

Sigma Trac Linear Servo System Integration Examples

Single Stage Slide



X-Y Stacked System



Gantry System



Linear Sigma Trac System Selection

Sigma Trac Servo System Model Designation

ST F 35 230 H - A C1 B -A B A

ST: Sigma Trac Series

F: Model

F: Iron-core F-Type Motor Coil

35: Coil Size

20
35
50

230: Coil Length in mm

COIL SIZE		
F20	090	120
F35	120	230
F50	200	380

H: Stroke (mm)

Option	STF200	STF201	STF351	STF352	STF502	STF503
A	115	115	115	250	130	250
B	355	355	355	370	430	370
C	475	475	475	490	550	490
D	595	595	595	550	670	610
E	655	655	655	670	790	790
F	775	775	775	790	970	910
G	895	895	895	910	1090	1030
H	1015	1015	1015	1030	1210	1150
J	1135	1135	1135	1090	1330	1330
K	1195	1195	1195	1210	1510	1450
L	1315	1315	1315	1330	1630	1570
M	1435	1435	1435	1450	1750	1690
N	1555	1555	1555	1570	1870	1870
O	1675	1675	1675	1630	2050	1990
P	1735	1735	1735	1750	2170	2110
Q	1855	1855	1855	1870	-	-
R	1975	1975	1975	1990	-	-
S	2095	2095	2095	2110	-	-

Strokes over 2.1 m, consult Yaskawa Electric.

B: DesignRevision

C1: Carriage Style

OPTION	
C1	SINGLE CARRIAGE (STANDARD)

A: Amplifier Option

OPTION	
A	To be used with Sigma II or Legend Amplifier 200V (STANDARD)
B	To be used with Sigma II or Legend Amplifier 100V
X	To be used with Non Yaskawa Amplifier (No Serial Converter)

A: Sigma Trac Accessories

OPTION	
A	No Cover Option (STANDARD)
B	Full Cover Option

A: Home Sensor Option

OPTION	
A	None
B	Positive Stroke End (STANDARD)
C	Center of Stroke
D	Negative Stroke End

