

# TSL-GB5210

Gimbal Motor | GB Series



Rated Voltage	Rated Torque	Rated Speed	Motor Size
24 V	0.46 N.m	360 RPM	Ø55.5 × 22mm

## 1. Electrical and Mechanical Parameters

Parameter	Unit	TSL-GB5210
Rated Voltage	V	24
Rated Current	A	1.56
Rated Torque	N.m	0.46
Rated Speed	RPM	360
Peak Speed	RPM	678
Stall Torque	N.m	1.03
Stall Current	A	3.42
Phase Resistance	Ω	4.78
Phase Inductance	mH	28.25
Speed Constant	rpm/V	0.38
Torque Constant	N.m/A	386
Rotor Inertia	g.cm <sup>2</sup>	11
Number of Pole Pairs	Pairs	178
Motor Weight without Encoder	g	202.3
Motor Weight with Encoder	g	14.6
Encoder Type	-	AS5048A / AS5600
Working Temperature	°C	-10 to 80
Max Demagnetization Temperature	°C	120

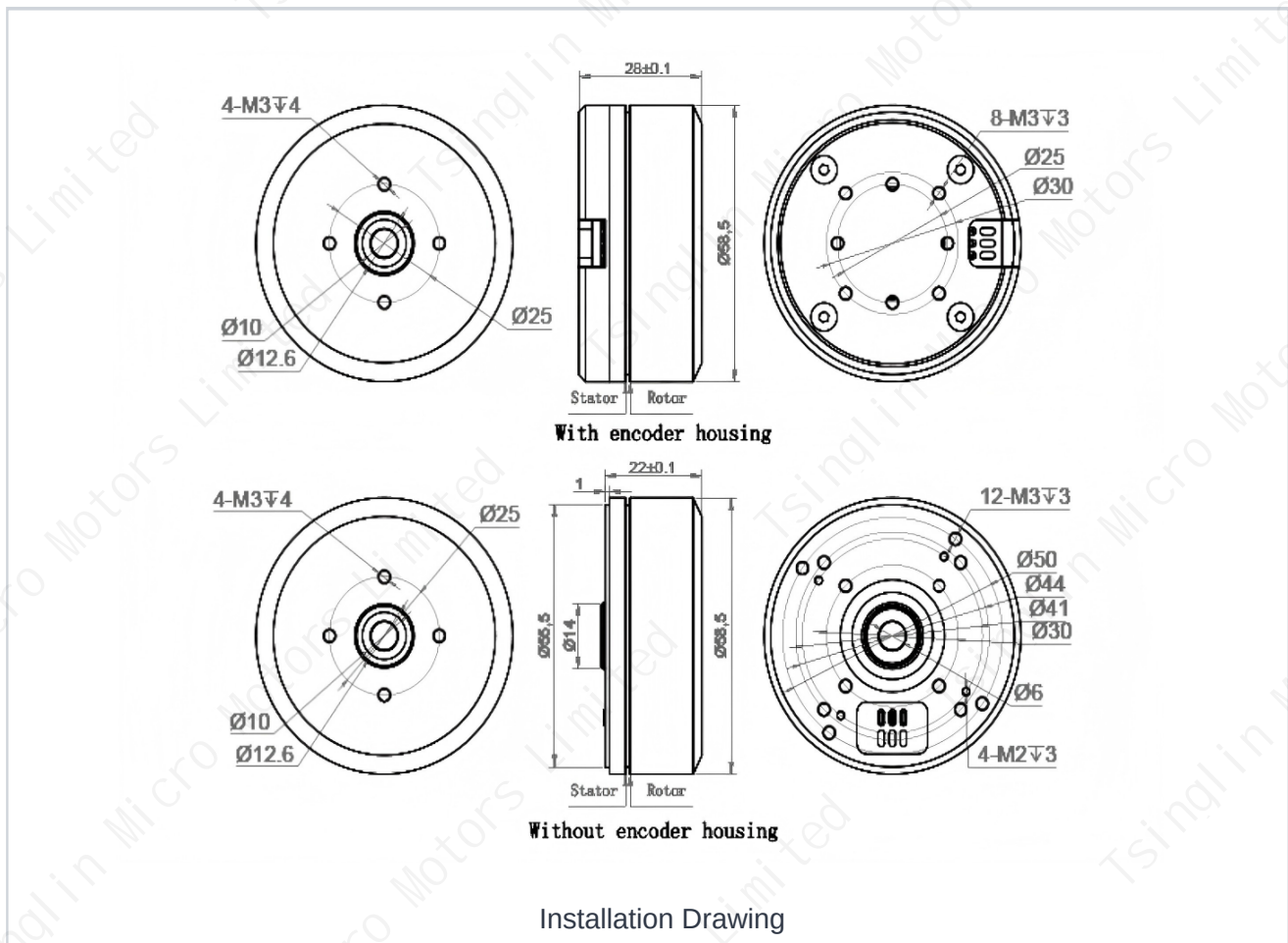
Note: The above parameters are for reference only and can be customized according to customer requirements.

