[4x Relay Phidget](#)

Controlling the power circuits of as many as four separate devices is a snap with this relay module. Each mechanical relay can control a seperate circuit of up to 210W of DC power or 1750 VA of AC power. This module requires an external power supply, which is isolated from the VINT port in order to improve stability by preventing ground loops. The relays by nature also isolate the load circuit from the control circuit, meaning you don't have to worry about voltage spikes in the load damaging your VINT Hub or computer. The REL1000 connects to a port on a **VINT Hub**. See the "Comaptible Products" tab for a list of hubs.

Product Specifications

Board Properties

Controlled By	VINT

Relay Properties

Number of Relays	4
Switch Type	SPDT
Load Current Min	100 mA
Turn-off Time Max	5 ms
Turn-on Time Max	8 ms
Contact Resistance Max	50 mΩ
Dielectric Strength	1.5 kV AC
Electromagnet Coil Resistance	70 Ω
Switching Power Max (Real)	210 W
Switching Power Max (Apparent)	1.8 kVA

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
Current Consumption Min (VINT Port)	500 μA
Power Consumption	40 mW
Supply Voltage Min	8 V DC
Supply Voltage Max	30 V DC

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.

Software Objects

Channel Name	API	Channel
Power Relay	DigitalOutput	0 – 3