

# Thermowell

## Model A-500



- 4", 6", 8" and 12" lengths
- Brass or stainless steel material
- Machined from a single piece
- Withstands up to 3000 psig pressure
- 3/4" external with 1/2" internal or 1/2" external with 1/4" internal thread options
- A-505 Thermal Compound eliminates condensation
- Excellent thermal conductive synthetic paste
- No particle migration or fluid separation
- High working temperature with no evaporation or hardening

The A-500 Thermowell is machined from a single piece of brass or stainless steel to provide a rugged and leak proof well for MAMAC temperature sensors. Each A-500 Thermowell is precisely machined to 0.255" bore to provide a tight fit for our standard 1/4" O.D. probe. This feature also significantly enhances the thermal transfer from the media to the temperature sensor.

The external and internal threads are machined to meet published specifications exactly, and each well is individually inspected to insure thread integrity. Hexagon wrench flats are provided to assist in installing the well in the pipe. Other thermowells that incorporate dissimilar metals like brass and copper which are welded/soldered together are susceptible to leaks caused by thermal shock. In HVAC applications, the temperature of the media may change rapidly and due to different coefficient of thermal expansion, a welded/soldered thermowell may leak. The A-500 Thermowell has a single piece construction and, as a result, is immune to leaks which may be caused by thermal shock or weak welds.

The MAMAC A-500 Thermowell is available in 4", 6", 8" and 12" lengths to handle pipe diameters from 4" to 24". The Thermowell has an industry standard 3/4" NPT external with a 1/2" NPT internal thread or a 1/2" NPT external with a 1/4" NPT internal thread.

With more than four length options, brass and stainless steel

material choices, two external thread and two internal thread options, solid leak proof one piece construction, and precision machining enable the A-500 Thermowell to reliably accommodate all HVAC immersion temperature sensing applications.

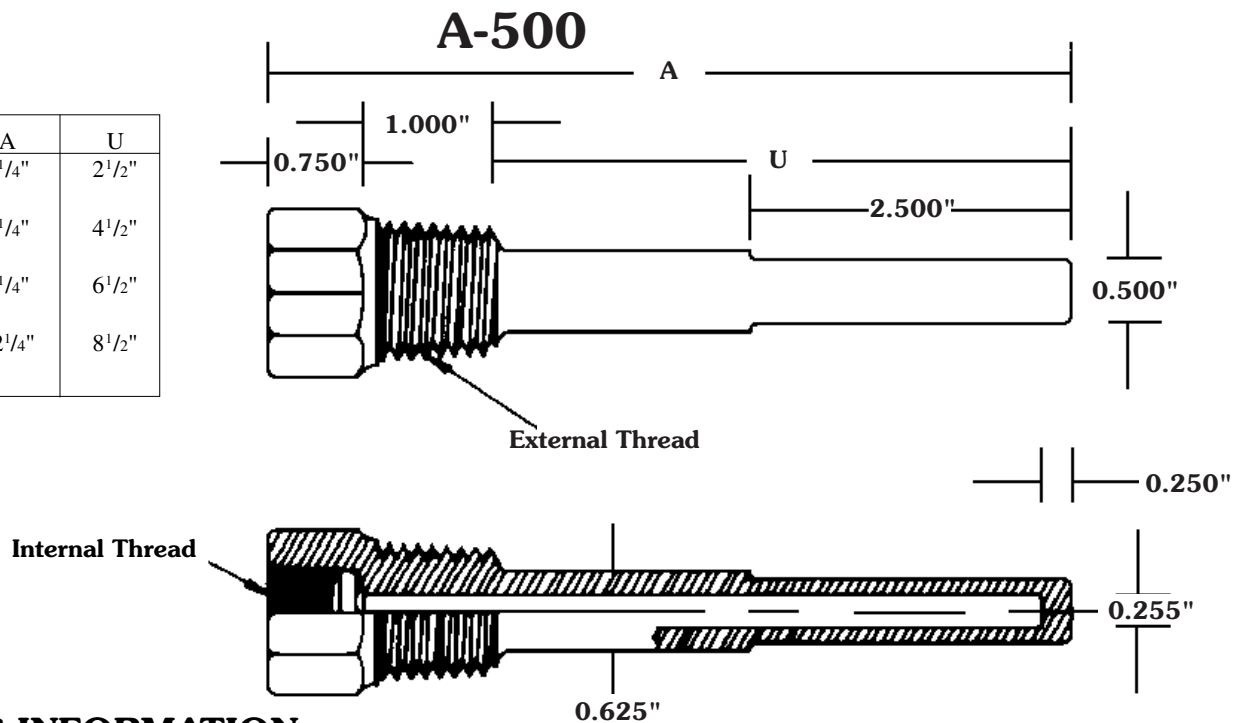
In order to improve thermal transfer and to eliminate condensation forming within the Thermowell, MAMAC Systems offers a high grade Thermal Compound for the A-500 series Thermowell. The A-505 Thermal Compound is a synthetic, ester based white homogeneous paste, filled with heat conductive metal oxides, providing efficient thermal conductivity with negligible bleed and evaporation loss even at high working temperatures. A-505 exhibits no particle migration, fluid separation or hardening. Unlike silver oxide thermal compounds which may react with the temperature sensor probe in the presence of contaminants, the A-505 is totally inert and does not exhibit catalytic behavior between the probe material and the Thermowell.

The A-505 Thermal Compound has a specific gravity of 2.9 at 77°F, service temperature of - 40°F to 392°F, and thermal conductivity exceeds  $19.0 \times 10^{-4}$  (calories/ cm<sup>2</sup>/° C/sec/cm). The A-505 Thermal Compound is available in conveniently packaged 1 oz. syringes. We highly recommend using the Thermal Compound with the A-500 Thermowell to insure that there is no condensation within the Thermowell and to improve the heat transfer from the media to the temperature sensor.



**MAMAC SYSTEMS®**  
MONITOR • DECISION • CONTROL

	A	U
A-500-1 (4")	4 1/4"	2 1/2"
A-500-2 (6")	6 1/4"	4 1/2"
A-500-3 (8")	8 1/4"	6 1/2"
A-500-4 (12")	12 1/4"	8 1/2"



## ORDERING INFORMATION: THERMOWELL:

A-500	LENGTH	THREAD SIZE	MATERIAL
	1) 4"	A) 3/4" NPT External	1) Brass
	2) 6"	1/2" NPT Internal	2) Stainless Steel
	3) 8"	B) 1/2" NPT External	
	4) 12"	1/4" NPT Internal	

## THERMAL COMPOUND:

**A-505 (1 oz./28gm. Syringe)**

The MAMAC Systems warranty covers parts and labor for 2 years from date of shipment. MAMAC Systems reserves the right to change any specifications without notice to improve performance, reliability, or function of our products.

## A Complete Line of Control Peripherals From a Single Source

**MAMAC Systems** is the only manufacturer offering more than fifty products to satisfy all temp, humidity, pressure, flow, light, speed or any other DDC controls application. MAMAC's complete line of control peripherals is available in over two thousand different configurations of supply voltage, output, range and enclosure type to make our products guaranteed compatible to all HVAC controls, industrial automation and COGEN systems worldwide.

Single source accountability, liberal 2 year warranty, worldwide service and technical support, competitive pricing, accumulated experience or more than 10,000 installations are some of the benefits offered by MAMAC Systems



**MAMAC SYSTEMS®**  
MONITOR • DECISION • CONTROL