



STD-510

Vibration Data Collector

Intrinsically Safe Instrument
CSEx, IEC Ex ; iExibIIBT4



Vibration Data Collector STD-510

Portable one-channel vibration data collector and analyzer
with external sensor, large color display and
embedded spectral analysis capability

Main features:

- wide frequency range: 5-5000 Hz
- Light and compact: 8.5 oz (240g)
- Built-in FFT
- High accuracy: 16 bit AD conversion
- FFT resolution: 3200 lines
- Reliable, non-volatile memory:
8 MB (store up to 500 waveforms)
- Compatible with VibroScope™ and
VibroDesigner™ software through USB port
- Route data collection capability
(route downloaded with the help of
VibroScope™ and VibroDesigner™ software)
- Spectrum scaling capability
- Automatic switch-off
- Stroboscope output
- Large color display



Standard Accessories:

- Velocity output sensor VP-9 with integral cable
- Magnet holder for sensor mounting
- Probe tip
- USB cable
- Charger
- Transit case
- User manual



Specification:

Measure	Acceleration Velocity Displacement
Frequency range, Hz	5 to 5000 (± 1 dB)
Velocity measurement range, in/sec	0.02 to 2.75 rms (0.5 to 70mm/sec rms)
FFT resolution, lines	3200
Build-in memory, MB	8
Measurement accuracy limit, %	2,5
Self-noise, in/sec	≤ 0.008 (0.2mm/sec)
Environmental conditions	-20 to +50°C up to 90% humidity
Sensor mounting	Magnet or probe tip
Display	160x120 LCD color display
PC connection	USB
Auxiliary output	Stroboscope
Dimensions	4.1"x 2.1"x 1.1" (105 x 55 x 27mm)
Weight	8.5oz (240g)
Continuous operation, hours	8
Rechargeable time, hours	5
Number of recharge cycles	1300

VP-9 Sensor Specification:

Sensitivity, mV/in/sec	144 (8mV/mm/sec)
Transverse sensitivity, %	≤5
Velocity measurement range, in/sec	0.0039 to 5.9 rms (0.1 to 150 mm/sec rms)
Max acceleration value	50 g, rms
Non-linearity	≤1%
Frequency range (±1 dB), Hz	5 to 5000
Self-noise, in/sec	≤0.001
Sensitivity change depending on temperature, %/°C	≤0.2
Supply current, mA	≤ 10
Temperature range, °C	-40 to +85
Installing surface temperature, °C	-40 to +100
Power supply, V	5.5 to 6.7
Dimensions, H x D:	
without cable	2.36" x 0.87" (60x22 mm)
with cable	2.36" x 31.5" (60x800 mm)
Weight, oz:	
without cable	2.1
with cable	7.05
Protection standard	IP54

With STD-510 Data Collector you are able to:

- Detect rotor machine faults
- Provide early warning of imminent faults
- Evaluate actual machinery conditions
- Avert emergency accidents
- Attend big number of machines

