

# High temperature, compact accelerometer

## HT780A



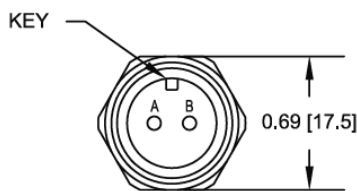
For applications in which extremely high temperature operation is needed, Wilcoxon offers the HT series of accelerometers. Dryer sections of a paper machine regularly create conditions up to 150° C. Vibration monitoring sensors must be capable of operating continuously in hot environments without degradation. HT series sensors are built with extended range components that are manufactured to withstand high temperatures for long periods of time without failing.

The top-exit HT780A 100 mV/g broadband sensor operates at high temperatures for monitoring machine vibration on a wide range of rotating equipment such as motors, pumps, fans, compressors, turbines and generators. Its compact size allows the sensor to be mounted in tight areas not accessible by full sized sensors. The 316L stainless steel case provides rugged durability for most extreme environments. The sensing element is housed in a case-isolated Faraday shield, providing maximum protection from ground loops and RF interference.

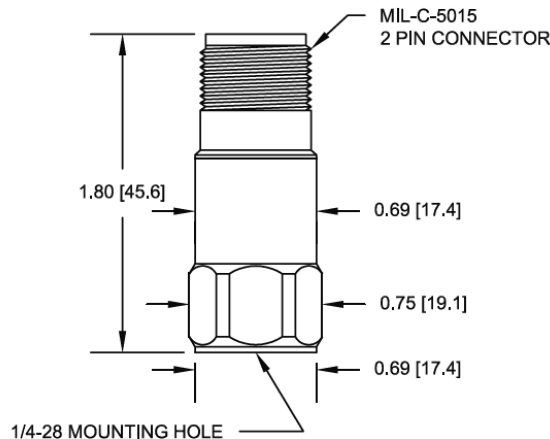
### Key features

- Lightweight for walkaround programs
- Prevents ground loops in permanent mount applications with proper cabling
- Hermetically sealed
- ESD-protected
- Reverse wiring protection
- Manufactured in an approved ISO 9001 facility

### Certifications



Connections	
Function	Connector pin
power/signal	A
common	B
ground	shell



Note: Due to continuous process improvement, specifications are subject to change without notice. This document is cleared for public release.

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 An Amphenol Company

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## SPECIFICATIONS

<b>Sensitivity, <math>\pm 5\%</math>, 25° C</b>		100 mV/g	
<b>Acceleration range, VDC &gt; 25V</b>		80 g peak	
<b>Amplitude nonlinearity</b>		1%	
<b>Frequency response</b>			
	$\pm 5\%$	3 - 5,000 Hz	
	$\pm 10\%$	1 - 9,000 Hz	
	$\pm 3$ dB	0.5 - 14,000 Hz	
<b>Resonance frequency, nominal</b>		30 kHz	
<b>Transverse sensitivity, max</b>		5% of axial	
<b>Temperature response:</b>			
	-25° C	-10%	
	+150° C	+15%	
<b>Power requirement:</b>			
	Voltage source	18 - 30 VDC	
	Current regulating diode	2 - 10 mA	
<b>Electrical noise, equiv. g</b>			
		<b>25° C</b>	
		<b>150° C</b>	
<b>Broadband</b>	<b>2.5 Hz to 25 kHz</b>	700 $\mu$ g	1100 $\mu$ g
<b>Spectral</b>	<b>10 Hz</b>	10 $\mu$ g/ $\sqrt$ Hz	14 $\mu$ g/ $\sqrt$ Hz
	<b>100 Hz</b>	5 $\mu$ g/ $\sqrt$ Hz	7 $\mu$ g/ $\sqrt$ Hz
	<b>1,000 Hz</b>	5 $\mu$ g/ $\sqrt$ Hz	7 $\mu$ g/ $\sqrt$ Hz
<b>Output impedance, max</b>		100 $\Omega$	
<b>Bias output voltage</b>			
	<b>+25° C</b>	13 VDC	
	<b>+150° C</b>	12 VDC	
<b>Grounding</b>		case isolated, internally shielded	
<b>Temperature range</b>		-50 to +150° C	
<b>Vibration limit</b>		500 g peak	
<b>Shock limit</b>		5,000 g peak	
<b>Electromagnetic sensitivity, equiv. g, max</b>		70 $\mu$ g/gauss	
<b>Sealing</b>		hermetic	
<b>Base strain sensitivity, max</b>		0.0002 g/ $\mu$ strain	
<b>Sensing element design</b>		PZT, shear	
<b>Weight</b>		62 grams	
<b>Case material</b>		316L stainless steel	
<b>Mounting</b>		1/4-28 UNF tapped hole	
<b>Mating connector</b>		2-pin, MIL-5015 style	

## Contact

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## Accessories supplied:

- Calibration data (level 2)
- SF6 mounting stud (metric mounting available)

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