

Instructions

Differential Pressure / Flow

2-wire Transmitters



Orange Research Inc.

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Your Orange Research transmitter is a rugged, industrial instrument featuring a simple design which affords dependable and efficient performance in many severe service and high pressure applications. Please read all instructions and consult the wiring diagrams before attempting to install the transmitter.

CAUTION: Do not exceed the maximum operating pressures listed on the body label. Use only with fluids or gases compatible with the instrument's wetted parts.

Please note that although the electronic outputs are all temperature compensated, the specific gravity and viscosity calibration remain fixed as manufactured for all flow devices.

HOW IT WORKS: Orange Research Differential Pressure and Flow Transmitters provide a proportional electronic output from a magnetically activated Hall Effect sensor. Pressure or flow moves a magnetic piston inducing a polar bias in the sensor which causes a voltage change. An EEPROM microprocessor amplifies, conditions and buffers the input analog signal.

INSTALLATION FOR DIFFERENTIAL PRESSURE: Check maximum operating pressure for the model series you are using, listed on the instrument body label. Check instrument to identify *HI* and *LO* markings identifying the

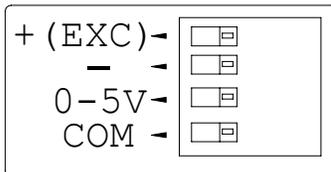
high and low pressure ports and connect piping accordingly. If the instrument is installed backwards, it will neither operate or be damaged. It is recommended that the instrument be installed above the pressure source to allow drainage and removal of particulate.

See diagram for all electronic wiring connections. These instruments are reverse polarity protected to protect the board.

INSTALLATION FOR FLOW: Check to identify *HI* and *LO* markings respectively identifying the flow inlet and outlet ports and connect piping accordingly. It is recommended that a 50µ filter be located ahead of the flow instrument to assure a clean fluid medium and reduce the risk of particle contamination.

IMPORTANT: *Because of its magnetic movement, these instruments should not be mounted in direct contact with a steel surface to avoid calibration shift in the dial gauge movement. Mount the instrument so that the body is at least 1" away from metal surfaces using non-magnetic spacers or an optional aluminum mounting bracket.*

ELECTRICAL CONNECTIONS:



Supply Voltage: 9-35 VDC (reverse polarity protected)

Wire size: 20-26 AWG

Conduit connection: 1/2" trade size

WIRING OPTIONS:

