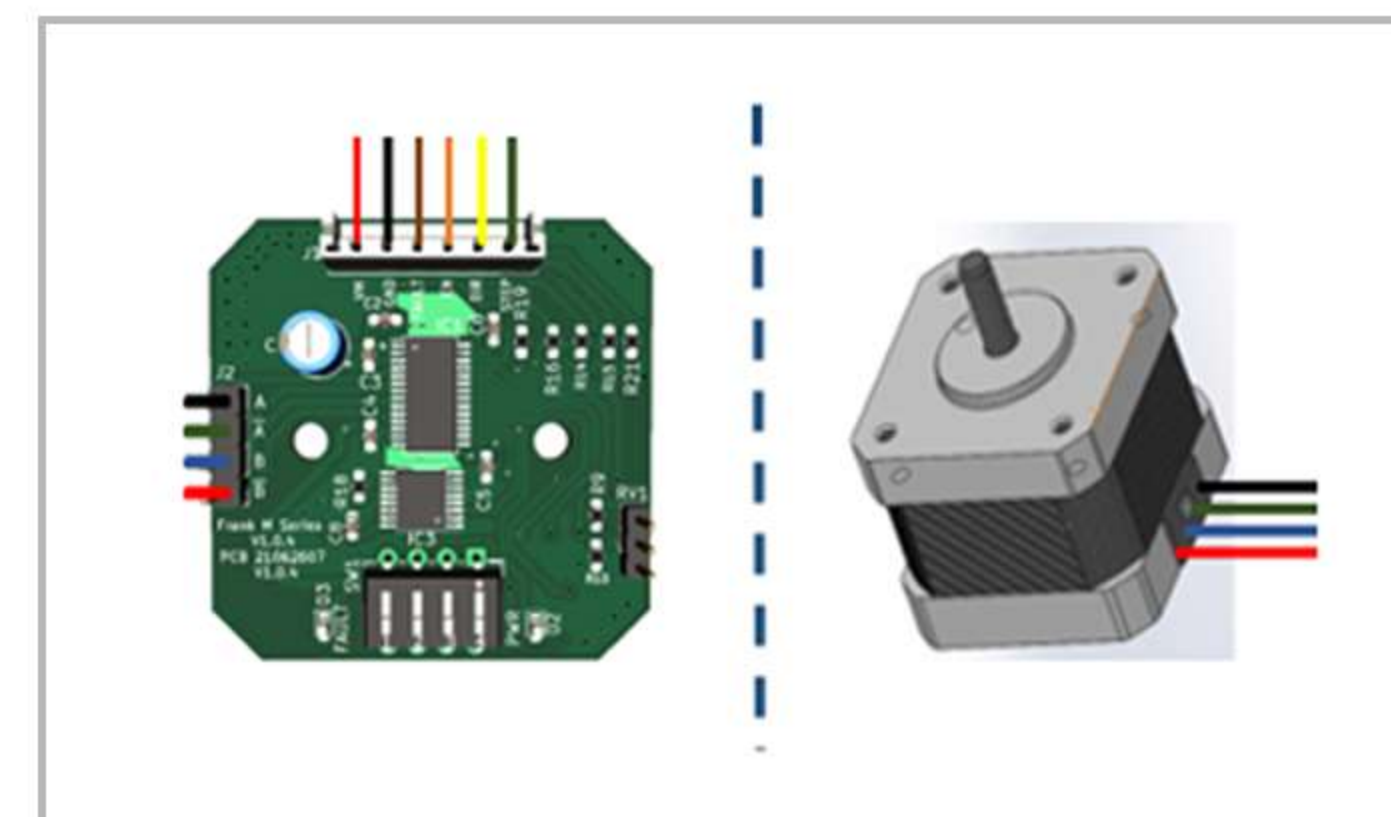


Introduction

Frank M is an in-built compact stepper motor driver for industrial and consumer applications. This driver is fully integrated with a micro-stepping indexer and integrated current sensing. The Frank M Driver embeds a comprehensive set of protection and diagnostic features for Stepper motors.



Features

- Supply voltage up to 24 VDC
- Output current up to 1A
- Pulse input frequency up to 500kHz
- Micro step resolutions programmable, from full-step to 1/256 step.
- Under voltage, over current, phase error, thermal shutdown protection.

Applications

- Suitable for a wide range of stepping motors, from NEMA frame size 17.
- It can be used in various kinds of machines, such as laser cutters, laser markers, high precision X-Y tables, labeling machines, and so on.

Electrical Connections

Pin #	Color	Function	Description
1	Red	VM	DC Supply +VE (5 to 48V)
2	Black	GND	DC Supply -VE
3	Brown	FAULT	High at Normal, Low at Fault
4	Orange	EN	Enable = Open / +5V, Disable = GND / Low
5	Yellow	DIR	CW = Low / GND, CCW = High / Open, Default = Open
6	Green	STEP	Speed Control Input, 500kHz VILMAX = 0.6V, VIHMIN = 1.5V

Specifications

Parameters	Value		Unit
	Min	Max	
Supply Voltage	5	24	VDC
Output Current	Continuous Output Current*	1	A
	Pulsed Output Current**	1.5	A
Step Input Frequency	-	500	kHz
Logic Level Input (STEP, DIR & ENABLE)	VIL	0	V
	VIH	1.5	
Fault Output Current	0	10	mA
Ambient Temperature	-40	125	°C

*>10mins of continuous operation at <100RPM. | **<10mins of continuous operation at >100RPM.