

SPS - Series 42 Pressure Sensor & Series 742 Diaphragm Seal



- Series 742 can be finished or rodded clean without removal from the line or disassembly
- Protects and isolates instrumentation from chemical or slurry plugging
- Lower installation and operating costs
- Accommodates both positive and negative pressures

Materials of Construction

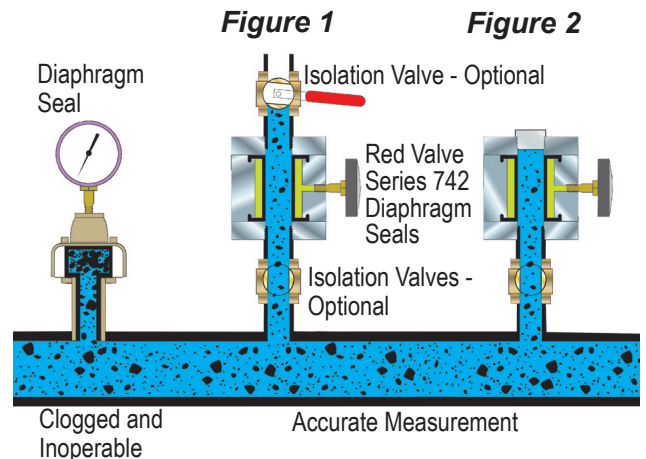
- **Body and Upper and Lower Case:** Carbon Steel or 316 Stainless Steel.
- **Sleeves:** Pure Gum Rubber (PGR), Ethylene Propylene Diene Terpolymer (EPDM)*, Acrylonitrile-Butadiene (NBR), Fluoroelastomer (FKM)*, Chloroprene (CR)*, Chlorosulfonated Polyethylene (CSM), Chloro-Isobutylene-Isoprene (CIIR).
* White food grade options available.
- **Fill Fluids:** Silicone Oil (400° F), Ethylene Glycol and Water (200° F), Vegetable Oil (230° F).

Red Valve's Series 42 Pressure Sensor and Series 742 Diaphragm Seal isolate and provide accurate instrument reading of gauges, transmitters and pressure switches, making them ideal for use in chemical or slurry service. The Series 42 and Series 742 can be mounted in any flow direction and have threaded ends manufactured to standard NPT pipetap dimensions for smaller pipelines.

The Series 42 Pressure Sensor's principle of operation is simple. As process pressure is sensed by the 360° elastomer sleeve, the captive fluid transfers the process pressure to the instrument, providing a consistent, accurate reading.

The Series 742 Diaphragm Seal offers a significant advantage over traditional diaphragm seals. When installed perpendicular to the pipeline, the Series 742 can be isolated so that in the event of plugging, the elastomer slurry ring area (which isolates the instrument) can be flushed (*Figure 1*) or rodded clean (*Figure 2*).

Series 42 Pressure Sensors and Series 742 Diaphragm Seals are available in sizes 0.5" - 2". The Series 42 features a top mounted gauge, while the Series 742 is supplied with a standard back mounted gauge. The elastomer sleeve extends to the flange face, eliminating the need for additional gaskets.



SERIES 42 & SERIES 742

DIMENSIONS in/mm			
SIZE D	LENGTH F TO F	WORKING PRESSURE psi/kPa	WEIGHT lbs/kg
0.5" 15mm	2.88 73	720 4960	5 2
1" 25mm	3.38 86	720 4960	6 3
1.5" 40mm	3.38 86	720 4960	15 7
2" 50mm	3.38 86	720 4960	20 9

