

Smart Pinch Valve Sleeve



Red Valve Company, Inc.

- Allows sleeve to operate to the end of its useful life
- Provides warning long before sleeve wears through
- Ideal for preventative maintenance
- Available in most sleeve configurations
- Test circuit checks all wiring and connections



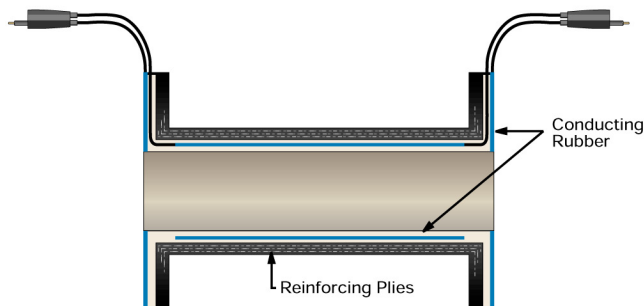
Materials of Construction

• SLEEVE MATERIAL

PGR, Neoprene, Hypalon, Chlorobutyl,
Buna-N, Viton, and EPDM

• ALARM MODULE

NEMA 4 Enclosure



The Red Valve Smart Sleeve uses a unique construction to electronically sense when the sleeve has worn to the point where it needs to be replaced. An associated alarm module monitors the condition of the sleeve and provides visual indication of sleeve status. A green light indicates the alarm module is energized and the sleeve is good. A red light indicates the alarm module is energized and the sleeve has worn through to the point that it should be replaced. A test button on the alarm module is used to check all wiring and connections to the sleeve in addition to the alarm module circuitry. The process fluid must be an electrical conductor for proper operation. Water, water-based slurries, and many other liquids are suitable conductors.

Sleeve Construction

One layer of conducting rubber is encapsulated between two layers of insulating rubber. This layer of conducting rubber is tubular in shape and extends the full length of the sleeve and 360° around the bore but is insulated from the bore. Each flange face is also covered with a layer of conducting rubber which extends into the bore and is in direct contact with the process fluid. At each end of the sleeve a pair of insulated, waterproof electrical lead wires connect to the conducting rubber tube and the conducting rubber flange face. If the sleeve wears through to the tubular conducting layer, the process fluid completes an electrical path and the alarm module light changes from green to red.

Advantages

Since the tubular layer of conducting rubber is inside the fabric reinforcing plies, the alarm module detects the wear of the rubber liner while the reinforcing plies are still intact and the sleeve is still functional. This allows sleeve replacement to be scheduled. It is not necessary to replace the sleeve immediately.

Conversely, there is no need to replace a sleeve prematurely "just to be sure." The Smart Sleeve and alarm module allow the sleeve to operate to the end of its useful life.

The use of conducting rubber on the flange faces allows the Red Valve Smart Sleeve to be used with plastic pipe and rubber-lined pipe. There is no need for a separate ground connection to a metal pipe.

