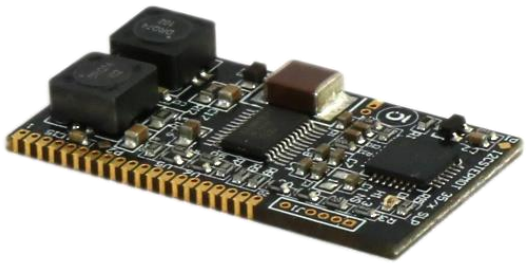
FMod-I2CSTEPMOT SLP 35/1

Datasheet

Very small control device for 2 phases stepper motors (max 35W continuous) with ¼ step motion control for position or speed control using the trapezoidal trajectory profile. Ultra low power consumption in standby mode, typically less than 1µA, therefore ideal for portable and compact applications.

All the calculations are done on board, in order to minimize the communication rate with a control/supervising I2C master. Up to 112 devices can be connected to the same I2C bus in daisychain configuration.

This daughter board can easily be soldered directly to a motherboard without any cables through its 20 + 2 plated holes on board edge (1.27mm spacing). In addition to that, 1.27 mm spacing male connector can be soldered to the board, making it plugable, horizontally or vertically, to a dedicated motherboard.



Dimensions

39.8 x 22 x 6.1 mm (LxBxH), without 1.27mm spacing connector

Electronic interface

Hardware:	I2C interface: SDA, SCL (100-400kHz)
Software:	Standard I2C protocol, 7+1bit address & multibyte data.

Power interface

Motor power connector DC [10-35V], max 2A.

Logic power connector DC [5V], max 50mA.

Power consumption in standby mode for motor and logic power is **50nA for each at 25°C**, less than 1uA for each at 85°C.

Motion control

Step update:	**Up to 8192 full step/s, ¼ step motion control, 32 bits calculations**
Sampling rate:	2000 Hz (speed calculation frequency)
Modes:	- *Free*
	- *Speed Control* (with trajectory profile)
	- *Position Control* (with trajectory profile)
	- *Standby*
Homing (reference):	2 different homing modes
Limits (end strokes):	2 independently powered inputs, configurable behaviour

PWM output

50 kHz, 4 quadrants management.

1A continuous motor current output per phase and 1.5A peak current per phase.

Current limitation

On-board configuration possible between 0.05 and 1.5 A, thus preventing motor overheating and wear.

Limits

2 mechanical, optical or hall sensors (5V) can be connected and configured for different purposes such as homing.

Where to find more information

Please download the user's manual from the following address: http://www.fiveco.ch/motor-controlers-products.html

Developed and made in Switzerland

08062016/1.5 *Specifications may change without prior notice.*

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