

# TERMINOLOGY

**Air Consumption - Static.** The maximum rate at which air is consumed by a device within its operating range during steady-state (static) signal conditions.

**Air Consumption - Dynamic.** The maximum rate at which air is consumed by a device within its operating range while the device is in motion.

**Air Delivery Rate (Max.).** See Flow Capacity.

**Ambient Temperature Range.** The minimum and maximum temperature of the medium surrounding a device.

**Control Action.** The nature of the change of the output effected by the input.

**Effective Area.** The wetted area of the piston for use in thrust calculations.

**Exhaust Capacity.** The rate which a volume will exhaust from a given device. Typically expressed in SCFM for gases or GPM for liquids.

**Exhaust Rate.** See Exhaust Capacity.

**Fail Safe System.** In the event of power source loss, either electrical or pneumatic, an additional apparatus designed to direct a device to take a specific action.

**Failure mode.** The reaction of a device in the event of a power source loss, either electrical or pneumatic.

**Flow Capacity - Dynamic.** The rate which a mass will pass forward through a given device within a unit of time while variables are in a steady-state. Typically expressed in SCFM for gases or GPM for liquids.

**Piston Diameter.** The effective diameter of the piston wetted area for use in thrust calculations.

**Position Effect.** The resulting performance of a device when physical orientation of the device has been changed.

**Repeatability.** The maximum difference between a number of consecutive reaction indications for the same applied inputs, approaching from the same direction. It is usually measured in terms of non-repeatability and expressed in repeatability error as a percentage of span.

**Steady State.** A characteristic of a condition, such as value, rate, periodicity, or amplitude, exhibiting only negligible change over an arbitrary long period.

**Stroke Length.** The full travel length of the actuator stem defined as full actuator stem extension minus full actuator stem retraction.

**Thrust.** The amount of force available at the actuator stem as a function of the piston area times the differential pressure across the piston.