Relay Phidget

If you need to switch power to a device without the hassle of a big expensive relay, this Relay Phidget is here as a quick an easy option. Rated for 210W of DC power or 1750 VA of AC power, this mechanical relay is suitable for a wide range of applications. Relays by nature are isolated, so you don’t have to worry about a voltage spike on the load side of the relay damaging the control side. If mechanical relays are too slow or noisy for your purposes, have a look at the “Other Relays” tab and chose a solid-state relay (SSR) board.

AC or DC Switching

For DC applications, you can switch a circuit of up to 30V at 7A. For AC applications, you can switch up to 12A or 277V AC, as long as the total power doesn’t exceed 1750 VA.

Product Specifications

Board Properties	
Controlled By	Digital Output
Relay Properties	
Switch Type	SPDT
Load Current Min	100 mA
Turn-off Time Max	5 ms
Turn-on Time Max	8 ms
Contact Resistance Max	50 m?©
Dielectric Strength	1.5 kV AC
Electromagnet Coil Resistance	70 ?©
Electrical Properties	
Load Voltage Max (DC)	* 30 V DC
Load Current Max (DC)	7 A
Load Voltage Max (AC)	277 V AC

Load Current Max (AC)	12 A
Switching Power Max (Real)	210 W
Switching Power Max (Apparent)	1.8 kVA
Current Consumption Min	0 A
Current Consumption Max	70 mA
Physical Properties	
Recommended Wire Size	12 – 24 AWG
Operating Temperature Min	-40 ?°C
Operating Temperature Max	70 ?°C

*Note: Switching this relay at voltages higher than 30V will result in a reduced product lifespan.

Please Note: This relay cannot be switched at its maximum AC voltage and current at the same time. Ensure that total power of the load does not exceed the switching power for the relay. For example, you can switch this relay at 277V AC and 6.3A (1750VA), or at 145V AC and 12A (1750VA), but not at 277V and 12A (3324VA).

Estimated Relay Lifespan

The lifespan of the relays on this Phidget vary depending on how much current you’re switching and whether it’s AC or DC. The following graph illustrates the relationship between load current and relay lifespan:

The vertical axis is the lifespan of the relay (number of actuations) and the horizontal axis is load current in amps. As you can see, increasing load current from 5A to 10A can reduce relay life by more than half.