PRODUCT DATA SHEET

PCH Raw Box CHB 1145

The PCH Raw Box, type CHB 1145 is a stand alone module offering buffered outputs from existing vibration monitoring setups using either IEPE, AC or Proximity Probe inputs.

The five input channels accept positive or negative signals and can include a BIAS voltage.

4 outputs are available from the BNC outputs and in total 5 outputs are available from the screw terminals. All outputs are biased as the source and without unity gain.

Specifications:

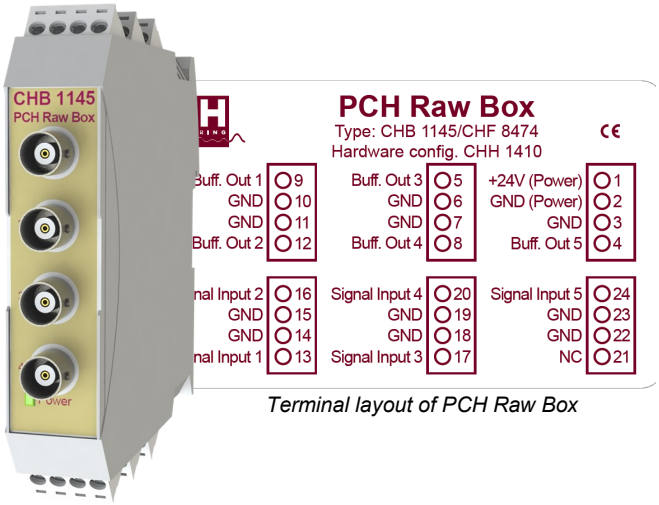
5 inputs, operating voltage:
Inputs signals can be applied as positive or negative biased signals.
IEPE Inputs:……22 V Peak
Proximity Driver Input:……..negative 22 V Peak
AC+DC Input:……..……..22 V Peak
PNP/NPN/AC:……..……..…0/22 V Peak
DC ……..-22 to 22 V

Installation:
Active signals from existing vibration monitors with integrated power supply IEPE can be connected to the Sig In screw terminals in parallel. The existing BIAS and AC signals are available in 1-to-1 relation on the BNC connectors as well as from screw terminals.

Absolute max input voltage……..…..24 V

BNC outputs:
4 BNC outputs marked 1-4 are available for portable equipment from Signal In 1-4. We recommend that portable equipment has IEPE power turned off.

Screw terminal outputs:
5 outputs are available from screw terminals. Channel 1-4 is shared with the BNC outputs marked 1-4.
Pay attention to the total load impedance/capacitance from any connected receivers if both screw terminals and BNCs are used simultaneously.



Terminal layout of PCH Raw Box

Signal response:
We recommend max 1-2 meters of coax cable between portable equipment to BNCs and twisted-paired signal cable between PCH Raw Box to the receiving signal conditioner.

Minimum load impedance per channel……..100 kOhm
Note: connecting to both screw terminals and BNCs will increase the total impedance!

Max cable load capacitance 0.1 nF:
Signal response (max -0.1dB)……...0-10,000 Hz
Signal response (max -0.3dB)……....10-25 kHz
Signal response (max –1.0dB)……..……....25-50 kHz

Max cable load capacitance 1.0 nF:
Signal response (max -0.1dB)…….....0-10,000 Hz
Signal response (max -0.6dB)……....10-25 kHz
Signal response (max –2.0dB)……..……....25-50 kHz

Max cable load capacitance 2.0 nF:
Signal response (max -0.2dB)…….....0-10,000 Hz
Signal response (max –1.2dB)……..……....10-25 kHz
Signal response (max –3.5dB)……..……....25-50 kHz

Output impedance……..…..1.2 kOhm

Housing:
DIN rail enclosure IP20 with screw terminals
Dimensions:.....H:109,W:22.5,D:114.5 mm

PCH Engineering A/S reserves the right to changes without notice.

