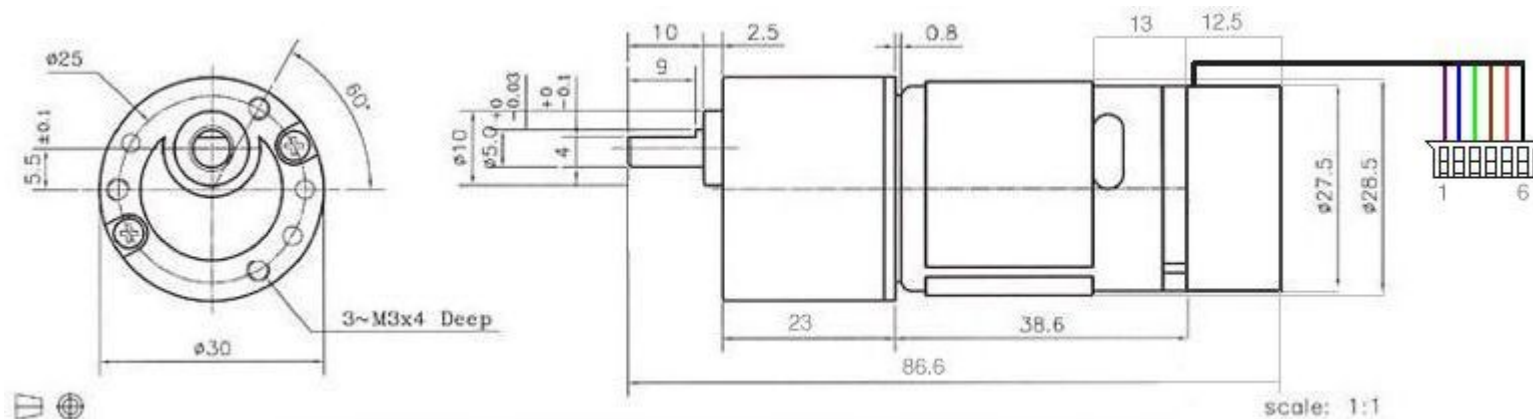


EMG30, mounting bracket and wheel specification



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 |

Wire colours are from the actual cable.

The hall sensors accept voltages between 3.5v and 20v.

The outputs are open collector and require pull-ups to whatever signal level is required.

On the MD25 they are powered from 12v and pulled up to 5v for the signals.

specification

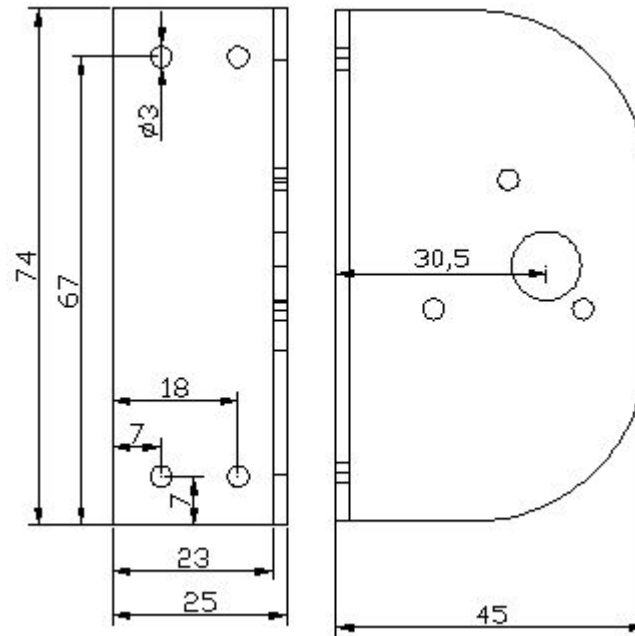
| | |
|--------------------------------------|----------|
| Rated voltage | 12v |
| Rated torque | 1.5kg/cm |
| Rated speed | 170rpm |
| Rated current | 530mA |
| No load speed | 216 |
| No load current | 150mA |
| Stall Current | 2.5A |
| Rated output | 4.22W |
| Encoder counts per output shaft turn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

