

# DFRobot metal DC geared motor + 16CPR encoder, 251RPM, 43.8:1, 18kgcm, 350mA no-load current, 12V



DFRobot metal DC geared motor + 16CPR encoder, 251RPM, 43.8:1, 18kgcm, 350mA no-load current, 12V Discover the 12V metal DC geared...

**Product number** FIT0186

**Weight** 0.3kg

## Product description

### DFRobot Metal DC Geared Motor + 16CPR Encoder, 251RPM, 43.8:1, 18kgcm, 350mA no-load current, 12V

Discover the 12V metal DC geared motor with encoder that is ideal for mobile robotics projects. This powerful motor features a 43.8:1 metal gearbox and an integrated quadrature encoder that provides a resolution of 16 counts per revolution of the motor shaft, which is equivalent to 700 counts per revolution of the gearbox output shaft. The 0.61 inch long, 6 mm D-shaped output shaft allows for easy connection to other components. The motor starts at voltages as low as 1V and provides optimum performance at 12V. Mounting is facilitated by a hexagonal front plate with six M3 threaded holes evenly spaced. This motor offers high precision and reliability, ideal for your demanding projects.

### Features at a glance

- High encoder resolution for precise motion control.
- Robust 43.8:1 metal gearbox offers high torque and reliability.
- Easy mounting thanks to hexagonal mounting plate with M3 threaded holes.

### Technical data

- Gear ratio: 43.8:1
- No-load speed:  $251 \pm 10\%$  RPM
- No-load current: 350 mA
- Starting voltage: 1.0 V
- Locking torque: 18 kg.cm
- Blocking current: 7 A
- Insulation resistance: 20 M $\Omega$
- Encoder operating voltage: 5 V
- Encoder type: Hall
- Encoder resolution: 16CPR (motor shaft) / 700CPR (gearbox output shaft)
- Weight: 205 g
- Diameter of the D-shaped output shaft: 6 mm, length: 0.61 inch

### Scope of delivery

- 1x metal DC geared motor with encoder (251 RPM)

### Links to



- [Wiki](#)
- [Dimensions](#)
- [Encoder Instructions](#)

#### Instructions

- Do not screw too far into the mounting holes as the screws may hit the gears. It is recommended not to screw further than 3 mm (1/8") into the screw hole.

## Product properties

<b>Country of Origin</b>	China
<b>Brand</b>	DFRobot
<b>Gross Weight (kg)</b>	0.3
<b>Zolltarifnummer</b>	85011091
<b>Product ID</b>	FIT0186
<b>Manufacturer ID</b>	FIT0186

## More images

