CS-HTR

High Temperature Ratiometric Pressure Sensor

FEATURES

- ≤ ± 0.15% BFSL accuracy
- Pressures up to 20,000 PSI
- High strength titanium BT9 sensing element
- Amplified 0.5.4.5V ratiometric output signal
- Optional PT1000 temperature output

GREAT FOR....

- Test stands
- Autosports
- Aerospace controls

About the CS-HTR

The **HTR High Temperature Ratiometric Pressure Sensor** uses a fully active four arm Wheatstone bridge, dielectrically isolated Silicon on Sapphire sensing element based on proprietary technology. Designed with an amplified 0.5-4.5V ratiometric output signal capable of handling 140°C ambient and 170°C media temperatures, the CS-HTR is an excellent choice for high temperature applications without the need for external amplification. A standard housing diameter of 12.5mm allows for installation in confined spaces and for applications where overall weight is important. An optional PT1000 temperature output is available for additional measurement capabilities in a single device.

Amplified Output Signal - High Temperature Capable

The CS-HTR High Temperature Ratiometric Pressure Sensor offers a **0.5-4.5V ratiometric output signal, operating from a regulated 5VDC supply**. This eliminates the need for external amplification and conditioning.

An optional temperature output is available for applications where a reference temperature measurement is beneficial. The temperature measurement output is offered in both independent 0.5-4.5V ratiometric (from -50 to +150°C) or PT1000 resistance.

All of these features come in a **small, compact package with a typical diameter of 12.5mm.**

SPECIFICATIONS

Performance

Accuracy @ 25°C:*	≤ ± 0.15% BFSL
Stability (1 Year):	≤ ±0.25% of FS
Overpressure (≤ 10,000 PSI):	2X rated pressure
Burst Pressure (≤ 10,000 PSI):	5X rated pressure
Overpressure (> 10,000 PSI):	1.3X rated pressure
Burst Pressure (> 10,000 PSI):	2X rated pressure

** Accuracy includes non-linearity, hysteresis and non-repeatability*

Thermal

Ambient Temperature:	-50 to +140°C
Media Temperature:	-50 to +170°C
Compensated Temperature:	-40 to +105°C
TC Over Compensated Temp:	2% of FS, max

Environmental

EMI/RFI Protection:	Yes
Vibration:	10g, 10 to 1000Hz
Shock:	100g, 11msec, 1/2 sine

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

Electrical (Ratiometric)

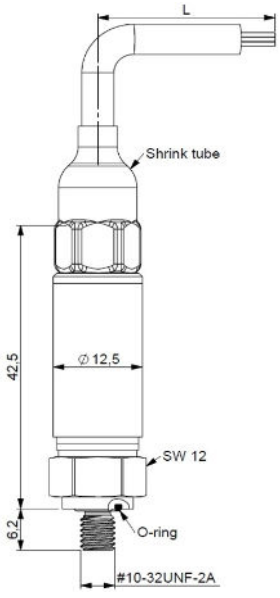
Outputs:	0.5-4.5V ratiometric
Excitation:*	5VDC +/- 0.5V
Supply Current:	< 10mA
Isolation Resistance:	100MΩ (pin to case @ 500VDC)
Output Resistor:	> 4.7 KΩ
Response Time:	1ms, typical 2ms, max
Zero Offset (of FS):	≤ ± 5% FSO

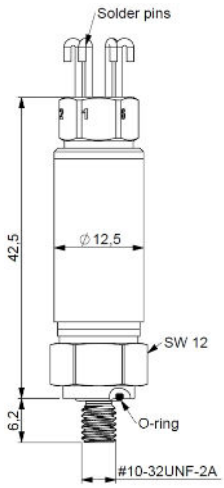
Process Connection Max Pressure Guide

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

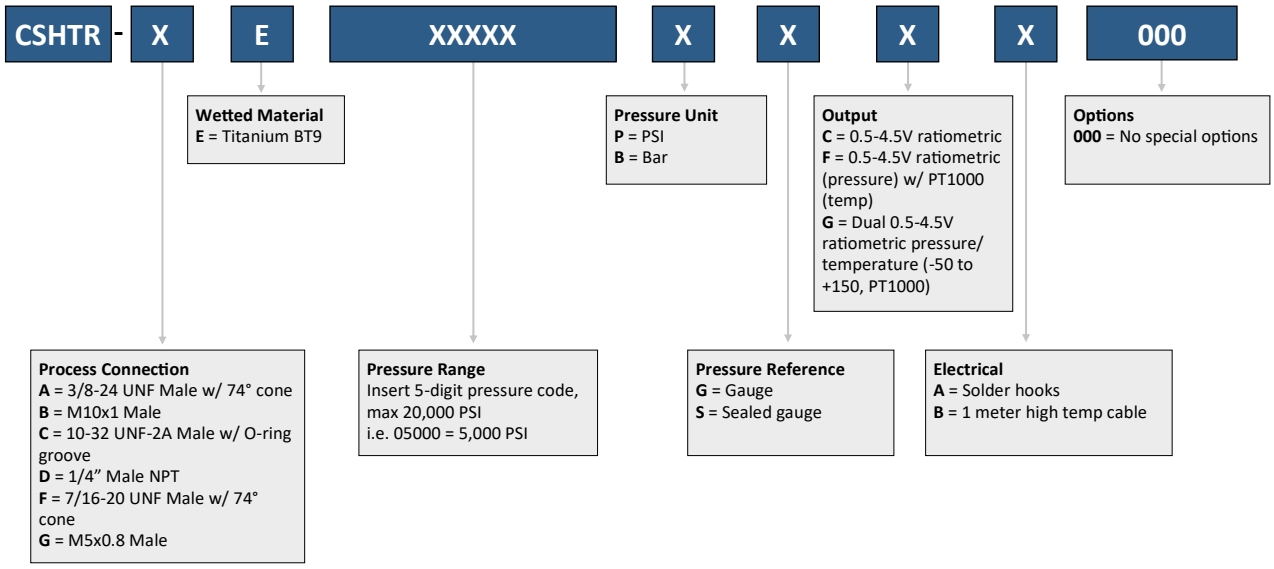
DIMENSIONS

*Dimensions are for reference only





MODEL NUMBER CONFIGURATION



Ordering Example: CSHTR-AE01000BSCA000 (3/8-24 UNF Male w/ 74° cone, Titanium BT9, 0-1000 Bar sealed gauge, 0.5-4.5V ratiometric, 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.

Disclaimer: Unless otherwise agreed in writing, Core Sensors products are not authorized for use in applications including medical devices, life support systems, in-flight aerospace, nuclear or any other application where the product failure could result in personal injury or death.

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