

# AE FUEL GUARDIAN

## AE FUEL GUARDIAN LOW FUEL ANNUNCIATION SYSTEM



This system gets your attention before you have to switch tanks. When the annunciator light flashes, you will know your precise fuel quantity and also the time to engine shut-down for that tank. HOW DOES IT WORK? - The optical fuel sensor is a non-contact sensor mounted in a single hole in the fuel tank. It operates by bouncing a beam of light into the sensors lens. If it is reflected back into the sensor, there is

no liquid present. If it is not reflected back, it is dissipated into the liquid media. The sensor output is pulled down, or activated. The electronics constantly monitors the sensor outputs of both tanks. When a low fuel level is detected, the appropriate light starts to blink, getting the pilot's attention immediately. After the pilot sees the alarm, he can press the acknowledge button. This action turns the light on solid (continuous) denoting a low fuel quantity. This function of the annunciator eliminates the distracting flashing action of the lights for the pilot, yet he can still see that he has a low fuel indication. The AE Fuel Guardian also has an audio output that can be wired into the aircraft intercom or audio system if desired. The audio beep is only present when the annunciator lights are flashing. The AE Fuel Guardian annunciator lights can also be wired into the aircraft dimmer bus if desired for night flight. This system is 100% solid state and is compatible with 12VDC or 24VDC electrical systems. The installer sets the sensors to provide low fuel warning at whatever level is desired. System includes (2) annunciator panel lights, (2) optical sensors, (1) push button, Sensor drive and annunciator electronics enclosure, wiring, and lettering decals. For Experimental aircraft only. Kit With One Sensor.....P/N 10-01811  
Kit With Two Sensor.....P/N 10-00399

## AE RELAY BOARDS



AE Relay Boards - Better than the Competition. These relay contacts are protected against inductive sparking generated from relays switching inductive loads such as motors and solenoids. The relay coils are also protected. This prohibits the relays from early failure. This also protects the switch contacts that drive the relay coils from failure.

10A/20A Relays - (available in 12V to 14V or 24V to 28V operation) and available in 1 Axis, 2 Axis or 3 Axis control.

Stack up to 3 relay boards to save panel space. Terminals are easily accessible. Each board contains two, SPDT relays (Form C). Each relay has one normally closed contact and one normally open contact). Each relay board is 3" wide by 1-3/8" deep by 3/4" high. The fastening standoffs measure 3/8" high. This makes the single board overall height 1-1/8".

The relay coils are actuated by pulling them down to common or ground. If you desire to operate them pulled up to + bus voltage, special order requests can be accommodated at no additional charge.

### 10 AMP

Number of Axis	Voltage	Part Number	Price
1 Axis Relay	12V/14V	10-01814	---
2 Axis Relay	12V/14V	10-01815	---
3 Axis Relay	12V/14V	10-01816	---
1 Axis Relay	24V/28V	10-07090	---
2 Axis Relay	24V/28V	10-07091	---
3 Axis Relay	24V/28V	10-07092	---

### 20 AMP

Number of Axis	Voltage	Part Number	Price
1 Axis Relay	12V/14V	10-07093	---
2 Axis Relay	12V/14V	10-07094	---
3 Axis Relay	12V/14V	10-07095	---
1 Axis Relay	24V/28V	10-07096	---
2 Axis Relay	24V/28V	10-07097	---
3 Axis Relay	24V/28V	10-07098	---

## AE AG6 ANNUNCIATOR GAUGE METER



One Button, Multi-function, Aircraft Annunciator - Fuel Gauge, Several styles available (with low fuel warning and caution zones) Volt Meter & Current Meter (with low & high warnings and caution zones) A full service Aircraft Annunciator, Fuel Gauge, Oil Level Gauge, Volt Meter & Current Meter. Will display many different aircraft warnings. All devices feature user programmable alarms. Utilizes a push-button LCD display that is backlight with a 3 color LED. All functions are fully programmable by the user. The push-button/display can be used for programming, acknowledging the alarms, and paging thru up to 16 different screens or "annunciator points". Can automatically scan thru each screen or it can be done manually using the push-button. The pilot has the ability to mask or unmask annoyance alarms.

**A full Aircraft Annunciator, Fuel Gauge, Oil Level Gauge, Volt & Amp Meter**

Model AG6 will monitor up to 6 inputs.  
12V .....P/N 10-04180  
24V .....P/N 10-07415  
Weighs only 2.0 oz. (55 grams)

## AUXILIARY FUEL PUMP RELAY



The AFPR is a "Smart" Auxiliary Fuel Pump Relay. This device allows the pilot to flip oneswitch 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. 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)

With Sensor .....P/N 10-04343  
Without Sensor .....P/N 10-07416

## OIL QUANTITY SENSOR WITH OIL TEMPERATURE SENSING



This oil quantity sensor with its (required) electronics package (OSE-1) will give the pilot a real time oil quantity while in flight or on the ground. This system is not meant to replace any other traditional methods of checking oil quantity. It is a new device that the pilot of a small aircraft can use in flight that he or she never had before. It will

also measure oil temperature. The electronics enclosure features two analog outputs, one for oil quantity and the other for oil temperature. It also features a four digital output alarms (open collector type) for sensor malfunction, oil level warning, oil level caution, and over oil temperature. You may program the alarm trigger values for those outputs and choose a scaling for both analog outputs. The electronics package is required as all sensors are passive devices.

Description	Part No.	Price
AE - Oil Sensor Electronics - Ose-1 - 15 Pin DSUB Connector Supplied	10-07674	---
AE - DSUB Connector - 15 Pin (Wired) with 12 Inch Wires	10-07675	---
AE - Oil Sensor Sxx.x-5/8-18-48.0 Continental Sensor with 48 Inch Cables	10-07676	---
AE - Oil Sensor Sxx.x-1/2NPT-48.0 Lycoming Sensor with 48 Inch Cables	10-07677	---
AE - Oil Sensor Extension Cable Cabsma15.0 - 15 Inch with SMA (Male / Female) Connectors	10-07678	---
AE - Oil Sensor Extension Cable Cabsma30.0 - 30 Inch with SMA (Male / Female) Connectors	10-07679	---

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