# E 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 ..... .\$209.00 



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 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	\$39.00	
2 Axis Relay	12V/14V	10-01815	\$66.00	
3 Axis Relay	12V/14V	10-01816	\$89.00	
1 Axis Relay	24V/28V	10-07090	\$39.50	
2 Axis Relay	24V/28V	10-07091	\$66.00	
3 Axis Relay	24V/28V	10-07092	\$89.00	
00 4140				

20 AMP				
Voltage	Part Number	Price		
12V/14V	10-07093	\$59.00		
12V/14V	10-07094	\$115.00		
12V/14V	10-07095	\$165.00		
24V/28V	10-07096	\$59.00		
24V/28V	10-07097	\$115.00		
24V/28V	10-07098	\$165.00		
	Voltage 12V/14V 12V/14V 12V/14V 24V/28V 24V/28V	Voltage    Part Number      12V/14V    10-07093      12V/14V    10-07094      12V/14V    10-07095      24V/28V    10-07096      24V/28V    10-07097		

### AE AG6 ANNUNCIATOR GAUGE METER





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

Model AG6 will monitor up to 6 inputs. Weighs only 2.0 oz. (55 grams)

Features: • Full service annunciator (more than 70 alarm to choose from) Volt & current meter with alarms • 10 types of fuel gauges with alarms • Low oil level gauge • Up to 6 inputs (5 if sound output is selected) • Setup is fully user programmable • One button programming • Alarm time delays up to 409 seconds • Input signal filtering • Manual or auto scan for screens • Special shunt input • Audio output during alarm **Specifications:** • Power in: 10 to 15Vdc • Current draw: 0.6mA max.

(AG6 without LED back light) 65.6mA max. (AG6 with LED back light) • Inputs: 6 inputs (0 to 16.383 volts) (5 inputs available if sound output is utilized) • Input impedance: 36.6K Ohms (terminals 1 to 6) • Input terminals: Accepts 16 to 26AWG • Shunt input: 1 input, 0.05V to 0.25V full could be the utilized input #5 enore the word ve Directory to Could be back scale (If utilized, input #5 cannot be used.) • Display: LCD with LED back light (Green, Yellow, Red) . Interconnecting cable: 10 conductor ribbon, 18" [457mm] long • Panel cutout for display: 1.142in. x 0.933in. [.9mm x 23.7mm] · Panel thickness for display: 0.059in. to 0.157in. [1.5mm to 3.98mm] • Motherboard: 2.25" x 2.5" [57.2mm x 63.5mm] , Hole Pattern #6-32 screws, 2.0" x 2.25"[50.8mm x 57.15mm] • Alarms: All screens are programmable with alarms. Ability for pilot to mask annoyance alarms. Adjustments: Volume & display contrast 

 Programmable items: Input source, input filtering, input inverted, auto scan screen dwell times, alarm thresholds, time in alarm zone before alarming (409 seconds max.), alarm self reset, scan or auto scan, number of alarm zones, screen

colors, sound output, calibration gain & zero for gauges • Programmable screens: Many - many annunciator type screens, fuel gauges (several types), low oil level gauge, volt meter, current meter · AG6 Display & Push Button

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. NOTE: Input devices not included. It is up to the user to provide input devices

such as fuel senders, shunts, oil level sensors and input switches to drive the

12V ......\$189.00 P/N 10-04180 ...... 24V ......\$199.00

#### **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 of operation. The AFPH 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 <b>\$159.95</b>
Without Sensor	P/N 10-07416

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