STI Vibration Monitoring Inc.

Vibration Monitoring and Machine Protection Systems

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Condition Monitoring Custom Products

CMCP810S-Kit

Portable Runout Measurement Kit

Features:

- Complete Shaft Runout Measurement Kit
- Allows for API 670 ERO Testing
- Battery and AC Powered Sensor Interface Module
- PC Based Oscilloscope with Software (USB Powered)
- Portable, Includes Travel Case
- 200mV/mil, 8mm Proximity Probe System
- Optical/Laser Phase Reference Sensor
- Magnetic Sensor Stands Included
- Downloadable Runout Reporting Tool

Product Overview

The CMCP810S-KIT Portable Runout Kit will document electrical and mechanical runout present on a shaft. Surface irregularities, Electrical Runout, Residual Magnetism, and Residual Stress Concentrations can all contribute to shaft runout which will create erroneous readings for eddy probe systems. American Petroleum Institute (API) Standard 670 recommends that the combined total electrical and mechanical runout does not exceed 25 percent of the maximum allowed peak to peak vibration amplitude or 0.25 mil (6 micrometers), whichever is greater. The CMCP810 Runout Kit includes the CMCP810SIM Sensor Interface Module, a PC based oscilloscope and the sensors required to perform runout measurements.

Sensor Interface Module Specifications

Power Source:	Internal 25.9V Rechargeable Battery
Battery Size:	2.6Ah
Charger Input Voltage:	110-240VAC 50/60 Hz
Charging Status Indicators:	Red = Charging Green = Charged or Battery Not Connected
DC Offset:	Adjustable
Offset Voltage Range:	0 to -8V
Proximity Probe Output Voltage:	-24VDC
Phase Sensor Output Voltage:	+15VDC
Proximity Probe Input:	4 Pin M12 (Signal, -24VDC, Common)
Optical Probe Input:	5mm Stereo Plug (Signal, +15VDC, Common)
Runout Signal Output:	BNC Jack
Phase Signal Output:	BNC Jack
Operating Temperature Range:	-67 to 158°F (-55 to 70°C)
Relative Humidity:	0-90% Non-Condensing
Case Material:	Extruded Aluminum

Runout Sensor Specifications

Sensor Type:	Proximity Probe (Eddy Current)
Sensor Output:	200mV/mil (4000 Series Steel)
Sensor Range:	90 mils
Cable Length:	5 Meters (16’)
Connector:	Terminal Blocks (M12 Adapter Cable Provided)
Power Requirement:	-24VDC (Supplied by Sensor Interface Module)

Phase Sensor Specifications

Sensor Type:	Optical/Laser Sensor
Sensing Material:	Reflective Tape
Measuring Distance:	7.6m (25’)
Cable Length:	2.5m (8’)
Connector:	5mm Stereo Plug
Power Requirements:	+15VDC (Supplied by Sensor Interface Module)

Oscilloscope Specifications

Number of Channels:	2 (Two)
Bandwidth:	5MHz
Sampling Rate:	10MSPS
Compatibility:	Windows 7, Windows 8, Windows 10 (32 or 64 Bit)
Power:	USB Powered
Software:	Included (PicoScope)

CMCP810SIM-00 Sensor Interface Module Kit Contents

1x	CMCP810SIM Sensor Interface Module
1x	Battery Charger
1x	4000 Series PicoScope (PC Based Oscilloscope)
1x	8mm Proximity Probe, 5m Cable
1x	Proximity Probe Driver (200mV/mil)
1x	M12 to Flying Lead Adapter
1x	CMCP244-01 Optical/Laser Phase Sensor with Reflective Tape
2x	6’ (1.8m) BNC to BNC Cable
2x	Flexible Magnetic Arm Holder
1x	Plastic Feeler Gauges (for Probe Gap)
1x	Travel Case

CMCP810 Kit Weight and Dimensions

Travel Case Dimensions:	18” x 14” x 8” (457.2 x 355.6 x 203.2mm)
Weight:	14 Lbs (6.35 kg)

Ordering Guide

CMCP810S-KIT	Portable Runout Measurement Kit

Images