

DC-DC Buck Converter

DFR0831

Product Overview

01/03/2023

For the most up-to-date information, visit www.mouser.com or the supplier's website.

Description

DFRobot DFR0831 DC-DC Buck Converter is a 20W power module that operates from 7V to 24V input voltage range, 5V output voltage, and 4A output current. This DC-DC buck converter features 90% high conversion efficiency, six onboard output ports, ceramic chip capacitors, and large inductors that can reduce heat generation. Typical applications include mechanical arms, servo robots, and programmable RGB LED strips.



Features

- Ceramic chip capacitors and inductors reduce heat generation
- 90% conversion efficiency
- 7V to 24V input voltage range
- 5V output voltage
- 0A to 4A output current range

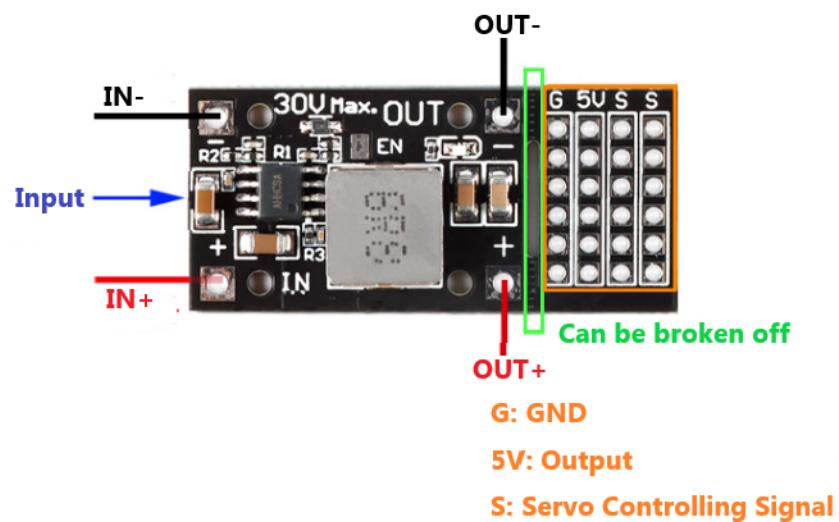
Specifications

- <100mV output ripple
- $\pm 0.1\text{V}$ output accuracy
- <1mA no-load current
- -40°C to 85°C operating temperature
- 20% to 90% operating humidity
- 43.5mm x 20.3mm x 5.5mm/1.71inch x 0.80inch x 0.22inch dimensions

