

High Temperature Miniature Pressure Sensor



Features

- ➔ Available with 0,5-4,5Vdc output
- ➔ Miniature pressure sensor
- ➔ Operating from -40 to +175°C
- ➔ Large Bandwidth

Applications

- ➔ Oil & gas
- ➔ Aerospace
- ➔ Military
- ➔ Test benches

Operating from -40 up to +175°C, the PHT160 series is dedicated to high temperature pressure measurements. With all 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 PHT160 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

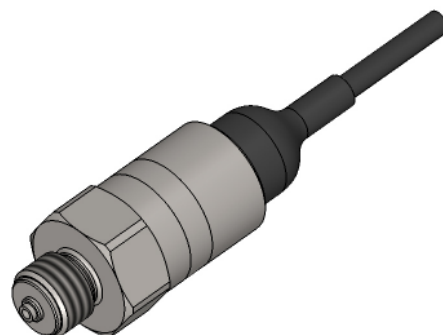
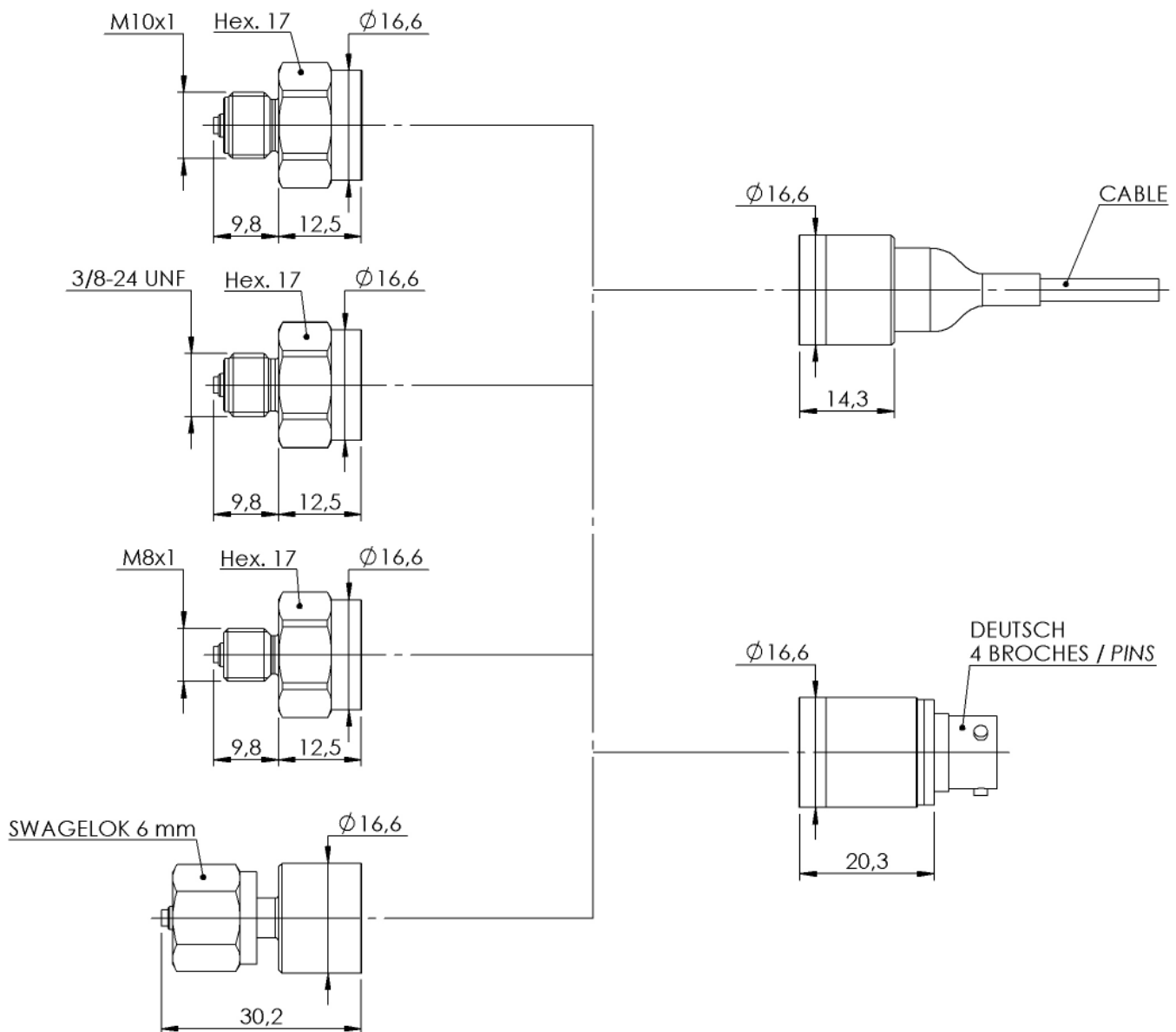
Pressure ranges (FS)	-1/+4bar ; -1/+9bar ; 5bar ; 10bar ; 20bar ; 40bar ; 100bar ; 250bar ; 400bar ; -14.5/+60PSI ; -14.5/+140PSI ; 30PSI ; 70PSI ; 150PSI ; 300PSI ; 500PSI ; 1500PSI ; 3000PSI ; 5000PSI
Type	Absolute ; Gage
Type (for ranges > 40 bar)	Sealed Gage
Safe overload	150% FS
Burst pressure	300% 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

