



bar

AHI6000

High Temperature Pressure Transmitter

FEATURES

- High ambient temperatures up to 150°C
- Silicon-on-Sapphire sensor technology for outstanding performance
- Pressure ranges up to 1,500 bar
- Titanium wetted parts for excellent chemical compatibility
- High thermal stability over wide temperature range
- High accuracy version available
- Compact design



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 subdiaphragm.

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.

SPECIFICATIONS

The AHI6000 High Temperature Pressure Transducer performs at constant media and ambient temperatures of up to 135°C and for limited periods up to 150°C. Constructed from Titanium Alloy the unit offers a pressure range of up to 1,500 bar, as well as excellent chemical compatibility and a proven reliability within high temperature environments.

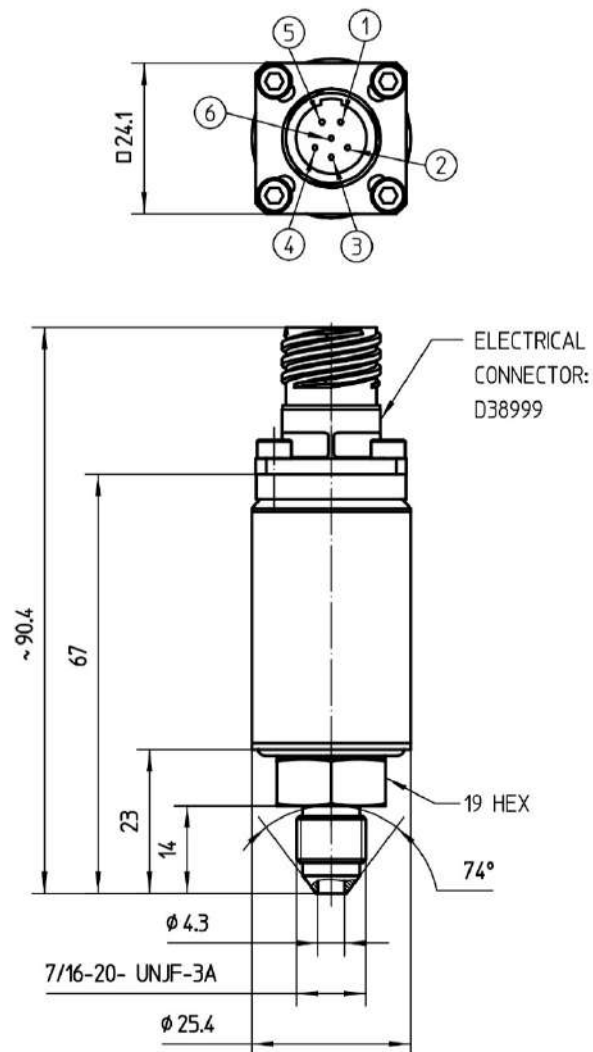
The unique Silicon-on-Sapphire sensor technology provides outstanding performance and gives excellent stability over a wide temperature range. With a compensated temperature range from -25°C to +135°C, a range of outputs and pressure ranges are available as well as a high accuracy option, it is our most flexible high temperature product.

Typical applications include:

- Automotive
- Industrial
- Aviation



DIMENSIONS (in mm)



ELECTRICAL CONNECTIONS

ELECTRICAL CONNECTIONS			
PIN No.	4-20 mA	VDC 4 wire	VDC 3 wire
1	+supply	+supply	+supply
2	4-20mA signal	+output	+output
3	N/C	-output	N/C
4	N/C	-supply	-supply



