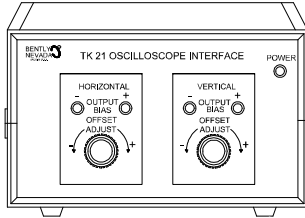


TK21 Oscilloscope Interface

Bently Nevada™ Asset Condition Monitoring



Description

The TK21 Oscilloscope Interface allows most dual-channel oscilloscopes with a Z-axis input to perform diagnostics on rotating machinery. The interface receives signals from XY and Keyphasor® proximity transducers and allows the oscilloscope to provide an orbit presentation from these signals.

Using the TK21 with an oscilloscope enhances machinery diagnostic capabilities by allowing the user to view vibration, position, and phase information.

The TK21 works with oscilloscopes that have a Z-axis (sometimes referred to as an external blanking) input. The oscilloscope must also have the capability to display X versus Y. The factory settings for the Keyphasor gain and offset in the TK21 ensure compatibility with most Tektronix® oscilloscopes. The user can easily adjust these settings to suit any oscilloscope. We recommend using analog oscilloscopes with the TK21.

Specifications

Inputs

Power Requirements

110 Vac option:

95 to 125 Vac, 50 or 60 Hz, single phase.

220 Vac option:

190 to 275 Vac, 50 or 60 Hz, single phase.

Input Current

110 Vac option:

50 mA maximum.

220 Vac option:

25 mA maximum.

Fuse

110 Vac option:

100 mA 250 Vac (time-delay).

220 Vac option:

60 mA 250 Vac (time-delay).

Signal Inputs/Outputs

All signal inputs and outputs use standard BNC connections.

Transducer and Keyphasor inputs:

Maximum input signal range is ± 24 Vdc.

Transducer Outputs

Minimum output bias adjustment range with 0 volts input signal with output connected to 10 K ohm load:

+12 Vdc to -12 Vdc.

dc gain with output connected to 10 K ohm load:

0.995 to 0.985.

Signal offset:

5 mV maximum.

Keyphasor® output

Gain adjustment range:

Approximately +3 to -3.
Factory setting at -0.12 to interface with Z-axis input on most Tektronix® oscilloscopes.

dc offset adjustment range:

+12 Vdc to -12 Vdc.
Factory setting at +2.5 Vdc to interface with Z-axis input on most Tektronix® oscilloscopes.

High pass filter corner:

100 Hz to 110 Hz.

Environmental Limits

Temperature:

+0°C to +45°C (+32°F to +113°F).

Physical

Size

Height:

86 mm (3.4 in)

Width:

150 mm (6.0 in)

Depth:

158 mm (6.2 in)

Weight:

0.9 kg (2.0 lb)

Ordering Information

134118-01

TK21 Oscilloscope Interface with User Manual.

134494-01

Additional User Manuals for the TK21 Oscilloscope Interface.

Accessories**123266-01**

Coaxial Cable Kit includes 4 cables with length of 1.5 metres (5 feet) each.

02211505

Single coaxial cable with length of 1.5 metres (5 feet).

107564-01

Single coaxial cable with length of 0.93 metres (3 feet).

Graphs and Figures

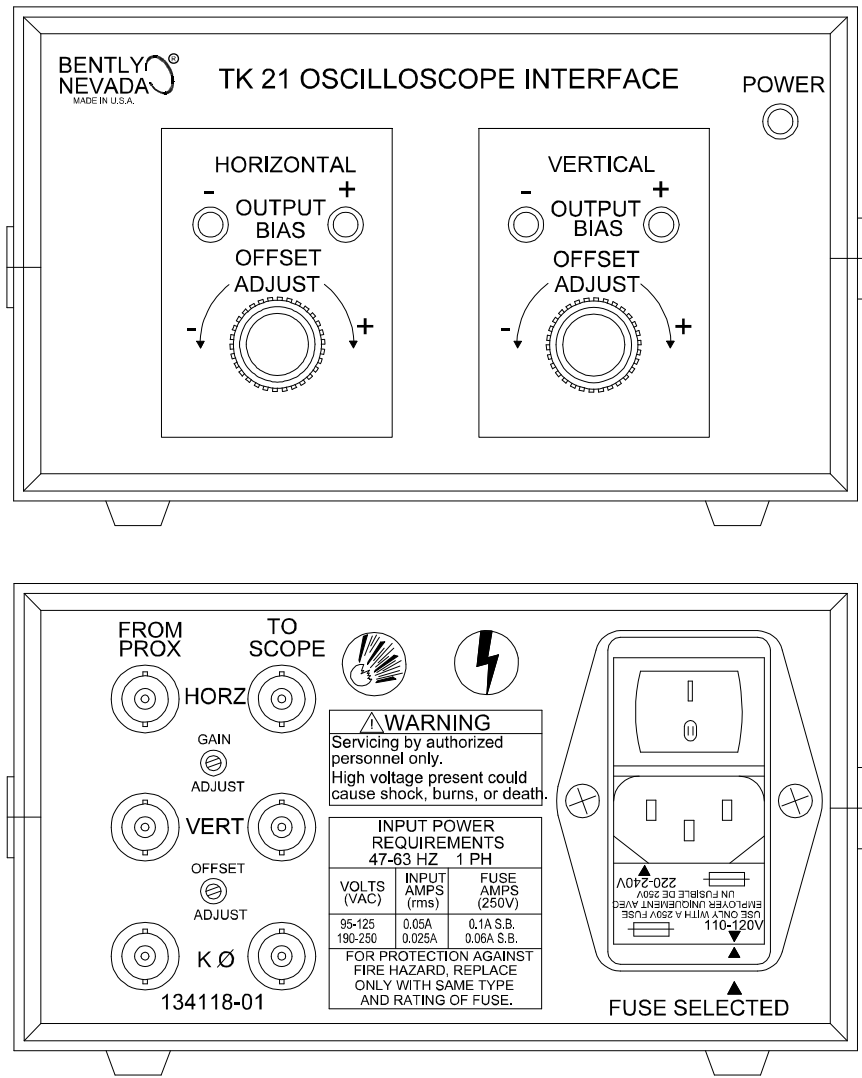


Figure 1: Front and rear view of the TK21 Oscilloscope Interface

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