



Fish Guardian Pro FGP5000 Datasheet

The Fish Guardian Pro FGP5000 is an underwater snail barrier and a device that can be used to anesthetize fish in the lab or the field. In the barrier mode it will prevent evasive New Zealand mud snails from working their way into fish hatcheries and other locations where fish would digest these snails. When the battery voltage is greater than 20 volts (typically two 12-volt sealed lead acid batteries in series) the controller switches to fish / anesthesia mode. A tub of water with electrodes on two sides of the tub can be used to anesthetize fish. After 10 to 15 seconds the fish will be immobilized and can be placed in an adjacent tub of water where the fish can be processed before regaining consciousness in about a 3 to 5 minutes. The controller is powered from a battery not an AC power supply. The controller has several features:



- Probe Measurement Data (Voltage, Current, Resistance)
- Battery Voltage Measurement
- Automatic Switch to Fish / Anesthesia Mode when Battery Voltage > 20 Volts
- Automatic Probe Polarity Switching after 24 hours (Barrier Mode) and 71 minutes (Fish / Anesthesia Mode)
- Pulse Countdown to Polarity Switch
- Barrier Effectiveness Parameter. Shows Maximum Supported Probe Length (Barrier Mode Only)
- Display Probe Polarity Indication
- Warning / Error Messages (Low Probe Current, Low Battery Voltage, Over Current)
- Probe Short Protection
- Plug and Play Operation, no Configuration Needed
- Case comes with Two Mounting Holes (4.755" apart)
- Includes 6" Power and Probe Pigtails

Specifications

Parameter	Minimum	Typical	Maximum	Units
Input (Battery) Voltage Range	7	12	30	Volts
Probe Current Range*	40		5000	mA
Probe Voltage Range	7		30	Volts
Probe Resistance Range*	3		500	Ohms
Pulse On Time		25		ms
Pulse Off Time	3000 (Barrier Mode), 125 (Fish Mode)			ms
Polarity Switch Count		28565		
Polarity Switch Time	24 hours (Barrier Mode), 71 min (Fish Mode)			
Battery Voltage Measurement Accuracy	-5.0		+5.0	%
Probe Voltage Measurement Accuracy	-5.0		+5.0	%
Probe Current Measurement Accuracy	-8.0		+8.0	%
Probe Resistance Measurement Accuracy	-8.0		+8.0	%
Low Voltage Warning		< 10.8		Volts
Low Current Warning		< 18		mA
Overcurrent Warning	> 5100 (Barrier Mode), > 3100 (Fish Mode)			mA

Probe and Battery Connectors	Anderson Powerpole
Fuse Size	7.5 A
Size	5.245" x 3.076" x 1.375"
Weight	7 oz
Current Draw	35 mA Nominal plus probe current at 0.83% duty cycle

*Small current and large resistance measurements outside the specified ranges are less accurate