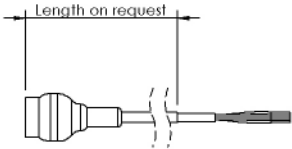
Non linearity and hysteresis combined	$\pm 0.25\%$ FS Option : $\pm 0.1\%$ FS
Non repeatability	$\pm 0.02\%$ FS typ.
Signal bandwidth	1000Hz @ -3dB Option : Special Adjustment up to 3000Hz @ -3dB
Compensated temperature range	-30 to +150°C Option : 0 to +175°C
Operating temperature range	-40 to +150°C (-40 to +175°C if optional compensation up to 175°C)
Combined thermal zero & sensitivity shifts	$\pm 0.02\%$ FS/°C
Constant acceleration in linear vibrations	$\pm 0.02\%$ FS/g (frequency 20-2000Hz, 50g max.)
Mechanical shock	100g $\frac{1}{2}$ sinus 1ms
Electrical protection	Protected against polarity inversion
EMC protection	Compliant to EN61000
Electrical connection up to 150°C	AWG26, Viton Jacketed Shielded Cable Ø3mm, 4 wires Option : DEUTSCH Autosport AS4H06-05-PN-HE connector
Electrical connection above 150°C	AWG26 Shielded Teflon Cable Ø3.4mm ± 0.2 , 5 wires Option : DEUTSCH Autosport AS4H06-05-PN-HE connector
Mechanical connection	3/8-24 UNF-3A male ; M10x1-4h male Option : M8x1-6g male ; Swagelok nut SS-6M2-1 for OD 6mm pipe
Material(s) of wetted parts	Stainless Steel 316L ; Stainless Steel 17-4PH ; Stainless steel 15-5PH
Weight	< 20g without cable

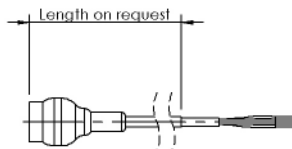
Codification

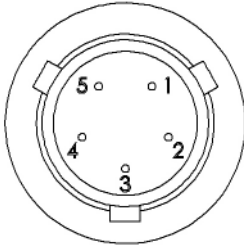
High Temperature Miniature Pressure Sensor	PHT16	3	S	10bar	A	02	05	F	1	1	B
Output Signal											
0.5-4.5Vdc regulated power supply		3									
Material											
Stainless Steels			S								
Range											
Example				10bar							
Type											
Absolute					A						
Gage					G						
Sealed Gage					SG						
Mechanical connection											
M10x1-4h male						02					
M8x1-6g male						03					
3/8-24 UNF-3A male						11					
Swagelok nut SS-6M2-1 for OD 6mm pipe						15					
Electrical connection											
DEUTSCH Autosport AS4H06-05-PN-HE connector							05				
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									1		
±0.1% FS									2		
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	

	DEUTSCH ASH06-05PN-HE - 5 PINS		
	VOLTAGE OUTPUT	PIN	
	+ EXCITATION	PIN 1	
	+ SIGNAL	PIN 3	
	NC	PIN 4	
	- EXCITATION	PIN 2	
	SENSOR HOUSING	PIN 5	

Agent :



E.F.E.

L'ESSOR FRANCAIS ELECTRONIQUE

16 Rue Porte a Bateaux - 27540 Ivry-la-Bataille - FRANCE

Tel : 33 (0)2 32 22 35 05 - Fax : 33 (0)2 32 36 93 08

www.efe-sensor.com - infos@efe-sensor.com