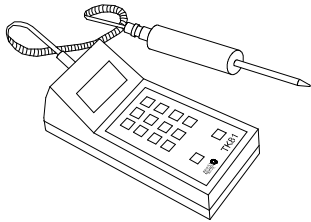


TK81 Tunable Filter/Vibration Meter

Bently Nevada™ Asset Condition Monitoring



Description

The TK81 Tunable Filter/Vibration Meter is a portable handheld instrument for basic vibration measurements. It can display vibration in both unfiltered (overall) and filtered modes. It accepts inputs from displacement, velocity, and acceleration transducers but does not provide power for them.

Its filtering capability is particularly useful for diagnosing vibration problems occurring at particular frequencies on all types of machinery.

Specifications

Inputs

Signal:

Accepts displacement, velocity, or acceleration.

Maximum Input:

10 V peak-to-peak.

Scale Factor:

Selectable from 5 to 9999 mV per engineering unit.

Input

Impedance:

95 k Ω .

Signal Conditioning

Frequency

Response:

1.66 Hz to 1,666 Hz (100 to 100,000 RPM).

Integration:

Single integration is available for frequencies above 10 Hz (600 RPM).

Filter

Operating

Range:

1.66 Hz to 1,666 Hz (100 RPM to 100,000 RPM).

Type:

Digital, approximates an analog filter with a Q of 11.

Outputs

Display:

4 line by 16 character LCD

Display Units:

Selectable Metric or English, peak-to-peak, zero-to-peak, or rms**.

** RMS readings may fluctuate @ < 10 Hz (600 RPM).

Accuracy

Within 5% of Reading

* Non-Filtered, Non-Integrated Signals @ Full Freq Range

* Non-Filtered, Integrated Signals @ 10-16.67k Hz (600-100k RPM)

Within 10% of Reading

* All RMS Measurements

* Filtered, Non-Integrated Signals @ Full Freq Range

* Filtered, Integrated Signals @ 10-16.67k Hz (600-100k RPM)

Note: For signals above 40mV rms.

Power Requirements

Battery:

9-Volt alkaline transistor battery. (NEDA 1604A).

Battery Life:

20 hours nominal.

Environmental Limits

Operating

Temperature:

+0°C to +40°C (+32°F to +104°F).

Storage

Temperature:

-20°C to +70°C (-4°F to +158°F).

Note: A battery stored above +104°C (+219°F) or below 0°C (+32°F) will have a reduced shelf life.

Relative

Humidity:

To 90% noncondensing.

Physical

Size

Height:

191 mm (7.5 in)

Width:

102 mm (4.0 in)

Specifications and Ordering Information
Part Number 141584-01
Rev. E (02/09)

Depth:

58 mm (2.3 in)

Weight:

316 g (0.7 lb)

Ordering Information

TK81 Tunable Filter/Vibration Meter

80649-01

Includes:

- 1 TK81
- 1 9200-09-01-01-00 Velocity Seismoprobe®
- 1 Seismoprobe Cable and extension rod
- 1 Magnetic base
- 1 Soft carrying case
- 1 Manual
- 2 Batteries (1 spare)

Accessories

80466-02

TK81

88737-01

User Manual

9200-09-01-01-00

Velocity Seismoprobe

7989-01

9200 Velocity Seismoprobe
Extension rod

46000-01

Magnetic Base

46122-01

Quick Connect

80705-01

Interconnect Cable

04160151

Soft Carrying Case

04160152

Strap

03282910

Foam insert

Figure

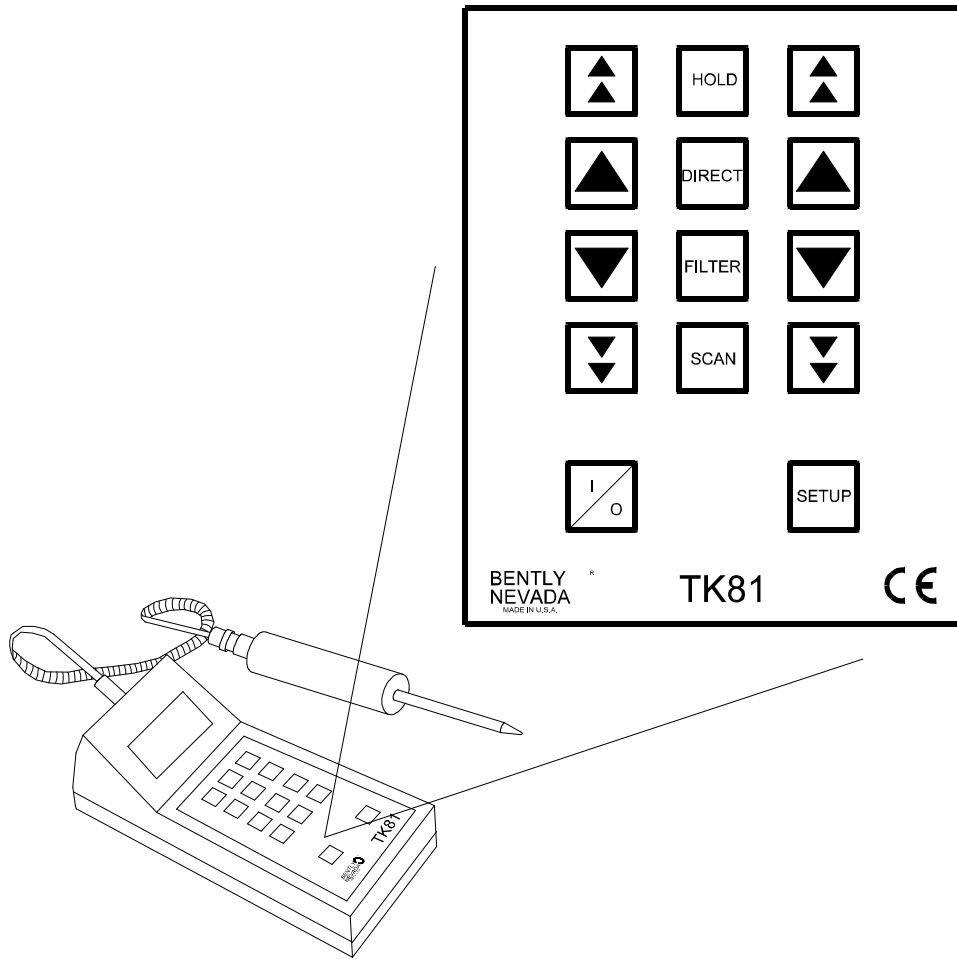


Figure 1: Close-up of the TK81 Keypad

Bently Nevada and Seismoprobe are trademarks of General Electric Company.

Copyright 2000 Bently Nevada LLC.
1631 Bently Parkway South, Minden, Nevada USA 89423
Phone: 775.782.3611 Fax: 775.215.2873
www.ge-energy.com/bently
All rights reserved.