

**Electro-Sensors Product:** UDS1000 Reverse Rotation Detection Speed Switch with 907B (Bi-directional) Shaft Speed Sensor and Split Collar Pulser Wrap

**Application:** Monitor high service pump shaft to protect against reverse rotation

**Purpose:** High service pumps are widely used at thousands of water utilities worldwide. These pumps typically have enormous pumping capacity and are driven with high horsepower motors. While they normally operate reliably, unchecked backpressure can lead to severe pump damage when a pump is started during a reverse rotation condition. Catastrophic damage such as breakage of the pump shaft can occur, leading to significant downtime and considerable repair expenses before normal operation can be resumed.

**How it works:** The UDS1000 is a failsafe reversal detection switch that constantly monitors a shaft to ensure that it is turning in the correct rotational direction. Relay contacts in the unit can be used to electrically lock out the starting circuit of the pump to prevent accidental start up during a condition of reverse rotation. The system is supplied with a rugged Explosion Proof sensor and a split collar pulser wrap custom made for the shaft being monitored. The UDS1000 continuously monitors incoming pulses from the sensor and magnetic wrap. A failsafe relay output is electrically interlocked directly to the motor starter circuit for the pump. If the slightest reverse rotation of the pump shaft is detected it disables the pump starting circuit thus preventing catastrophic damage caused by start-up during reverse rotation.

### Benefits

- UL and CE listed
- Rugged and reliable system
- Suitable for Hazardous Locations
- Easy to install and calibrate
- Proactive machinery protection

