



ITT

Neo-Dyn®

131P Selectable Deadband Switch

PROTECTS OEM'S ANALYZER AND OUR ENVIRONMENT!

Recently Mark Moffit with RM Controls, introduced us to a new OEM in Central California. They were not fully satisfied with a competitors "constant rate" or "trace sensor" device and were seeking a substitution that would give them improved reliability and performance with no maintenance worries. Once again, ITT Neo-Dyn's "Belleville Advantage" proved to be the best selection for another convinced OEM.

The OEM fabricates an "Oil in Water Monitor" that is designed to provide regulatory compliance and prevent environmental damage and penalties from contamination of water with hydrocarbon based oils (produced, lube and fuel) or refined byproducts (aromatic solvents, gasoline, diesel, etc.) from low parts per billion (ug/L) to high parts per million (mg/L). About 70% of these expensive (approximately \$45K) analyzers are installed in the "up/downstream" oil & gas and petrochemical industry, with the remainder going to the general industrial marketplace, including power generation, water/waste water treatment and marine.

As this analyzer is often shipped to very severe, inhospitable and remote global installations, they require immediate start up operability and setpoint/deadband "reliability and accuracy". Of course globally recognized agency approvals were also expected and we are able to provide SAA (Australian) and ATEX (EU) approval for their rapidly expanding global markets.

Initially, we considered the 132P (aluminum body) and 122P (SS body), but when further discussing their narrow deadband requirement (1 PSI/ 6.89 KPA), we determined the 131P OEM Series (aluminum body) with selectable deadband offers the best solution for their application.

The normal system operating pressure is between 50 – 100 PSIG (300 – 700 KPA) and the switch is installed on their system's inlet water concentration sample stream, which feeds their "flow cell" or oil detection sensor. When the pressure decreases to 5 PSIG the 131P will alarm and shut off the valve feeding the sample stream. When the pressure increases again to 4 PSI, which is the 1 PSI selectable deadband, the switch de-actuates and allows the valve to open and resume sensing the sample stream.

Having the valve shut off the sample stream and isolate the flow cell, prevents dribble on any optics or contamination of other surfaces in the sample block of the analyzer. This results directly in a 70% reduction of maintenance issues and justifies the expense of the switch, pneumatic control panel and actuator.

The "Belleville Advantages" of immunity to shock and vibration, along with the long life cycle and setpoint/deadband repeatability, combined with the selectable narrow deadband have given this client a competitive and dependable solution. The only thing they request now and we must provide in order to retain this account, is improved delivery times.

Engineered for life

For more information, please visit www.neodyn.com

