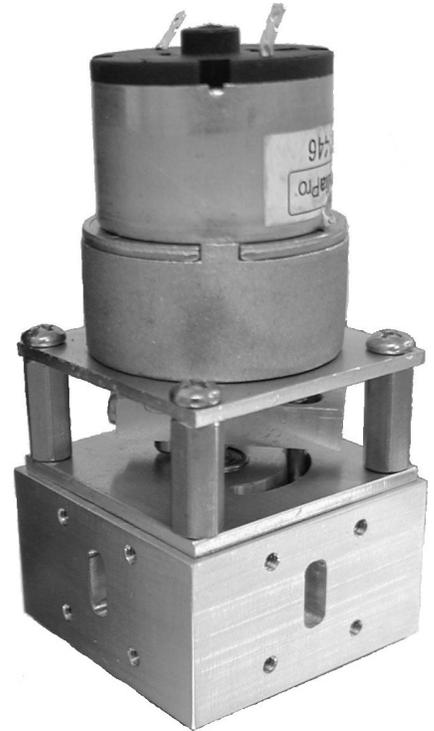


► General Data

The Event Horizons Waveguide switch is designed for use by Amateur Radio Operators who are using WR-42 (0.42" x 1.70") waveguide.

Performance has been optimized for operation in the upper half of the waveguide band (22-26GHz) and is centered at the common operating frequency of 24.2GHz.

This reliable and proven design is precision CNC machined out of aircraft-grade aluminum and stainless-steel. The light-weight rotor rides on ball-bearings for fast, smooth operation and long life.

**► Technical Data**

Base:	1.75" x 1.75" (44.45mm x 44.45mm)
Length:	3.6" (92mm)*
Weight:	10.5 Ounces (300g)
Operating Voltage:	12V DC
Operating Current:	120mA
RF Connection:	WR-42 (RG53/U) (IEC R220)
Operating Frequency:	24.192GHz
Insertion Loss:	< 0.2dB
Isolation:	> 60dB
VSWR:	< 1.2: 1
Switching Time:	< 200mS

* - does not include motor electrical tabs

► Operation and Application Notes

CAUTION: DO NOT OPERATE SWITCH DIRECTLY FROM DC POWER SUPPLY!

This switch is designed to be operated by a constant-current 120 mA DC source. The current through the motor must be sustained to hold the switch in the desired position. The recommended circuit is to place a 100-ohm 2-watt resistor in series with a 12-volt supply as shown in Figure 2.

When the switch is against the stop, the voltage across the motor is about 1 volt. If the motor is allowed to draw more current, it will develop sufficient torque to strip its internal gears. (Replacement motors are available from Jameco: P/N 253446).

The switch is mounted using four 6-32 screws, inserted into tapped holes on the bottom of the switch. The bolt pattern is 1.40" square. Do not over-tighten the screws..

The switch RF ports mate with UG-597/U or equivalent flanges. Use short 4-40 screws to attach the waveguide flanges. Caution: If excessively long screws are used to attach the waveguide, the inner bore of the switch body may be distorted, causing the rotor to bind and destroying the switch. It is recommended that the waveguide screws do not extend more than 1/8" beyond the flange face.

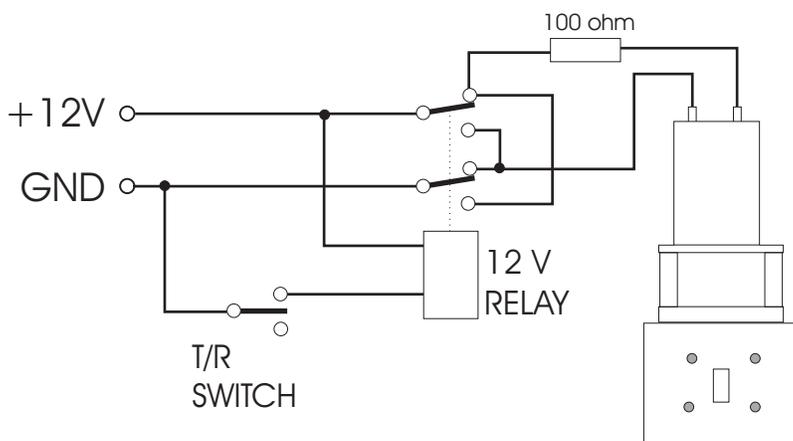
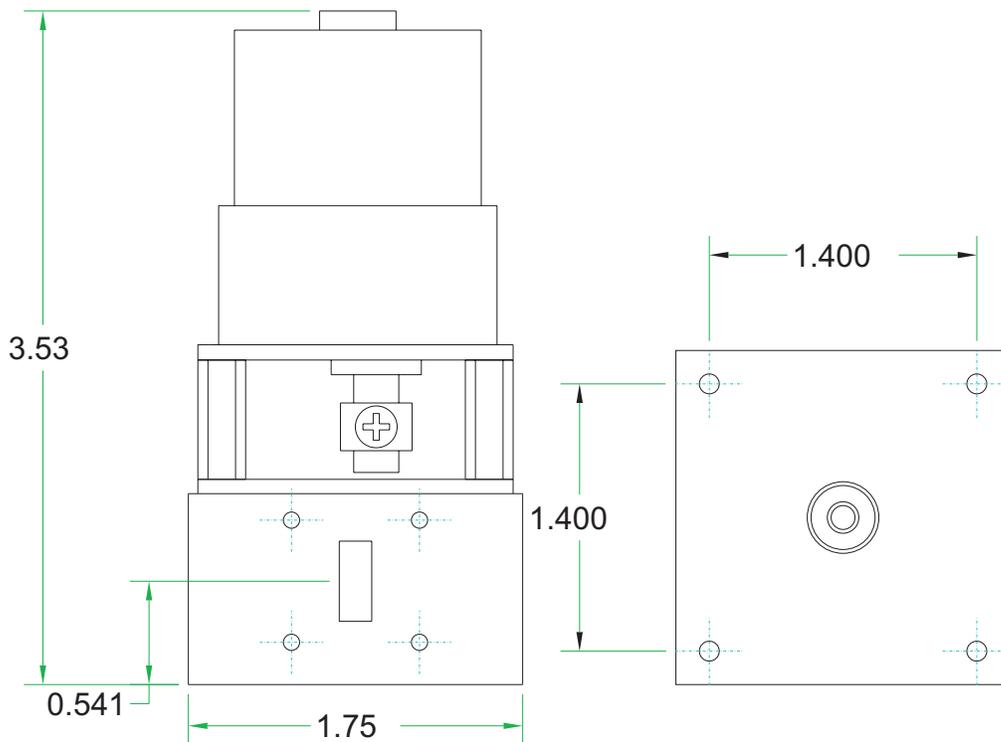


Figure 2: Suggested Circuit

► Drawings



► Ordering and Contact Information

Part Number: EH95305B

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