

Ultra-low temperature pressure sensor for  
Liquid Hydrogen, Nitrogen, Helium & Oxygen

# HT-CPT-20SD1 Hydrogen Pressure Sensor

# Hydrogen

- Media temperatures down to  $-260^{\circ}\text{C}$
- Ultra-low temperature Hydrogen compatible pressure sensor
- Compatible with liquid oxygen, liquid nitrogen, liquid hydrogen, liquid helium etc
- 0...5vdc, 0...10vdc, 4...20mA, HART & RS485 output options
- Multiple thread and pressure range options
- IP65 or IP67 rated



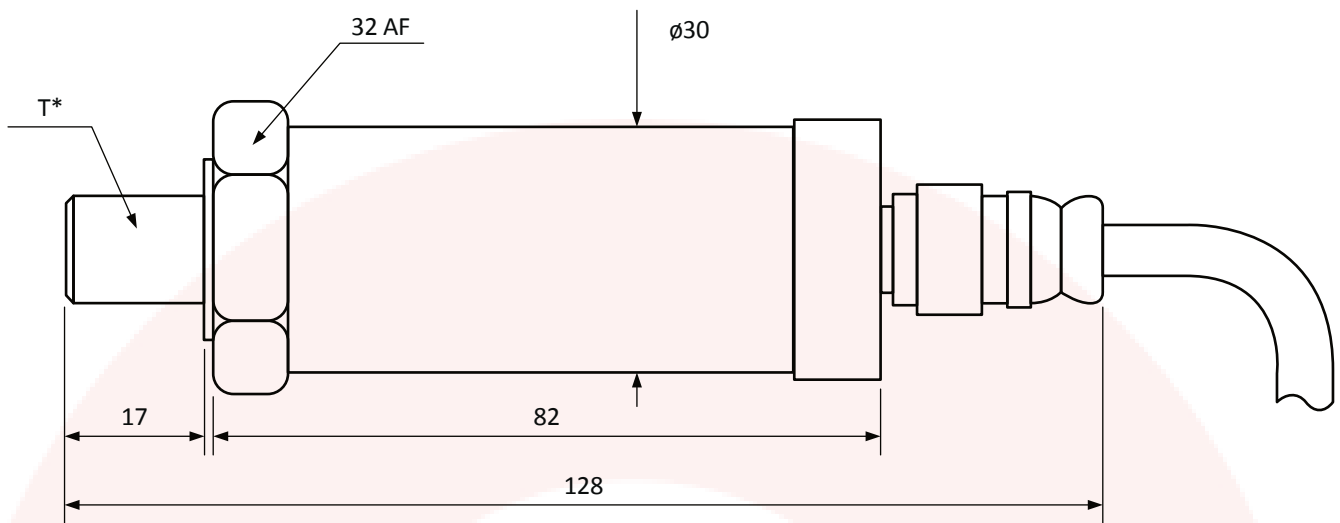
**Aerospace  
Propellants**

**Cooling tanks**

**Cryogenic storage tanks**

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## TECHNICAL DRAWING



All dimensions in mm

\*See technical data for thread options (T)

## TECHNICAL DATA

Range	0...2 bar, 0...150 bar, 0...600 bar
Pressure type	Absolute, gauge
Operating voltage	5-15VDC (10VDC), 9-36VDC
Signal output	0-5Vdc, 0-10Vdc, 4-20mA (RS485 and HART available on request)
Zero output	±5%FS (typical)
Full load output	10mV, 20mV, 100mV
Linear	0.1%FS, 0.2%FS
Repeatability	0.05%FS
Accuracy	±0.25% FS, 050 = ±0.5%
Room temperature	0.1% FS, 0.2% FS, 0.5% FS
Low temperature	0.5% FS...3% FS
Operating temperature	-196°C...+125°C, -210°C...+125°C, -252°C...+125°C, -260°C...+125°C (special on request)
Low temperature zero drift	1...4% FS
High temperature zero drift	1...4.5% FS
Response frequency	>1kHz, >5kHz
Insulation resistance	≥100MΩ/50V
Safe overload	150% FS
Limit overload	300% FS
Vibration	5...1000Hz, amplitude 2mm, X, Y, Z each to 30 minutes, the output changes less than 0.1% FS
Thread (T)	M8x1, M10x1, M12x1.5, M20x1.5, 1/4" NPT, 1/2" NPT
Measuring medium	Liquid oxygen, liquid nitrogen, liquid hydrogen, etc
Humidity	95% RH
Enclosure rating	IP65, IP67 enclosure

