

## Shelly box for T&E 3x slots and wago 221 connectors (1Plus, 1L, 2PM, 2.5, Dimmer2)

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### Summary

Enclosure designed to hold a Shelly for wiring light fittings using the UK 3 wire system with wago 221 connectors.



3.65 hrs



1 pcs



0.20 mm



0.40 mm



PET



62 g



Prusa MK4

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[shellydimmer2](#) [wago221](#) [shelly1l](#) [shelly2pm](#) [shelly1plus](#)

Part of my series of enclosures designed for Shelly smart devices and Wago 221 connectors.

- Shelly box for T&E 3x slots and wago 221 connectors (this one)
- [Shelly box for inline flex wire and wago 221 connectors](#)
- [Shelly box for 2x flex wires and wago 221 connectors](#)
- [Shelly box for 3x flex wires and wago 221 connectors](#)

- Shelly quad box for 2x devices/5x relays/5x flex wires and wago 221 connectors

## **Shelly box for T&E 3x slots and wago 221 connectors**

This box was designed for wiring light fittings using the UK wiring model (feed/switch/load) on twin&earth wire with wago 221 connectors, but it can be used for other purposes. The box supports Shelly Plus1, 1L, 2.5, 2PM, Dimmer devices.

### **Electrical safety**

- Mains electricity carries danger of death. Please don't attempt to use one of these with real circuits unless you are competent and aware of health and safety procedures.
- Use PETG or other fire resistant materials other than PLA.

### **Purpose and features**

The enclosure is designed to connect 3 twin&earth wires to 1 shelly device using 3 wago 221 connectors. The wires will serve the functions of providing feed power, external switching and a connection to the load.

Shelly device support: Shelly Plus1, Shelly 1L, Shelly 2.5, Shelly 2PM, Shelly Dimmer2

Wire strain relief: Each flex wire entry port has slots for fitting a cable tie as strain relief for the wires.

Attachment holes: The box has counter-sunk holes to attach it to a surface.

Cooling slots: There are cooling slots all around and above/below the shelly device.

Lid fitting: The lid attaches to the box using 4x M3 screws (5-10mm max) which thread into M3 heat inserts to be installed on the box.

### **Printing notes**

- The lid requires supports on the bolt hole counter-bores, otherwise it will not print cleanly (in my case it didn't)

### **Version control**

Version 2.1 - 11/03/2024

- Updated (reduced) cable tie shelf width

- Re-shaped lid to fit (issue in v2.0)

Version 2 was a significant redesign to include the following features:

- M3 heat thread inserts instead of square nut slots or holes for tapping
- Attachment bolt holes on the inside of the box rather than outside brackets
- Cable tie pads inside the box as opposed to accessible from the outside (enables refitting ties without dismounting the box)
- Shelly slot adjusted for compatibility with multiple models

## Model files



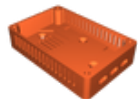
**v2.1-current**

4 files



**shellyplus\_enc\_light\_rt\_v2\_1-partlid.3mf**

lid v2.1 3mf file



**shellyplus\_enc\_light\_rt\_v2\_1-partbox.3mf**

box v2.1 3mf file

**shellyplus\_enc\_light\_rt\_v2\_1-partlid.step**

lid v2.1 step file

**shellyplus\_enc\_light\_rt\_v2\_1-partbox.step**

box v2.1 step file



**v2.0-archive**

2 files



**shelly\_enc\_light\_lid\_v2.3mf**



**shelly\_enc\_light\_box\_v2.3mf**



**v1-archive**


8 files



**shellyplus\_enc\_light\_rt-partlid\_petg\_01\_v1.3mf**

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**shellyplus\_enc\_light\_rt-partbox\_v1.step**

 enclosure box

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**shellyplus\_enc\_light\_rt-partlid\_v1.step**

 enclosure lid


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**bracket\_standoffs-partpad\_v1.step**

 bracket standoffs


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**bracket\_standoffs\_v1.fcstd**

 FreeCAD asm3 (realthunder) source for bracket standoffs

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**shellyplus\_enc\_light\_rt\_v1.fcstd**

 FreeCAD asm3 (realthunder) source for box and lid



**shellyplus\_enc\_light\_rt-partbox\_petg\_01\_v1.3mf**



**bracket\_standoffs-partpad\_1\_v1.3mf**

# Print files



**shellyplus\_enc\_light\_rt\_v2\_1-slice\_04n\_02mm\_petg\_mk... .bgcode**

PET 0.40 mm 0.20 mm 3.65 hrs 62 g Prusa MK4

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