TECHNICAL DATA

Type	AHI6**0	AHI6**1	AHI6**2	AHI6**3
Sensor Technology:	Silicon-on-Sapphire (SOS)			
Output Signal:	0.5-4.5 V ratiometric (4 wire)	0-5 V (4 or 3 wire)	0-10 V (4 or 3 wire)	4-20 mA (2 wire)
Supply Voltage:	4.8 - 5.5 VDC	10-32 VDC	12-32 VDC	10-36 VDC
Pressure Reference:	Gauge			
Protection of Supply Voltage:	Reverse polarity, overvoltage up to 36VDC			
Standard Pressure Ranges (bar):	0 -1 bar Vac; 0-0.5 bar; 0-1 bar; 0-2.5 bar; 0-6 bar; 0-10 bar; 0-16 bar; 0-25 bar; 0-100 bar; 0-250 bar; 0-400 bar; 0-600 bar; 0-1,000 bar; 0-1,500 bar (other ranges available)			
Standard Pressure Ranges (psi):	0-30 in Hg; 0-7.5 psi; 0-15 psi; 0-30 psi; 0-100 psi; 0-150 psi; 0-200 psi; 0-300 psi; 0-1,500 psi; 0-3,000 psi; 0-6,000 psi; 0-8,700 psi; 0-15,000 psi; 0-20,000 psi (other ranges available)			
Overpressure Safety:	4x for 0.5 bar range; 2x for ranges -1 bar to 600 bar; 1.5x for 1,000 bar range; 1.1x for 1,500 bar range			
Load Driving Capacity:	≥ 4.5k	≥ 5k	≥ 10k	RL < [UB - 10 V] / 20 mA (e.g. with supply voltage (UB) of
Accuracy NLHR:	≤ ±0.25 % of span BFSL (Optional higher accuracy version of ≤ ±0.1 % of span BFSL available*)			
Zero Offset and Span Tolerance:	±0.02 V at room temperature			
Operating Temperatures:	Operating Ambient Temperature: -40°C to +135°C, up to +150°C for 10 mintes on rare occasions. Compensated temperature range -25 to 135°C Operating Media Temperature: -40 °C to 135 °C (-40 °F to +275 °F)			
Storage Temperature:	+5 °C to +40 °C (+41 °F to +104 °F) Recommended Best Practice			
Temperature Effects:	Cumulative error < ±0.5%FS (TEB)			
Electromagnetic Compatibility:	EN61000-6-2; EN61000-4-2: Electrostatic discharge: contact ±4kV, air ± 8kV; EN61000-4-4: Fast Transients ± 4kV signal port; EN61000-4-5: Surges ±0.5kV Line to Line; EN 61000-4-6: Disturbances 10V eff 0.15MHz - 80MHz. Certification: CE marked			
Insulation Resistance:	> 100 MΩ @ 50 VDC			
Response Time 10-90%:	1 mS			
Wetted Parts:	Titanium alloy measurement cell and wetted parts			
Pressure Media:	All fluids compatible with Titanium alloy			
Pressure Connection:	AS4395B-E04 (7/16-20 UNJF- 3A) other options available			
Electrical Connection:	MIL-DTL-D38999 SERIES III; shell size 9, 6 pin, pattern 35 or PTFE insulated flying lead, conductor size 7/0.1 mm (other options available)			
Net Weight:	0.1 Kg			



TECHNICAL DATA

Output	Electrical Connection	Wires	Type	Pressure Range	Process Connection
0.5-4.5 V ratiometric	Cable outlet 1m screened IP67protection	3	AHI6000		
	D38999 6 pin connector	3	AHI6010		
0-5 V	Cable outlet 1m screened IP67protection	4	AHI6001		
	D38999 6 pin connector	4	AHI6011		
	Cable outlet 1m screened IP67protection	3	AHI6301		
	D38999 6 pin connector	3	AHI6311		
0-10 V	Cable outlet 1m screened IP67protection	4	AHI6002		
	D38999 6 pin connector	4	AHI6012		
	Cable outlet 1m screened IP67protection	3	AHI6302		
	D38999 6 pin connector	3	AHI6312		
4-20 mA	Cable outlet 1m screened IP67protection	2	AHI6003		
	D38999 6 pin connector	2	AHI6013		
Pressure Range in barg					
0-1 bar Vac				V001	
0-0.5 bar				00.5	
0-1 bar				0001	
0-2.5 bar				02.5	
0-6 bar				0006	
0-10 bar				0010	
0-16 bar				0016	
0-25 bar				0025	
0-100 bar				0100	
0-250 bar				0250	
0-400 bar				0400	
0-600 bar				0600	
0-1000 bar				1000	
0-1500 bar				1500	
Process Connection					
AS4395B-E04 (7/16-20 UNJF- 3A)					FN

Order Number Example

AHI6003-1500FN

For options not listed please contact the sales team

DISCLAIMER: We reserve the right to change specifications without prior notice. specifications without prior notice. All manufactured products are calibrated with precision calibration equipment that is traceable to national measurement standards.

Page 4 / 4

The information provided herein is to the best of our knowledge true and accurate, it is provided for guidance only. All specifications are subject to change without prior notification.

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