Rochester Sensors
Engineering Innovative Solutions™

2100 Series Water in Fuel Sensor (WIF)

The Water in Fuel (WIF) sensor will detect the presence of water in diesel in the fuel filter housing assembly by measuring the capacitance levels of the liquids. It has a unique two wire design and because it is capacitive it had no moving parts. It is a completely sealed design with no exposed probes or leads for leak free operation. Compatible with biodiesels.

Features:

- Made from fuel tolerant 25% GF Acetal Copolymer (POM-C).
- Sensing location is 50mm (2") from mating surface.
- External Viton O ring for trouble free application sealing.
- Integrated connector allows re-use during filter replacement.
- No exposed components negate corrosion issues.
- All components are on the PCBA inside the housing.
- Can be mounted vertically or horizontally in the application.
- Intended for use in separated fluids, not designed for emulsified mixtures of water and diesel.

SPECIFICATION

Electrical

Supply Voltage:	3.3 to 5 VDC
Connector	Integrated Ampseal 16 2 way. Gold plated terminal.

Performance

Power Consumption:	<1mw @ 5VDC

Output

Binary output:	22 – 90 µA in diesel 100 – 200 µA in water (dielectric 29.30 – 80.30)
Switching Time:	500mS
Power on Time:	<500ms

Construction

Thread Specification:	½" -20 UNF with J1926 straight thread O ring

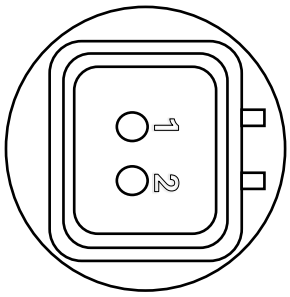
Environmental Ratings

Operating Temp:	-20°C to 115°C
Storage Temp:	-40°C to 125°C
Application Pressure:	10 PSI max
Vibration:	15.3 Grms, 3 orthogonal planes, 3 hours per plane in accordance with BS EN 60068-2-64: 1993
Ingress rating:	IP67 when connected with mating connector.
Drop:	1M to concrete surface

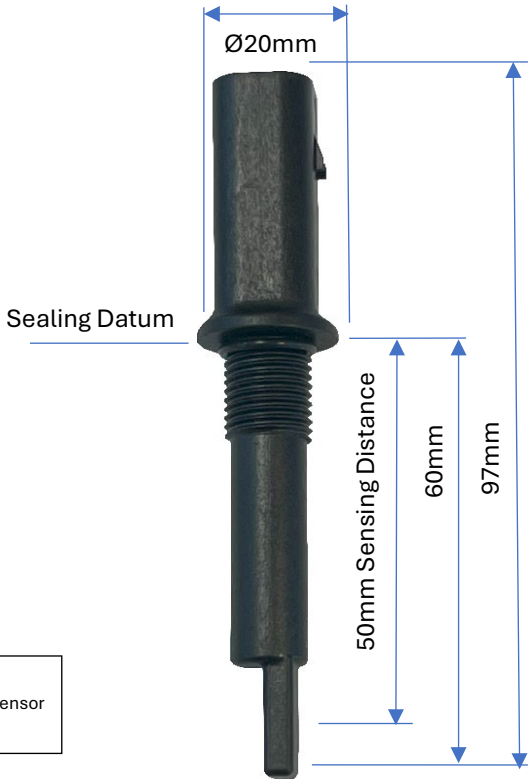
Options

Accessories:	C/K17 Ampseal-16 2-way c/w terminals & wire seals
Radiated immunity:	250 MHz – 6GHZ, 30 V/m per ISO 11452-2
Bulk current injection:	AM 0.5 MHz – 400 MHz @60 mA to ISO 11452-4

Polarity	
Pin 1	Pin 2
5VDC	GND



Pin Configuration



Schematic