

SERIES 42 PRESSURE SENSOR

Specification #RV-42

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

- A. Pressure Sensors are to be of the threaded end design with standard NPT threads. Port area shall be 100% of the mating pipe port area through the entire sensor length. The main body of the sensor shall be completely protected from the process fluid by a flexible elastomer sensing sleeve.
- B. The sensor sleeve shall measure pressure for 360° around the full circumference. The elastomer sensing sleeve shall be one piece construction with integral flanges locked in by bolted end covers. The flexible sensing ring shall have a cavity behind the ring filled with fluid to transfer pressure to the gauge.
- C. The sensor sleeve flanges shall have a molded O-ring, which shall fit into a mating O-ring groove machined into the sensor metal body. Threaded end covers shall hold down tightly on the rubber flange to positively lock it in place. 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 42 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.

