Introduction to Actuators
Final Assessment
Participant Guide

Introduction

The purpose of this assessment is to determine your understanding of actuators after having completed the *Introduction to Actuators Learning Module*.

1. The output of an actuator is
   a. heat
   b. current
   c. motion
   d. variable

2. Which of the following BEST describes an actuator? A device that
   a. converts one form of energy to another form of energy.
   b. converts a change on the input into a proportional movement.
   c. quantifies a value on its input and produces a readable output.
   d. produces a readable output representative of a change.

3. Which of the following is a thermal actuator?
   a. Motor
   b. Generator
   c. Bi-metallic strip
   d. Comb drive

4. Which of the following is an electrostatic actuator?
   a. Motor
   b. Generator
   c. Bi-metallic strip
   d. Comb drive

5. Which of the following is NOT a transducer and an actuator?
   a. Generator
   b. Bi-metallic strip
   c. Comb drive
   d. Motor

6. In microtechnology piezoelectric thin films are combined with metallic thin films to make thermal switches because of their different _____.
   a. Resistive properties
   b. Molecular make-up
   c. Absorption properties
   d. Temperature coefficients

7. Comb drives are micro-actuators that oscillate at a natural frequency. This frequency is called its _____ frequency.
   a. actuating
   b. resonant
   c. electromechanical
   d. electrostatic

8. Voltage is to an electrostatic actuator as
   a. heat is to a bi-metallic switch
   b. voltage is to a generator
   c. movement is to gears
   d. resistance is to a RTD

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