

REAL TIME. ON-LINE. IN-LINE.



FT-1000 Series

Description

The FluidTrackr™ Fluid Condition Sensor can be used to monitor the overall health of oils, lubricants or industrial fluids by tracking fluid Viscosity, Conductivity, Relative Dielectric Constant and Temperature. The sensor makes use of state of the art Acoustic Wave Technology and cutting edge parallel plate cell design to provide an integrated multi-measurand, in-line or on-line fluid condition sensor. Sensor output signals are communicated via Modbus RTU over RS-485.

Key Features

- Multi-measurand Fluid Condition Sensor:
 - Viscosity
 - Conductivity
 - Relative Dielectric Constant
 - Temperature
- Unaffected by shock or vibration
- IP67 Ingress Protection Rating
- Rugged Industrial Grade Design and Construction

Applications

- Diesel Engines on Fixed and Mobile Assets
 - Electric Power Generators
 - Hydroelectric Turbines
 - Heavy Transport & Mining Equipment
 - Ships and Locomotives
- Windmill and other Gearboxes
- Hydraulic Systems
- Compressors

Performance Specifications

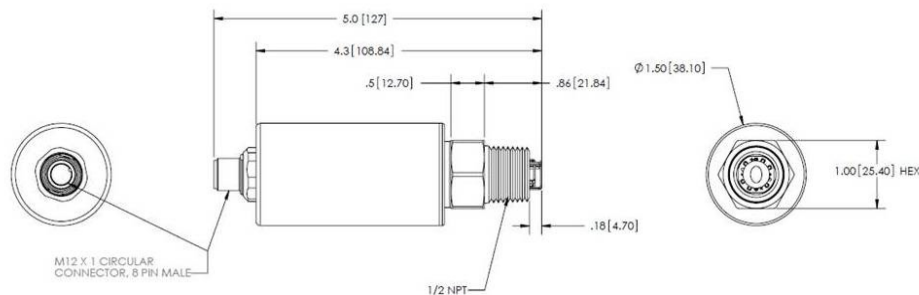
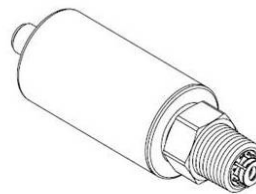
Parameter	Value
Viscosity	
Range	5 to 500 cSt
% Repeatability	±2% of reading, typical
% Reproducibility	±5% of reading, typical
Conductivity	
Range	1000 to 1,000,000pS/m
% Repeatability	±2% of reading
% Reproducibility	±5% of reading
Relative Dielectric Constant	
Range	1 – 20
% Repeatability	±2% of reading ¹
% Reproducibility	±5% of reading ¹
Temperature	
Operating Temperature Range: Fluid	-25°C to +105°C
Maximum Temperature Range: Fluid	-40°C to +125°C
Maximum Temperature Range: Electronics	-30°C to +80°C

Performance Specifications

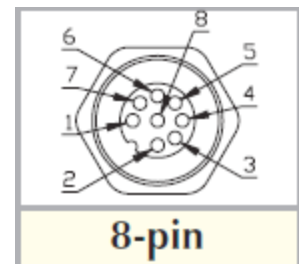
Parameter	Value
Output Step Response Time	
Viscosity & Temperature	10 seconds
Conductivity	60 seconds
Relative Dielectric Constant	60 seconds
Environmental	
Sensor Head Pressure	15 bar (217psi) operating and 20 bar (290psi) proof
Shock	100G during 11 millisecond ½ wave sinusoidal per Mil-Std-202G, Method 213B
Vibration	10Hz to 2kHz, +/- 20G peak, sinusoidal per MIL-STD-810c (Figure 514. 2-2)
Enclosure Environmental Protection Rating	IP67 ²
Certification Testing (Connection and Sensor)	CE per EN55011:2009 Emissions & EN 61326:2006 Immunity
Electrical	
Supply Voltage	9 – 24 VDC
Max Supply Current	200mA @ 12V
Output Signal (Digital Output)	Modbus RTU over RS-485
Mechanical	
Housing Options	½ in NPT bolt thread
Package Size (Bolt thread and housing)	Length: 5 inches
Housing Package Size	Diameter: 1.5 inches
Electrical connection	M12x1 (8 pin male)
Storage Temperature	-55°C to 85°C
Max Mounting Torque	30 lbf (max)

Notes:

1. Performance is fluid dependent
2. When mated with IP67/IP68 rated connector and cordset



Pin #	Description
1	A (+)
2	B (-)
3	No Connect
4	No Connect
5	No Connect
6	No Connect
7	V+
8	GND



Model Number

FT-1010

Description

Fluid Condition Sensor. Sensor output signals via Modbus RTU over RS-485.

Special Order Options: Please contact SenGenuity at sensors@sengenuity.com for special options.

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