

# General purpose accelerometer with internal temperature sensor

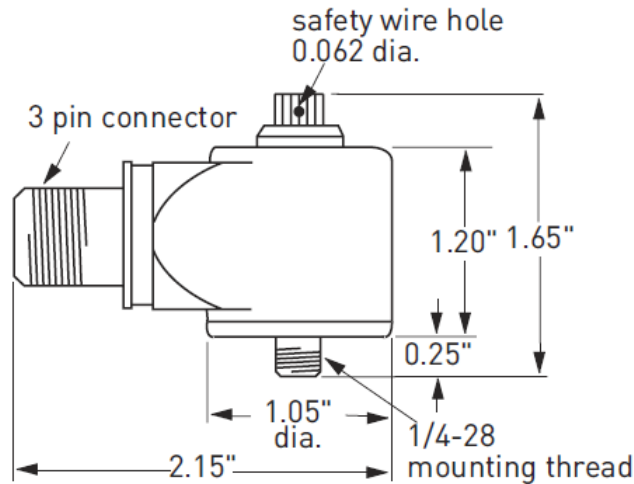
## 797T-1



### Key features

- Senses both acceleration and temperature
- Rugged design
- Hermetically sealed
- Ground isolated
- ESD protection
- Reverse wiring protection
- Mounts in any orientation

### Certifications



Connections	
Function	Connector pin
accelerometer, power/signal	A
accelerometer / temperature common	B
temperature sensor, power/signal	C
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

# General purpose accelerometer with internal temperature sensor

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### SPECIFICATIONS

<b>Sensitivity, <math>\pm 5\%</math>, 25° C</b>	100 mV/g						
<b>Acceleration range</b>	80 g peak						
<b>Amplitude nonlinearity</b>	1%						
<b>Frequency response:</b>	<table border="0"> <tr> <td><math>\pm 5\%</math></td> <td>3 - 5,000 Hz</td> </tr> <tr> <td><math>\pm 10\%</math></td> <td>2 - 7,000 Hz</td> </tr> <tr> <td><math>\pm 3</math> dB</td> <td>1 - 12,000 Hz</td> </tr> </table>	$\pm 5\%$	3 - 5,000 Hz	$\pm 10\%$	2 - 7,000 Hz	$\pm 3$ dB	1 - 12,000 Hz
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$\pm 10\%$	2 - 7,000 Hz						
$\pm 3$ dB	1 - 12,000 Hz						
<b>Resonance frequency</b>	26 kHz						
<b>Transverse sensitivity, max</b>	5% of axial						
<b>Temperature response:</b>	<table border="0"> <tr> <td>-50° C</td> <td>-5%</td> </tr> <tr> <td>+120° C</td> <td>+5%</td> </tr> </table>	-50° C	-5%	+120° C	+5%		
-50° C	-5%						
+120° C	+5%						
<b>Temperature output sensitivity, <math>\pm 5\%</math></b>	10 mV/°K						
<b>Temperature measurement range</b>	223 to 393° K (-50 to 120° C)						
<b>Voltage source</b>	Accelerometer: 18-30 VDC Temperature sensor: 18 - 30 VDC						
<b>Current regulating diode</b>	Accelerometer: 2 - 10 mA Temperature sensor: 2 - 4 mA						
<b>Electrical noise, equiv. g:</b>							
<b>Broadband</b>	<b>2.5 Hz to 25 kHz</b>						
<b>Spectral</b>	<table border="0"> <tr> <td>    <b>10 Hz</b></td> <td>600 <math>\mu</math>g</td> </tr> <tr> <td>    <b>100 Hz</b></td> <td>8 <math>\mu</math>g/<math>\sqrt</math>Hz</td> </tr> <tr> <td>    <b>1,000 Hz</b></td> <td>5 <math>\mu</math>g/<math>\sqrt</math>Hz</td> </tr> </table>	<b>10 Hz</b>	600 $\mu$ g	<b>100 Hz</b>	8 $\mu$ g/ $\sqrt$ Hz	<b>1,000 Hz</b>	5 $\mu$ g/ $\sqrt$ Hz
<b>10 Hz</b>	600 $\mu$ g						
<b>100 Hz</b>	8 $\mu$ g/ $\sqrt$ Hz						
<b>1,000 Hz</b>	5 $\mu$ g/ $\sqrt$ Hz						
<b>Output impedance, max</b>	100 $\Omega$						
<b>Bias output voltage</b>	12 VDC						
<b>Grounding</b>	case isolated, internally shielded						
<b>Temperature range</b>	-50 to +120° C						
<b>Vibration limit</b>	500 g peak						
<b>Shock limit</b>	5,000 g peak						
<b>Electromagnetic sensitivity, equiv. g</b>	30 $\mu$ g/gauss						
<b>Sealing</b>	hermetic						
<b>Base strain sensitivity</b>	0.002 g/ $\mu$ strain						
<b>Sensing element design</b>	PZT, shear						
<b>Weight</b>	135 grams						
<b>Case material</b>	316L stainless steel						
<b>Mounting</b>	1/4-28 captive socket head screw						
<b>Output connector</b>	3-pin, MIL-C-5015 style						
<b>Mating connector</b>	R6G type						
<b>Recommended cabling</b>	J9T3A						

### Contact

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### Accessories supplied:

- Calibration data (level 3)
- #12105-01 captive socket head (international customers specify mounting requirements)

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