

CONTAMINATION MONITORS

TFC Series

Total Fluid Condition



Description

The Total Fluid Condition is a revolutionary portable service unit, designed to measure and differentiate particulate contamination, as well as relative water content, and temperature. This real-time insight into the health of synthetic, organic, and mineral oils, as well as diesel fuel, helps users make informed decisions with regard to fluid replacement and treatment planning.

Features

- Direct Digital Imaging Sensor** - measures particle contamination according to ISO 4406, NAS 1638, and SAE AS4059; sorts particles into fatigue, cutting, sliding wear, fiber and bubble categories to estimate cause of contamination
- Touch Screen** - allows users to navigate operational functions with ease and analyze data
- Water Sensor** - shows relative humidity of oil as % saturation
- Internal Gear Pump** - with bypass for processing pressurized and non-pressurized vessels

Applications

- Power Generation
- Wind Power
- Off Road Mining & Construction
- Industrial Hydraulics
- Steel Making
- Marine

What's Included in the Accessory Kit

- 120VAC Power Supply (charger)
- Suction strainer and tubing assembly
- Return tubing assembly

Model Selection

Total Fluid Condition (TFC)

P/N 2217363

High Pressure Adapter, Sold Separately

P/N 7641529



Technical Specifications

General Data

Measured Variables	Particle Differentiation / ISO Code / SAE Class / NAS Class / Saturation Level / Temperature
Particulate Measurement Standards	ISO 4406 ($\geq 4(c)$ / $\geq 6(c)$ / $\geq 14(c)$ / $\geq 21(c)$ / $\geq 38(c)$ / $\geq 70(c)$), NAS 1638, SAE AS4059
Particle Counter Measuring Range	Maximum ISO Code of 29
Accuracy	± 1 ISO Code (Minimum concentration ISO MTD 2.8mg/L)
Operating Temperature Range	32°F to 122°F
Fluid Compatibility	Mineral-based oils, Synthetic oils, Organic oils, Diesel Fuels
Dimensions (cover closed)	(L) 16.2" x (D) 12.7" x (H) 6.7"
Environmental Protection	IP67 (cover closed) IP65 (cover open)
Maximum Ambient Humidity	97% relative humidity, non-condensing
Weight	26.5 lbs. (12.0kg) (main device; accessory case: 19lbs. [8.6kg])
Calibration Verification Frequency	12 months recommended

Hydraulic Data

Inlet Pressure	36.3 psi (2.5 bar) Max. (5075 psi [350 bar] w/ adapter for pressurized lines)
System Pressure	145 psi (10 bar) Max.
Permissible Viscosity Range	1-2400 cSt (1-300 cSt with high pressure adapter)
Operating Temperature	32°F to 122°F
Fluid Temperature Range	14°F to 131°F (oils) 14°F to 122°F (diesel fuel)
Pump Type	Gear
Duty Cycle	Continuous
Connections	1604 minimess test points, with 0.6m long 8mm tubing

Electrical Data

Power Supply Voltage	115V AC
Nominal Battery Voltage	15.0V DC
Charge Voltage	16.8V DC
Charge Capacity	5.2Ah
Charge Time	2 hours (80%) / 5 hours (100%)
Run Time	Up to 6 hours (viscosity dependent)
Data Transmission	USB

We do not guarantee the accuracy or completeness of this information. The information is based on average working conditions. For exceptional operating conditions please contact our technical department. All details are subject to technical changes.