

3 axis Stage Controllers | HSC-103

RoHS

CE

Catalog Code W9094

HSC-103 is designed to operate medium to high current 5-phase motor stages. The driver design reduces noise and vibration compared to older stepper motor drivers.

- USB communication (serial communication) from PC is available.
- Up to 3 axis motorized stages can be operated.



Guide

- ▶ Sample programs are available for download on our website.
 - SG Sample 32/64 bit version for Windows®
 - LabVIEW for RS232C (for v.2010/v.2012/v.2013/v.2014/v.2015)

Part Name	Part Number
3 axis Stage Controllers	HSC-103
Joy Stick	JD-100
Jog Operation Box	JS-300
Jog Dial	JB-400
MDR Cable	MDR14-CA-2.5

Primary Functions

Controller Function	○
Number of Control Axes	3
Stored Program Control	○
Feedback Control	—
Circular Interpolation Control	○
Linear Interpolation Control	3 axes
Driver Function	Micro-step
Micro-step (Max. Division)	40*1
Driving Current (A/phase)	1.4*2

*1 Division is fixed.

*2 0.75A/Phase is available by switching.

General Specifications

Power Voltage	AC100 – 240V 50/60Hz
Power Consumption	200VA
Operating Temperature	5 – 40°C
Storage Temperature	–20 – 60°C
Ambient Humidity	20 – 80%RH (without condensation)
External Dimensions (WxHxDmm)	260x260x95
Weight (kg)	3.3

Interface

GP-IB	—
RS232C	—
USB	○
Ethernet	—

Optional

CJ-200A	—
JS-300	○
JB-400	○
JD-100	○
SJT-02	—

Performance Specifications

Coordinate Indication Range	—
Max. Travel to Set	134,217,727
Max. Driving Speed (pps)	4,000,000
Min. Driving Speed (pps)	1
Acceleration/Deceleration Time (ms)	1 – 1,000

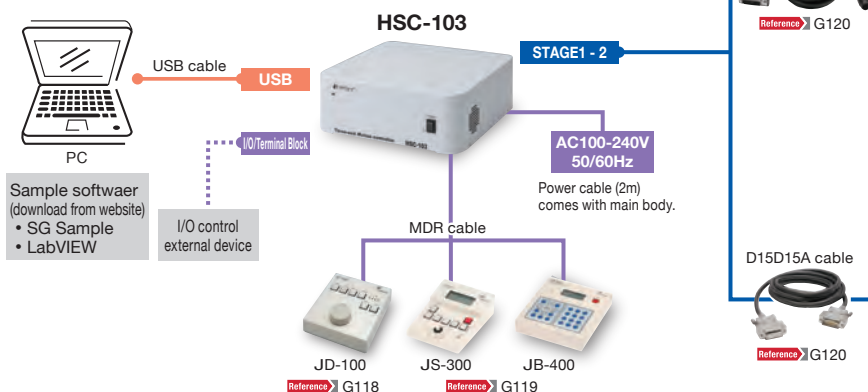
I/O Specification

Origin Sensor	○
Proximity Sensor	○
CW (+) Limit	○
CCW (–) Limit	○
General Purpose Input	4 points
General Purpose Output	4 points
Control Input	8points
Control Output	—
Trigger Output	—

Control Command

Machine Origin Return	○
Theoretical Origin Setting	○
Relative Position Drive	○
Absolute Position Drive	○
Jog Operation	○
Position Appointment	—
Circular Interpolation Control	○
Linear Interpolation Control	○
Drive	—
Deceleration Stop	○
Emergency Stop	○
Speed Setting	○
Motor Free/Hold	○
Port Input	○
Port Output	○

HSC-103 System Chart



Stepping Motor Stage



Application Systems

Optics & Optical Coatings

Opto-Mechanics

Bases

Manual Stages

Actuators & Adjusters

Motorized Stages

Light Sources & Laser Safety

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Controllers/Drivers

Softwares

Stepping Motor

AC Servo Motor

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Piezo

X Translation

Theta Rotation

Goniometer

Vacuum

Options

40 x 40 mm

60 x 60 mm

80 x 80 mm

85 x 85 mm

100 x 100 mm

120 x 120 mm

Others