



**CMCP630VP  
Vibration Pen  
User's Guide**

**Rev. 0120**

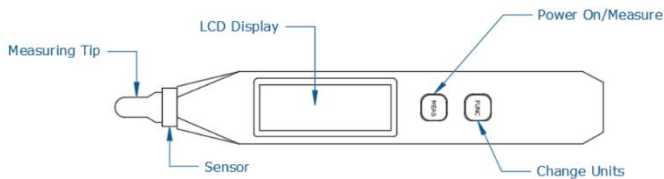
## Introduction

The CMCP630VP is a portable, handheld vibration meter designed for operators, maintenance personal and inspectors that complies the ISO 2372 Standard for Mechanical Vibration of Machines Operating from 10 to 200 rev/s (600 to 12,000 RPM). The CMCP630VP features a shockproof high strength aluminum case, backlit LCD display for low light and direct sunlight conditions and a simple two button operation. The Vibration Pen is capable of measuring Acceleration, Velocity and Displacement and can display the highest measurement using the Peak Hold function. The rechargeable lithium-ion battery allows for up to 30 hours of continuous measurements and recharges using a standard 5VDC USB charger which is provided with the kit. An ISO 10816-1 Vibration Severity Chart is included with the kit for easily referencing the measurement with industry standards.

## Features

- Quick and Easy to Setup and Use
- Backlit LCD Display for Low Light Conditions
- Lightweight, Compact and Ergonomically Designed Case
- Velocity, Acceleration and Displacement Measurements
- Peak Hold Function
- 30 Hour Battery Life (Continuous Use)
- Rechargeable Battery
- Conforms to ISO2372
- Lanyard, Travel Case, Charger, Storage Bag and ISO 10816-1 Severity Chart Included

## Layout



## Taking a Measurement

Power Vibration Pen On by pressing the MEAS button.

Press the FUNC button to select units;

- Acceleration Lo: 10hz to 1kHz
- Acceleration Hi: 1kHz to 15kHz
- Velocity: 10Hz to 1kHz
- Displacement: 10Hz to 500Hz

Place measuring tip on object being measured.

Depress MEAS while taking measurement

Release MEAS button to hold value

The Vibration Pen will power off after 30 seconds.

## Maintenance

The product is a precision instrument, care should be taken to avoid damage. Do not open the instrument or attempt to repair, doing so voids the warranty.

Remove lanyard before use to avoid injury to self.

Wipe unit clean after use.

Calibration should be checked after 1 year.

## Vibration Severity Chart

The CMCP630VP is provided with a Vibration Severity Chart Per ISO 10816/20816.

The ISO chart can be used to compare operating amplitudes to the industry standards for machinery.

ISO Vibration Severity Chart					
Shaft Speed (RPM)					
Less than 2,000			Greater than 2,000		
Mounting	Drive	Category	Mounting	Drive	Category
Rigid Mounting	Rigid Drive	I	Rigid Mounting	Rigid Drive	II
	Flex Drive	II		Flex Drive	III
Flexible Mounting	Rigid Drive	II	Flexible Mounting	Rigid Drive	III
	Flex Drive	III		Flex Drive	IV



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VIBRATION SEVERITY PER ISO 10816								
Machine	Class I small machines		Class II medium machines		Class III large rigid foundation		Class IV large soft foundation	
	in/s	mm/s	in/s	mm/s	in/s	mm/s	in/s	mm/s
0.01	0.28							
0.02	0.45							
0.03	0.71							
0.04	1.12							
0.07	1.80							
0.11	2.80							
0.18	4.50							
0.28	7.10							
0.44	11.2							
0.70	18.0							
0.71	28.0							
1.10	45.0							

## Technical Specifications:

**Model Number:**

CMCP630VP

**Measurement Function:**

Velocity, Acceleration or Displacement

**Frequency Range**

Acceleration:

Lo: 10Hz to 1kHz (60 to 6kcpm)

Hi: 1kHz to 15kHz (60kcpm to 900kcpm)

Velocity:

10Hz to 1kHz (60 to 6kcpm)

Displacement:

10Hz to 500Hz (60 to 30kcpm)

**Measurement Range**

Acceleration:

0.01 to 20 g's

Velocity:

0.001 to 8 in/sec (0.025 to 203.2mm/s)

Displacement:

0.01 to 80 mils (0 to 2.03mm)

**Accuracy:**

5%

**Calibration Frequency:**

1 Year

**Power:**

Built In 3.7V Lithium Ion Battery

**Usage:**

30 Hours with Full Charge

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