ORDERING CODE

**HT-CPT-20SD1- X - YYY - ZZZ - AAA - BBB - CCC - DD - EE**

Replace **X** with the required pressure type  
**A** = Absolute pressure  
**G** = Gauge pressure

Replace **YYY** with the code for the required pressure range  
**002** = 0...2 bar  
**150** = 0...150 bar  
**600** = 0...600 bar

Replace **ZZZ** with the code for the required signal output  
**005** = 0...5 VDC  
**010** = 0...10 VDC  
**420** = 4...20mA

RS485 and HART available on request

Replace **AAA** with the required accuracy  
**025** = ±0.25 FS  
**050** = ±0.5 FS

Replace **BBB** with the code for the required operating temperature  
**196** = -196°C...+125°C  
**210** = -210°C...+125°C  
**252** = -252°C...+125°C

-260C...+125°C available on request

Replace **DD** with the code for the required enclosure rating  
**65** = IP65  
**67** = IP67

Replace **CCC** with the code for the required thread type  
**M08** = M8x1  
**M10** = M10x1  
**M12** = M12x1  
**M20** = M20x1  
**N14** = 1/4" NPT  
**N12** = 1/2" NPT  
**AN4** = AN4 (AS4395E-04)  
 7/16-20 UNF With 37° Flare

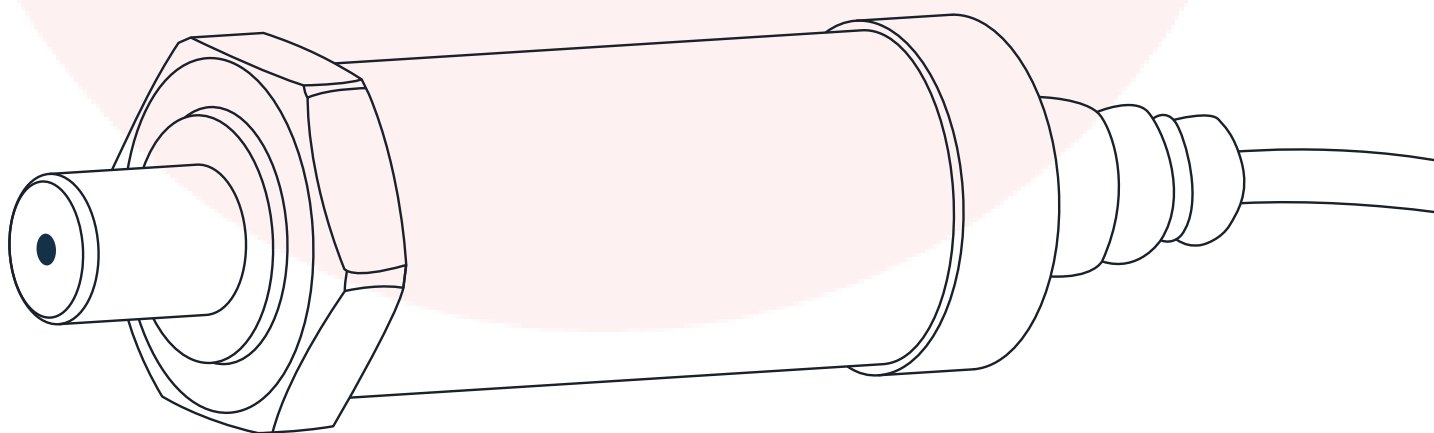
Replace **EE** with the required cable-length  
**03** = 3 meters  
**05** = 5 meters  
**10** = 10 meters

Other lengths available on request

ORDERING EXAMPLE

**HT-CPT-20SD1-A-150-420-050-210-N14-65-05**

HT-CPT-20SD1-V with 0...150 bar range, 4...20mA output, ±0.5 FS accuracy, -210...+125°C operating temperature, 1/2" NPT thread, IP65 enclosure rating and a 5 meter cable.



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