Bayor Technology Fuel Counter Model FC-60

The FC-60 fuel counter is designed to work with the Electronics International FT-60 Fuel Flow Transducer. Electronic International Product Page. This fuel flow transducer is meant for piston driven aircraft applications but has been tested and verified to be reliable in automotive applications. The Bayor Tech Fuel Counter is capable of reading the full fuel flow range (0.6-70 gallons per hour) of the FT-60 transducer. Install the FT-60 transducer in accordance with the manufacturers recommendations. (ie. downstream of the last fuel pump in a returnless system and in a location that minimizes the possibility of trapped air in the FT-60).

Electrical interface (wiring diagrams on last page):
All three FT-60 wires (red, white, black) can be connected directly to the Fuel Counter interface. The Fuel Counter connects to your car's electrical system and supplies filtered power to the FT-60.

Pin	Function	Wire Color	Notes
1	Power	Red	Connect to 6-24v switched power source (See note)
2	NC		This pin is not used
3	Ground	Black	Connect to Chassis GND
4	Ground	Black	Connect to FT-60 GND (Black wire from FT-60)
5	Ground	Black	Connect to FT-60 GND (Black wire from FT-60)
6	External Button	Purple	Connect to switch to ground (optional)
7	FT-60 Channel A (Supply)	White	Connect to FT-60 signal (White wire from FT-60)
8	FT-60 Channel B (Return)	Orange	Connect to FT-60 signal (White wire from FT-60)
9	Sensor Power	Grey	Connect to FT-60 Power (Red wire from FT-60)
10	Sensor Power	Grey	Connect to FT-60 Power (Red wire from FT-60)
11	NC		This pin is not used
12	NC		This pin is not used

Note: Power should be connected to a fused (10A) source that will be shut off during fueling (so that the fuel count will reset in auto-reset mode). This could be your vehicle's switched power rail or +VBATT if you throw your killswitch when fueling.

Connect one "Ground" wire to -Vbatt or vehicle chassis ground and the other ground wire(s) to the FT-60 sensor ground. All ground wires are connected inside the fuel counter.

The FT-60 sensor mounting location and routing of your fuel lines is CRITICAL to the proper function of your fuel counter. If bubbles pass through the sensor it cannot accurately sense fuel flow. This is especially critical for dual channel installations. If one channel sees bubbles in the flow and the other does not, your fuel counter may accumulate even when your engine is not

running, or it may accumulate an inaccurate amount of fuel. Adding a slight flow restriction to your return fuel line can help maintain positive pressure in the line to minimize bubbles.

Software interface and usage:
The Fuel Counter was designed for endurance racing applications. It is meant to be a passive instrument. When the Fuel Counter receives power, it will start counting pulses from the fuel flow transducer and display the amount of fuel that has flowed through the transducer since the last reset.

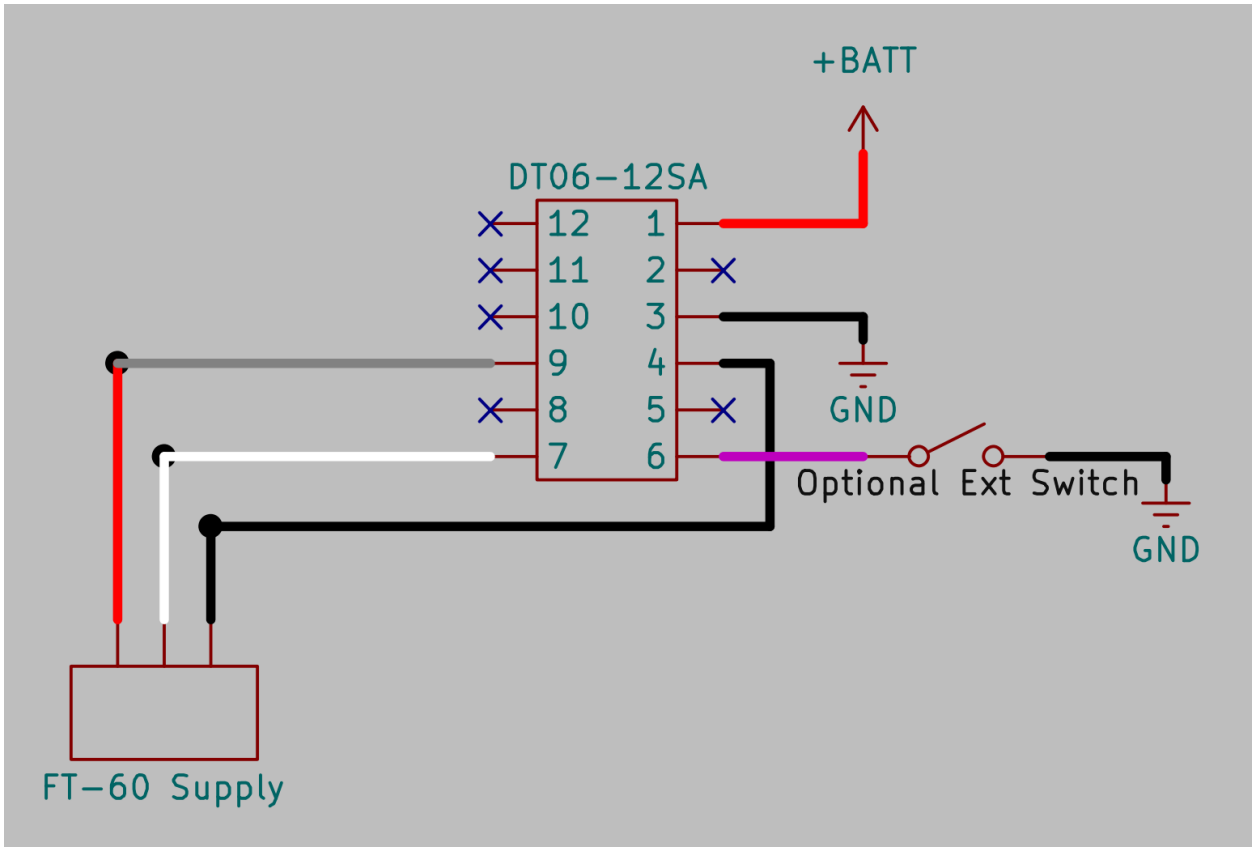
Auto-Reset Mode: The count resets to zero every time power is removed in auto-reset mode. I strongly recommend this mode for road racing applications. Pressing and holding the Recall button will display the fuel count that was stored before the last power cycle. This can be useful if there is a red flag during a fuel run, or the car is powered off for any reason. There is no way to save the recalled value or add it to the current fuel count. The idea is that if you have to power off the car in the middle of a fuel run, the driver will communicate the recall value to the crew chief and they will note the recall value and add that. This keeps the driver's job as simple as possible. If the fuel counter is mounted in a location that is inconvenient for the driver to reach, the purple wire from the fuel counter can be connected to ground through a momentary switch to display the recall value.

