

Sub Miniature Pressure Transducer for High Temperature



Features

- ➔ Available with 0,5-4,5Vdc output
- ➔ Designed for harsh environment
- ➔ Operating from -40 to +175°C
- ➔ Ultra light : < 5 grams

Applications

- ➔ Automotive - on vehicle
- ➔ Oil & gas
- ➔ Energy / Nuclear
- ➔ Motorsport

Operating from -40 up to +175°C, the PHT100 series is dedicated to high temperature pressure measurements. With stainless steel wetted parts, it is compatible with most media, including corrosive fluids used in automotive, aerospace and energy industries. Equipped with the premium thin film technology developed by EFE, its performances and stability over wide temperature range are excellent. The PHT100 is available with unamplified output (mV/V), compensated in temperature to deliver the best accuracy. Amplified output (Vdc) is also standard, thanks to a high performance and ruggedized built-in electronic module.

Technical specifications

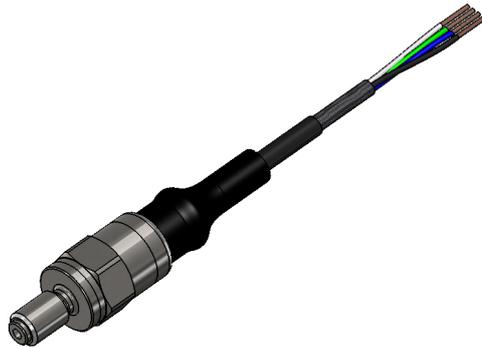
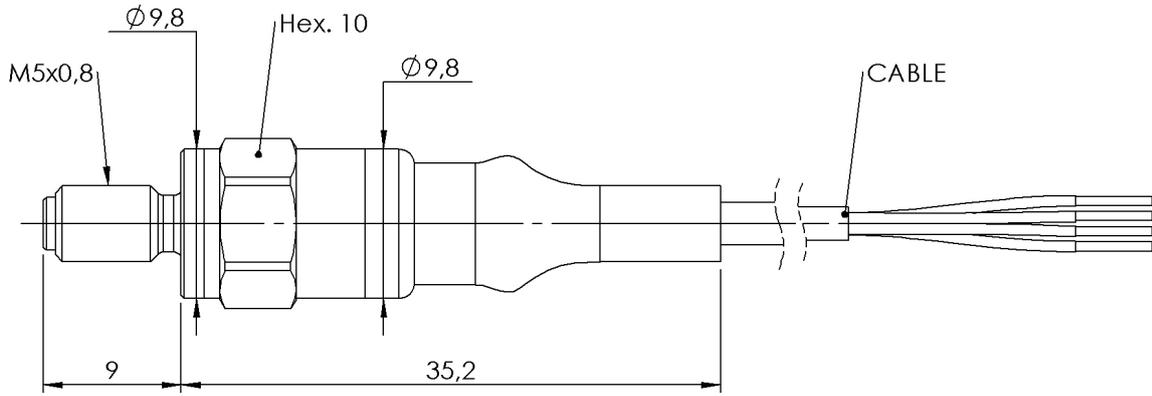
Pressure ranges (FS)	-1/+4bar ; -1/+5bar ; 5bar ; 10bar ; 20bar ; 40bar ; 70bar ; 250bar ; -14.5/+60PSI ; -14.5/+70PSI ; 70PSI ; 150PSI ; 300PSI ; 500PSI ; 1000PSI ; 3000PSI
Type	Absolute ; Gage
Type (for ranges > 40 bar)	Sealed Gage
Safe overload	150% FS
Burst pressure	300% FS
Power supply	5Vdc ± 10mV
Consumption	< 10mA
Insulation	> 1000 MOhms under 50Vdc at ambient temperature
Output at -100%FS (only for ± range)	0.5Vdc
Output at 0%FS (except ranges ±)	0.5Vdc
Output at 100%FS	4.5Vdc
Zero and sensitivity settings tolerances	±50mV

Technical Specifications

Non linearity and hysteresis combined	±0.25% FS typical (±0.35% FS max.)
Non repeatability	±0.02% FS typ.
Signal bandwidth	1000Hz @ -3dB Option : Special Adjustment up to 3000Hz @ -3dB
Compensated temperature range	-30 to +150°C Option : 0 to +175°C
Operating temperature range	-40 to +150°C (-40 to +175°C if optional compensation up to 175°C)
Combined thermal zero & sensitivity shifts	±0.02% FS/°C
Constant acceleration in linear vibrations	± 0.02% FS/g (frequency 20-2000Hz, 50g max.)
Mechanical shock	100g ½ sinus 1ms
Electrical protection	Not protected against polarity inversion
EMC protection	Compliant to EN61000
Electrical connection up to 150°C	AWG26, Viton Jacketed Shielded Cable Ø3mm, 4 wires
Electrical connection above 150°C	AWG26 Shielded Teflon Cable Ø3.4mm ±0.2, 5 wires
Mechanical connection	M5x0.8-6g male
Material(s) of wetted parts	Stainless Steel 316L ; Stainless Steel 17-4PH ; Stainless steel 15-5PH
Weight	< 5g without cable
Enclosure protection	IP65 for absolute & sealed gage version

Codification

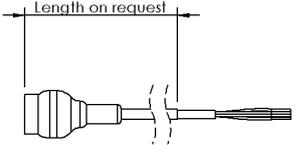
Sub Miniature Pressure Transducer for High Temperature	PHT10	3	S	10bar	G	05	08/1m	F	3	1	B
Output Signal											
0.5-4.5Vdc regulated power supply		3									
Material											
Stainless Steels			S								
Range											
Example				10bar							
Type											
Gage					G						
Sealed Gage					SG						
Mechanical connection											
M5x0.8-6g male						05					
Electrical connection											
AWG26, Viton Jacketed Shielded Cable Ø3mm, 4 wires							08/1m				
AWG26 Shielded Teflon Cable Ø3.4mm ±0.2, 5 wires							09/1m				
Compensated temperature range											
-30 to +150°C								F			
0 to +175°C								G			
Non linearity and hysteresis combined											
±0.25% FS typical (±0.35% FS max.)									3		
Combined thermal zero & sensitivity shifts											
±0.02% FS/°C										1	
Options											
Special Adjustment up to 3000Hz @ -3dB											B



DIMENSIONS : mm



#26 AWG, 4 CONDUCTOR SHIELDED VITON CABLE	
VOLTAGE OUTPUT	CONDUCTOR
+ EXCITATION	RED
+ SIGNAL	GREEN / YELLOW
NC	WHITE
0 VOLT	BLUE / BLACK
SENSOR HOUSING	SHIELD




5 CONDUCTOR TEFLON CABLE	
VOLTAGE OUTPUT	CONDUCTOR
+ EXCITATION	RED
+ SIGNAL	GREEN
0 VOLT	BLACK
NC	WHITE
NC	BLUE
SENSOR HOUSING	SHIELD

