

TFL Series

Total Fluid Life



Description

The Total Fluid Life is a state-of-the-art portable service unit, designed to provide invaluable, real-time insight into the health of synthetic oils, organic oils, mineral oils, and diesel fuel. This insight helps fluid users make informed decisions with regard to fluid replacement and treatment planning.

Features

- **Laser Particle Counter** - measures particle contamination according to ISO 4406, NAS 1638, and SAE AS4059
- **Water Sensor** - shows relative humidity of oil as % saturation
- **Internal Gear Pump** - with bypass for processing pressurized and non-pressurized vessels
- **Oil Life Sensor** - gives warning of oil life ending and also helps inform if an oil change is required
- **Touch Screen** - allows users to navigate operational functions with ease and analyze data

Applications

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

Technical Specifications

General Data	
Measured Variables	ISO Code / SAE Class / NAS Class / TAN-Delta Number (Oil Life) / Saturation Level / Temperature
Particulate Measurement Standards	ISO 4406 (≥4(c) / ≥6(c) / ≥14(c) / ≥21(c)) , NAS 1638, SAE AS4059
Particle Counter Measuring Range	Maximum ISO Code of 29
Accuracy	±0.5 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" (main device; accessory case: (L) 22.6" x (D) 20.9" x (H) 8.0")
Environmental Protection	IP67 (cover closed) IP54 (cover open)
Maximum Ambient Humidity	97% relative humidity, non-condensing
Weight	20.8 lbs. (9.45kg) (main device; accessory case: 19lbs. [8.6kg])
Calibration Verification Frequency	12 months recommended
Hydraulic Data	
Operating 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	1-320 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	Internet, 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.

Model Selection



Total Fluid Life



Accessory Kit
Included with Total Fluid Life



High Pressure Adapter

Sold Separately
C/F
(P/N 7641529)

What's Included in the Accessory Kit

- 120VAC Power Supply (charger)
- Hotplate
- Temperature probe
- Magnetic stirrer
- 100 mm wide funnel
- (2) 100 mL sampling bottles
- Sampling/vacuum pump
- USB memory stick
- (2) stoppers (8mm hole)
- Viscosity cup
- High-pressure device
- (2) solid stoppers
- (2) 500 mL flasks
- Storage compartment for hoses and cables

TFH Series

Total Fluid Health



Description

The Total Fluid Health is a revolutionary portable service unit, designed to measure and differentiate particulate contamination, as well as determine oil life, 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
- **Oil Life Sensor** - gives warning of oil life ending and also helps inform if an oil change is required
- **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

Technical Specifications

General Data	
Measured Variables	Particle Differentiation / ISO Code / SAE Class / NAS Class / TAN-Delta Number (Oil Life) / Saturation Level / Temperature
Particulate Measurement Standards	ISO 4406 ($\geq 4(c)$ / $\geq 6(c)$ / $\geq 14(c)$ / $\geq 21(c)$ / $\geq 38(c)$ / $\geq 70(c)$ / $\geq 100(c)$), NAS 1638, SAE AS4059
Particle Counter Measuring Range	Maximum ISO Code of 29
Accuracy	± 0.5 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" (main device; accessory case: (L) 22.6" x (D) 20.9" x (H) 8.0")
Environmental Protection	IP67 (cover closed) IP54 (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	Internet, 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.

Model Selection



Total Fluid Health



Accessory Kit
Included with Total Fluid Health



High Pressure Adapter
Sold Separately

What's Included in the Accessory Kit

- 120VAC Power Supply (charger)
- Hotplate
- Temperature probe
- Magnetic stirrer
- 100 mm wide funnel
- (2) 100 mL sampling bottles
- Sampling/vacuum pump
- USB memory stick
- (2) stoppers (8mm hole)
- Viscosity cup
- High-pressure device
- (2) solid stoppers
- (2) 500 mL flasks
- Storage compartment for hoses and cables