YASKAWA

FT79

For Indexing Application

Built-in INDEXER

AC Servo Drives

Σ-7S SERVOPACK

FT Specifications

The Sigma-7S FT 79 SERVOPACK provides built-in positioning with an INDEXER that lets you easily achieve motion control simply by entering positions, speeds, and other data for the operation pattern.

■ FT 79 Line-Up

SERVOPACK	Analog / Pulse	EtherCAT	M-III
Interface	✓	–	–
Servomotor	Rotary type	Direct Drive	Linear
Application	✓ (50W to 15kW)	✓	✓

✓ : Possible –: Not possible

Features

High-Precision, High-Speed Positioning without a Motion Controller

The operation pattern is easily set by entering the positions, speeds, and other data in a program table. You can use the SigmaWin+ Engineering Tool to easily and efficiently set up and edit operation patterns.

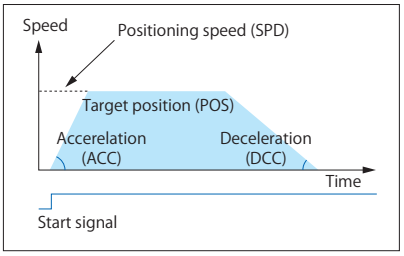
- Convenient positioning functions are also provided: ZONE signal outputs, jog speed table, origin returns, and more.
- A start command is received from a host controller to start positioning.

■ Program Table Setting Example

PGMSTEP	POS	SPD	RDST	RSPD	ACC	DEC	EVENT	LOOP	NEXT
0	I+400000	2000	500000	1000	200	100	T5000	1	1
1	I+100000	1000	200000	2000	100	50	IT0	1	END
⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮
n	I+400000	2000	500000	1000	100	50	IT100	1	n+1
n+1	I+100000	1000	200000	2000	⋮	⋮	NT0	1	END
⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮
254	I+400000	2000	500000	1000	100	50	SEL3T200	1	127
255	I+100000	1000	200000	2000	100	50	DT0	1	END

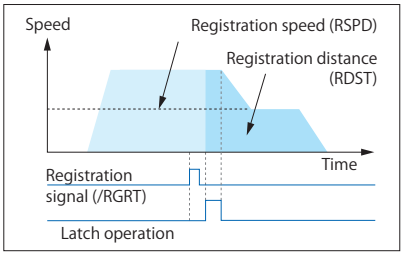
■ POS/SPD/ACC/DEC commands

An operation pattern is set up by entering the target positions, positioning speeds, accelerations, and decelerations.



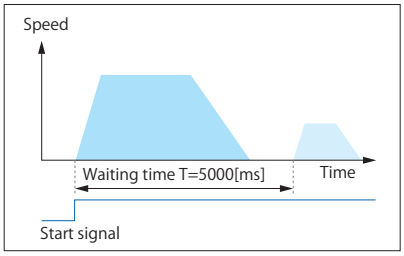
■ RDST/RSPD commands

The external signals can be used to control positioning (registration).



■ EVENT command

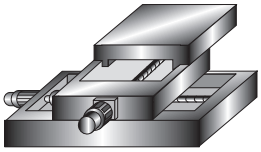
Conditions can be set to determine the completion of a program step.



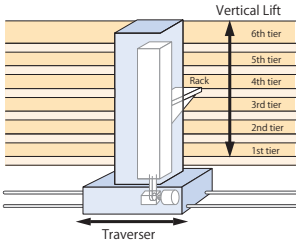
Applications

High-precision Positioning and Downsizing

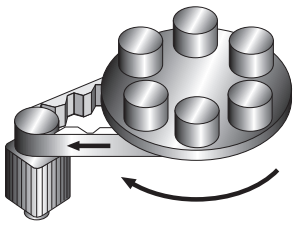
Point-to-point positioning



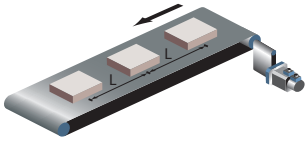
Fixed point positioning



Station positioning (Indexing)



Feeding



SERVOPACK Model Designation

1st+2nd+3rd digits	4th digit	5th+6th digits	7th digit	8th+9th+10th digits	11th+12th+13th digits
SGD7S - R70	A	00	A	000	F79

Series

Σ-7 Series Σ-7S SERVOPACKs

Specifications Unit (kW)

Maximum Applicable Motor Capacity

Voltage	Code	
Three-phase, 200 VAC	R70*1	0.05
	R90*1	0.1
	1R6*1	0.2
	2R8*1	0.4
	3R8	0.5
	5R5*1	0.75
	7R6	1.0
	120*2	1.5
	180	2.0
	200	3.0
	330	5.0
	470	6.0
	550	7.5
	590	11
	780	15

Power Supply Voltage

Code	Specifications
A	Three-phase, 200 VAC

Interface Specifications*3

Code	Specifications
00	Analog voltage/pulse train reference

Design Revision Order

A

Hardware Options Specifications

Code	Specifications	Applicable Models
000	Without options	All models
008	Single-phase, 200 VAC input	SGD7S-120A

FT/EX Specifications

Code	Specifications
F79	Built-in INDEXER

*1 : These amplifiers can be powered with single or three-phase.
*2 : Single-phase, 200 VAC SERVOPACKs for rotary servomotors are also available. (Model: SGD7S-120A00A008)
*3 : The same SERVOPACKs are used for both Rotary Servomotors and Linear Servomotors.
*4 : The BTO specification indicates if the SERVOPACK is customized by using the MechatroCloud BTO service. This service is available on the e-mechatronics website. You need a BTO number to order SERVOPACKs with customized specifications. Refer to Σ-Series Catalog (Catalog No. KAEPS80000123) for the details on the BTO service.

Product Comparison with INDEXER Module

Item		Σ-7S FT79	Σ-7S with INDEXER Module (SGDV-OCA03A)
Exterior	—	Same dimensions as a Σ-7 Analog Voltage/Pulse Train References SERVOPACK	Σ-7S Command Option Attachable-type SERVOPACK with INDEXER Module (width: 20 mm)
I/O	DI (SERVOPACK/Option)	10 inputs (10 inputs/0 inputs), 8 input signals can be allocated.	17 inputs (6 inputs/11 inputs), the allocated input signals cannot be changed.
	DO (SERVOPACK/Option)	7 outputs (7 outputs/0 outputs), 6 output signals can be allocated.	13 outputs (4 outputs/9 outputs), the allocated outputs signals cannot be changed.
Functionality	Reference method	Program table operation, pulse train references, or analog voltage references	Program table operation or serial communications operation
	Table operation	256 steps (commands with input signals: 32)	256 steps
	Jog speed table operation	8 speeds	16 speeds
	ZONE signal outputs	8 zones	32 zones
	Origin returns	3 methods	3 methods
	Equal-division index positioning (station position references)	Rotating body settings with support software	Rotating body settings with support software

Certified for International Standards

RoHS compliant

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● Product Information Site
http://www.yaskawa.com

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