

2 AXIS ACCELEROMETER MICRO



Accelerometers are available to measure up to three axes in a single, robust package. The sensing element is a micro-machined MEMS device. An internal amplifier provides an output between 0 and 5 volts. The unit contains a $\pm 35g$ sensing element which is scaled to $\pm 5g$. This element can be replaced with a $\pm 10g$ sensing element scaled to suit the g range of interest and application.

<p>Electrical</p> <ul style="list-style-type: none"> • Supply Voltage 8 to 16V unregulated • Range $\pm 5g$ (other ranges available) • Output voltage (per axis) <ul style="list-style-type: none"> 0.5 \pm 0.1V Full scale negative (-5g) 2.5 \pm 0.1V Acceleration =0 4.5 \pm 0.1V Full scale positive (+5g) • Sensitivity 400mV/g • Cross axis sensitivity <ul style="list-style-type: none"> $\pm 3.5\%$ max for $\pm 10g$ element $\pm 5\%$ max for $\pm 35g$ element • Sensitivity drift $\pm 2.5\%$¹ • Frequency response² <ul style="list-style-type: none"> -3dB at 70Hz, 40dB/dec • Output impedance 50Ω • Current Consumption <15mA • Offset drift <ul style="list-style-type: none"> $\pm 5mg/^\circ C$ max for $\pm 10g$ element¹ $\pm 0.55g$ max for $\pm 35g$ element¹ • Optional PT1000 internal temperature measurement <p>¹ Over operating temperature range ² Other frequency response versions are available</p>	<p>Application</p> <ul style="list-style-type: none"> • Precision chassis development, circuit mapping <p>Cable and Connection Definition</p> <ul style="list-style-type: none"> • 24AWG un-screened cable • Connection <ul style="list-style-type: none"> Red wire Supply Green wire Ground White wire X axis signal Yellow wire Y axis signal • Various automotive and military standard connectors are available • Cable length is shown on the order details but any length is available upon request <p>Mechanical</p> <ul style="list-style-type: none"> • Weight less than 50g (including cable) • Polyester cable boss for strain relief to the sensor body • Over range 500g (any axis powered for 0.5ms) <p>Environmental</p> <ul style="list-style-type: none"> • Aluminium body, hard anodised and dyed black • Resistant to standard motorsport fluids • Maximum humidity 100% • Operating temperature 0 to +85$^\circ C$ • DR25 jacketed cable
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