

Push-button Power Switch Breakout

PRODUCT ID: 1400



Description

The Adafruit Push-button Power Switch is a tidy little design that lets you control a DC power source using an everyday tactile button. The breakout uses a latching analog circuit that is triggered by a push of the button. Press once to turn on, then press again to turn off. The circuit uses a 3A P-FET to connect and disconnect the **IN** pin to the **OUT** pin. Works great from 3V to 14VDC and up to 3A (although the FET gets a little toasty at continuous 3A draw) yet has only 0.5uA quiescent current draw.

Using it is easy: connect the power source to Ground and IN, then the load from Ground to OUT. We include a 12mm tactile switch that works well but you can solder in your own switch as well. Press the button (or short the button pins) to alternate between on or off. A on-board red LED will light up when active so you know its working. There's a fourth **KILL** pin, which you can use to turn off the load and/or keep it off even if the button is pressed. When 1 or more volts is applied it will instantly turn off the FET. This allows your project to turn itself off.

Comes with a assembled & tested bread-board friendly breakout board with four mounting holes, a 12mm tactile button, and some 0.1" male header you can solder to the board to plug it into a breadboard.

The power switch is an elegant way to control power to your project, but there are some things to keep in mind: since there is a pass FET, this is only for 3-14V DC voltages. This is not a mechanical switch so there is no air-gap isolation. There is a 'body diode' in the pass FET so if the load has a voltage on it that is higher than the input voltage, current will flow back to the input. There is built-in debouncing but very bouncy switches can be annoying as they will turn on and off fast instead of latching.

Technical Details

Dimensions: 20.51mm / 0.8" x 17.75mm / 0.69" x 2.66mm / 0.1"

Height with Switch: 8.69mm / 0.34"

Weight: 2.6g