A: Limit Switch Option

OPTION	
A	None (STANDARD)
B	LimitSwitches (12-24Vdc) NPN-NC output - Qty 2

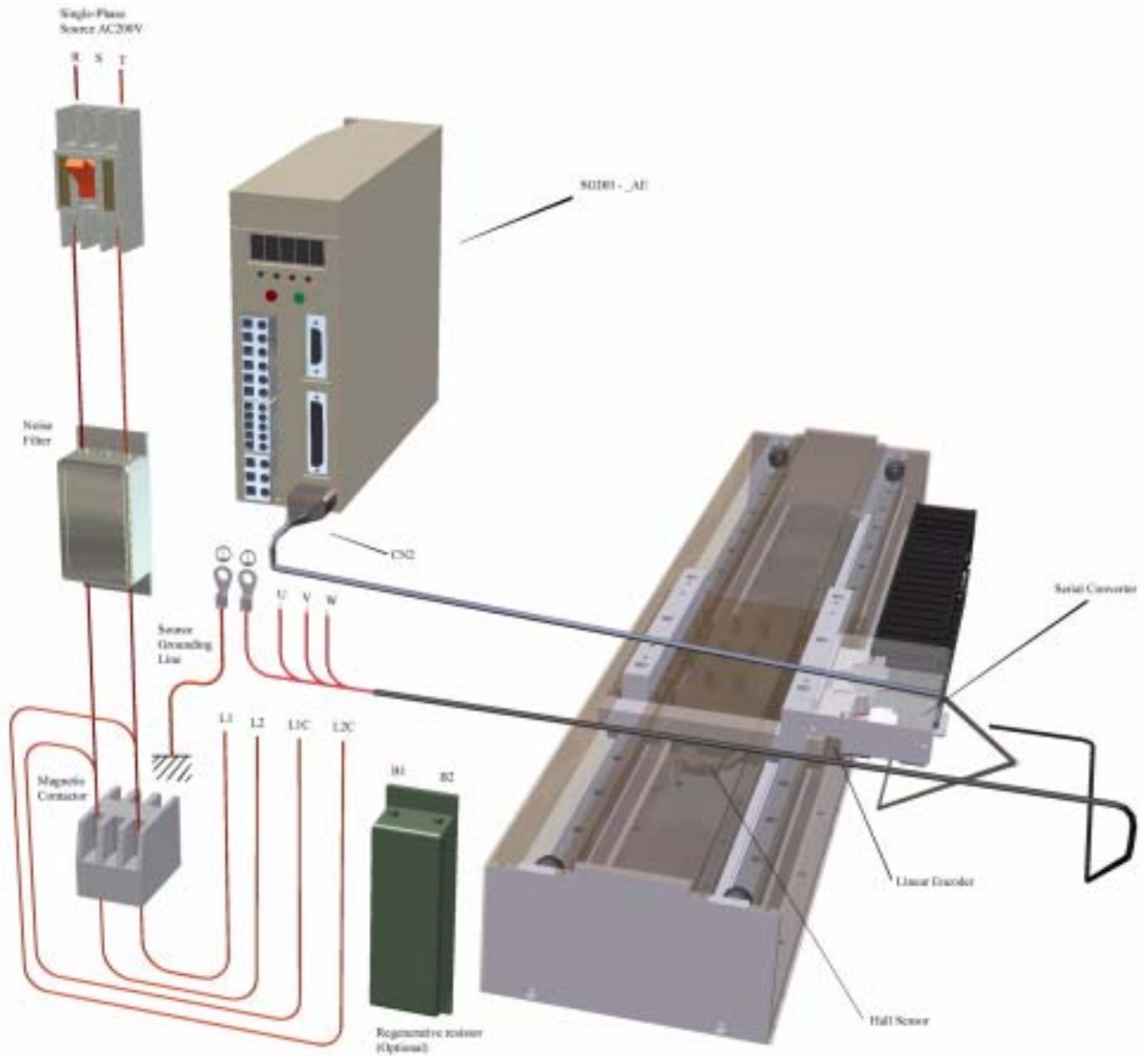
Linear Sigma Trac System Selection

Ordering Reference: Servo Amplifer

SigmaTrac Model	Linear Motor Coil Model	Sigma II SGDH Applicable Amplifier Model	Legend SGDG Applicable Amplifier Model
STF20090x-xxxB-xxA	SGLFW-20A090AP	SGDH-02AE	SGDG-04GT
STF20120x-xxxB-xxA	SGLFW-20A120AP	SGDH-02AE	SGDG-04GT
STF35120x-xxxB-xxA	SGLFW-35A120AP	SGDH-02AE	SGDG-04GT
STF35230x-xxxB-xxA	SGLFW-35A230AP	SGDH-05AE	SGDG-10GT
STF50200x-xxxB-xxA	SGLFW-50A200AP	SGDH-08AE	SGDG-10GT
STF50380x-xxxB-xxA	SGLFW-50A380AP	SGDH-15AE	SGDG-15GT

Linear Sigma Trac System Selection



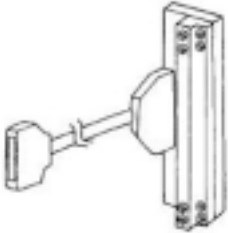
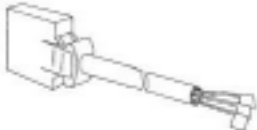
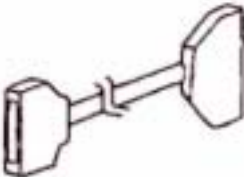
System Configuration



Linear Sigma Trac System Selection

Pre-wired Cable Selection

Use the table below to select pre-wired cables for your Sigma Trac STF20, STF35 & STF50

