



# Hispec<sup>®</sup> HI3000 TEDS

High Precision Pressure Transducer



- High accuracy and performance
- Silicone-on-Sapphire sensor technology for outstanding stability
- Pressure ranges to 450 bar (ranges to 6,500 psi)
- TEDS transmitter
- 4-20mA output
- on-board EEPROM



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## Description

The HI3000 TEDS (Transducer Electronic Data Sheet) contains the critical information needed by an instrument or measurement system to identify, characterize, interface, and properly use the signal from an analog sensor.

IEEE 1451.4 defines the method of encoding TEDS information for a broad range of sensor types and applications.

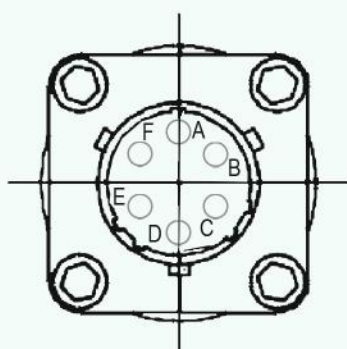
The unique Silicone-on-Sapphire sensor provides outstanding performance and gives excellent stability over a wide temperature range.

The advanced sensor design consists of a piezoresistive silicon strain gauge circuit, which is epitaxially grown onto the surface of a sapphire diaphragm to form a single crystalline structure.

The sapphire sensor element is then molecularly bonded to a Titanium alloy sub-diaphragm. This enables the sensor to endure higher over-pressures and provides superb corrosion resistance. The sensor exhibits virtually no hysteresis and excellent long-term stability.

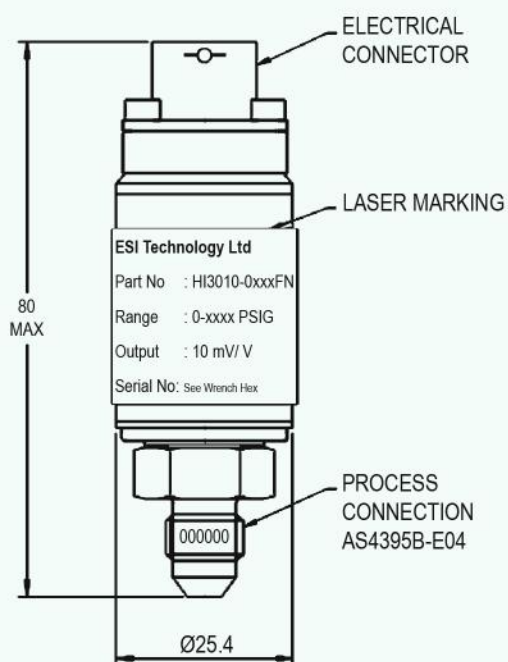
With outstanding insulation properties, the sapphire substrate allows the sensor to operate over a very wide temperature range without loss of performance.

## Dimensions (in mm)



Electrical Connection  
MIL-DTL-26482

Pin.	Designation
A	+Excitation
B	+Signal
C	-Signal
D	-Excitation
E	TEDS+
F	TEDS-



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## Technical data

<b>Sensor Technology:</b>	Silicon-on-Sapphire (SoS)
<b>Output Signal:</b>	10mV/V
<b>Supply Voltage:</b>	10 VDC (5-15V)
<b>Pressure Reference:</b>	Gauge
<b>Standard Pressure Ranges (bar):</b>	0-14bar, 0-34bar, 0-41bar, 0-62bar, 0-69bar, 0-103bar, 0-138bar, 0-172bar, 0-207bar, 0-276bar, 0-345bar, 0-414bar 0-690bar
<b>Standard Pressure Ranges (psi):</b>	0-200psi, 0-500psi, 0-600psi, 0-900psi, 0-1000psi, 0-1500psi, 0-2000psi, 0-2500psi, 0-3000psi, 0-4000psi, 0-5000psi, 0-6000psi, 0-10000psi
<b>Overpressure Safety:</b>	1.5x for ranges 0 to 41 bar; 1.1x for ranges 62 to 103 bar; 1.5x for ranges 138 to 690 bar
<b>Load Driving Capability:</b>	N/A
<b>Accuracy NLHR:</b>	$\pm 0.15\%$ of span
<b>Zero Offset and Span Tolerance:</b>	$< \pm 1$ mV/V; Span Tolerance: 10 mV/V
<b>Operating Ambient Temperature:</b>	-40°C to +85°C (-40°F to 185°F)
<b>Operating Media Temperature:</b>	-50°C to +125°C (-58°F to 257°F)
<b>Storage Temperature:</b>	+5°C to +40°C (+41°F to +104°F) Recommended Best Practice
<b>Temperature Effects:</b>	+1.00%FS Total Error Band -20°C to +70°C typical thermal zero and span coefficients +0.005 %FS/°c.
<b>Electromagnetic Compatibility:</b>	Emissions: EN61000-6-4; Immunity: EN61000-6-2; Certification: CE Marked
<b>Insulation Resistance:</b>	> 100MΩ at 50VDC
<b>Response Time 10-90%:</b>	10-90%: <1mS
<b>Wetted Parts:</b>	Titanium Alloy
<b>Pressure Media:</b>	All fluids compatible with Titanium alloy
<b>Pressure Connection:</b>	MS33649-4 AS4395 (7/16-20 UNJF-3A) (other options available)
<b>Electrical Connection:</b>	MIL-DTL-26482, Size 10-6P, Nickel Plated
<b>Net. Weight (Kg):</b>	< 90 grams

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## Order Matrix

Output	Electrical Connector	Wires	Type	Options	Pressure Range	Process Connection
10mV/V	MIL-DTL-26482 6 Pin bayonet	0	HI3010			
<b>Options</b>						
No special action required				-		
<b>Pressure Range in bar</b>						
0-14 bar					0200	
0-34 bar					0500	
0-41 bar					0600	
0-62 bar					0900	
0-69 bar					1000	
0-103 bar					1500	
0-138 bar					2000	
0-172 bar					2500	
0-207 bar					3000	
0-276 bar					4000	
0-345 bar					5000	
0-414 bar					6000	
0-690 bar					10000	
<b>Process Connection</b>						
MS33649-4 AS4395 (7/16-20 UNJF-3A)						FN
<b>Order Number Example</b>			HI3010-0014FN			