



FIRE TRUCK INSTRUMENTATION

PRODUCT: Model 3200

APPLICATION DETAILS:

The customer is a leader in instrumentation for the Fire and Safety industry. The customer's product combines a digital flowmeter and traditional style pressure indicator on one compact display. The electronic pressure indicator eliminates freeze-up and leakage problems found in traditional liquid filled gauges. These devices measure both the intake from hydrant and discharge pressure. On a pump truck there can be many discharge connections. This product ensures that water is flowing and provides live feedback to the firefighters during a fire.

CUSTOMER PROBLEM:

Pump cavitation, high install cost and freeze-up

In the application, inadequate water supply was leading to cavitation within the pump causing replacement/failures of the pump impeller. The old hand plumbed gauge style systems had a high installation cost and required a skilled installer to run tubing. Liquid filled gauges can freeze in cold climates causing them to break or leak in the application. This application is in a high humidity environment during summer months causing corrosion on the PCBA.

SETRA SOLUTION:

Setra provided the customer with the 3200 Series pressure transducer to monitor intake pressure and maintain water supply for all discharge nozzles on the fire trucks. The 3200 Series was easy to install over the previous design, transmitting an analog signal over a wire running back to the electronic gauge. The sensors also give real time feedback, through the analog input, of intake pressure from water supply to prevent cavitation. Setra provided an upgraded PCBA with the Tantalum Nitride element along with improving the sensor package to meet IP67 rating.



WHY SETRA WON:

Provided high performance solution which saved install time

Setra was able to provide the customer with a product that offered multiple solutions in this demanding application. The Model 3200 gives the customer the feedback to prevent pump cavitation. Install cost is reduced while providing a reliable sensor that was a plug and play replacement of old supplier.

SETRA STRENGTHS

- $\pm 0.5\%$ FS Accuracy
- Long-Term Stability Better Than $\pm 1\%$ FS/YR
- IP67 Rating
- Small Footprint
- Choice of mA, Voltage or Ratiometric Outputs