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Two-channel Control IoT Power Relay Module
for Arduino Raspberry Pi PLC MCU etc.
Model: F-1085



FEATURES:

- **Two-channel I/O control IoT Power Relay Module.** Each channel has both a Normally ON (N/C) and a Normally OFF (N/O) NEMA-15R receptacle. The power input cable has a NEMA-15P plug. The AC120V power output for each receptacle can be directly controlled by controllers. Simplifying wiring and making maintenance easier.
- **Control terminal:** Two 2-position pluggable terminal blocks. It supports a wide range of AC and DC control signals, from AC 8V-150V and DC 3V-120V. Compatible with GPIOs from Arduino, Raspberry Pi, ESP32, MCU, PLC, etc. Therefore, it can support almost all automatic controllers and HVAC controllers.
- **Both input control terminals utilize optocoupler control internally, ensuring that Channel-1 and Channel-2 are electrically isolated from each other, as well as from the mains power supply. Based on this electrical isolation design, you can even use two different controllers simultaneously to control channel 1 and channel 2 independently.**
- **Both input control terminals are equipped with red indicator lights, CH1 and CH2. When the indicator light is on, it means that a control signal has been input, at this time, the Normally OFF output has power, while the Normally ON output does not. When there is no input control signal or no controller is connected, the indicator light is off, the Normally OFF output has no power, while the Normally ON output has power.**
- **The power input cable has a NEMA-15P plug, 14AWG cords for 15 Amps current. Cable length 20 inches.**
- **Normally OFF receptacle rated output current 12 Amps. Normally ON receptacle rated output current 5 Amps. Due to limitations imposed by the input cable specifications, the total output current of all output receptacles cannot exceed 15 Amps.**
- **Equipped with a resettable rocker thermal circuit breaker overload protector, rated for 15 Amps. Includes a built-in red indicator and supports manual control of all receptacle outputs.**
- **Equipped with a T-MOV Surge Protective Varistor inside. Maximum discharge current 10k Amps. The T-MOV varistors offer quick thermal response due to the close proximity of the integrated thermal element to the MOV body, avoiding the danger of MOV overheating or even burning.**
- **Very low static power consumption. When there is no control signal, the power consumption is only about 0.1 watts. When both channels are triggered, the power consumption is only about 0.9 watts.**
- **Compared to products from other companies, this product does not come equipped with an "Always ON" receptacle. However, if you only use one of the channels, then the Normally ON receptacle of the other channel can be used as an Always ON output.**

Applications include:

- **IoT products, DIY gadgets, OEM test equipment**
- **Home and building automation**
- **Green power and energy conservation**
- **Kiosks, vending machines and signage controls**

Specifications:

AC Power Working Voltage: 90 - 135VAC, 50/60Hz
Rated Input Current: 15 Amp
All Receptacles Total Output Rated Current: 15 Amp
Normally OFF Receptacle Output Rated Current: 12 Amp
Normally ON Receptacle Output Rated Current: 5 Amp
Overload Protector Switch Rated Current: 15 Amp

Control Signal (for AC):

Relay on 8-150 VAC. Relay off 0-1 VAC.

Current 1.7mA/8V, 1.9mA/12V, 2.3mA/24V, 2.9mA/48V, 4.5mA/115v, 5mA/150V

Control Signal (for DC):

Relay on 3-120 VDC. Relay off 0-1 VDC.

