

TRANSDUCER

A **transducer** is a device that converts energy from one form to another. Usually a transducer converts a signal in one form of energy to a signal in another.

Transducers are often employed at the boundaries of automation, measurement, and control systems, where electrical signals are converted to and from other physical quantities (energy, force, torque, light, motion, position, etc.). The process of converting one form of energy to another is known as transduction

Transducer types

Mechanical and electrical transducers

Transducers that convert physical quantities into mechanical ones are called mechanical transducers; Transducers that convert physical quantities into electrical are called electrical transducers. Examples are a thermocouple that changes temperature differences into a small voltage, or a Linear variable differential transformer (LVDT) used to measure displacement.