OIL & GAS WELLS AND PIPELINES
Sensors that offer hazardous area approvals are widely used on gas and oil well heads, supply lines, natural gas power engines, multi-stage gas compressors and other machinery operating in hazardous environments. Piezoelectric pressure sensors offer the capability to detect and monitor dynamic pressure spikes, pulsations and surges in gaseous or liquid media. Engine pressure sensors offer walk-around or permanent monitoring capability, allowing engine balancing and emissions control. Vibration monitoring has proven effective for determining machinery health, planning maintenance intervals, reducing downtime and avoiding catastrophic loss.
**MOTORS & PUMPS**

- **4-20 MA VIBRATION TRANSMITTER**
  - Model EX640B71
  - Available in velocity or acceleration output
  - ATEX / CSA approved with explosion proof conduit
  - Top exit, 2-pole terminal block

- **TOP EXIT ICP® ACCELEROMETER**
  - Model EX628F01
  - Frequency range up to 12 kHz
  - Quartz sensing element
  - Excellent thermal stability

- **SHEAR ICP® ACCELEROMETER**
  - Model EX622B01
  - Frequency range up to 15 kHz
  - Ceramic sensing element

- **LOW COST ICP® ACCELEROMETER**
  - Models EX607A11 & EX607A61
  - Unique 360° Swivel Design
  - Allows for easy cable orientation

- **COMPACT ICP® ACCELEROMETER**
  - Model EX603C01
  - Small installation footprint
  - Low cost general purpose accelerometer

- **SIDE EXIT ICP® ACCELEROMETER**
  - Model EX602D01
  - No cable/connector clearance required
  - Less than 1 inch height
**COMPRESSORS**

**4-20 MA PRESSURE TRANSMITTER**

- Series EX1503D0X
- Ranges from 300 to 10,000 psi
- Withstands sour gas environments
- 1/2" NPT fitting
- Hazardous area approved

**RECIPROCATING MACHINERY PROTECTOR**

- Model EX649A71
- Machinery RPM Range: 240 to 10000 cpm (4 to 166 Hz)
- Sampling Time: 0.2 to 6.4 sec
- Temperature Range: -40 to 212 °F (-40 to 100 °C)
- 316 stainless steel diaphragm
- 1/4" NPT fitting

**WELL HEADS**

**ICP® PRESSURE SENSOR**

- Model 121A44
- Sensitivity: 10 to 100 mV/psi (1.45 to 14.5 mV/kPa)
- Measurement range: 50 to 500 psi
- 316 stainless steel diaphragm
- 1/4" NPT fitting

**TYPICAL INTRINSICALLY SAFE INSTALLATION**

- Approved, Intrinsically Safe ICP® Accelerometer
- Hazardous Area
- Sensor Cable
- Safe Area
- Output Cable
- Intrinsic Safety Barrier
- Collector or Analyzer with ICP® Sensor Power