

High Temperature Miniature Pressure Sensor



Features	Applications
Available with 0,5-4,5Vdc output	Oil & gas
Miniature pressure sensor	Aerospace
Operating from -40 to +175°C	Military
Large Bandwidth	Test benchs

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 Absolute; Gage Type Type (for ranges > 40 bar) Sealed Gage Safe overload 150% FS 300% FS Burst pressure Output impedance > 3000 Ohms typ. Input impedance > 3500 Ohms typ. Power supply 5 to 15Vdc Consumption < 10mA Insulation > 1000 MOhms under 50Vdc at ambient temperature Output at -100%FS (only for ± range) Proportional to +100%FS 0mV/V Output at 0%FS

Technical Specifications

Output at 100%FS 1.5mV/V nom.

Zero and sensitivity settings tolerances ±3% FS

Non linearity and hysteresis combined ±0.25% FS

Non repeatability ±0.02% FS typ.

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

Option: ±0.01% FS/°C

Constant acceleration in linear vibrations ± 0.02% FS/g (frequency 20-2000Hz, 50g max.)

Mechanical shock 100g ½ 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

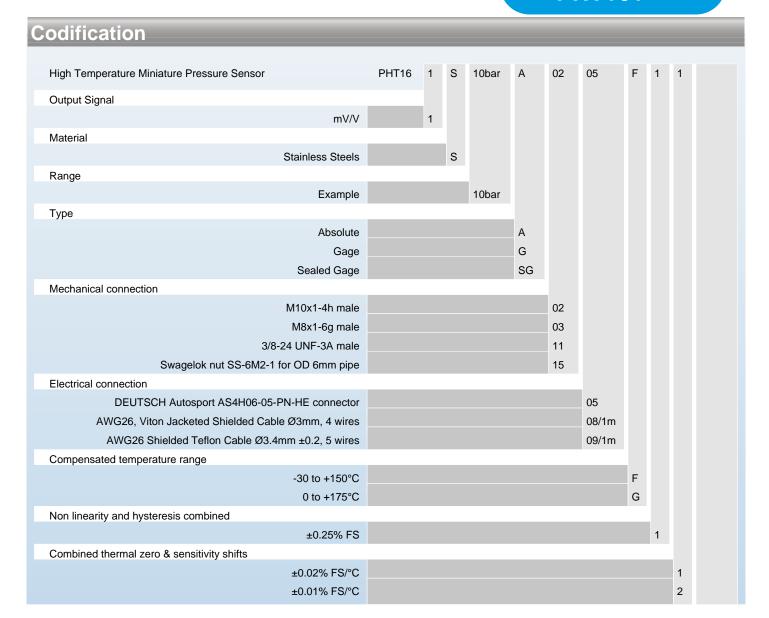
Mechanical connection 3/8-24 UNF-3A male; M10x1-4h male

Option: M8x1-6g male; Swagelok nut SS-6M2-1 for OD 6mm pipe

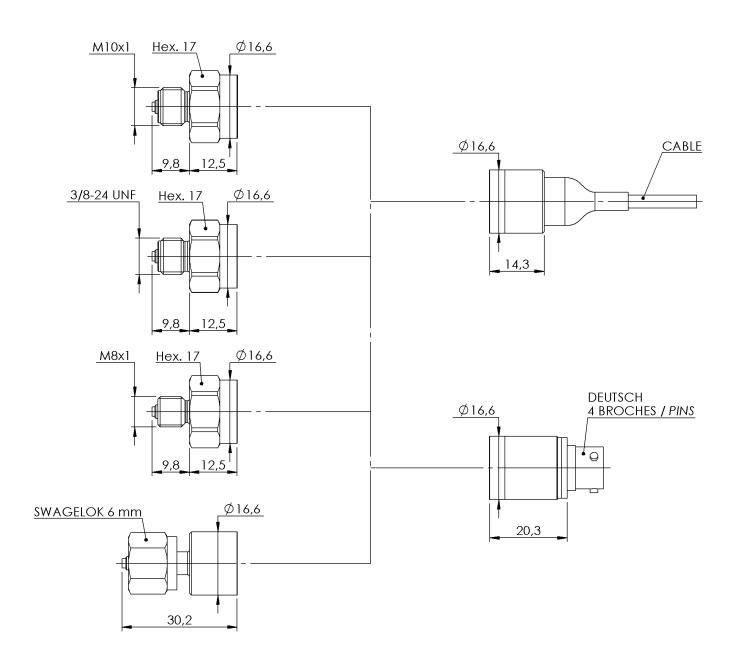
Material(s) of wetted parts Stainless Steel 316L; Stainless Steel 17-4PH; Stainless steel 15-5PH

Weight < 20g without cable

PHT16



Dimensions PHT161

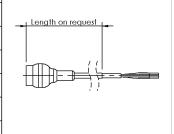




DIMENSIONS: mm

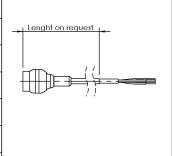


5 CONDUCTOR TEFLON CABLE		
mV/V OUTPUT	CONDUCTOR	
+ EXCITATION	RED	
+ SIGNAL	GREEN	
- SIGNAL	WHITE	
- EXCITATION	BLACK	
NC	BLUE	
SENSOR HOUSING	SHIELD	



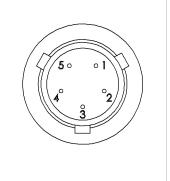


#26 AWG, 4 CONDUCTOR SHIELDED VITON CABLE		
mV/V OUTPUT	CONDUCTOR	
+ EXCITATION	RED	
+ SIGNAL	GREEN / YELLOW	
- SIGNAL	WHITE	
- EXCITATION	BLUE / BLACK	
sensor housing	SHIELD	





DEUTSCH ASH06-05PN-HE - 5 PINS		
mV/V OUTPUT	PIN	
+ EXCITATION	PIN 1	
+ SIGNAL	PIN 3	
- SIGNAL	PIN 4	
- EXCITATION	PIN 2	
SENSOR HOUSING	PIN 5	





E.F.E.

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