# Bearing(Shock Pulse)Condition AnalyzerBVT-111N

Bearing Condition & Noise Monitoring





Four Instruments in one Machine Vibration Monitoring





## **FEATURES**

- Direct indication of machine condition in terms of good – reduced – bad in condition scale
- Detect mechanical condition of bearings
- Damage severity readings of bearings
- Detecting lubrication condition of ball-and-roller- type Bearings
- Non-contact measurements of rotational speed
- Vibration Measurements according to ISO recommendations.
- \* Electronic stethoscope (Noise) listening device that helps pin point the source of mechanical noise

MCM Presents a small Micro Processor based diagnostic tool for comprehensive condition analysis of rotating machinery.

Objective measurements of machine condition are needed as a reliable base for preventive maintenance.

Now maintenance personal can Analyze Bearing Condition, measure Machine Vibration, check rotational speed and Electronic Stethoscope listening device that helps pinpoint the source of mechanical noise - with a single and easy to use instrument.

The best way is to periodically monitor bearing condition and replace the bearing at the right time by least influencing the production efficiency.

## **Bearing Monitoring:**

BVT-111N gives a direct indication of bearing condition on a green-yellow-red scale which allows an instant distinction between good and bad bearings. Thus, the BVT111N is equally suitable for fast routine checks and for the detailed analysis of critical bearings, supplies digital shock value readings plus accurate information on lubrication condition and damage severity readings for rolling bearings.

Early bearing damage detection: The main purpose of bearing condition measurements is the detection of individual damaged bearings in time for a planned replacement. This method is less expensive and more reliable than periodic replacements, because a bearing that has not failed before its scheduled replacement is likely to be serviceable for a long time

The BVT111N indicate bearing damage by displaying:

- an arrow against the red sector of the condition scale
- (SI) a severity index number which increases with the severity of surface damage.
- (BS)Bearing Status D = typical damage pattern detected

<u>Analyzing lubrication condition</u>: The fact that the service lift of bearings is mainly dependant on lubrication is well known. Very large sums can be saved if bearing life can be extended by improving lubrication. The BVT-111N displays a lubrication number(LFT) which increases in proportion with the thickness of the lubricant film between the rolling elements and the raceway in the loaded part of the bearing

#### Vibration Monitoring:

BVT-111N measures Vibration severity, in accordance with ISO recommendation 2372. It displays a wide frequency band measurement of vibration velocity, expressed in mm/s RMS. General machine vibration increases when something is loose, broken, or out of balance. Industrial equipment is divided into six vibration classes, the BVT-111N will compare the measured value with the norm for the class and indicate machine condition on the evaluation scale

• green for good and acceptable values • yellow for just tolerable vibration • red for unacceptable vibration

#### **Rotational Speed**

The need to eavesdrop on mechanical sounds within machinery is essential in any maintenance department. Mechanical faults can often be heard. The problem is to locate the sound source quickly and accurately in a generally noisy environment. The

electronic stethoscope is a sensitive listening stick, for location of all kinds of machinery noise. Valve chatter, tappet noise, piston slap, gear and pump noise and the operation of relays and solenoids are just a few of the many noises that may be traced, amplified and assessed with this device.

#### **Technical Specifications:**

Bearing Tester(Shock Pulse)	Vibration Tester	Laser Tachometer	Stethoscope (Noise)	
Measuring range : -19 - 99dBpv	Range: 0.1 to 99.9 mm/s RMS	Range: 10 to 20000 RPM	Frequency range: 30 Hz to 20 kHz	
Resolution : 1 dBpv	Resolution: 0.1mm/s	Measuring Distance: 5 feet		
	Accuracy: +/- (0.2 % + 2 mm/s)	Resolution:1 rpm		

Operating Temperature: up to 50°C	Display:16x4 Dot Matrix LCD	Keypad: Seale membrane	Weight: 750 gms
Casing: ABS			

### Standard Supply:

1) Bearing (Shock Pulse) Analyzer BVT-111N with Protective Pouch 2) Bearing (Shock Pulse) Probe 3) Vibration Transducer VSF-1F (Accelerometer) 4) Magnetic Base 5) Low Noise Cable with Connectors 1.5Mtrs 6) Hand-Held Probe rod, 7) Head Phone 8) Laser Tachometer with Reflecting Tapes 9) Manual 10) Batteries-6 No.s (1.5V AA 11) Test & Calibration Report with Warranty/Guarantee Certificate & 12) Carry Bag.



## **MCM INSTRUMENTS**

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