

# TES

Reliable in Quality



## TES-3100/3101/3102 VIBRATION METER

- ❑ Measures Acceleration, Velocity and Displacement
- ❑ RMS, EQ PEAK and EQ P-P measurement
- ❑ Wide range of vibration measurement
- ❑ Using different sensitivity of accelerometers
- ❑ Maximum/Minimum record function
- ❑ USB interface allows transfer of saved data to PC (3101, 3102)
- ❑ Manual memory stores up to 100 data
- ❑ Auto memory micro SD card 4GB (3101, 3102)
- ❑ Earphone output for detecting noise in machine components



3101/3102



PA-01  
3100/3101/3102

PA-02  
3102



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# 3100/3101/3102 VIBRATION METER

## SPECIFICATIONS

Piezoelectric Accelerometer PA-01 (3100, 3101, 3102)	
<b>Sensitivity</b>	5mV/(m/s <sup>2</sup> )(±10%)
<b>Acceleration range</b>	100 g pk(980m/s <sup>2</sup> )
<b>Amplitude nonlinearity</b>	<=5%
<b>Frequency response</b>	10Hz to 1kHz (±10%), 1kHz to 15kHz (±3dB)
<b>Resonance frequency</b>	>=15 kHz
<b>Transverse sensitivity</b>	<=5%
<b>Dimensoins/Weight</b>	46(H) x 17(D) mm / 45 g
Piezoelectric Accelerometer PA-02 (3102)	
<b>Sensitivity</b>	10mV/(m/s <sup>2</sup> )(±10%)
<b>Acceleration range</b>	50 g pk(490m/s <sup>2</sup> )
<b>Amplitude nonlinearity</b>	<=2%
<b>Frequency response</b>	10Hz to 1kHz (±10%), 1kHz to 10kHz (±3dB)
<b>Resonance frequency</b>	>=15 kHz
<b>Transverse sensitivity</b>	<=5%
<b>Dimensoins/Weight</b>	50(H) x 20(D) mm / 78 g
Measurement range (using PA-01 or PA-02)	
<b>ACC (Acceleration)</b>	0.02 to 200m/s <sup>2</sup> EQ PEAK 1Hz to 5kHz
<b>VEL (Velocity)</b>	0.3 to 1000mm/s RMS 3Hz to 1kHz
	0.1 to 1000mm/s RMS 10Hz to 1kHz
<b>DISP (Displacement)</b>	0.02 to 100mm EQ PEAK 3Hz to 500Hz
	0.001 to 100mm EQ PEAK 10Hz to 500Hz
Frequency range	
<b>ACC (Acceleration)</b>	3Hz to 1kHz, 3Hz to 5kHz, 1Hz to 100Hz, 3Hz to 20kHz
<b>VEL (Velocity)</b>	10Hz to 1kHz, 3Hz to 1kHz
<b>DISP (Displacement)</b>	1Hz to 500Hz, 3Hz to 500Hz
Measurement full-scale range	
<b>For accelerometer PA-01 and accelerometers with sensitivity</b>	1.0 to 9.9mV/(m/s <sup>2</sup> )
<b>ACC (Acceleration)</b>	1, 10, 100, 1000m/s <sup>2</sup>
<b>VEL (Velocity)</b>	10, 100, 1000mm/s
<b>DISP (Displacement)</b>	0.1, 1, 10, 100mm
Indication characteristics	
<b>Acceleration</b>	RMS, EQ PEAK
<b>Velocity</b>	RMS, EQ PEAK
<b>Displacement</b>	RMS, EQ PEAK, EQ p-p
Gain calibration (Accelerometer sensitivity selection establishes suitable gain)	
<b>Setting range</b>	0.10 to 0.99, 1.0 to 9.9, 10 to 99mV (m/s <sup>2</sup> )
Ambient conditions for operation	
<b>Accelerometer</b>	-20 to +70°C , max. 90%RH
<b>Main unit</b>	-10 to +50°C , max. 90%RH
<b>Manual memory</b>	Maximum 100 data can be stored manually
<b>Auto memory (3101, 3102)</b>	Micro SD CARD 4GB
<b>Power requirements</b>	4 IEC R6 (size AA) batteries, AC adapter 6V (option)
<b>Battery life (continuous use)</b>	8 hours (approx.)
<b>Dimensions / Weight</b>	155(L) x 78(W) x 40(H)mm
<b>Supplied accessories</b>	Instruction manual, Battery,(CD software, Micro-USB cable) → (3101, 3102)



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