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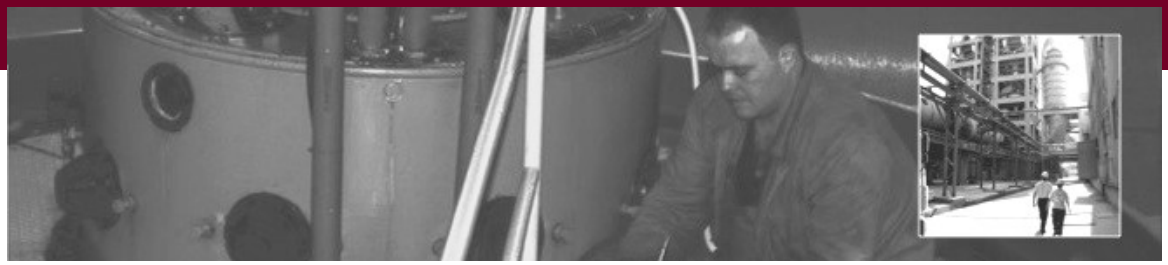

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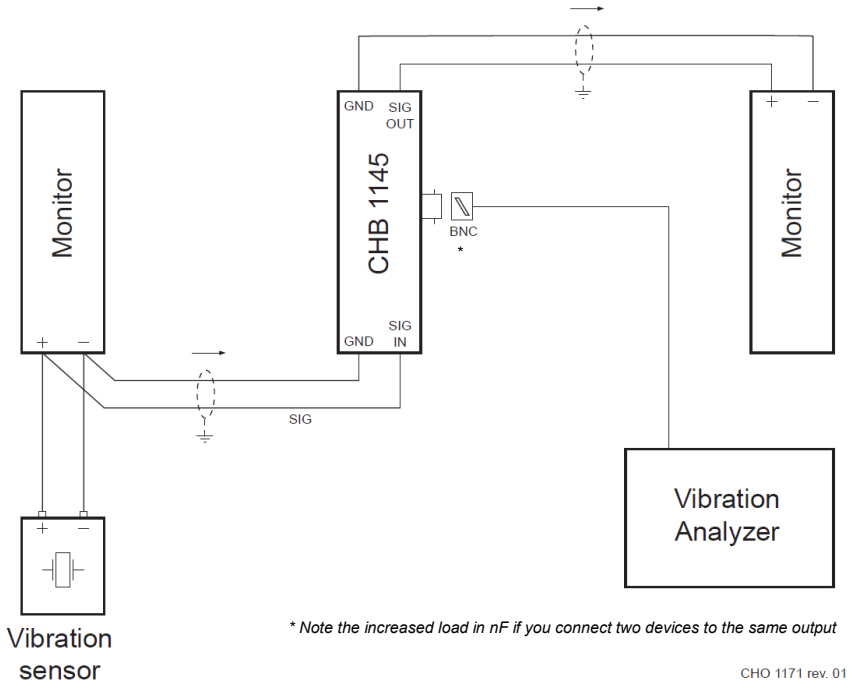

** Note the increased load in nF if you connect two devices to the same output*

CHO 1171 rev. 01

Electrical:
Powered by +24VDC ±10%
Typical Power consumption……..……..2.0 W
Max Power consumption……..…….……4.0 W
Note: All GNDs are galvanic connected.

Recommended operating temperature:
-10 °C to + 60 °C (storage: -40 C° to 85 °C)

Compliance:
Maximum relative humidity:
95 % RH (non-condensing at +40 °C)

CE compliance:

EMC Directive 2004/108/EC
Low Voltage Directive 2006/95/EC

Safety:
EN 61010-1:2001

EMC Immunity:
EN 61000-6-1:2007 Residential, commercial and light-industrial environments
EN 61000-6-2:2005 Industrial environments

EMC Emission:
EN 61000-6-3:2007 Residential, commercial and light-industrial environments
EN 61000-6-4:2007 Industrial environments

Temperature:
EN 60068-2-1:2007 Cold
EN 60068-2-2:2007 Dry heat
Operating : -20 °C ≤ T_a ≤ 60 °C
Storage : -40 °C ≤ T_a ≤ 85 °C

Maximum Humidity:
EN 60068-2-78:2001 : 95 % RH (non-condensing at +40 °C)

Mechanical Vibration (non-operating)
EN 60068-2-6:2008 : 0.3 mm, 20 m/s^2, 10-500 Hz

Mechanical Shock (non-operating)
EN 60068-2-27:1997 : 750 m/s^2

Mechanical Bump (non-operating)
EN 60068-2-29:1997 : 1000 bumps at 250 m/s^2

Note.
The EN standards cover IEC standards.

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