Current 0.9mA/3V, 1.0mA/5V, 1.2mA/12V, 1.3mA/24V, 1.6mA/48V, 3.0mA/120V

Static Self-consumption Power:

Relay no action: Approximately 0.1 watts (0.9mA 120VAC)

CH1 or CH2 action: Approximately 0.5 watts (4.5mA 120VAC)

CH1 and CH2 action: Approximately 0.9 watts (8mA 120VAC)

T-MOV Surge Protective Varistor:

Maximum continuous operating voltage (MCOV): L-N 150VAC

Voltage Protection Rating (VPR): 700V, L-N

Nominal discharge current (In): 5k Amps (8/20 μ s)

Maximum discharge current (Imax): 10k Amps (8/20 μ s)

Power Plug, Receptacles and Cable:

Plug USA NEMA-15P

14AWG x 3 Cords

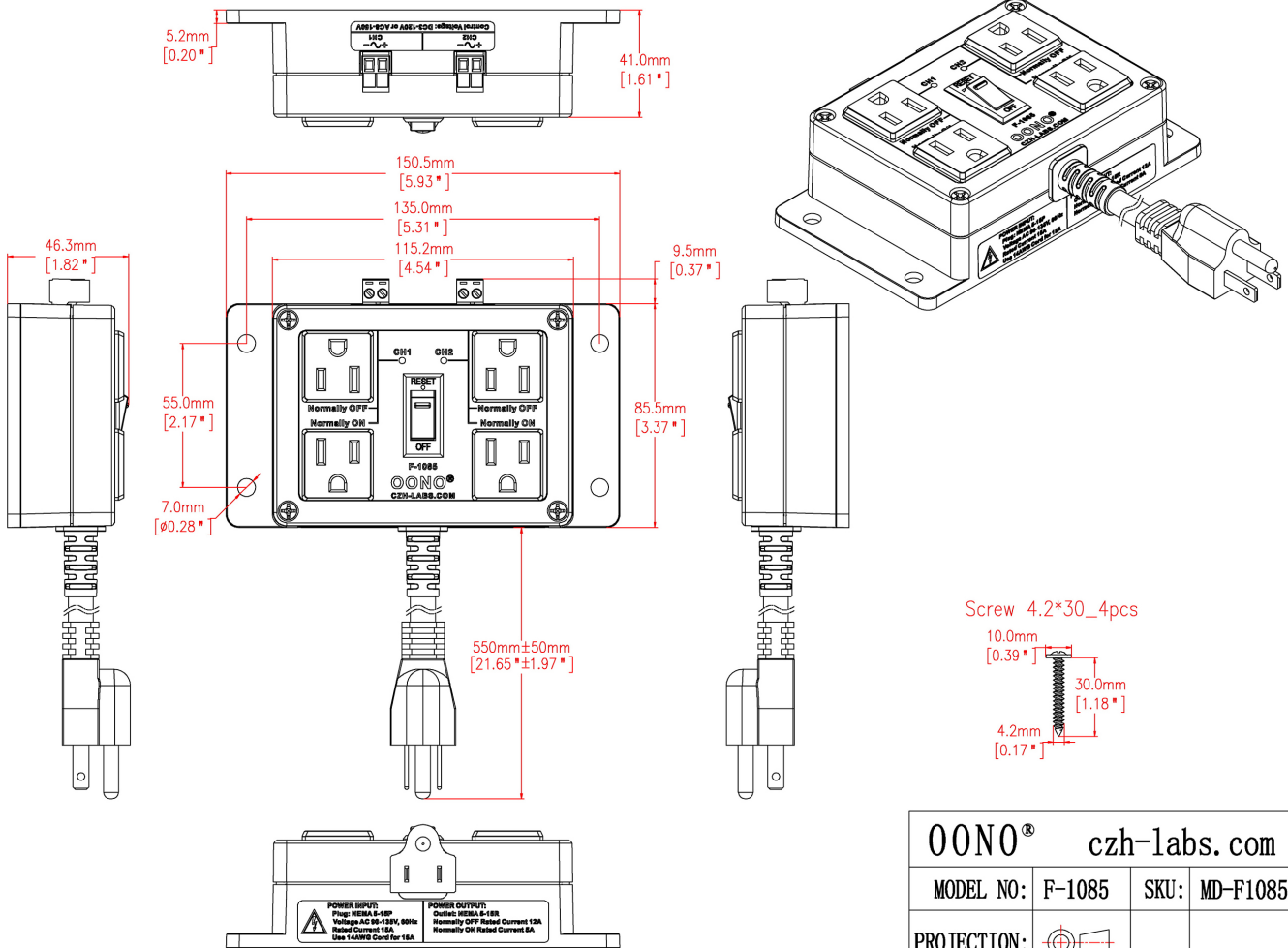
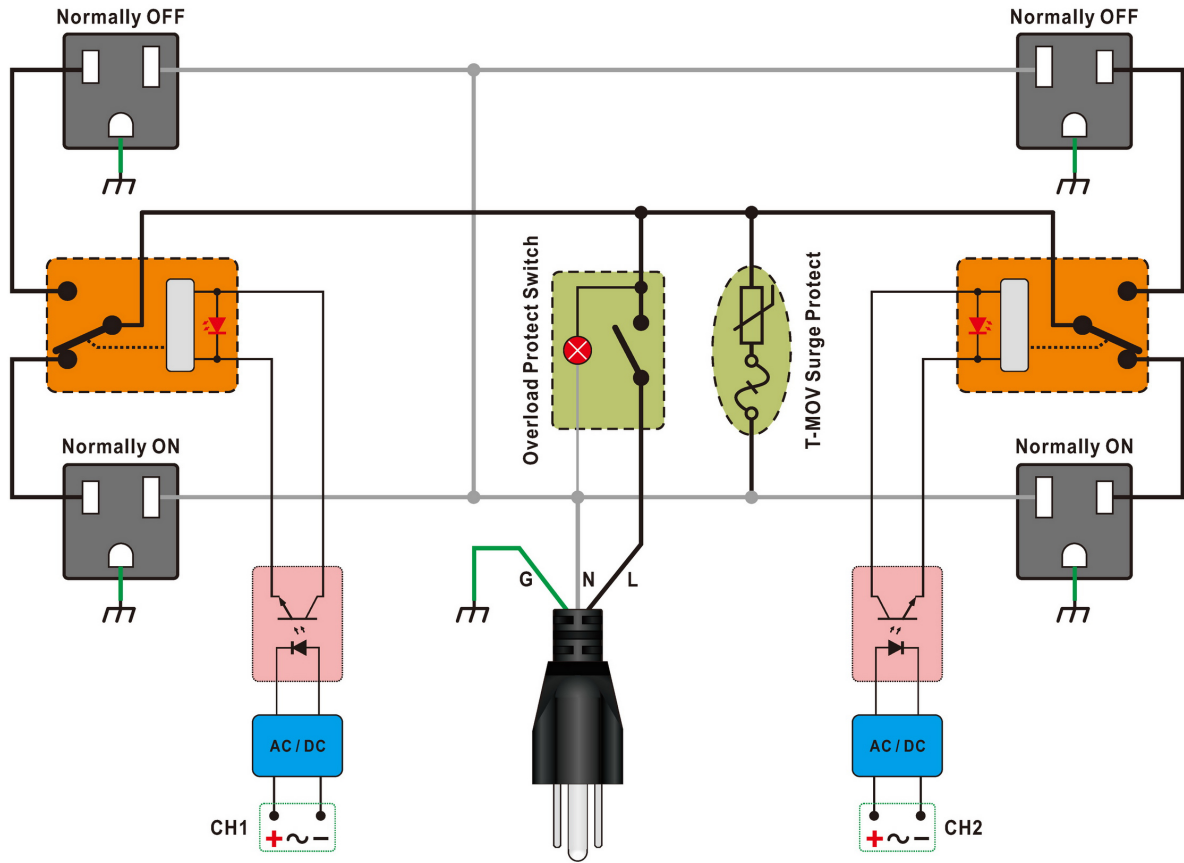
Length approximately 20" / 500mm

Receptacles USA NEMA-15R

In Door Use Only: -35F to 145F / -35C to 65C, 5-95% noncondensing

Net Weight: 350g

Equivalent Circuit Diagram (Incomplete Circuit)



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PROJECTION:	