

Economy and HVAC Thermowells

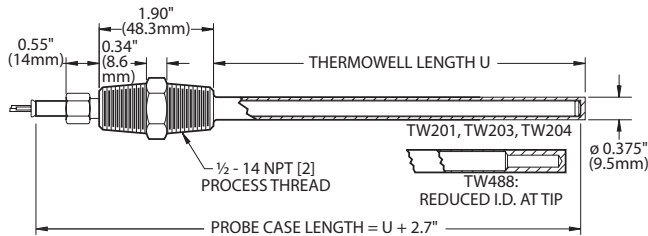


Overview

Thermowells protect probes from pressure, flow, and corrosion. The models on this page have integral fittings for probe and connection head mounting.

Immerse the thermowell at least 2.5" (65 mm) for accurate readings. The well should extend beyond the center of the fluid stream without touching the opposite wall. Installation in an elbow or tee may be necessary for sufficient immersion in small pipes.

For fastest time response, Minco can furnish thermowells with heat sink compound in the tip. This eliminates the air gap between the probe and inside wall of the well and can reduce time constant by as much as 50%. Order AC101750.



Economy thermowell specifications

Models: TW204 / TW201 / TW203

Probes: use with tip-sensitive probes on pages 3-2 to 3-3

Body material: 300 series stainless steel, nickel-plated brass sealing nut with brass compression ring

Temperature limit: 260°C (500°F)

Pressure rating: 1000 psi (69.9) bar

Hex size: 7/8" (22 mm)

Standard U dimension: 0.1" increments to 48"

Probe diameter	Thread "CH"	Process Thread	Model
0.188" (4.8 mm)	1/2-14 NPT	1/2-14 NPT	TW204
0.215" (5.5 mm)			TW201
0.250" (6.4 mm)			TW203

HVAC thermowell specifications

Model: TW488

Probes: use with HVAC probes on page 9-19

Body material: 316 stainless steel, nickel-plated brass sealing nut with silicone rubber O-ring

Temperature limit: 260°C (500°F)

Pressure rating: 1880 psi (129.7) bar

Hex size: 7/8" (22 mm)

Standard U dimension:

3.0, 6.0, 12.0, and 18.0". Other lengths are available.

Probe diameter	Thread "CH"	Process Thread	Model
0.250" (6.4 mm)	1/2-14 NPT	1/2-14 NPT	TW488
Tip 0.188" (4.8 mm)			

Specification and order options

TW203	Model number
U	
60	Thermowell length U: Specify in 0.1" increments (Ex: 60 = 6.0 inches)
TW203U60 = Sample part number	

Specify and order products at:

www.minco.com/sensors_config



STOCKED PARTS

Probe Diameter	Body Material	U Length	Stock Part #
Probe 0.250" (6.4 mm)	300 Series Stainless Steel	6.0"	TW203U60
		3.0"	TW488U30
Tip 0.188" (4.8 mm)	316 Stainless Steel	4.0"	TW488U40
		6.0"	TW488U60

Note: Available up to 10 pieces or contact Minco Customer Service

Specifications subject to change

Reduced Tip and Tapered Thermowells



Reduced Tip Thermowell



Tapered Thermowell

Overview

Protect probes from pressure, flow, and corrosive fluids. Thermowells on this page are machined from solid bar stock. Specify reduced tip style for fast response, tapered style for maximum rigidity in high flow conditions.

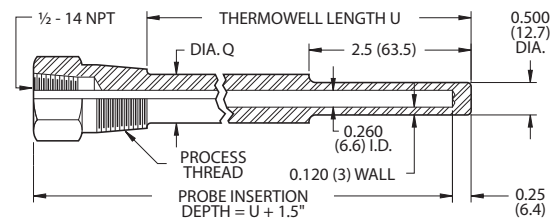
Immerse the thermowell at least 2.5" (65 mm) for accurate readings. The well should extend beyond the center of the fluid stream without touching the opposite wall. Installation in an elbow or tee may be necessary for sufficient immersion in small pipes.

Spring-loaded probe installation is recommended, using either spring-loaded holders or bayonet-mount probes. 0.250" diameter probes provide the best fit.

For fastest time response, Minco can furnish thermowells with heat sink compound in the tip. This eliminates the air gap between the probe and inside wall of the well and can reduce time constant by as much as 50%. Order AC101750.

Contact Access: Minco Sales and Support for other thermowell styles and materials.

Reduced tip thermowell specifications



DIMENSIONS ARE IN INCHES (MM)

Temperature limit:

Stainless steel: 900°C (1650°F).

Monel: 538°C (1000°F).

Standard U dimensions: 2.5, 4.5, 6.0, 7.5, 8.0, 10.5, 13.5, 16.5, and 22.5". Other dimensions available.

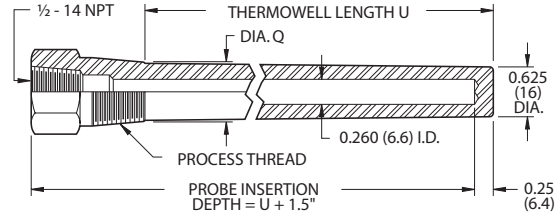
Body material	Process thread (NPT)		
	1/2 - 14	3/4 - 14	1 - 11 1/2
304 stainless steel	TW239	TW228	TW238
316 stainless steel	TW222	TW248	TW234
Monel	TW1204	TW447	TW1231
Diameter Q	0.625" (16 mm)	0.750" (19 mm)	0.875" (22 mm)
Hex size	1.125" (29 mm)		1.375" (35 mm)

Specify and order products at:

www.minco.com/sensors_config

Specifications subject to change

Tapered thermowell specifications



Temperature limit:

Stainless steel: 900°C (1650°F).

