

# "a Smart" Auxiliary Fuel Pump Relay



- \* SMART OPERATION
- \* AUTOMATIC FUEL PUMP SHUTOFF
- \* EASY INSTALLATION
- \* SEVERAL MODES OF OPERATION
- \* OPERATE WITH OR WITHOUT A FUEL SENSOR
- \* NEW DESIGN MINIMIZES WIRING
- \* RELIABLE OPTICAL FUEL SENSOR (OPTIONAL)
- \* PUMP-DOWN COMPLETED SIGNAL
- \* SLOSHING FUEL WILL NOT AFFECT OPERATION

## **DESCRIPTION**

The AFPR is a "Smart" Auxiliary Fuel Pump Relay. This device allows the pilot to flip one switch and quickly drain the contents of the auxiliary fuel tank without over stressing the auxiliary fuel pump. The AFPR will pump down the auxiliary fuel tank, and then automatically shut the fuel pump off when no fuel is detected. The AFPR includes a very reliable optical fuel sensor that can be easily installed in the auxiliary fuel tank or in the fuel line. The AFPR can be operated in and one of four modes of operation. The AFPR also has an output that can be used for a light to indicate when the fuel pump-down has been completed.

### **EASY INSTALLATION**

The APFR was designed to mount near the fuel pump/auxiliary fuel tank. This eliminates running extra wires thru the wing or fuselage. This mounting method also allows the installer to use a shorter run for the fuel level sensor wiring and not use additional wiring through the wing. The AFPR can also be installed in the fuselage if limited space is a factor.

## **MODES OF OPERATION**

The AFPR can be operated in one of four modes of operation.

Low Fuel Detect - When energized, the AFPR pumps the auxiliary tank down until it is empty, then quits.

Low Fuel Detect w Maximum Fuel Usage – Same as "Low Fuel Detect" except that the pump will continue to pump for 10 seconds, every 3 minutes. This ensures that every drop of fuel in the tank is transferred and used. When the pilot turns the switch off, all pumping will stop.

The next two modes can be operated without the fuel sensor. (model AFPR-nt)

**Pump Down for 1 Minute** - When energized, the AFPR pumps down the auxiliary tank for 1 minute and stops. **Pump Down for 3 Minutes** - When energized, the AFPR pumps down the auxiliary tank for 3 minutes and stops.

For all modes of operation, after the AFPR has finished pumping the tank down and stopped, simply turn off the AFPR. This will reset the APFR. Applying power again will repeat the process.

#### **SPECIFICATIONS:**

Input Power: 12Vdc or 24Vdc, 0.1A max.

Enclosure: 3.5" x 2.25 x 1.25" (89mm x 57 x 32mm)

Fuel Sensor Mounting Hole: 0.475" (12mm)

Pump & Pump-Down Outputs: 8A max.

Models: AFPR (includes sensor)

AFPR-ns (without sensor)

Weight: 3.0oz. (93g), 3.3oz. (103g) with sensor

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