

# **SERIES 40 PRESSURE SENSOR**

## **Specification #RV-40**

### **PART 1 GENERAL**

#### **1.01 SUBMITTALS**

- A. Submit product literature that includes information on the performance and operation of the sensor, materials of construction, dimensions and weights, elastomer characteristics, and pressure ratings.
- B. Upon request, provide shop drawings that clearly identify the sensor dimensions including all supplied accessories.

#### **1.02 QUALITY ASSURANCE**

- A. Supplier shall have at least ten (10) years experience in the manufacture of pressure sensor rings utilizing an elastomer sensing element, and shall provide references and a list of installations upon request.

### **PART 2 PRODUCTS**

#### **2.01 PRESSURE SENSOR RINGS**

- A. Pressure Sensors are to be of the full flange design, to be retained between standard ANSI B16.1 Class 125/6.5 Class 150 pipeline flanges. Flange bolts shall pass through sensor body and flanges. The outside diameter of the sensor shall match the outside diameter of the mating flange. Face-to-face of the entire sensor shall be no longer than specifications MSS-SP67.
- B. Sensor shall be flow through design with flexible elastomer sensing ring around the full circumference. The elastomer sensing ring shall be rigidly clamped between metal end cover flanges, and no part of the elastomeric sensing ring shall be exposed to the external face of the sensor. There shall be no dead ends or crevices and flow passage shall make the sensor self-cleaning.
- C. The pressure sensing ring shall measure pressure for 360° around the full inside circumference of the pipeline. Flexible sensing ring shall have a cavity behind the ring filled with fluid to transfer pressure to the gauge. Sensor shall be manufactured in the USA.

#### **2.02 FUNCTION**

- A. Line pressure pushes against an elastomer ring inside the sensor. The deflection of the ring displaces a fluid fill inside the body of the sensor, forcing the fluid into a pressure-measuring device.

#### **2.03 MANUFACTURER**

- A. All Sensors shall be of the Series 40 as manufactured by the Red Valve Co., Inc. of Carnegie, PA 15106 or approved equal.

### **PART 3 EXECUTION**

#### **3.01 INSTALLATION**

- A. Sensor shall be installed in accordance with manufacturer's written Installation and Operation Manual and approved submittals.

#### **3.02 MANUFACTURER'S CUSTOMER SERVICE**

- A. Manufacturer's authorized representative shall be available for customer service during installation and start-up, and to train personnel in the operation, maintenance and troubleshooting of the sensor.

B. Manufacturer shall also make customer service available directly from the factory in addition to authorized representatives for assistance during installation and start-up, and to train personnel in the operation, maintenance and troubleshooting of the sensor.