Industry Terms

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4/20mA A loop current for controlling instruments.

Cavitation The formation of partial vacuums in a liquid by a swiftly

moving solid body (such as a propeller in a pump) or by high-intensity sound waves; the pitting and wearing away of solid surfaces as a result of the collapse of these vacuums

in surrounding liquid.

Critical pressure The pressure under which a substance may exist as a gas in

equilibrium, with the liquid at critical temperature.

Delta P (dP or \DeltaP) / Pressure drop The difference between inlet and outlet pressure.

Density A measure of the quantity of some physical property

(usually mass) per unit length, area, or volume (usually volume). **Mass density** is a measure of the mass of a substance per unit volume. Most substances (especially gases such as air) increase in density as their pressure is

increases or as their temperature decreases.

Design pressure Maximum system pressure.

Design temperature Maximum system temperature.

Downstream pressure / P2Outlet pressure of the valve.

ESD Emergency shutdown valve.

Equal percentage Flow changes which are equal percentages of existing flow

for increments of valve travel.

Fieldbus A generic term used to describe a common communications

protocol for control systems and / or field instruments, where each device has its own intelligence and

communications via a data highway.

Flashing A liquid that is below its vapor pressure and becomes a gas.

Flow rate A measure of the volume of fluid moving past a given point

in a given period of time.

HART (Highway Addressable

Remote Transmitter) Industry standards for the hardware and software

development of smart field devices for process control.

HIPPS (High Integrity

Pressure Protection System)

A pressure protection system to prohibit overpressurization

of a piping system.



Industry Terms

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Linear characteristic Flow is directly proportional to valve travel.

Molecular weightThe sum of the atomic weights of all atoms in a molecule.

Pipe schedule Wall thickness of pipe.

Pipe size Diameter of the inlet and outlet pipe.

Shut-off pressure Differential pressure across the valve.

Specific gravity The ratio of the density of a material to the density of water.

Specific heat ratio The ratio of specific heat at constant pressure to the

specific heat at constant volume at a particular temperature.

SPL / Noise / dBA Sound pressure level (SPL) is a measurement of noise

expressed in decibels (dBA).

Three-phase flow A combination of gas or vapor, liquid and solids.

Two-phase flow A combination of gas or vapor and liquid.

Upstream pressure / P1 Inlet pressure to the valve.

Viscosity The thickness or resistance to flow of a liquid.

