	TIW04LF



**INDUSTRIAL 5" THERMOMETER (TAS)
LEAD FREE INDUSTRIAL 5" THERMOMETER (TAS-LF)**



Excellence Since 1953



DESCRIPTION & FEATURES:


- An all-purpose, economical thermometer with a vertical sensing tube and case
- Separable brass, lead free brass or stainless steel thermowell
- Impact resistant ABS case
- Red liquid-in glass
- Dual scale (°F & °C)
- Straight or angle connection
- 1/2" NPT process connection
- ASME B40.200 and ASTM E2251 compliant
- 5 year warranty



APPLICATIONS:

- New construction, plumbing, water lines, boilers, heating, ventilation and air conditioning
- Lead free version for potable water systems

Note: RoHS applies only to 304 SS and 316 SS thermowells

Specifications	
Scale	Aluminium, painted white with black markings
Case	5" (127mm) black ABS
Lens	Glass
Tube	Glass, cushioned
Sensing Liquid	Kerosene, tinted red
Stem	Brass
Thermowell	TAS: Brass 1/2" NPT standard, (3/4" and SS optional) TAS-LF : Lead free brass 1/2" NPT (3/4" optional)
Operating Pressure	Maximum 710 psi (4,895 kPa)
Ambient Temperature	-40°F to 122°F (-40°C to 50°C)
Process Temperature	-40°F to 400°F (-40°C to 204°C)
Accuracy	±2% of full scale
Enclosure Rating	IP50
Warning	 WARNING: This product can expose you to chemicals including lead, which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov .

Note: For an Industrial Thermowell, please refer to the Industrial Thermowell product page

TAS Order Codes (products in bold are normally stock in North America)

Range	Straight	Angle
-40°F to 110°F & -40°C to 40°C	TAS130	TAS140
20°F to 180°F & -5°C to 80°C	TAS131	TAS141
30°F to 240°F & 0°C to 115°C	TAS132	TAS150
30°F to 300°F & 0°C to 150°C	TAS134	TAS143
50°F to 400°F & 10°C to 200°C	TAS133	TAS142

Thermowell

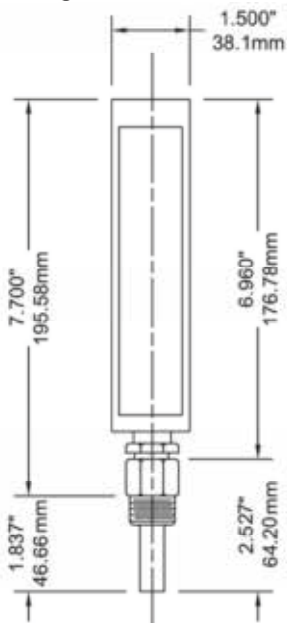
Connection	Material	Code
1/2" NPT - Standard (Included with thermometer)	Brass	TAS62
1/2" NPT - Optional	304 SS	TAS62.1
3/4" NPT - Optional	Brass	TAS64
3/4" NPT - Optional	304 SS	TAS64-1

TAS-LF Order Codes (products in bold are normally stock in North America)

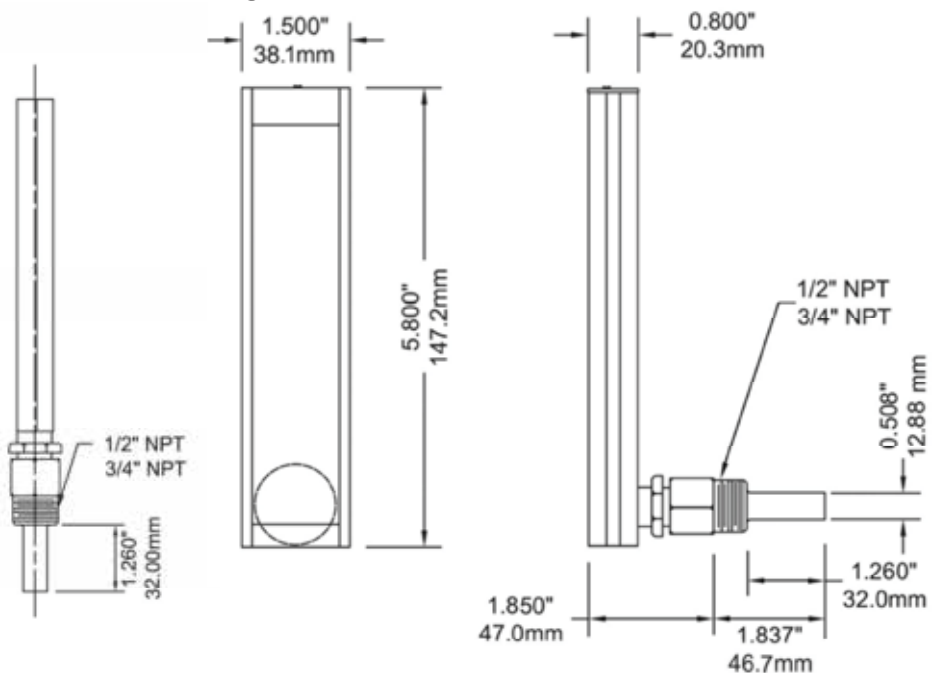
Connection	Material	Code
1/2" NPT - Standard (Included with thermometer)	Brass	TAS62LF
3/4" NPT - Optional	Brass	TAS64LF

