

VIBRATION MONITOR - PCH 1072/IP68



Vibration Monitor - Type PCH 1072

PCH 1072 Vibration Guard

This version monitors the development of vibrations in a machine and gives an alarm if the vibration level is too high. It distinguishes it self by having easy and flexible set up possibilities for frequency range alarms delay times etc. by using the user friendly control software xCom

Price attractive alternative

For users who want to prevent their machines from damaging vibrations, e.g. vibrations coming from Unbalance and Misalignment.

Bearing Damages

A Bearing damage often occurs due to undetected unbalance or misalignment of a machine. Hence the machine runs for a very long time period with a much too high vibration level. This is the most common reason for serious machine crashes and down time.

Avoid unscheduled production stops

Deciding not to buy a Vibration monitor due to price can be a very unwise decision. Often this leads to extra unexpected expenses to machine repairs, not to mention-ed

Applications

The Vibration Monitor PCH 1072 can be used on many different machines in a production. It is very suitable for monitoring ventilators, fans, pumps, decanters, separators and mills.

What does the PCH 1072 vibration monitor

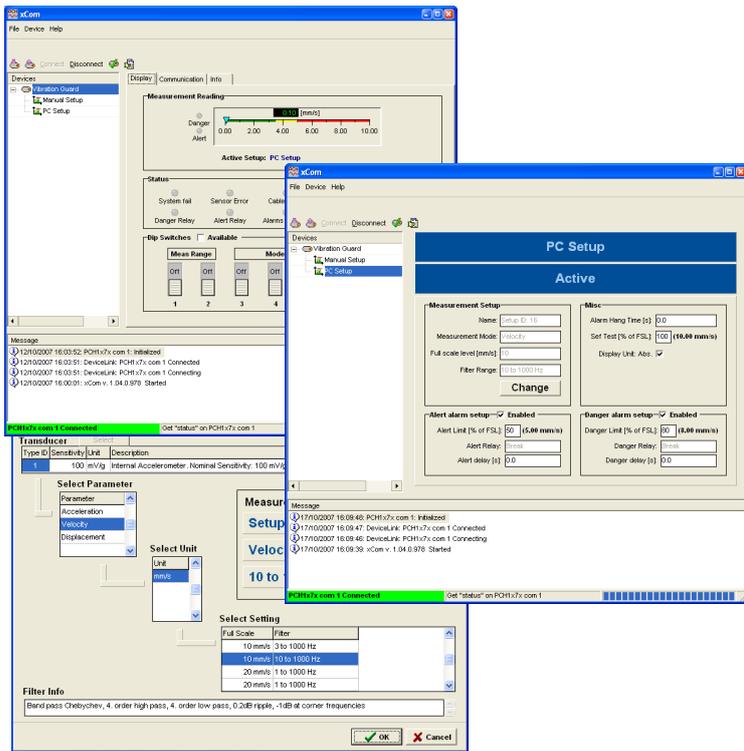
The Vibration monitor constantly keeps track of the machine vibration level. The Vibration monitor has two adjustable alarms, which can be used to ensure that the machine vibration does not exceed the acceptable or allowed limit. Hence the user obtains an active protection of the machine resulting in a considerable reduction of machine damages and accidents and thereby decreasing the maintenance expenses.

