



Hispec HI2000 Series

High Precision Pressure Transducer



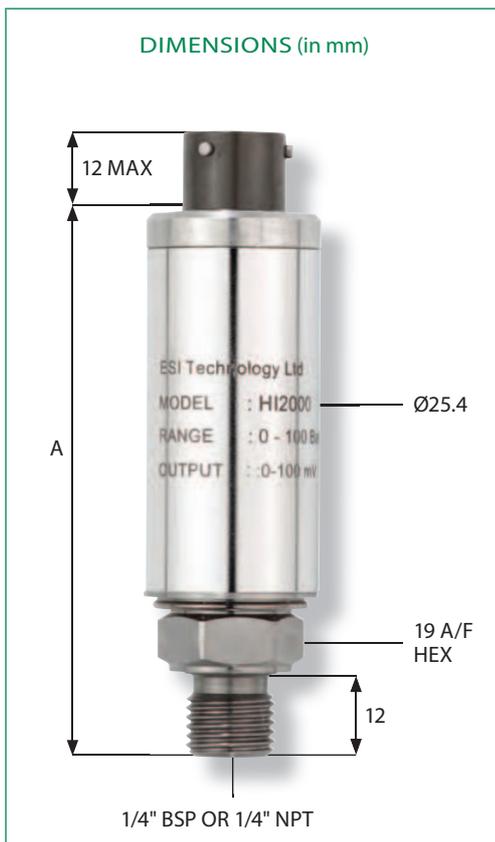
- High accuracy and performance
- Silicon-on-Sapphire sensor technology for outstanding stability
- Pressure ranges to 1,500bar
- Titanium wetted parts for excellent chemical compatibility
- High thermal stability over wide operating temperature
- ATEX/IECEX option available (includes M1 for mining applications)

DESCRIPTION

The HISPEC HI2000 series of pressure transducers, with Silicon-on-Sapphire sensor technology, offer levels of accuracy and performance previously unobtainable or prohibitively expensive.

The unique Silicon-on-Sapphire sensor provides outstanding performance, stability and accuracy over a wide temperature range. The wetted parts and diaphragm are machined from a single piece of titanium alloy which provides excellent chemical compatibility. Applications include aerospace, laboratory and test, oil and gas monitoring equipment (down-hole) and subsea. Available in pressure ranges from 0-500mbar to 0-1,500bar and with electrical outputs of 10mV/V, 0-5V and 0-10V.

An optional ATEX and IECEx approved version of this product is available for explosion protection for flammable gases (zone 0), dusts (zone 20) and mining areas (group I M1).



ELECTRICAL CONNECTION (mA) MIL-C-26482

Pin.	Designation
A	+supply
B	+output
C	-output
D	-supply
E	N/C
F	N/C

ELECTRICAL CONNECTION CABLE OUTLET

WIRE COLOUR	Designation
RED	+supply
GREEN	+output
YELLOW	-output
BLUE	-supply

	Dim. A
HI2x00	80
HI2x01/2	95



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TECHNICAL DATA

Type:	HI2000/HI2010	HI2001/HI2011	HI2002/HI2012
Output signal:	10 mV/V (4 wire)	0-5 V (4 wire)	0-10 V (4 wire)
Supply Voltage:	10 VDC (5-15V)	13-30 VDC	13-30 VDC
Pressure Reference:	Gauge		
Protection of Supply Voltage:	Protected against supply voltage reversal up to 50 V (amplified versions)		
Standard Pressure Ranges:	0-1 bar Vac; 0-0.5 bar; 0-1 bar; 0-10 bar; 0-25 bar; 0-100 bar; 0-250 bar; 0-700 bar; 0-1,500 bar (other ranges available)		
Overpressure Safety:	4x for 0.5 bar range; 2 x for ranges 1 bar to 600 bar; 1.5x for 1,000 bar range; 1.1x for 1,500 bar range		
Load Driving Capability:	10 mV/V: n/a 0-5 V: max. load $R_L > 5 K\Omega$ 0-10 V: max. load $R_L > 10 K\Omega$		
Accuracy NLHR:	$\pm 0.1\%$ FS typical max. BFSL		
Zero Offset and Span Tolerance:	$\pm 0.5\%$ FS at room temperature (HI2000/HI2010: ± 1 mV)		
Operating Ambient Temperature:	-40°C to +85°C		
Operating Media Temperature:	-50°C to +125°C		
Storage Temperature:	$\pm 5^\circ\text{C}$ to +40°C (recommended best practice)		
Temperature Effects:	$\pm 1.0\%$ FS total error band for -20°C to +70°C. Typical thermal zero and span coefficients $\pm 0.005\%$ FS/ °C		
ATEX/IECEx Approval Option (mV version only):	Ex II 1 G Ex ia IIC T4 Ga (zone 0) Ex II 1 D Ex ia IIIC T135°C Da (zone 20) Ex I M 1 Ex ia I Ma (group 1 M1)		
ATEX/IECEx Safety Values:	$U_i = 28$ V, $I_i = 119$ mA, $P_i = 0.65$ W, $L_i = 0.1$ μH , $C_i = 0$, Temperature Range = -20°C to +70°C, Max. cable length = 50 m		
Electromagnetic Capability:	Emissions: EN61000-6-4 Immunity: EN61000-6-2 Certification: CE Marked		
Insulation Resistance:	> 100 M Ω @ 50 VDC		
Wetted Parts:	Titanium alloy		
Pressure Media:	All fluids compatible with Titanium alloy		
Pressure Connection:	1/4" BSP or 1/4" NPT Male (others options available)		
Electrical Connection:	HI200x: PTFE insulated flying lead, conductor size 7/0.1 mm. HI201x: MIL-C-26482 6 pin bayonet connector (Accessory not included: mating connector type MS3116F10-6S).		

DISCLAIMER: ESI Technology Ltd operates a policy of continuous product development. We reserve the right to change specification without prior notice. All products manufactured by ESI Technology Ltd are calibrated using precision calibration equipment with traceability to international standards.

ORDER MATRIX

Output		Wires	Type	Electrical Connector	Pressure Range	Process Connection			
10 mV/V	Cable outlet 1m PTFE	4	HI2000						
	MIL-C-26482 6 pin bayonet	4	HI2010						
0-5 V	Cable outlet 1m PTFE	4	HI2001						
	MIL-C-26482 6 pin bayonet	4	HI2011						
0-10 V	Cable outlet 1m PTFE	4	HI2002						
	MIL-C-26482 6 pin bayonet	4	HI2012						
Electrical Connection / Option									
No special option required							-		
ATEX/ IECEx certified							EX		
Pressure Range in bar									
0-1 barVac							V001		
0-0.5 bar							00.5		
0-1 bar					0001				
0-10 bar					0010				
0-25 bar					0025				
0-100 bar					0100				
0-250 bar					0250				
0-700 bar					0700				
0-1,500 bar					1500				
Process Connection									
1/4" BSP male						AB			
1/4" NPT male						AM			

Order Number Example

HI2000EX0020AB

For options not listed please contact sales team.



HI2000



HI2010