



APPLIED MEASUREMENTS LTD.
Transducer Specialists...

+44 (0) 118 981 7339

info@appmeas.co.uk

www.appmeas.co.uk

P600HT High Temperature Pressure Sensor

Key Features:

- Ranges 0-10bar up to 0-400bar
- Outputs: 4-20mA (0-5Vdc and 0-10Vdc Optional)
- Sealed to IP65
- Process Temperature to +250°C
- Accuracy: $<\pm 0.3\%$ /FS
- 1/2" BSP with Flush Diaphragm
- Excellent Chemical and Abrasion Resistance
- Rugged Construction
- Field Adjustable Output Range
- Excellent Performance/Price Ratio
- Optional ATEX Version
- 3 Year Warranty



The P600HT series of high temperature pressure sensors are designed for the measurement of liquid and gas pressures where the media temperature is up to 250°C. Typical applications include hydraulics, medical, research and development, food processing, pharmaceutical, petrochemical, offshore, oil and gas and a range of steel manufacturing.

Pressure ranges between 0-10bar and 0-400bar are available offering field adjustment of both span and zero by $\pm 5\%$, for quick and easy fine-tuning of the sensor when required.

The P600HT boasts an 316L Stainless Steel pressure port and sensing element, offering excellent long term performance and superb media compatibility. The P600HT has a process connection 1/2" BSP male type and the output is 2 wire 4-20mA as standard (0-5Vdc and 0-10Vdc outputs are optional).

The P600HT series can also be supplied with any of our wide range of instrumentation to give you a complete calibrated system, please contact our [technical sales team](#).

Options:

- Interim Pressure Ranges
- Special Output Scaling
- Supplied with Instrumentation and Calibrated as a Complete System with Traceable Certificate
- Optional Outputs: 0-5Vdc and 0-10Vdc

Applications:

- General Purpose and Industrial Applications
- Hydraulics
- Medical
- Research & Development
- Steel Manufacturing
- Oil & Gas
- Food Processing
- Petrochemical
- Offshore
- Pharmaceutical



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Specification:

Input pressure range										
Nominal Pressure Range	Bar (gauge)	10	16	25	40	60	100	160	250	400
Permissible Overpressure	Bar	x 1.5	x 1.5	x 1.5	x 1.5	x 1.5	x 1.5	x 1.5	x 1.5	x 1.5

Output signal & supply voltage	Number of Wires	Output	Supply Voltage
P642HT	2 - wire	4 - 20mA	13 - 36Vdc (unregulated)
P605HT	3 - wire	0 - 5Vdc	13 - 36Vdc (unregulated)
P6010HT	3 - wire	0 - 10Vdc	13 - 36Vdc (unregulated)

Performance		
Accuracy (non-linearity, hysteresis, repeatability)	% Full Scale Output	<±0.3 (BFSL)
Zero Offset and Span Tolerance	% / Span	±1 (at room temperature)
Zero Offset and Span Adjustment	% / Full Scale Output	±5 with easy access trimming potentiometers
Permissible Temperatures & Thermal Effects		
Media Temperature	°C	0 to +250 Sensor and electronics thermally insulated from media
Ambient Temperature	°C	-20 to +85
Storage Temperature	°C	+5 to +40
Thermal Zero Shift (TZS)	% / Full Scale / °C	<±0.04
Thermal Span Shift (TSS)	% / Full Scale / °C	<±0.04
Electrical Protection		
Reverse Polarity Protection		Protected against supply voltage reversal up to 50Vdc
Materials		
Media Compatibility		Any media compatible with 316 Stainless Steel and viton
Misc		
Weight	Grams	125 nominal
Insulation Resistance	Megohm @ 50 Vdc	>100
Electrical Connection:		Mating socket with screw terminal connections to DIN 43650. Flying lead optional cable length also available.
Pressure Connection:		1/2" BSP male with flush 316L diaphragm and Viton O-ring.
Response Time (10% - 90%)	ms	≤10
Environmental Protection:		IP65
Load Driving Capability	4 - 20mA version	= Supply voltage - 10V / 0.02A (i.e. 36V - 10V / 0.02A = 1300Ω)
	0-5V / 0-10V versions	>5kΩ / >10kΩ
Long Term Stability	% / Full Scale	< 0.2 / 6 months
Operational Life	Pressure Cycles	> 10 ⁸ typical
ATEX Approval (4-20mA versions only)		Ex II 1 G Ex ia IIC T4 Ga (zone 0) Ex II 1 D Ex ia IIC T135°C Da (zone 20) EX I M 1 Ex ia I Ma (group I M1)



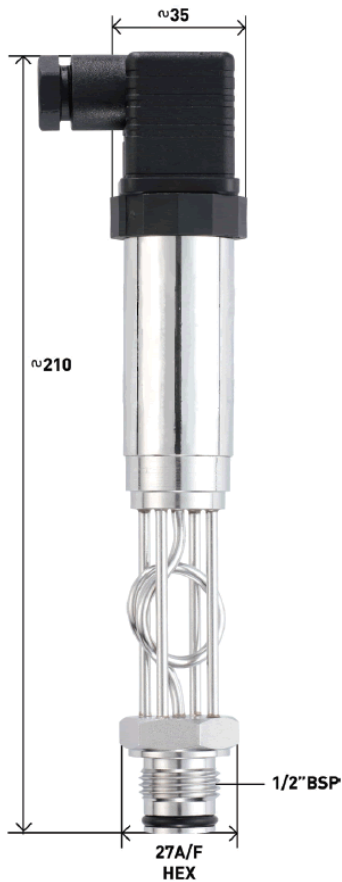
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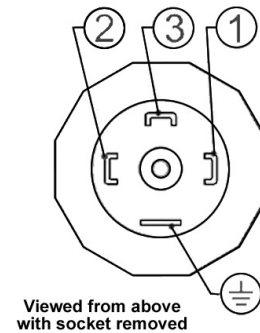
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Dimensions (mm):



Wiring Diagram:

Pin No.	2 Wire (4 - 20mA)
1	+ve supply
2	4 - 20mA signal
3	not fitted
⊥	to case



Pin No.	3 Wire (0 - 5Vdc / 0 - 10Vdc)
1	common
2	+ve supply
3	+ve output
⊥	to case

Associated Products:



[Tracker 211 Low-Cost Universal Digital Indicator](#)



[Intuitive4 Lite Digital Indicator](#)



[Intuitive4-P Process Panel-Mount Indicator](#)



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Ordering Codes:

P642HTC-10barg-AA-00-000	P6	42	HT	C	-	10barg	-	A	A	-	00	-	000
<i>Example Code</i>													
Product Family													
P6--HT	P6		HT										
Electrical Output													
42 = 4-20mA (2 wire)		42											
42X = 4-20mA ATEX Certified (2 wire)		42X											
05 = 0-5Vdc (3 wire)		05											
010 = 0-10Vdc (3 wire)		010											
Electrical Connection / ATEX Certification													
Blank = Large DIN Plug & Socket (standard)				Blank									
C = IP67 Cable (1 metre fitted as standard)				C									
Pressure Range													
10barg = 0 to 10bar gauge						10barg							
2400psig = 0 to 2400psi gauge						2400psig							
Accuracy (Non-Linearity & Hysteresis)													
A = $\pm 0.3\%/FS$ (standard)								A					
Process Connection													
A = G1/2" Male									A				
Cable Length in Metres													
00 = None											00		
01 = 1 metre											01		
Specials Code													
000 = No Special Requirements													000