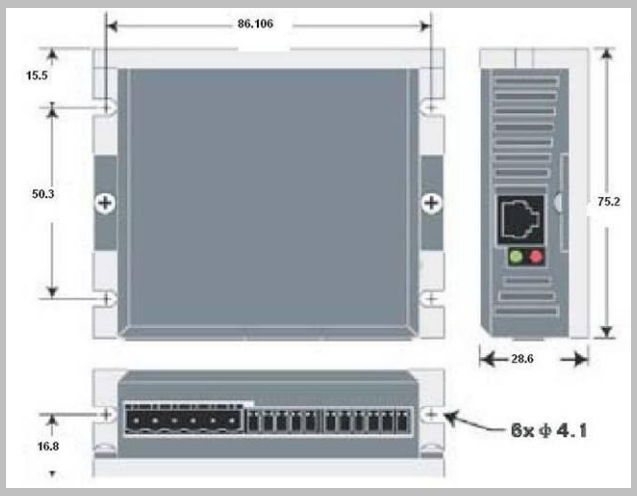
Model MSST5-S Stepper Motor Driver

General Specification

Model MSST5-S is a sophisticated high performance microstepping driver that offers three modes of control: step and direction; internal oscillator speed control; and software control via PC or PLC. Software control allows it to be set up for running pre-coded routines repeatedly. Under PC control it can also be used to optimise parameters while the motor is being driven on-line, e.g., acceleration rates, speeds, wait times etc. The MSST5-S also incorporates features such as automatic system status monitoring and display, and at start up, the driver measures motor parameters, including resistance and inductance, and uses this information to optimise system performance.

Key Features

- Multi working modes
- Microstep resolution from 1 to 256
- Low noise and vibration drive
- Very compact with large power output
- Output phase current up to 5A
- Software configurable
- Low thermal generation
- Comprehensive protections offer high reliability
- High speed and torque output
- CE marked



Technical Specification

Power Amplifier

Amplifier Type:	MOSFET, Dual H-Bridge, 4 Quadrant.
Current Control:	4 state PWM at 20 KHz.
Output Current:	0.1 - 5.0 A/phase (peak value) in 10 mA increments.
Input Voltage Range:	24 - 48 Vdc
Protection:	Overvoltage, undervoltage, Overtemperature, External output short circuits (phase to phase; phase to ground), Inter amplifier short circuits.
Idle Current Reduction:	Selectable to any percentage of full current.

Controller

Non-Volatile Storage:	Configurations are saved in flash memory aboard the digital signal processor
Mode of Operation:	Step & direction, CW/CCW, encoder following, oscillator, joystick, SCL.
Step / Direction Inputs:	Optically isolated, differential, 5V, minimum pulse width = 250 ns. Maximum pulse frequency = 2 MHz.
Input Functions:	Step & direction, Run/stop & direction, Jog CW&CCW or CW & CCW limits
EN Input:	Optically isolated, 5 - 12V.
EN Input Functions:	Motor enable, Speed select, Alarm Reset or Home switch.
Output:	Optically isolated, 24V, 10 mA maximum
Output Functions:	Fault, motion, tachometer, or brake.
Speed Range:	Depends upon selected resolution. Amplifier is suitable for speeds up to 50 rps.
Analog Input Range:	0 to 5V
Microstepping Resolution:	Software selectable from 200 - 51,200 steps per revolution
Communication Interface:	RS-232 or RS-485

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