



ELECTRICALLY NOISY ENVIRONMENT IN UTILITY AND EMERGENCY VEHICLES

PRODUCT: Model 3100

APPLICATION DETAILS:

The customer is a leader in instrumentation for the Fire and Safety industry. Their pressure governor combines full engine status displays including check and stop engine indicators, RPM, oil pressure, temperature, and battery voltage while providing control in both the pressure and RPM modes of operation. The primary component of the new pump governors is in the microprocessor based panel display that the operators use to control the pump/engine package. It includes many of the engine controls that were scattered about the instrumentation panel. Push buttons increase or decrease engine speed to replace the familiar Vernier throttle.

CUSTOMER PROBLEM:

High level of electrical noise causing false readings in critical applications

In this application there is a lot of electrical noise in the chassis of the fire truck, due to the high amount of electrical equipment, which was causing electrical noise to be transmitted through the common chassis ground of the truck. The previous supplier to the customer did not have isolated sensors, so the electrical noise from the chassis was making its way through the pressure port, affecting the accuracy of the signal.

SETRA SOLUTION:

Setra provided the customer with the 3100 Series pressure transducer to monitor and maintain discharge pressure at the fire hose, as well as monitor the intake pressure to prevent water shortages. To counter excessive electrical noise, the Model 3100 is electrically isolated from the pressure fitting which eliminates a path for electrical noise. Setra also provided two, 600 PSI, 3100 Series pressure sensors that are used in the customer's product for pump discharge and pump intake to provide improved defense against pump



WHY SETRA WON:

Provided high performance sensor with greater noise immunity

After months of testing, the customer selected the Model 3100 pressure transducer due to its superior electrical immunity characteristics and performance.

SETRA STRENGTHS

- $\pm 0.25\%$ FS Accuracy
- Long-Term Stability Better Than $\pm 1\%$ FS/YR
- IP67 Rating
- Small Footprint
- Choice of mA, Voltage or Ratiometric Outputs
- Isolated Sensor