

# **SGDV-OCA03A – INDEXER Module for Sigma-5**

## **Introduction**

The Sigma-5 INDEXER command option SGDV-OCA03A is an add-on board compatible with Sigma-5 series command option attachable type amplifiers SGDV – xxx x E x A. It provides a high-accuracy and high-speed point-to-point positioning. The INDEXER is an easy to use 1-axis positioning controller ideal for systems that have a PC (personal computer) or a PLC (programmable logic controller) as the host.

## **INDEXER module features**

The INDEXER module offers a wide range of functions for high-accuracy and high-speed point-to-point positioning:

### **Simple**

- Realizes simple motion through programming or serial commands.
- Can be set up easily using the Windows-based setup assistance tool (SigmaWin+).
- Can be connected to a host controller simply through an I/O module.

### **Smart**

- Supports methods of operation for applications that involve positioning with program tables.
- A maximum of 256 positioning points can be programmed.
- Wide range of functions includes external positioning, JOG speed table operation, homing, and programmable signal output.
- 19 digital inputs and 16 digital outputs are available

### **Speedy**

- Realizes high-speed, high-accuracy positioning due to combination with the high-performance Sigma-5 series.
- Realizes motion control without using a motion controller.

## Basic Specification

Basic Specifications			
External Dimensions		Option module type, 200 V/200 W: 160 × 140 × 60	
Power Specifications	Power Supply Method	Supplied from the control power supply of the SGD V SERVOPACK.	
Operating Conditions	Surrounding Air/Storage Temperature	0°C to +55°C/-20°C to +85°C	
	Ambient/Storage Humidity	90% RH or less (with no freezing or no condensation)	
	Vibration/Shock Resistance	4.9 m/s <sup>2</sup> / 19.6 m/s <sup>2</sup>	
	Protection Class/Pollution Degree	Protection class: IP10, Pollution degree: 2 An environment that satisfies the following conditions. <ul style="list-style-type: none"> <li>• Free of corrosive or explosive gases</li> <li>• Free of exposure to water, oil, or chemicals</li> <li>• Free of dust, salts, or iron dust</li> </ul>	
	Others	Free of static electricity, strong electromagnetic fields, magnetic fields or exposure to radioactivity	
	Altitude	1,000 m or less	
Applicable Standards*		UL508C EN50178, EN55011/A2 Group1 Class A, EN61000-6-2, EN61800-3, EN61800-5-1, EN954-1, IEC61508-1 to 4	
RoHS Directive		Compliant	
Control Method	Program Table Method	Program table positioning in which steps are executed sequentially by commands given through contact input or serial communications Positioning in which station numbers are specified by commands given through contact input or serial communications	
		Max. Number of Steps	256
		Max. Number of Tables	256
	Max. Number of Stations	256	
	Serial Communications Method	Serial command by 1-channel ASCII code or MEMOBUS Communications specifications: RS-422/485 (50 m max.), RS-232C (3 m max.) Connection topology: Multi-drop connection (16 axes max.) Baud rate: 9600, 19200, 38400 bps	
Other Functions		Registration (positioning by external signals), homing	
Display Function	LED	Lit during parameter setting, monitoring, executing utility functions, etc.	
Servo Performance		Response frequency: 1.6 kHz Various adjustment functions provided Refer to the PO for command option attachable type SERVOPACKs.	

\*Applicable when the INDEXER module is attached to the command option attachable type SERVOPACKs.