Tubing Connection Markings for Pneumatic Instruments

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FOREWORD

Standards are adopted in the public interest and are designed to eliminate misunderstandings between the manufacturer and the purchaser and to assist the purchaser in selecting and obtaining without delay the proper product for his particular need. Existence of a Standard does not in any respect preclude any member or non-member from manufacturing or selling products not conforming with the standard.

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TUBING CONNECTION MARKINGS FOR PNEUMATIC INSTRUMENTS

1 Scope and Purpose

1.1 This standard applies to the marking of tubing connections to pneumatic transmitters, pneumatic receivers (indicating and/or recording), pneumatic controllers, pneumatic relays, pneumatic valve actuators, and pneumatic positioners.

1.2 The purpose of this standard is to establish a uniform system of marking tubing connections to simplify the inter-connection of pneumatic instruments in their application to industrial processes.

Note: The term "Air" is used in this standard with the understanding that other suitable gases may be substituted as the operating medium.

2 Terminology and General Definitions

2.1 Pneumatic Transmitter. A Pneumatic Transmitter is a device which senses a measured variable and transmits a pneumatic signal which is a function of said measured variable.

2.2 Pneumatic Receiver. A Pneumatic Receiver is a device which receives a pneumatic signal and presents an indication and/or record which is a function of the signal received.

2.3 Pneumatic Controller. A Pneumatic Controller is a device which operates to correct or limit the deviation of a measured variable from a selected reference by pneumatic means. (See definition Para. 2.3 - "Markings for Adjustment Means in Automatic Controllers")

2.4 Pneumatic Relay. A Pneumatic Relay is a device which receives a pneumatic signal and emits a pneumatic output which is a function of the input signal.

2.5 Pneumatic Positioner. A Pneumatic Positioner is a pneumatic relay which receives a pneumatic signal and a motion feedback signal and emits a pneumatic signal which is a function of both signals above.

2.6 Pneumatic Valve Actuator. A Pneumatic Valve Actuator is a pneumatic device which produces a motion output which is a function of the pneumatic input signal received.

2.7 Tubing Connection. A Tubing Connection is the internal or external termination provided on the pneumatic instrument for connecting the instrument to the pneumatic transmission or control system.

2.8 Air Supply. Air Supply is a pneumatic pressure source to energize the pneumatic instrument supplied at a standard pressure in accordance with , "Air Pressures for Pneumatic Controllers and Transmission Systems".

2.9 Air Input Signals. Air Input Signals are the signals received by a pneumatic device.

2.10 Air Output Signals. Air Output Signals are the signals emitted by a pneumatic device to its dependent element.

2.11 Set Point. Set Point is that value of the controlled variable the controller is set to maintain. A set point signal is a signal received by a controller as a measure of the set point value. (See definition Para. 2.13, "Markings for Adjustment Means in Automatic Controllers".

3 Tubing Connection Markings

3.1 The standard tubing connection markings for pneumatic instruments shall be as designated below.

3.2 All Pneumatic Instruments Covered by this Standard:

Air Supply - S or SUPPLY

Air Output - O or OUT

Air Input Signals - E1, E2, E3, etc.

For Set Point use one of the "E" designations or "SET".