This ULU

The *ULU.29 – 230V switch* can be used to control household appliances that work on 230V and dissipate less than 1000W. This switch is designed for EU Wall outlets. If your country uses other outlets, you must find suitable parts yourself.

Used parts

The following standard parts are used:
1x 2mm signal connector;
1x black O-ring 9 x 5 x 2mm;
1x power connector;
1x 3mm round LED ;
1x resistor to dim the LED;
1x LED holder;
1x mini (SRD-5VDC-SL-C) relay;
1x fly back diode (1N4148);

The following additional parts are used:
1x casing 100 x 71 x 25mm;
1x Gira system 55 wall outlet 0480005;
1x IEC320 AC14 Socket;
1x 230V power cord;
1x 230V LED;
2x M3 bolt 10mm flat countersink bolts.

Construction

The standard ULU specifications are applicable as specified in the datasheet *ULU.00 – Common specifications*.

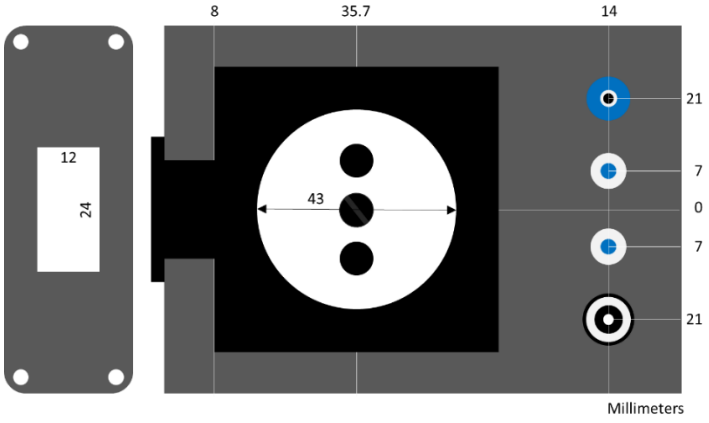

Figure 1 – Drill guide

Figure 2 – Gira system 55

Figure 3 – IEC320 AC14 Socket

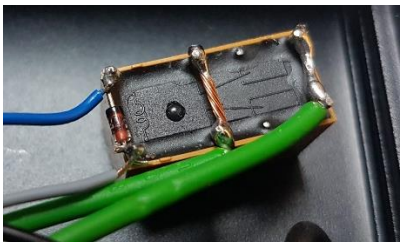

Figure 4 – 230V connections on the relay

A 5V relay is used to switch the 230V on- and off. A 5V LED is connected tot the relay poles and the 230V LED to the 230V socket. Shrink hose is used to insulate the 230V connections on both the relay and the connections as shown in Figure 4 and Figure 5.

The Gira 230V wall outlet must be slightly modified. First the metal frame is cut of and secondly, the outlet is sanded on top and bottom to make it fit in the Aluminum casing. Two countersink holes are drilled into the bottom of the casing and the wall outlet is bolted to the casing.

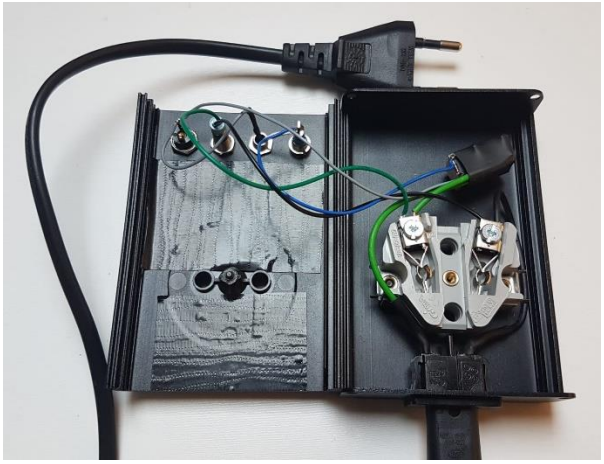

Figure 5 – ULU inside

Figure 6 – Finished ULU

Duct tape is used to attach the top plate of the wall outlet to the casing.

Usage

This ULU can be used to drive household appliances when the dissipated power is less than 1000w. Switch the music or a lamp on or off. The working is straight forward.

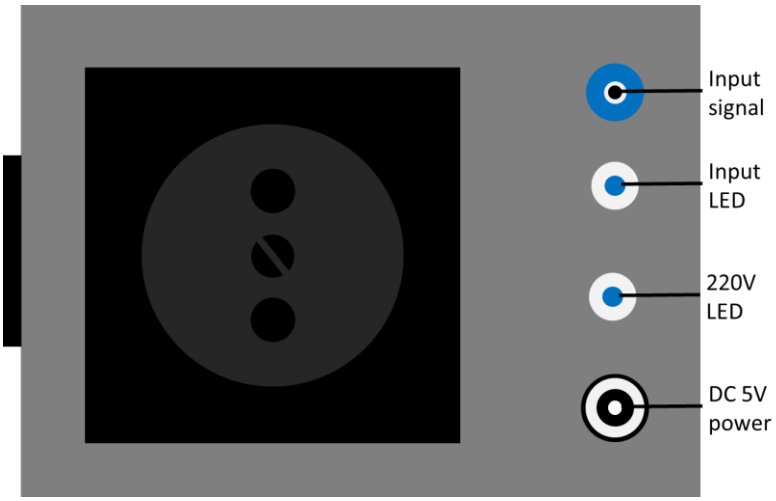

Figure 7 – Controls and connectors