

Fluid Condition Monitoring for Fuel Filtration

Introduction

To ensure the quality of the filtration and dewatering being performed on your diesel fuel throughout the conditioning process, both the particle contamination and the water saturation of the diesel must be checked regularly. The Schroeder line of Fluid Condition Monitoring Tools can be used to fill this important role. By using the Schroeder Condition Monitoring Tools, the quality of the fuel can be determined on-site so that appropriate measures can be taken to optimize the diesel fuel conditioning process.

TestMate® Contamination Monitor | TCM

Schroeder's TestMate® Contamination Monitor (TCM) is the newest generation of particle monitors that continuously measures solid contamination in fluid. Enclosed in a 4-inch diameter case, the TCM utilizes an optical sensor to measure particles in four sizes: $>4 \mu\text{m}$, $>6 \mu\text{m}$, $>14 \mu\text{m}$ and $>21 \mu\text{m}$, and displays in accordance to ISO 4406:1999 or SAE AS 4059 (D). The TCM provides a stationary solution to monitor fuel condition accurately, and in real-time.

- Flow Conditioning Manifold TCM-FC for in-line placement
- Flow Conditioning Manifold with Water Sensor TCM-FC-W (pictured) and TCM-FC-WD (water sensor with display) for in-line placement
- The HY-TRAX® Manually Controlled Fluid Sampling System with pump/motor group allows a user to retrieve ISO cleanliness levels from a reservoir tank or a return line (200 psi max). The TWS-C or TWS-D water sensor can be added to the system.
- This HY-TRAX® Telematic Communications Module with Remote Controlled Sampling System allows remote access via the Internet and smart devices to fluid particle counts, temperature, and percent water saturation levels (optional) displayed on a customizable dashboard. The fluid sampling system collects data and the communications module transmits this data via GSM cellular at scheduled intervals or on demand.



TCM



TCM-FC

TCM-FC-W

HY-TRAX® Manually
Controlled Fluid
Sampling SystemHY-TRAX® Telematic
Communications Module
with Remote Controlled
Sampling System

Schroeder
INDUSTRIES

Advanced Fluid Conditioning Solutions®

580 West Park Road | Leetsdale, PA 15056
ph. 724.318.1100 | fax 724.318.1200

TestMate® Water Sensor | TWS

The TestMate® Water Sensor (TWS) is an online saturation and temperature sensor, which is used in the monitoring of diesel fuel accurately and continuously. It measures the water content relative to the saturation concentration and outputs the degree of saturation in a range of 0 to 100 % as a 4 to 20 mA signal. A reading of 0 % would indicate the absence of water, while a reading of 100 % would indicate the presence of free water. This allows for real-time monitoring of the water saturation and temperature of the fuel.

- TWS-C
- TWS-D: Water Sensor with display and two programmable switch points that can be used as alarm and warning levels



TestMate® Monitoring Unit | TMU

The TestMate® Monitoring Unit (TMU) combines the advantages of the portable contamination measurement units with the measurement technology of the TCM and TWS. The TMU is designed for temporary measurement of particulate contamination and water saturation in bulk diesel applications. The integrated pump, hoses, and test point connections allow for operation on bulk tanks, filtration systems, and bottle samples.

For each test run the unit saves the ISO code, fuel water concentration and temperature in a file that can be easily downloaded with a USB stick and reviewed on PC.

Note: For further technical information on all of the above products, refer to the L-2681 Filter Systems Product Catalog



TMU