



PRODUCT INFORMATION

Advanced industrial monitor PCH 1072

PCH Engineering launches new generation versatile advanced industrial monitor with both high and low frequency bands as well as a variety of bearing failure detectors like Envelope, Kurtosis and Crest factor.

The advanced industrial monitor PCH 1072 Mk2 is the new generation of high quality low cost vibration monitors, which can be used in various rotating machine applications. The monitor has a permanent input channel and several monitors can be connected by RS-485 to offer multiple channels.

The monitor operates within 2 simultaneously running frequency bands configurable from 0.7 Hz up to 11.5 kHz. A primary low-frequency band monitors vibrations according to DIN/ISO 10816. A second multi purpose band offers detectors as RMS, Envelope, Crest factor and Kurtosis, and is ideal for roller bearing monitoring. A range of user selectable filters as well as a selection between acceleration, velocity or displacement is available.

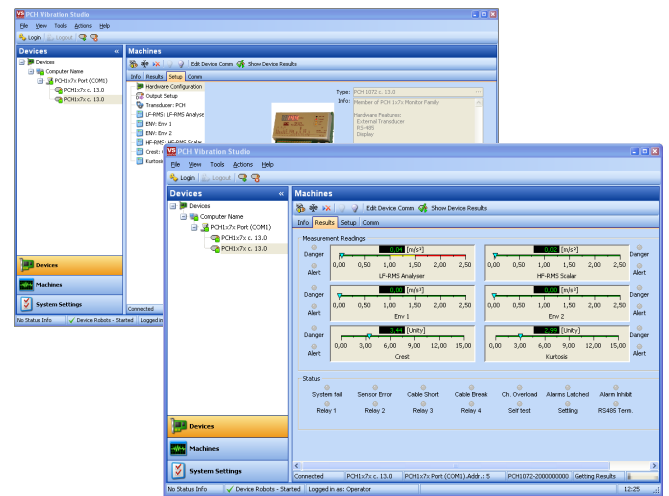
The user software Vibration Studio offers easy parameter set-up, Time Stream of vibration sequence and includes a bearing database as well as an offline FFT analyzer.

PCH 1072 Mk2 uses only a single sensor point to simultaneously detect both unbalance as well as upcoming bearing failure at an early stage.

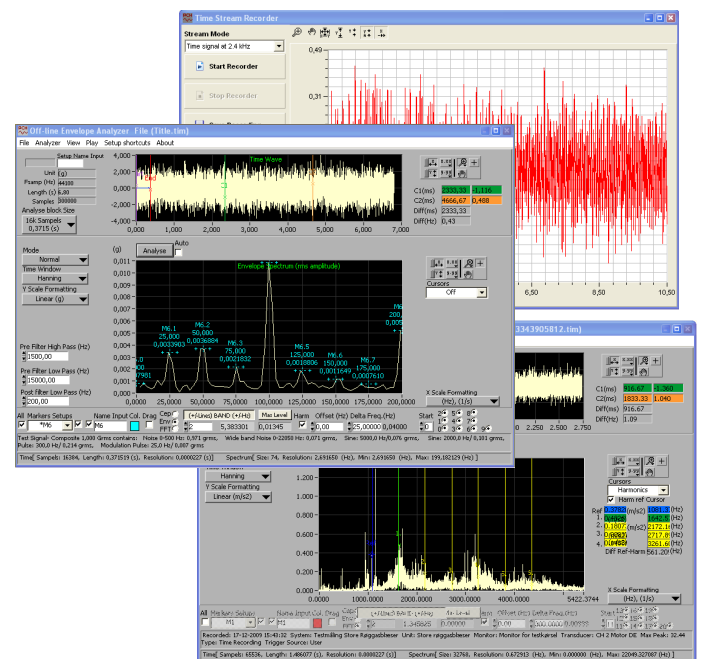
PCH 1072 Mk2 can be configured for proximity probes for surveillance of dynamic vibrations as well as for GAP measurements. The integrated calibration tool secures adjustment of actual sensitivity and GAP detection on site.



2 of PCH 1072 Mk2 in IP67 casing



Monitor set-up through Vibration Studio



Frequency analysis using Vibration Studio



Technical specifications

Advanced industrial monitor PCH 1072



CHB 3013 proximity probe or accelerometer



PCH 1072 Mk2 for DIN rail

Input channel:

1 voltage signal from 2-wire accelerometer or 3-wire proximity probe, are to be factory configured

Sensor type:

Accelerometer, 10-500 mV/g, type ICP®:
 Maximum input,..... ± 1.8 Vp
 Input overload,..... ± 1.8 Vp
 Transducer Bias Current..... 10 mA
 Proximity Probe..... -1 to -22 V

Band 1 Detectors (0.7 to 1 kHz):

True RMS or Peak

Band 2 Detectors (10 Hz to 11.5 kHz):

True RMS
 2 Envelope detectors with user defined filters from 1 - 500 Hz
 Kurtosis
 Crest factor (top factor)

Measuring parameter:

Velocity (mm/s), Acceleration (m/s², g) or Displacement (µm, mm, mils, g)

Measuring ranges (selectable):

10 or 20 or 50 or 100 mm/s
 2.5 or 6 or 12 or 24 m/s²
 µm Peak similar to -4 to -20 Volts input (8V/mm probe gives 1-1000 µm Peak)

Frequency ranges (selectable):

10 Hz - 1000 Hz, -1 dB, 24 dB/oct.
 Optional: 1-1000 Hz, 0.7-10.5 Hz

High frequency band 2-11.5 kHz
 Other filters available upon request

2 selectable DC outputs:

Can be factory configured to 4-20 mA, 0-20 mA and/or 0-10 V. Each output can be assigned to any of the measuring parameters. Output is relative to measuring range.
 Voltage load: min. 10 kΩ
 Current load: max. 400 Ω

Alarm detectors:

Alert and Danger Alarm with adjustable alarm limits

Delay time:

Alert delay time..... 0-100 s.
 Danger delay time..... 0-100 s.
 Hang time for Alert and Danger.... 0-100 s.

Alarm relays:

1 System failure relay with break-function (power fail-safe). 4 relays with break-function, can be configured as alert or danger relays.

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

Alert and Danger relays with selectable Latch or Auto Reset.

Max voltage:.....30 V
 Max current:.....100 mA

Communication:

RS-232 interface.....9 pin SUB-D male
 RS-485 interface.....2 spring terminal
 Daisy chain, up to 255 units in one string

Test function:

Can be activated digitally or by PC. The relays activates after the duration of the Delay time and the DC output increases to the specified test level of 1-102 %.

Power supply:

+24 V DC, ±7 %, max. power cons. 2.6 W

Operating temperature:

-10 °C to + 50 °C

Housing:

DIN rail enclosure IP20
 Option Aluminium IP67

Dimensions:

On DIN rail:.....163x127x66 mm
 In single IP67 casing:.....270x146x88 mm
 In double IP67 casing:.....378x164x102 mm

Compliance:

CE, GOST-R