

## Technical Specifications

Input Sensitivity:	100mV/g calibrated at 156,15Hz
Measuring Range:	Velocity: 0-200 mm/s RMS
Frequency Range:	Total Level: 10-3200Hz Options: 2-3200 Hz, 10-1000 Hz Bearing Energy: 500 Hz-20 000 Hz
Battery Type:	9V 6F22 or similar, Alkaline
Vibration Transducer:	M/AC140-2D/003-F, with 1m Cable and BNC Connector Sensitivity 100mV/g +/- 15%
Magnet Support:	15 x 20 mm, app. 15kg
Extension Tip:	Length 65 mm The extension tip is attachable directly to the magnet.
Operating Temperature:	-20 to +60°

### **Warranty Disclaimer**

MaintTech warrants the product to be free from defects in material and workmanship under normal use and service within **2 years** from the date of delivery. If the instrument malfunctions, do not attempt to repair the instrument yourself, as this will invalidate the warranty. Warranty claimed products shall be returned prepaid to MaintTech for service. We reserve the right to repair or to replace defect products.

The accelerometer has **Life Time Warranty**.

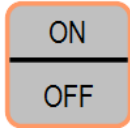


[mainttech@live.se](mailto:mainttech@live.se)

# CX20

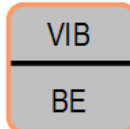


## FUNCTIONS



Press this key to start the instrument and press again to turn off the instrument.

The instrument also turns off automatically. The instrument shows "STOP" after 3 minutes. You have 30 seconds to press any key (not ON/OFF key). Otherwise the instrument will be turned off. If the Battery voltage is below 5.5V, the instrument will be shut off.



Press this key to change the measurement between Vibration and Bearing Energy.



Press this key to stop the measurement. Press again and the measurement will continue.

When the transducer is mounted with the magnet, the frequency range of the measurement is reduced to approximately 2000 Hz depending on the flatness of the measuring surface.

When the measuring tip is used, the frequency range is reduced to approximately 500 Hz.

ISO 10816-3 standard allows some higher limits when a foundation is considered flexible than when it is rigid. A conclusion from this is also that a resonant condition in principle is not allowed or at least should be avoided at operation speeds. In practice this also includes the double speed as well as any other natural excitation frequency such as blade passage etc.

Modern machines have high speeds, flexible bearing supports and foundations and can be considered as flexible even if they are not mounted on rubber or springs.

**Group 1:** Large machines with Rated power above 300kW.

Electrical machines with shaft height  $H > 315$ mm. Operating speed ranges from 120 to 15000rpm.

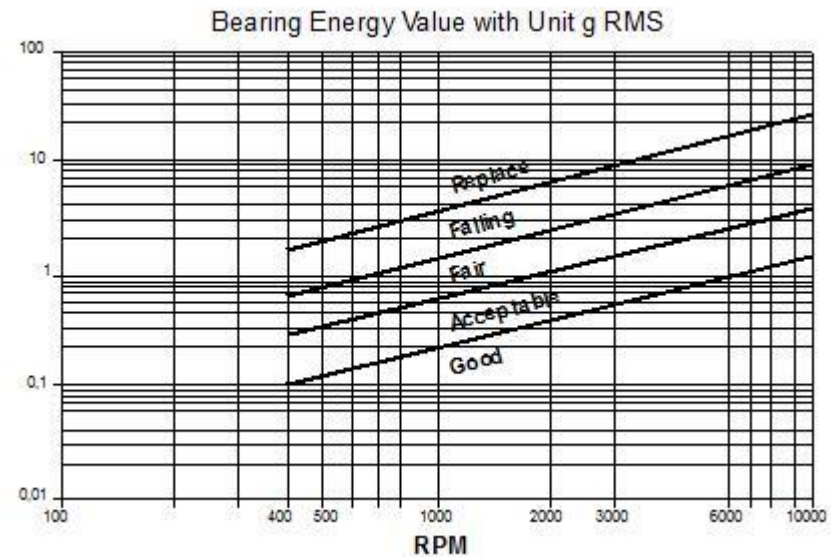
**Group 2:** Medium-sized machines with rated power above 15kW up to and including 300kW.

Electrical machines with shaft height between  $160 < H < 315$ mm. Operating speed normally above 600rpm.

**Group 3:** Pumps with multivane impeller and with separate driver with rated power above 15kW.

**Group 4:** Pumps with multivane impeller and with intergrated driver with rated power above 15kW.

mm/s	Group 1 and 3		Group 2 and 4	
	Rigid	Flex.	Rigid	Flex.
1.4	Green	Green	Green	Green
2.3	Yellow	Green	Yellow	Yellow
2.8	Yellow	Yellow	Orange	Yellow
3.5	Orange	Yellow	Red	Orange
4.5	Orange	Orange	Red	Orange
7.1	Red	Red	Red	Red
11	Red	Red	Red	Red



The diagram above is only a guide to interpret the Bearing Energy value. If vibrations of other causes (flow surge, gear mesh) are within in the frequency range 2200-20000 Hz, this can give a high bearing condition value without the bearing being damaged.

A high bearing energy value can also be acquired if the bearing is poorly lubricated or is overloaded (e.g. by misalignment or belt forces).