Cable Description		Motor Size	Part Number*	Comments
Motor Power without Brake		ALL	JZSP-CMM00-□□□□(A)	These cables are available in five lengths. Use two digits in the part number's last place:
Shielded Power Cable without Brake***			BAHCE-□□□□(A)	03: 3m 05: 5m 10: 10m (standard) 15: 15m 20: 20m
Encoder Cable			JZSP-CMP00-□□□□(A)	
Input/Output 1CN Cable & Transition Terminal Block			JUSP-TA50P (SIGMA II SGDH)	35 mm DIN rail mountable; the cable length is 0.5 meters.
			JUSP-TA36P (LEGEND SGD)	35 mm DIN rail mountable; the cable length is 0.5 meters.
Input/Output 1CN Cable with Pigtail Leads			JZSP-CKI01-□□(A) (SIGMA II SGDH)	Use the following key to specify required cable length (last digit of part number): 1: 1 m (standard) 2: 2 m 3: 3 m
			CKI-SGDG-□□□□ (LEGEND SGD)	Use the following key to specify required cable length (last digit of part number): 01: 1 m (standard) 02: 2 m 03: 3 m
Input/Output 1CN Cable with Female D-Sub output Connector***			JZSP-CKI0D-□□□□	Use the following key to specify required cable length (last two digits of the part number): D50: 0.5 m 01: 1m (standard) 02: 2m 03: 3m

* (A) at the end of the cable part number is the revision level. Revision level may be changed prior to this catalog reprinting.

** Standard cable lengths are Stock items; non-standard cable lengths are Limited Stock items.

*** Use these power cables where it is important to meet CE (EMC) requirements.

**** 50 Pin Female D-Sub output connector mates to customer supplied third party terminal block.

Linear Sigma Trac System Selection

Connector Selection

Use the table below to select mating connectors or kits for your Sigma Trac Linear Servomotor Actuator:

Connector Description		Motor Size	Part Number*	Comments
Motor Power Mating Connector (without Brake)		ALL	JZSP-CMM9-1	These connector kits include pin and socket. Requires use of AMP Crimp Tool (90548-1)
Amp Crimp Tool			90548-1	Crimp tool for Motor Power Connector (JZSP-CMM9-)
2CN Amplifier Mating Connector			JZSP-CMP9-1	
Motor Encoder Mating Connector			JZSP-CMP9-2	
1CN Mating Connector			JZSP-CKI9 DP9420007	For SGDH I/O 50-pin For SGDG I/O 36-pin
3CN Peripheral Mating Connector			YSC-1	For use with SGDH Sigma II Amplifier Only
5CN Analog Monitor Connector			DE9404559	For use with SGDH Sigma II Amplifier Only
Hand-held Digital Operator Panel			JUSP-OP02A-1 & JZSP-CMS00-1	Portable unit with 1m adapter cable for SGDH Sigma II. For use with SGDH Sigma II Amplifier Only.

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Linear Sigma Trac System Selection

Mechanical Integration Component Selection

Use the table below to select Mechanical Integration Components for your integration of the Sigma Trac Linear Servo-motor Actuator with your mechanical solution:

Component	Description	Trac Size	Part Number	Comments
T-Slot Nut		STF20Series	STF2035-M5-TNUT	M5 T-Nut to be used with t-slot. Suggested to be spaced approximately every 100mm of base length.
		STF35 Series		
T-Slot Nut		STF50 Series	STF0050-M6-TNUT	M6 T-Nut to be used with t-slot. Suggested to be spaced approximately every 100mm of base length.
Interface Plate		STF50 Series with STF20 or STF35 series	STF203550-Plate-XY	Pre-engineered integration plate for use with the STF20 or STF35 series and the STF50 series in an X-Y configuration.
				STF20 or STF35 will be placed on top of STF50 Series.
				Integration plate is not needed for use with the STF20 & STF35 series when used in an X-Y configuration.