Other ranges and connection sizes available upon request. 304 SS themowell available upon request. Plastic lens available upon request. 3/4" NPT connection available upon request.

Straight



Angle



INDUSTRIAL THERMOWELL (TIW) LEAD FREE INDUSTRIAL THERMOWELL (TIW-LF)



Excellence Since 1953



DESCRIPTION & FEATURES:

- Designed for use with all 9" (230mm) industrial thermometers to create a "sealed system"
- Allows the easy replacement of thermometers without the need to shut down or drain the system
- CAN/CGSB-14.4-M88 compliant
- CRN registered
- 5 year warranty



APPLICATIONS:

- HVAC, pipes, chill water and hot water lines
- Lead free version for potable water systems

Note: RoHS applies only to 304 SS and 316 SS thermowells

Specifications	
Material	TIW : Brass, AISI 304 SS, AISI 316 SS TIW-LF : Lead free brass
Bore Diameter	7/16" tapered
Form	Stepped standard, straight available
Thermometer Connection	1-1/4" UNEF
Process Connection	3/4" NPTM standard
Warning Zbrass and lead free brass thermowells only)	WARNING: This product can expose you to chemicals including lead, which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov .

Note: For an Industrial Thermowell, please refer to the Industrial Thermowell product page

TIW Thermowell Order Codes (products in bold are normally stock in North America)

Stem Length	Overall Length	Material	Insertion Length	Lagging Extension	1/2" NPT Connection	3/4" NPT Connection
3.5" Without Lagging	4.25" (108mm)	Brass	2.5" (63mm)	-	-	TIW01
		304 SS			-	TIW01-1
		316 SS			-	TIW01-2
3.5" With Lagging	4.25" (108mm)	Brass	1.75" (44mm)	1" (25mm)	TIW02	TIW03
		304 SS			TIW02-1	TIW03-1
		316 SS			TIW02-2	TIW03-2
6" Without Lagging	6.75" (172mm)	Brass	5" (127mm)	-	-	TIW04
		304 SS			-	TIW04-1
		316 SS			-	TIW04-2
6" With Lagging	6.75" (172mm)	Brass	2.5" (63mm)	2.5" (63mm)	-	TIW07
		304 SS			-	TIW07-1
		316 SS			-	TIW07-2

TIW-LF Thermowell Order Codes (products in bold are normally stock in North America)

Stem Length	Overall Length	Material	Insertion Length	Lagging Extension	3/4" NPT Connection
3.5" Without Lagging	4.25" (108mm)	Lead Free Brass	2.5" (63mm)	-	TIW01LF
3.5" With Lagging		Lead Free Brass	1.75" (44mm)	1" (25mm)	TIW03LF
6" Without Lagging	6.75" (172mm)	Lead Free Brass	5" (127mm)	-	TIW04LF
6" With Lagging		Lead Free Brass	2.5" (63mm)	2.5" (63mm)	TIW07LF

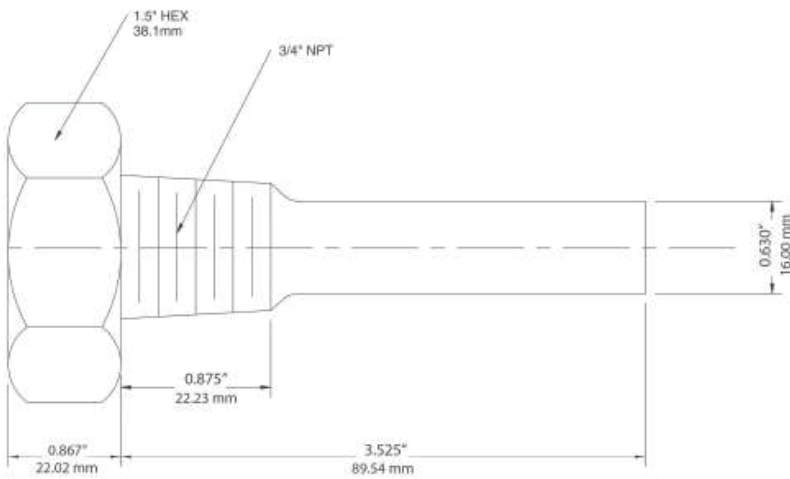
Other configurations available. Other threads available upon request. Longer thermowells available upon request. Other materials such as Monel®, Inconel®, Hastelloy® C and Titanium are available upon request.

