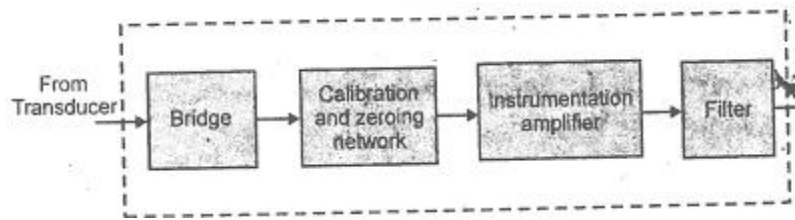


SIGNAL CONDITIONING SYSTEM

The signal conditioning equipment is required to perform linear processes such as amplification, attenuation, integration differentiation, addition or subtraction. They also require non-linear processes such as modulation, demodulation, filtering, clipping and clamping, squaring and linearising or multiplication by another function. These functions require selection of components and faithful reproduction of the final signal for the presentation stage.

The signal conditioning of data acquisition equipment is in many cases an excitation and amplification system for a passive transducer or an amplification system for an active transducer. In both cases, the transducer's output is brought to the required level for conversion, processing, indicating and recording.



Block diagram of a signal conditioning system

The transducer is connected to one arm of the bridge and the signal is transferred to an instrumentation amplifier after calibration.

Instrumentation amplifier is followed by a filter, which is used to eliminate noise from the signal.

Source: <http://mediatoget.blogspot.in/2012/03/signal-conditioning-system.html>