



APPLIED MEASUREMENTS LTD.
Transducer Specialists...

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Ta993 Submersible Temperature Sensor

Key Features:

- -30°C to +85°C Temperature Range Capability
- °C or °F Calibrated Ranges
- IP68 Permanent Submersion in Liquids
- Stainless Steel or Bronze Housing
- Output: 4-20mA, 2-wire
- Low Drift & Fast Response
- Ø25mm Diameter Body
- 3 Year Warranty



The Ta993 submersible temperature sensor is IP68 submersible rated and designed for permanent submersion in liquids, at depths of up to 50 metres.

Thanks to their robust stainless steel or bronze housing, they guarantee complete compatibility with the media they are being submersed in.

Fast response time is guaranteed by the solid epoxy potting on the body which secures the resistance thermometer in place making sure that the sensor picks up temperature change accurately and quickly.

Coupled with the accurate in-built amplifier, produces a 4-20mA output scale over your required temperature range.

Rescaling of the device is straightforward via the optional user-friendly 'User Configuration Interface'. You simply connect the output wires to the device, interface to the PC/Laptop USB port and use the free software supplied.

We offer the product as standard with a 3-year warranty. [Contact our technical team.](#)

Options:

- Stainless Steel or Bronze Housing
- Different Cable Lengths
- Cable Outlets Include: PUR, TPE-U, FEP,

Applications:

- Water Tank Temperature Measurement
- Legionnaires Prevention Systems
- Tsunami Monitoring
- Harbour Seawater Monitoring
- Estuary Temperature Analysis
- Environmental Monitoring Systems
- Marine Biology Studies



Specification:

CHARACTERISTICS	Ta993	UNITS
Sensor Technology:	PT100 Resistance Thermometer	
Output:	4 - 20mA / 2-wire	analogue
Supply:	10 -32	Vdc
Calibrated Temperature Range Options:		
	0 to +85	°C
	0 to +50	°C
	-10 to +60	°C
	0 to +35	°C
	0 to +100*	°C
	32 to +185	°F
	0 to +122	°F
	14 to +140	°F
	32 to +95	°F
Accuracy:	$\pm 0.25\%/Span$ Typical	
Pressure Rating:	Tested to 5 bar for 48 hours, maximum submersion depth 50m	
Media Temperature Limits:	-30 to +85	°C
Media Wetted Parts:	316 Stainless Steel or CA104 Marine Bronze and Raychem-25 Elastomer and PUR Cable	
Permissible Media:	All fluids compatible with media wetted parts	
Electrical Connection:	Submersible Cable: PUR, TPE-U or FEP Jacket	
Cable Length:	Standard lengths: 2, 5, 10, 15, 20, 50m Optional: any cable length required in 1m increments Cable length does not affect the performance of the sensor but is limited to 1000m	
Environmental Protection:	IP68 to 50m / 5bar	
*Note: Calibrated range only - maximum media temperature is 85°C.		

Wiring Diagram:

4-20mA Output (2-wire)

Wire	Designation
Red	+ve supply
Blue	-ve supply & 4-20mA output in series
White	to case
Green	cable screen



