MLT1010 Pulse Transducer

Transducer Series

Description

The MLT1010 Pulse Transducer uses a piezo-electric element to convert force applied to the active surface of the transducer into an electrical signal. The transducer can be connected directly to the BNC input of any PowerLab.

Operation

The Pulse Transducer can be connected directly to a PowerLab Pod port analog input. To produce a signal, a change in force must be applied to the active surface of the transducer. Expansion and contraction of the finger circumference, due to changes in blood pressure, can be detected by the transducer. This signal can then be used for heart rate determination. A typical output is 50–200 mV but can reach as high as 500 mV.

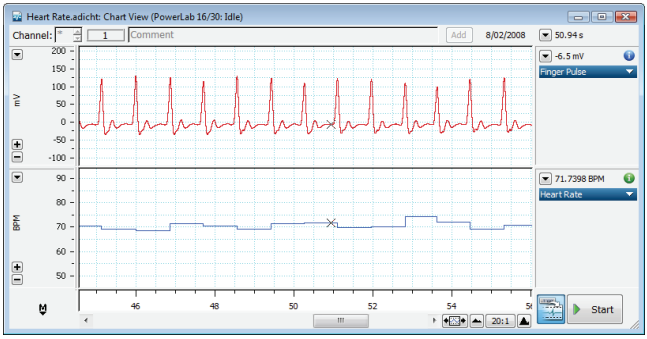
NOTE: The transducer is sensitive to movement. To avoid large motion artifacts and obtain good recordings, keep the transducer still.

The transducer is kept in place using a Velcro® strap around the finger. Some repositioning may be required to obtain the best signal. If you are having difficulties in obtaining a signal, adjust the placement of the transducer on the finger, the tightness of the strap or warming up the subject's hands. The index finger is usually best for finger pulse measurement.

Application

Applications of the MLT1010 include monitoring of finger peripheral pulse as well as small animal respiratory activity.

Typical Data



Finger pressure pulse data and calculated heart rate

Caution
Read “Statement of Intended Use” on our website or in “Getting Started with PowerLab” before use.

Specifications

Frequency response:	2.5 to 5000 Hz
Operating signal range:	0 to 1 V for linear output range when applied across a 1 MΩ resistor Typically 100 mV output for finger pulse (from 20 mV to 500 mV depending on person)
Weight:	25 g
Size (diameter x thickness):	22 x 12 mm (0.87″ x 0.47″)
Cable length:	1 m (3.3') 1.95m (6.4') (other lengths on special order)

All specifications were tested at the time of printing and are subject to change.

Ordering Information:

MLT1010 Piezo Electric Pulse Transducer
For use with:
Any PowerLab