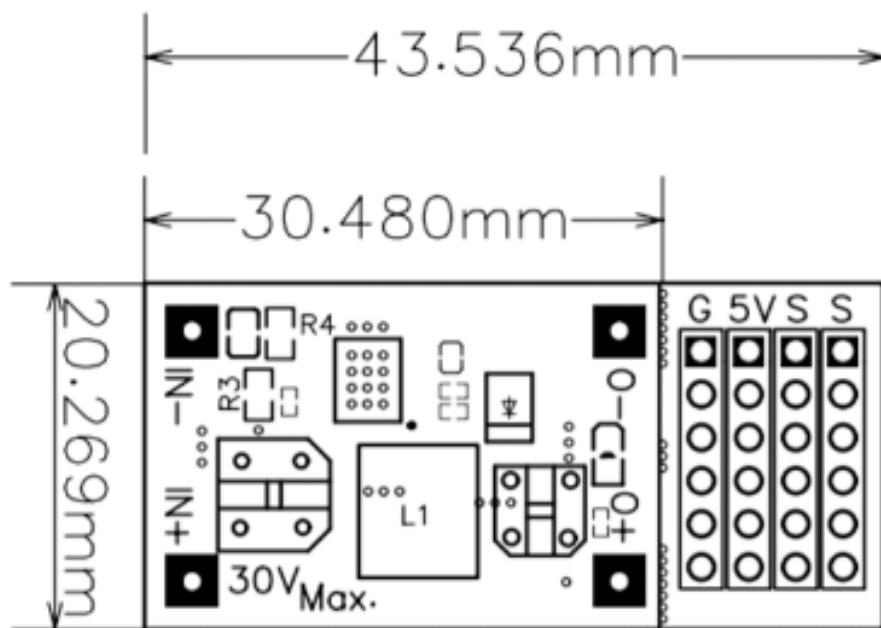
Applications

- Mechanical arm
- Servo robot
- Programmable RGB LED strip

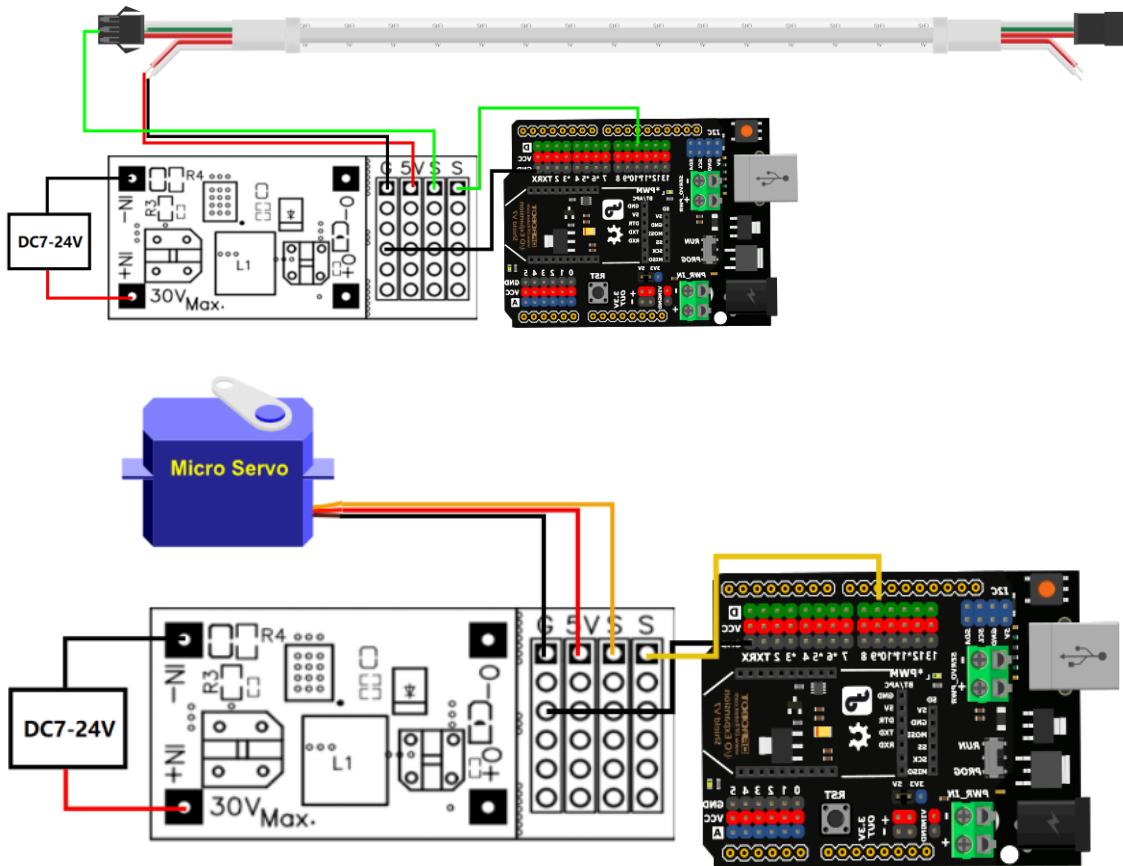
Board Overview



Dimension Diagram



Connection Diagram



Mouser Part Number

[View Part](#)

To learn more, visit <https://www.mouser.com/new/dfrobot/dfrobot-dfr0831-dc-dc-converter/>