

# Water-in-Fuel Sensor (WIF™)

Simple, Accurate, Affordable and Reliable Solution for Water Contaminant Detection

Parker Velcon's Water-in-Fuel (WIF™) Sensor is designed to meet Energy Institute (EI) 1598 Specifications for electronic sensors used to monitor fuel contamination including free water and/or particulate matter.

The WIF sensor was created using technologies developed by Parker Velcon for the US military. This advanced technology is at the core of the Velcon Contaminant Analyzer (VCA®) which has been deployed in commercial and military applications for over ten years.

Utilizing laser light scattering principles, the WIF is designed and calibrated to detect the presence of free water in fuel from 0 to 50 ppm.

Parker Velcon strives to utilize our proven technologies while employing simplicity of installation and operation in its design criteria.

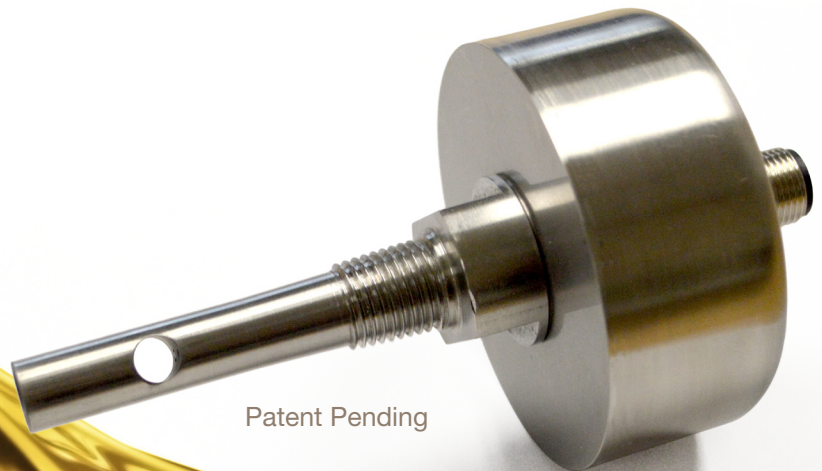
The WIF is designed to interface with common meter systems using a 0-20 mA output or can be implemented with a simple secondary control box that can be connected to a "dead man" circuit assuring safe fueling.

When used in conjunction with Parker Velcon aviation fuel filtration solutions, the WIF Sensor can provide for your overall ground fuel handling needs and helps you assure CLEAN DRY FUEL™.

In addition, use of electronic water sensors qualified against EI 1588 may be used as an alternative to Chemical Water Detectors (CWD) where CWD are mandated in the JIG Standards.

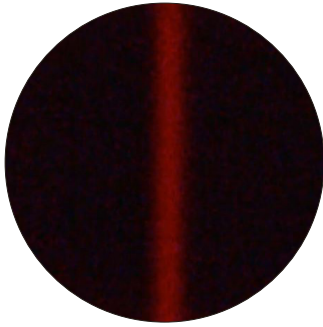
## FEATURES AND BENEFITS

- Cost Effective
- Simple installation
- Simple integration
- Simple operation
- Rugged stainless steel design to meet the toughest fueling conditions

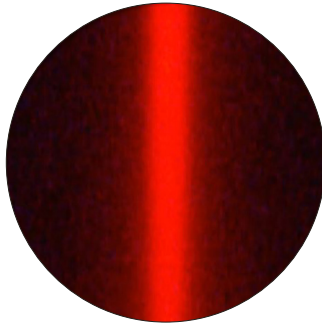


**Sensing the Future™**

## DRY FUEL






## WET FUEL



- Measures the clarity of the fuel
- Leverages and simplifies light scattering sensor technology used in the VCA over the past 10 years
- As free water diffuses/scatters the laser, the optical sensor measures the level of light scatter

## SPECIFICATION

Energy Institute	Meets EI1598 Criteria (Pending)
Technology	Utilizes light scattering
Resolution of Free Water	0 - 50 ppm
Sample Ports	Utilizes either NPT or BSP ¼"
Power Input	9 - 30 DCV
Output	0 - 20 mA
Current Draw	600 mA @ 12 VDC
Operating Temperature	-30°C to 50°C (-22°F to 122°F)
Operating Fluid Temperature	0°C to 85°C (32°F to 185°F)
Operating Pressure	2 to 7 bar (30 to 200 psi)
Viscosity Range	10 to 500 cSt
Hazard Classifications	 II 1/2G Ex ib [ia] IIB T4  II 1/2G Ex ia IIB T4  II 3G Ex ic IIB T4 (Pending)
Ingress Protection Rating	IP67, no ingress of dust; complete protection against contact, immersion up to 1m
Auto self-diagnostic (5 seconds after power up)	Laser Operation Light Sensor Operation
System Tie-in Options	Connects directly into existing PLCs Optional secondary electrical box to tie in to deadman circuit
Estimated Installation Time	Less than 1 day