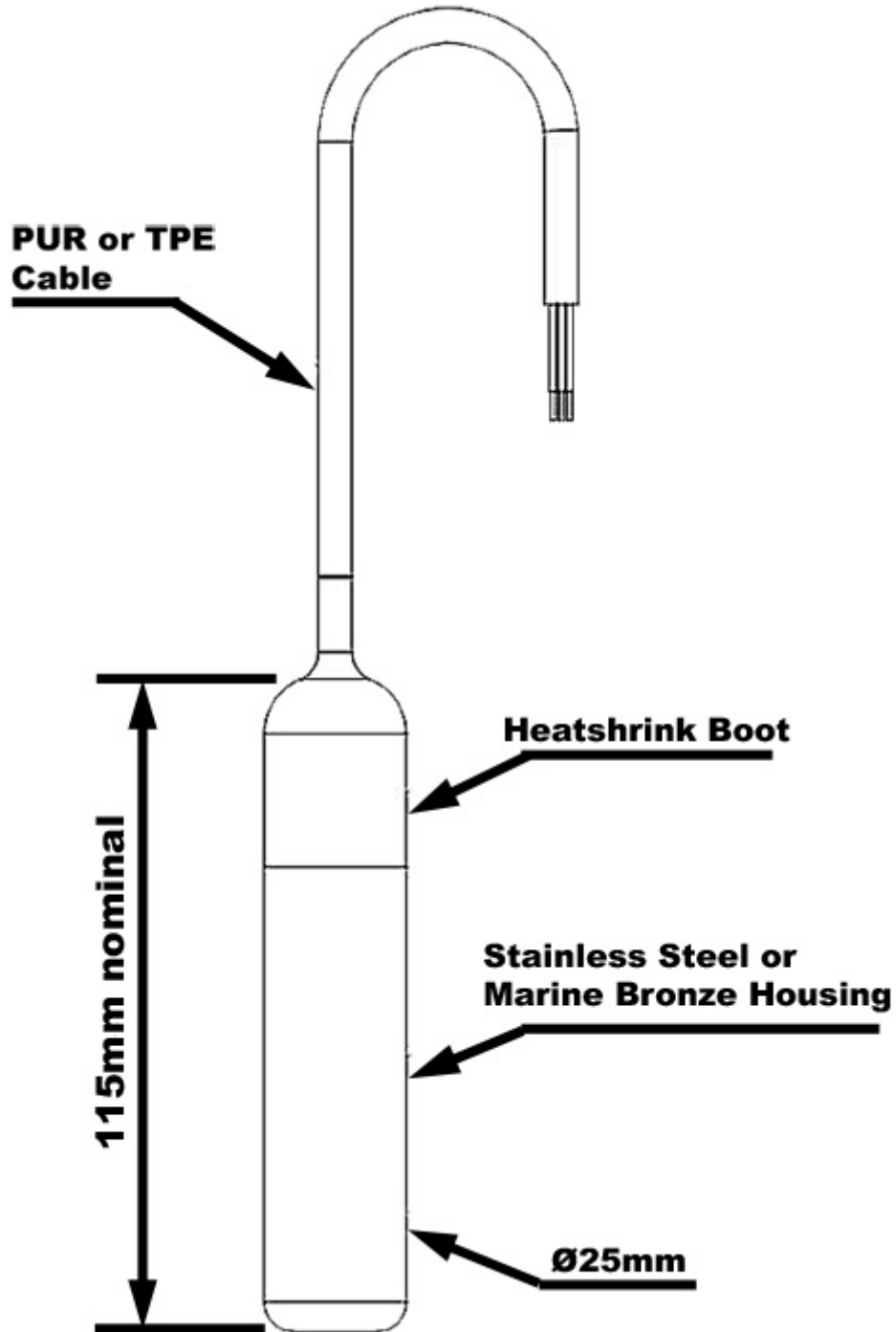
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Dimensions (mm):





Ordering Codes:

Ta993-A-A-SP-01-000	Ta993	-	A	-	A	-	S	P	-	01	-	000
<i>Example Code</i>												
Product Family												
Ta993	Ta993											
Electrical Output												
A = 4-20mA, 2-wire			A									
Temperature Range												
A = 0 to +85°C (standard)					A							
B = 0 to +50°C					B							
C = -10 to +60°C					C							
D = 0 to +35°C					D							
E = 32 to +185°F					E							
F = 0 to +122°F					F							
G = 14 to +140°F					G							
H = 32 to +95°F					H							
I = 0 to +100°C (Note: Max media temperature is +85°C)					I							
- = Other ranges available on request					-							
Housing Material												
S = 316 Stainless Steel							S					
M = Marine Bronze CA104							M					
Cable Type												
P = PUR								P				
T = TPE-U								T				
F = FEP								F				
Cable Length (in metres)												
01 = 1 metre										01		
10 = 10 metres										10		
Specials Code												
000 = No Special Requirements												000