

**8341-7000  
Series**

**Rough Rider™ Electronic Fuel Level Sensor**  
for Heavy Duty Applications on Marine, Farm, Truck,  
Construction/Off-Road, and Industrial Equipment

**General Specifications**

*Mounting:* Designed for top mount

*Resistance Conformity:* ±3% of full scale

*Resistance Tolerance:* At EMPTY +0, -2%; At FULL +2%, -0

*Operating Temperature Range:* -40°F to 176°F, -40C to 80C

*Power Rating:* 0.5 watts

*Pressure:* 16 psig rating

*Vibration Test:* 2g, 40Hz, 168 hours

*Endurance Test, In Tank:* 1.2g, 1.1Hz, 200 mA peak load,  
4 million cycles

**Materials Of Construction**

*Head and Support:* Tempered aluminum, gold iridite finish

*Card holder, insulators, contact carrier, pivot arm:* Injection  
molded plastic

*Terminal Stud, and Bearings:* Tin plated brass

*Nuts and Flat Washer:* Brass

*Lock Washer:* Stainless steel

*Contacts:* Silver

*Contact Spring:* Beryllium copper

*Current Straps:* Tin plated brass or copper

*Float:* Nitrile rubber

*Float Wire:* Stainless steel wire

*Float Retaining Ring:* Stainless steel

rev.05.16.07



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*The Measure of Excellence*



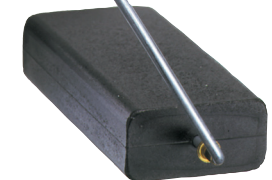
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U.S. & Foreign  
Patents Pending

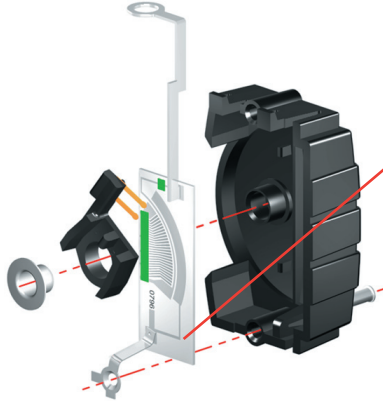
**Rough Rider™  
Electronic Fuel  
Level Sensor**

**Advanced -  
Quality  
Performance  
Reliability**



**8341-7000 Series Fuel Level Sensor  
for Heavy Duty Applications**

# Rough Rider™ 8341-7000



## Thick Film Element

- Profiled to shape of tank
- Laser trimmed for precision
- Lowest noise to signal ratio
- Extended wear characteristics

## Features

- The head and support are made suitable for salt-water environments with the use of aluminum material with gold iridite finish.
- The contact carrier is isolated from the float arm cross shaft to eliminate the effects of dither.
- Massive double-ended bearing design provides maximum support to the cross stud/float arm subassembly in high vibration and high impact applications.
- Contact force against the ceramic card is closely controlled and unaffected by movement of the float arm due to jarring of the tank or sloshing of fuel.
- Dual wiper contacts bridge the ground path and resistance pad circuit (others use coil springs, wire or a pivoting spring-loaded cross stud against the support arm).
- Repeatability of the thick film card manufacturing process provides balanced electrical resistance loads when two tanks are gauged with one or two receivers.
- The close tolerances held on this 240-33 ohm thick film card provide the proper signal for any of the popular 2" panel mounted receivers.
- Both round or flat foam floats are produced fully molded providing a molded float rod hole which is much more durable than drilled holes.
- Materials have been carefully selected to minimize the galvanic voltage potential that exists between dissimilar metals thus reducing the potential for galvanic or electrolytic corrosion.
- A number 6 hole is provided as standard in the gauge head for an optional ground connection.

# Electronic Fuel Level Sensor

for plastic, aluminum, and steel tanks

