



## PCH 4051 Vibration Checker

The simple, low-cost and yet precise PCH 4051 Vibration Checker is suitable for easy monitoring of simple machinery. It includes an external transducer with powerful magnet, coiled cable and a compact suitcase for easy transport or storage.

What can go wrong in a fan, a pump or an electric motor? There are a number of possibilities, however three of the major possibilities are unbalance, misalignment and bearings, all being very destructive for a machine.

If a machine is allowed to run with an unbalance, a misalignment, eccentricity or even with a bent shaft this will cause extra stress on the bearings and thus reduce their lifetime. Also these machine destructive problems result in an increased power consumption. If a machine runs for 8 hours a day this can have a huge impact on the running cost, not to mention what the impact would be if the machine runs for 24 hours a day.

Monitoring of e.g. the level of imbalance of a grinder or spindle on a CNC machine or other material handling machines can improve production quality considerably. This can be done by using the vibration level as an indicator. One benefit could be higher acceptance rates. PCH 4051 gives you this important information.

By a simple switch you change from normal vibration measurement in velocity (mm/s) to acceleration (m/s<sup>2</sup>) for bearing measurement, which is done in the high frequency area from 1 kHz to 10 kHz. PCH 4051 offers measurement in displacement as well.

With the PCH 4051 it is now just as easy and low-cost to check unbalance and bearing errors as checking the temperature.

The PCH 4051 complies with the ISO 10816 standard, which calls for a velocity measeurement result (mm/s) in the 10-1000 Hz frequenzy band.



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## Specifications:

Measuring parameter:	mm/s, m/s² or mm
Measuring range:	
Velocity (mm/s, true RM	<i>I</i> (S) 0.1 - 199.9 mm/s
Acceleration (m/s <sup>2</sup> , Pk)	0.1-199.9 m/s <sup>2</sup>
Displacement (mm, Pk	-Pk) 0.001-1.999 mm
Frequency ranges(selec	table): 10-1000 Hz
Velocity	10-1000 Hz
Acceleration (low)	10-1000 Hz
Acceleration (high)	1 kHz-10 kHz
Displacement	10-1000 Hz
Detector:	true RMS
Transducer:	piezoelectric accelerometer
Accuracy:	±5 % ±2 digits
Display:	3 <sup>1</sup> / <sub>2</sub> digits LCD
Power supply:	9 V battery
Weight:	approx. 250 grams
Housing:	hard plastic

PCH Engineering A/S reserves the right to change all specifications and accessories listed in this sheet without notice.

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