Manual Reset Mode: In this mode the count is only reset when the button is held for >2.5 seconds. Button presses <2.5 seconds are ignored. If the fuel counter is mounted in a location that is inconvenient for the driver to reach, the purple wire from the fuel counter can be connected to ground through a momentary switch to reset the fuel count.

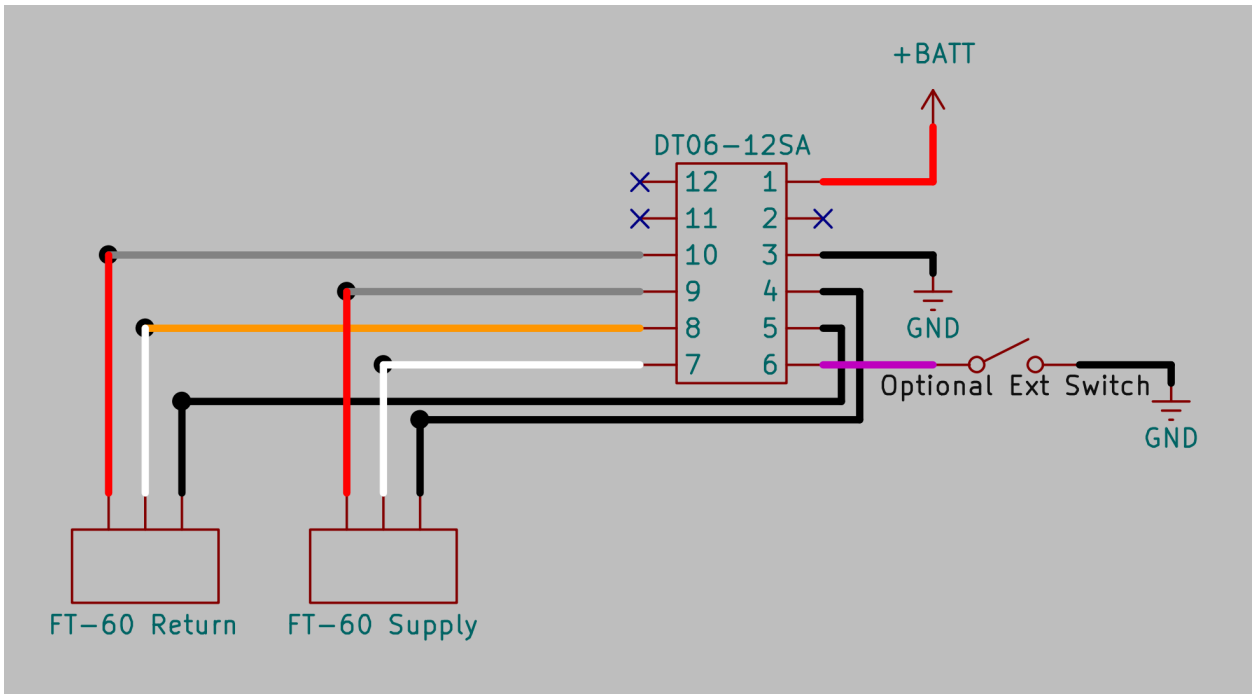
Switching Between Modes:
Hold the button for 15 seconds to enter the mode change menu. Tap the button to toggle modes. After 5 seconds of inactivity, the currently displayed mode will be activated.

Summary:
Manual Mode: Fuel count is stored until manually reset
Hold button for 2.5 seconds to reset
Auto Reset Mode: Fuel count resets upon power loss
Hold button to display recall value
Mode selection: Hold button until mode screen is displayed (15s), tap button to toggle mode.

Returnless system (single FT-60 transducer):



Dual sensor system:



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