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## 2. Installation Drawing

All dimensions are in millimeters unless otherwise specified.



<b>Drawing</b>	TSL-GB5210
<b>Version</b>	V1.0
<b>Updated</b>	2025-07-10

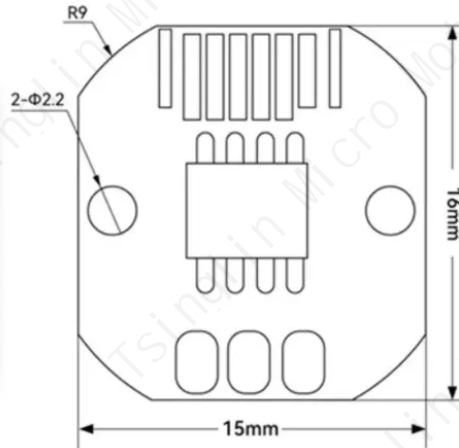
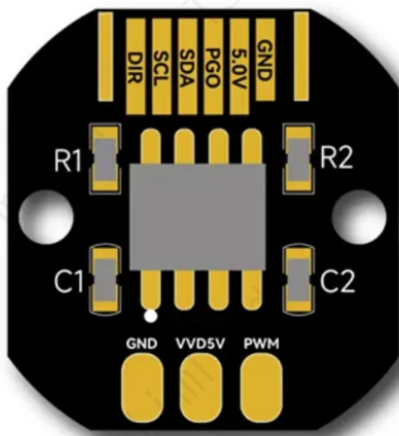
# TSL-GB5210

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## 3. AS5600 Encoder Board Option

The magnetic encoder board is an optional customer-selectable configuration.

### AS5600 编码器板文档 AS5600 Encoder Board Document



### 引脚描述 Pin Description

名称Name	类型Type	说明Description
GND	电源(Supply)	电源地(Ground)
5.0V	电源(Supply)	5V直流电源(supply in 5V)
PWM	输出(Output)	460HzPWM输出(460HzPWM output)
PGO	输入(Input)	编程引脚(Program option)
SDA	输入/输出(Input/Output)	I <sup>2</sup> C 数据引脚(I <sup>2</sup> C Data)
SCL	输入(Input)	I <sup>2</sup> C 时钟引脚(I <sup>2</sup> C Clock)
DIR	输入(Input)	方向(Direction polarity)

### 磁铁安装要求 Magnet Installation Requirements



根据磁铁，磁铁与编码器表面距离为 0.5-3mm

According to the magnet, the distance between the magnet and the encoder surface is 0.5 – 3 mm.

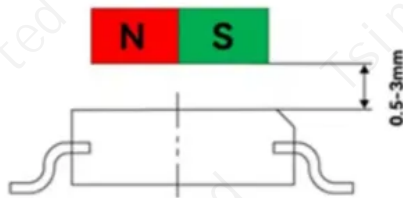
# TSL-GB3506

Gimbal Motor | GB Series

## 4. AS5048A Encoder Board Option

The magnetic encoder board is an optional customer-selectable configuration.

### Magnet Installation Requirements



根据磁铁，磁铁与编码器表面距离为 0.5-3mm

According to the magnet, the distance between the magnet and the encoder surface is 0.5 – 3 mm.

### AS5048A 编码器板文档 AS5048A Encoder Board Document

