

CS-HTP

Miniature High Temperature Pressure Sensor

FEATURES

- $\leq \pm 0.15\%$ BFSI accuracy
- Pressures up to 30,000 PSI
- High strength titanium BT9 sensing element
- Operating temperature from -195 to $+204^{\circ}\text{C}$
- Optional PT1000 temperature output

GREAT FOR....

- Test stands
- Autosports
- Aerospace controls
- Cryogenics



About the CS-HTP

The **HTP Miniature High Temperature Pressure Sensor** uses a fully active four arm Wheatstone bridge, dielectrically isolated Silicon on Sapphire sensing element based on proprietary technology. An operating temperature range of -195 to $+204^{\circ}\text{C}$ makes this sensor ideal for extreme temperature applications from cryogenics to engine compartments. The miniature design allows for installation in confined spaces. A typical full scale output of 125mV at 10VDC excitation provides a large amount of usable output, simplifying signal conditioning. An optional PT1000 temperature output offers additional measurement capabilities in a single compact sensor.

Miniature Package - High Millivolt Output

The CS-HTP Miniature High Temperature Pressure Sensor offers a **typical full scale output of 125mV when using a 10VDC excitation**. This provides a large amount of usable output, simplifying signal conditioning.

An optional **PT1000 temperature output is available** for applications where a reference temperature measurement is beneficial.

The CS-HTP features a Titanium BT9 (Grade 12) metallic construction offering high strength in high temperature applications.

All of these features come in a **small, compact package with a typical diameter of ~12mm**.



SPECIFICATIONS

Performance

Accuracy @ 25°C:* $\leq \pm 0.15\%$ BFS

Stability (1 Year): $\leq \pm 0.25\%$ of FS

Overpressure ($\leq 10,000$ PSI): 2X rated pressure

Burst Pressure ($\leq 10,000$ PSI): 5X rated pressure

Overpressure ($> 10,000$ PSI): 1.3X rated pressure

Burst Pressure ($> 10,000$ PSI): 2X rated pressure

Thermal

Operating Temperature: -195 to +204°C

TC Zero: 0.025% FS per °C, typical

TC Span: 0.05% FS per °C, typical

Environmental

EMI/RFI Protection: No

Vibration: 10g, 10 to 1000Hz

Shock: 100g, 11msec, 1/2 sine

For wiring information, visit core-sensors.com/wiring

Electrical (Millivolt)

Outputs: Millivolt uncompensated

Excitation:* 10VDC, typical
12VDC, max

Full Scale Output @ 10VDC 100mV, minimum
125mV, typical
200mV, max

Isolation Voltage 500VDC

Input & Output Impedance 3.5KΩ, typical

Response Time: 0.1ms, typical
0.2ms, max

Zero Offset (of FS): $\leq \pm 5\%$ FSO

* Sensor will operate off of any voltage up to 12VDC. Output is ratiometric to supply voltage used.

Process Connection Max Pressure Guide

10-32 UNF-2A Male w/ O-ring groove 3,000 PSI

M5x0.8 Male 3,000 PSI

M10x1 Male 10,000 PSI

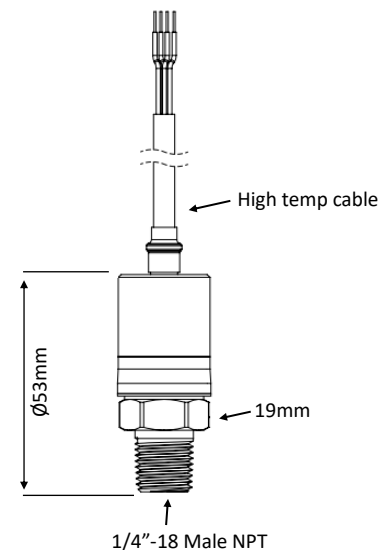
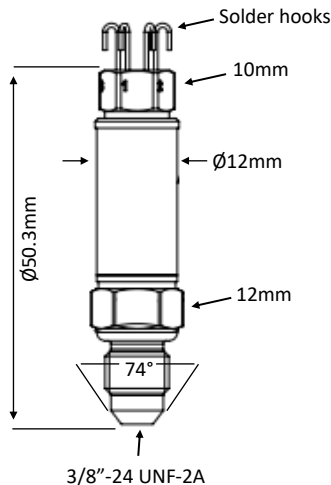
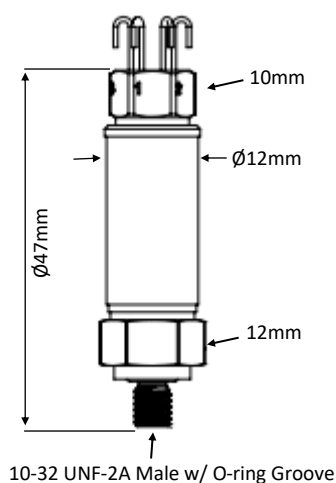
1/4" Male NPT 10,000 PSI

3/8-24 UNF Male w/ 74° Cone 30,000 PSI

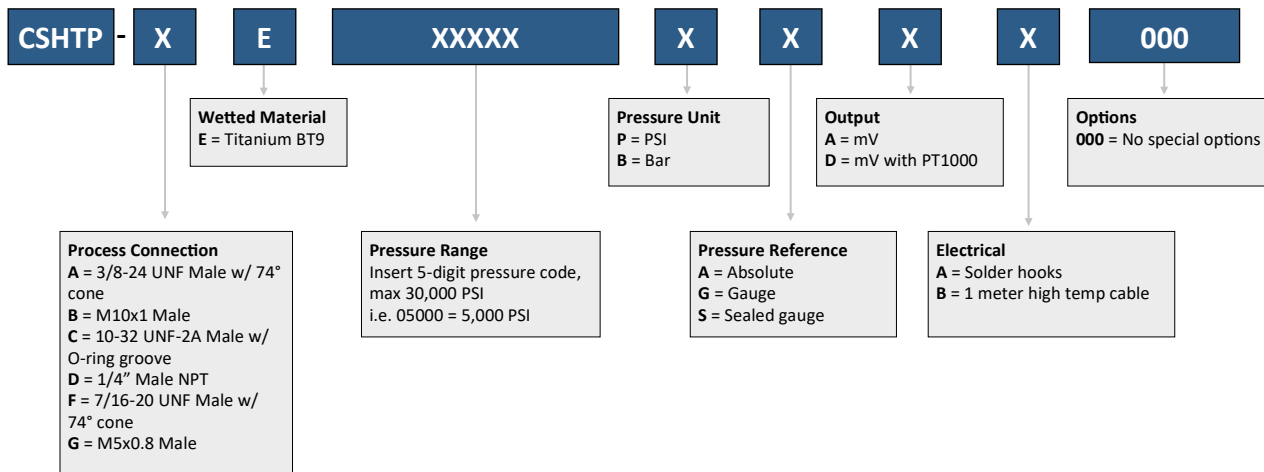
7/16-20 UNF Male w/ 74° Cone 30,000 PSI

DIMENSIONS

*Dimensions are for reference only



MODEL NUMBER CONFIGURATION



Ordering Example: CSHTP-AE01000BSAA000 (3/8-24 UNF Male w/ 74° cone, Titanium BT9, 0-1000 Bar sealed gauge, mV, Solder hooks)

Not all configurations are available. Our sales team can recommend the closest available configuration based on your requirements.

Contact Core Sensors for configurations not shown.

Visit our [How To Buy](#) page or [contact us](#) for a quote.

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Warranty information can be found online at core-sensors.com.