OSB™ IoT Relay Outlet

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OpenSourceBio

Easily connect microcontrollers without wiring...

Boekel Scientific introduces an easy way to connect devices that produce a digital signal to high voltage components. Connect Arduino's™, Raspberry Pi's™ or anything that has a low voltage output to a safety switched outlet. Controlling experiments has never been so easy and safe. Four outlets are provided; two in the normally off configuration and two in the normally on configuration. The outlets can be used to power pumps, lights, alarms, or whatever your experiment requires.

Controlling pH with the Open Source Bio™ Transmitter

- Two normally on and two normally off 120 volt AC output outlets

- Easily control components with low voltage microcontrollers

- Control wires attach with a removable terminal connector

- No high voltage wiring required

- Built in circuit breaker

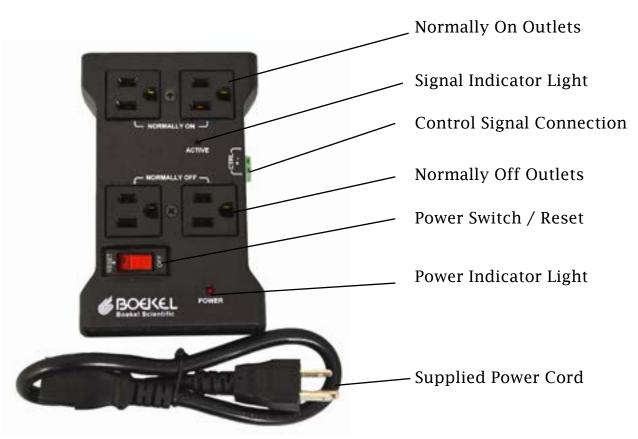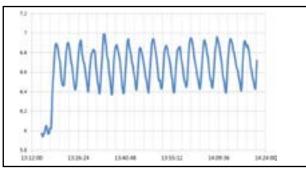| Specifications	
Part Number	555005
Input Power	120 Volt AC / Max 12 Amps
Output Power	120 Volt AC / Max 12 Amps Total (4 outlets)
Outlet Detail	2 Normally Open & 2 Normally Closed
Signal Input Power	0 Volts -> Off / 3 to 48VDC -> On
Signal Input Plug	2 Pin Terminal Block Connector (included)
Size (L x W x H)	6.0" x 4.0 " x 1.5"
Weight	0.70 lbs

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Operating Detail

The OSB™ IoT Relay Outlet Connects to a low voltage signal input via the terminal block connector. The device is clearly marked where positive and negative voltage is connected for controlling the outlets. Connect the appropriate signal wire using the screw down wire holders. When the device receives a 3 - 48VDC signal it turns the Normally Closed Outlets "ON" and the Normally Open Outlets "OFF".

Normally On Outlets

Signal Indicator Light

Control Signal Connection

Normally Off Outlets

Power Switch / Reset

Power Indicator Light

Supplied Power Cord

Example

The OSB™ Transmitter was connected to the IoT Relay Outlet control input. A small air pump was then placed in a container of water. The air pump was powered by a normally closed outlet.   An example of the dissolved oxygen profile and Arduino™ Compatible Code is displayed below.

```
if (reading <= 6.5)
    {
    digitalWrite(pump, HIGH); // Turn On Pump
    delay(1500); //Keep pump on for 1.5 seconds
    digitalWrite(pump, LOW); //Turn pump off
    delay(500); //Pause for 0.5 seconds
    }
```