

Pressure Measurement for Off-Road Equipment



Pressure sensors serve many critical functions in off-road equipment, such as weight and load determination, power steering and brake fluid measurement, and monitoring engine condition. Extreme temperatures, corrosion, shock and vibration shorten the life of on-board sensors found in off-road equipment. For pressure sensors to be useful, they must be able to endure the rigors of this environment.

A truck manufacturer for strip mining operations needed transmitters for three applications. The first application measures the load of the truck. To be cost effective, the trucks have to run at full capacity without being overloaded. The second application uses a transmitter to measure accumulator pressures in the power steering system. The third transmitter application provides pressure data to a microprocessor controlled braking system.

The trucks use a hydraulic braking system to augment the electric braking system when operating on hilly terrain. Viatran's Model 340 pressure transmitter met all application requirements.



The 340's all welded, stainless steel construction minimizes water intrusion and corrosion—protecting the sensor from dirt, dust, and contaminants. For pressure measurement above 300 psi, the Model 340 uses a hardened stainless steel diaphragm with bonded foil strain gage technology for lasting durability.



The modified 340's high performance in off-road applications prompted Viatran to develop another pressure transmitter, Model 347. High volume production techniques allow this transmitter to feature ultra low cost, crucial in OEM and off-road equipment applications. The 347 also features a reliable DIN 43650 connector that prevents weather intrusion. The Model 347 pressure transmitter includes corrosion resistant, stainless steel construction, and has an adjustable zero. This design makes Viatran's Model 347 ideal for high volume applications where a rugged pressure transmitter is required.

For more information on Viatran's Model 340 or 347 pressure transmitters, call today.

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