Functionality

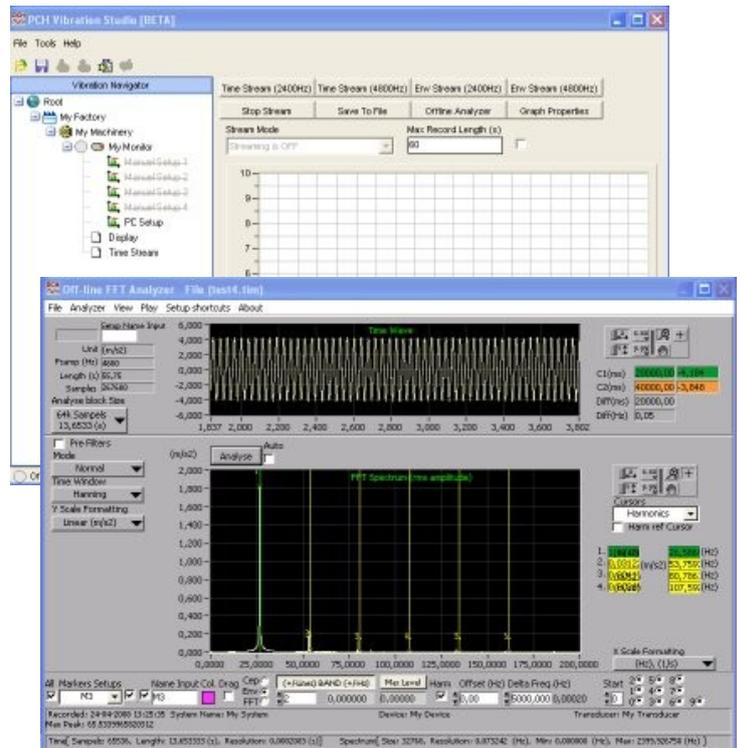
The PCH1072 is a conditioning-, alarm- and output unit, with a aluminium housing. The monitor is equipped with an CCLD(ICP) input for accelerometers . The PCH 1072 monitors seismic mechanical vibrations according to DIN/ISO 10816. By using the xCom control and display software, the PCH 1072 can be configured to measure Velocity (**mm/s**) or Acceleration (**m/s²**).

Measurement Range and Alarm Limits can be **adjusted directly** in the PCH 1072 according to the machine type and size, it has to monitor. The present vibration level is constantly compared with the two Alarm Limits and if the Alarm Limits are exceeded the **two Alarm Relays** Alert/Danger will trigger and thereby inform the user, e.g. via a connected rotor light, beeper, controller or by directly shutting down the machine. Both Alert and Danger have user defined Delay Time, which prevents false alarms due to momentary transients. Also the PCH 1072 has a built in **Latch function**, ensuring the Alarm Relay stays triggered until it has been manually/remotely reset, even though the vibration level has decreased again. PCH 1072 also provides a **4-20 mA** signal which always expresses the relative vibration level. To verify the Alarm Limits are verified through xCom or on the built in display.

Monitor set up



Frequency analysis



Vibration studio

TECHNICAL DATA:

Sensor Type:

CCLD(ICP)transducer input
Maximum input,CCLD +/-1.8 Vp
Input overload, CCLD +/-1.8 Vp
Transducer Bias Current 10 mA

Measuring Parameter:

Velocity (mm/s)
Optional: Acceleration (m/s²)

Measuring Ranges (Selectable):

10 or 20 or 50 or 100 mm/s
2.5 or 6 or 12 or 24 m/s²

Frequency Range:

10 Hz - 1000 Hz, -1 dB, 24 dB/oct.
Optional: 1 - 1000 Hz,

Detector:

True RMS Detector

DC Output:

4 - 20 mA, relative to 0-100 % of
max. Measuring range.
Load: max. 400 Ω

Alarm Detector:

Alert Alarm, adjustable alarm limit
Danger Alarm, adjustable alarm limit

Alarm Relays:

Alert relay, Break
Danger relay, Break
Failure relay, Break

The Failure Relay will trip automatically on
cable short, cable break and system failure.

Alert with Latch or Auto Reset (selectable)
Danger with Latch or Auto Reset (selectable)

Max Voltage:.....30 V
Max Current:.....100 mA

Delay Time:

Alert relay 10 sec. (adjustable)
Danger relay 5 sec. (adjustable)

Other Delay Times can be ordered separately.
Hang time for both Alert and Danger: 1 sec.

Manual Reset Function:

Available for both Alert and Danger relay
- via switch, separately
- via Controller/PLC, common for Alert/Danger

Test Function:

Can be activated remotely. The relays
are activated after the duration of the
Delay time and the DC increases to the
specified test level 1-105 %

Power Supply:

+24 V DC, +/- 7%, max. power con-
sumption 2.6 W

Operating temperature:

- 10° C to + 50° C

Housing:

DIN rail enclosure IP20
Option Aluminium IP68

Dimensions:

L:163 mm W: 127 mm H: 66 mm

PCH Engineering A/S reserves the right, without any notification, to change all specifications in this Product Information.



The Vibration Monitoring Specialists

CHF1131-UK12

VED KLÆDEBO 9 • DK-2970 HØRSBOLM • COPENHAGEN • DENMARK
PHONE: +45 4576 8776 • FAX: +45 4576 8702 • E-MAIL: pch@pch-engineering.dk • www.pch-engineering.dk