

# DC-DC Buck Converter

DFR0831

## Product Overview

01/03/2023

For the most up-to-date information, visit [www.mouser.com](http://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

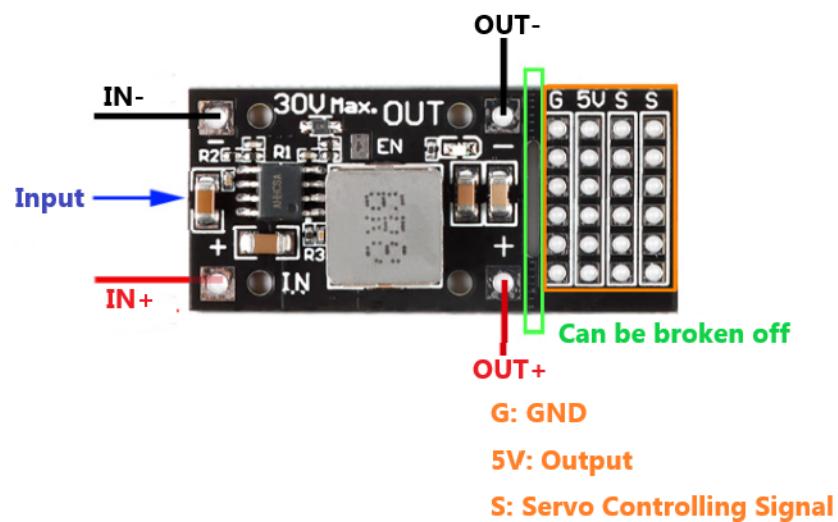
## Specifications

- <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

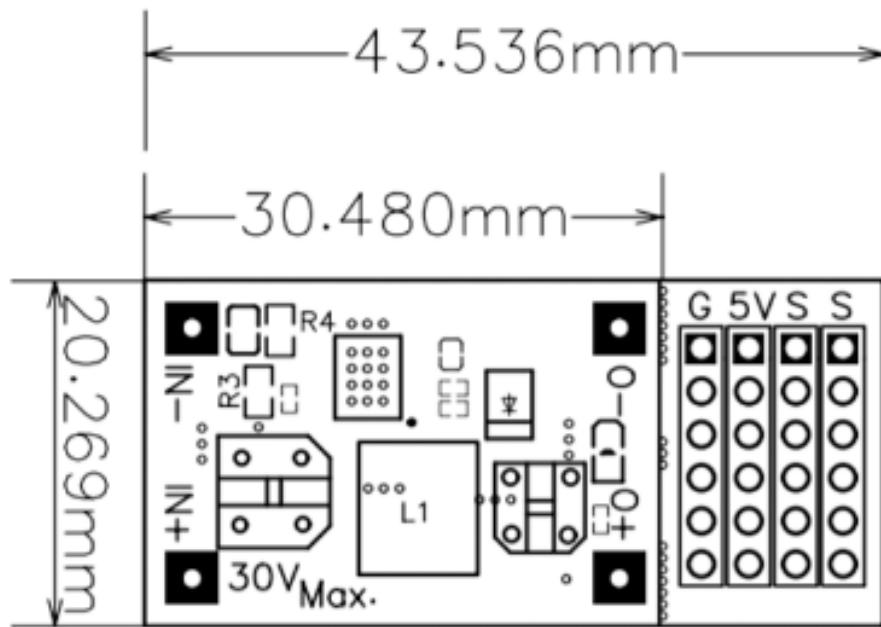
## Applications

- Mechanical arm
- Servo robot
- Programmable RGB LED strip

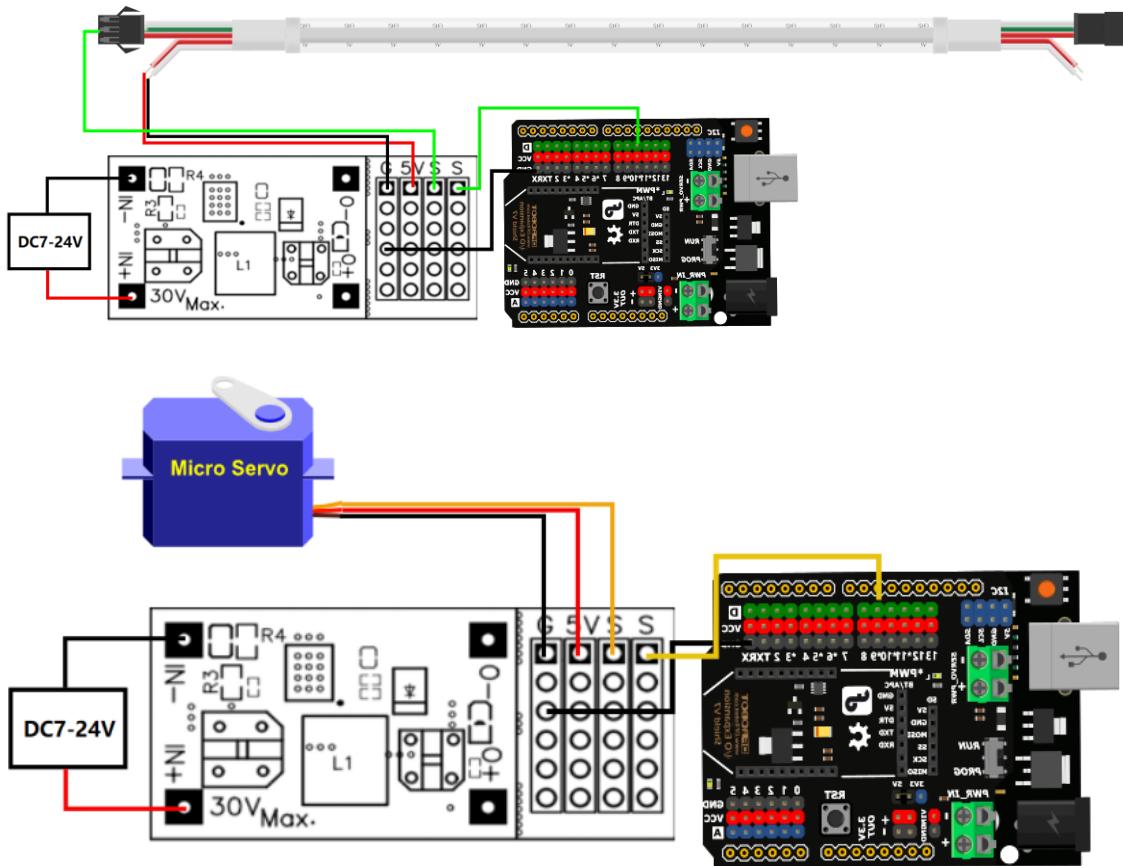
## Board Overview



## Dimension Diagram



## Connection Diagram



## Mouser Part Number

[View Part](#)

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