Standard U dimensions: 2.5, 4.5, 6.0, 7.5, 8.0, 10.5, 13.5, 16.5, and 22.5". Other dimensions available.

Body material	Process thread (NPT)	
	3/4 - 14	1 - 11 1/2
304 stainless steel	TW477	TW252
316 stainless steel	TW1218	TW1237
Diameter Q	0.875" (22 mm)	1.06" (27 mm)
Hex size	1.125" (29 mm)	1.375" (35 mm)

Pressure ratings

Body material	Temperature		
	21°C (70°F)	538°C (1000°F)	650°C (1200°F)
304 stainless steel	7000 psi 483 bar	4500 psi 310 bar	1650 psi 114 bar
316 stainless steel	7000 psi 483 bar	5100 psi 352 bar	2500 psi 172 bar
Monel	6500 psi 448 bar	1500 psi 103 bar	

Specification and order options

TW222	Model number from table
U	
45	Thermowell length U: Specify in 0.1" increments (Ex: 45 = 4.5 inches)
TW222U45 = Sample part number	



STOCKED PARTS

Probe Diameter	Body Material	U Length	Stock Part #
0.250" (6.4 mm)	316 Stainless Steel	2.5"	TW222U25
		4.5"	TW222U45
		6.0"	TW222U60
	304 Stainless Steel	2.5"	TW248U25
		4.5"	TW248U45
		6.0"	TW248U60
		4.5"	TW239U45

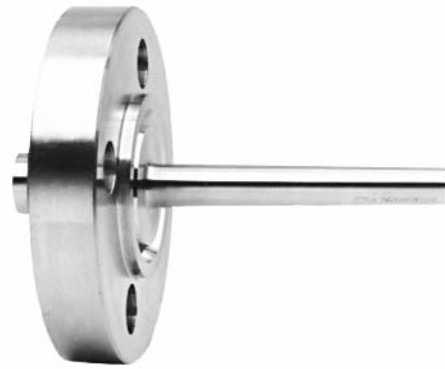
Note: Available up to 10 pieces or contact Minco Customer Service

Flanged Thermowells

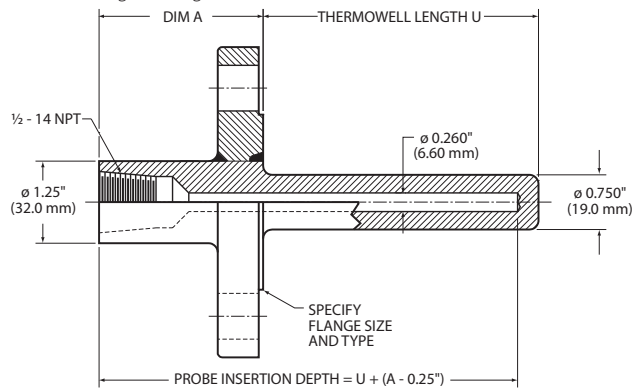
Overview

Flanged thermowells are available in three standard flange sizes: 1.0", 1.5", and 2.0" per ANSI B16.5. Specify U dimension and pressure rating.

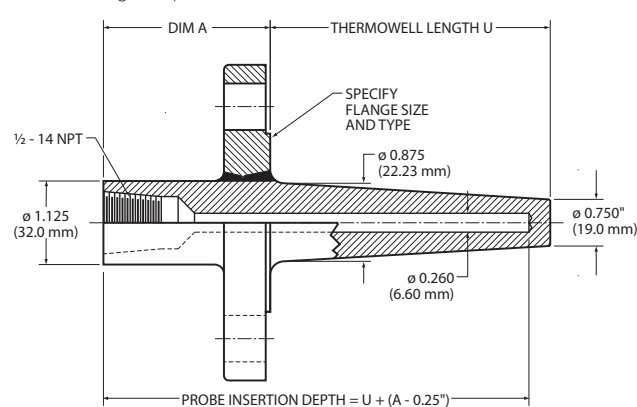
Immerse the thermowell at least 2.5" (65 mm) for accurate readings. The well should extend beyond the center of the fluid stream without touching the opposite wall. Installation in an elbow or tee may be necessary for sufficient immersion in small pipes.



TW1219 Flanged Straight Thermowell



TW1220 Flanged Tapered Thermowell



Specify and order products at:
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Specifications - Models TW1219 / TW1220

Body material: 316 stainless steel.

Temperature limit: 607°C (1125°F).

Pressure rating: Specify flange pressure rating.
 (1 bar = 14.5 psi).

Pressure rating	Dimension A
150, 300, 400, 600 psi	2.25" (64mm)
900, 1500, 2500 psi	3.25" (83mm)

Thread: ½-14 NPT internal thread.

Probe diameter: 0.250" (6.4 mm).

Standard U dimensions: 2.5, 4.5, 6.0, 7.5, 8.0, 10.5, 13.5, 16.5, and 22.5". Other dimensions available.

Specification and order options:

TW1219	Model number: TW1219 = Straight TW1220 = Tapered
U	
105	Thermowell length U: Specify in 0.1" increments (Ex: 105 = 10.5 inches)
S	
10	Flange size: 10 = 1.0" 15 = 1.5" 20 = 2.0"
F	
300	Pressure rating in pounds per square inch
RF	Flange type: RF = Raised face RTJ = Ring type joint
TW1219U105S10F300RF = Sample part number	

Specifications subject to change