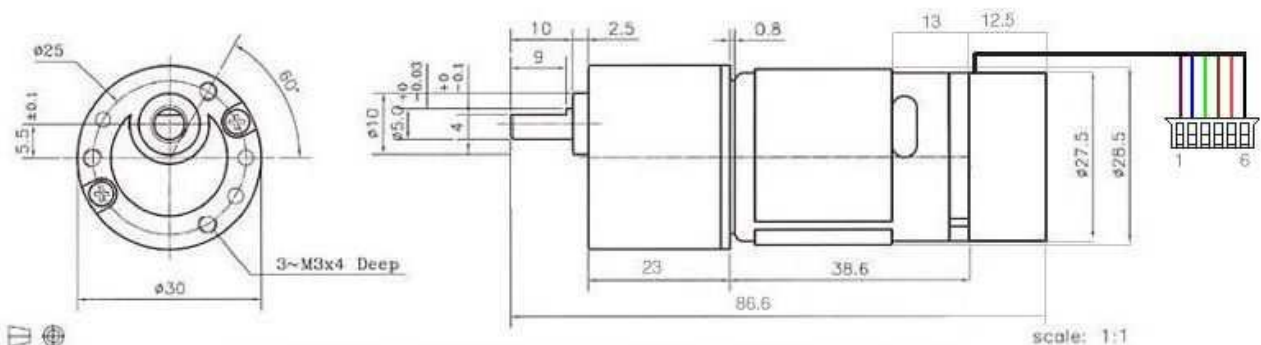


## EMG30, mounting bracket and wheel specification



The EMG30 (encoder, motor, gearbox 30:1) is a 12v motor fully equipped with encoders and a 30:1 reduction gearbox. It is ideal for small or medium robotic applications, providing cost effective drive and feedback for the user. It also includes a standard noise suppression capacitor across the motor windings.

### Measurements



### Connector

The EMG30 is supplied with a 6 way JST connector (part no PHR-6) at the end of approx 90mm of cable as standard. The connections are:

Wire colour	Connection
Purple (1)	Hall Sensor B Vout
Blue (2)	Hall sensor A Vout
Green (3)	Hall sensor ground
Brown (4)	Hall sensor Vcc
Red (5)	+ Motor
Black (6)	- Motor

note that pull up resistors (we used 4k7) are required on the hall sensor outputs, and wires are the colours from the actual cable.

### specification

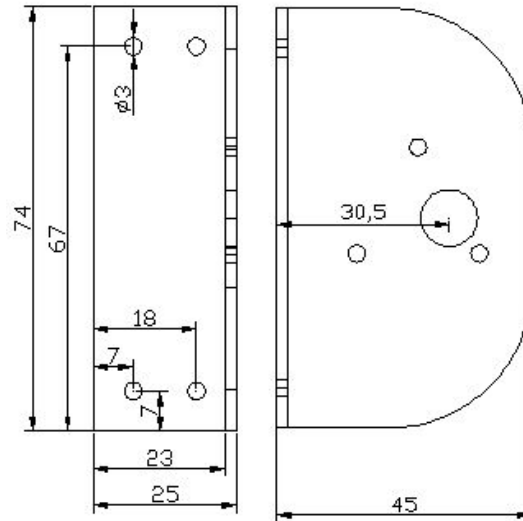
Rated voltage	12v
Rated torque	1.5kg/cm
Rated speed	170rpm
Rated current	530mA
No load speed	216
No load current	150mA
Stall Current	2.5A
Rated output	4.22W
Encoder counts per output shaft turn	360

**Measured Shaft Speed when used off-load with MD23 and 12v supply.**

Minimum Speed	1.5rpm
Maximum Speed	200rpm

**EMG30 Mounting Bracket**

Providing easy mounting of the EMG30 to the robot, the bracket is made from a 2mm thick strong aluminum and finished in blue enamel.

**Wheel 100**

A 100mm diameter wheel with 5mm diameter hub for easy attachment to the EMG30, the wheel has a 26mm wide rubber tread