Option suffix:

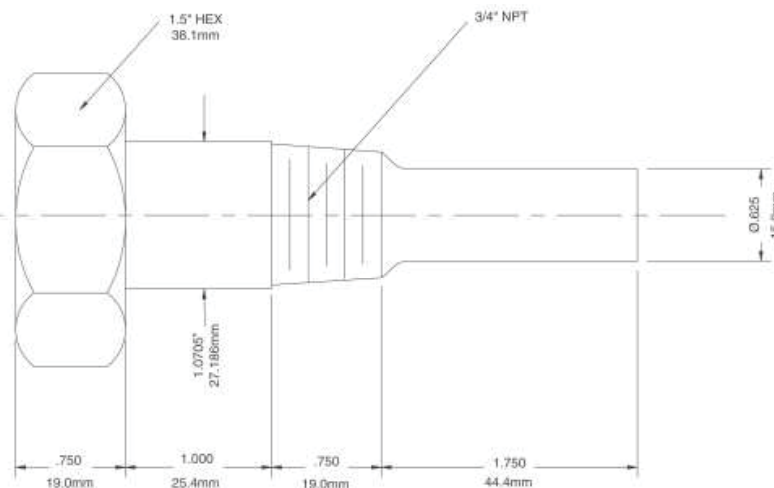
W61 = Brass cap and chain (1.25" UNEF)
 W61-1 = SS cap and chain (1.25" UNEF)

Hastelloy® is a registered trademark of Haynes International, Inc.
 Inconel® is a registered trademark of Special Metals Corporation.
 Monel® is a registered trademark of Inco Alloys International.

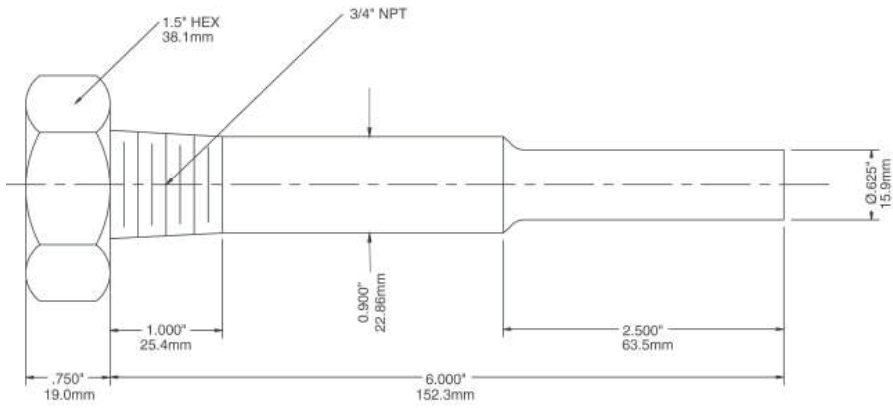
3.5" Stem Without Lagging



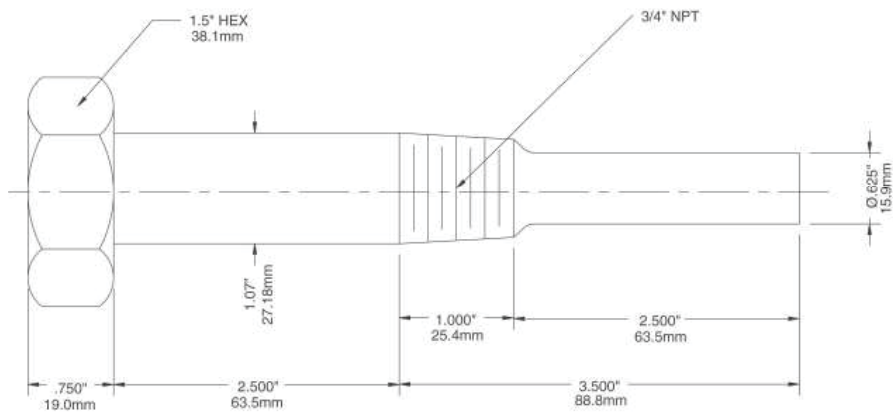
3.5" Stem With Lagging



6" Stem Without Lagging



6" Stem With Lagging





TOZEN INDUSTRIAL CO., LTD.

3388/62 18TH FLOOR, SIRINRAT BLDG.,
RAMA IV RD., BANGKOK 10110 THAILAND
TEL : (66) 2029-0100
FAX : (66) 2029-0111
URL : www.tozen.co.th

TOZEN CORPORATION

8-4, ASAHI YOSHIKAWA
SAITAMA 342-008 JAPAN
TEL : 048-993-1030
FAX : 048-993-1038