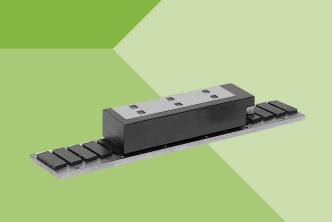
Linear Servomotors

SGLFW

(With F-type iron core)



Model Designations

Moving Coil

S G L F 20 Α 090 Α P 3rd+4th Linear∑Series digit digit digits digit 8th digits digit digit **Linear Servomotor**

1st digit Servomotor Type

Code Specifications

F F-type iron core

2nd digit Moving Coil/ Magnetic Way

Code Specifications

W Moving Coil

3rd+4th digits Magnet Height

5th digit Voltage

Code Specifications
A 200 VAC
D 400 VAC

6th+7th+8th digits Length of Moving Coil

9th digit Design Revision Order

10th digit Hall Sensor

Code Specifications

P With hall sensor

Blank Without hall sensor

11th digit Connector for Main Circuit Cable

Code	Specifications	Applicable Model
Blank	Connector by Tyco Electronics AMP K.K.	All models
D	Connector by Interconnectron GmbH	SGLFW-35,-50, -1Z□200B, -1ZD380B

Magnetic Way

S G L F M - 20 324 A ☐

Linear∑Series
Linear Servomotor

Linear Servomotor

1st digit

2nd digit

2nd digit

3rd+4th digits

5th+6th+
7th digits

8th digit

9th digit

1st digit Servomotor Type
(Same as that of the moving coil)

2nd digit Moving Coil/ Magnetic Way

Code Specifications

M Magnetic Way

3rd+4th digits Magnet Height

5th+6th+7th digits Length of Magnetic Way

8th digit Design Revision Order A, B...

9th digit	Options
-----------	---------

Code Specifications

Blank Standard

C With magnet cover

Features

- Direct-feed mechanism for high-speed and high-precision positioning.
- The magnetic attraction force between the moving and stationary members can be used effectively to increase the rigidity of the linear guidance by preloading the linear motion bearings.
- The magnetic preloading on certain types of compliant linear motion bearings can help increase the system's frequency response, improving its deceleration and settling performances.

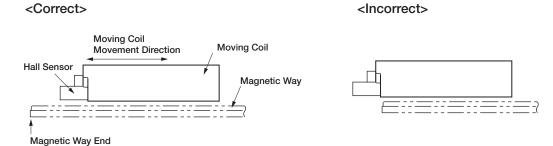
Application Examples

- Feeders and loaders
- Semiconductor equipment
- LCD manufacturing equipment

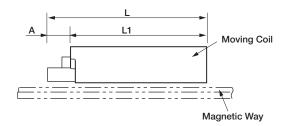
Precautions on Moving Coil with Hall Sensor

When using a moving coil with a hall sensor, the magnetic way must completely cover the bottom of the hall sensor. Refer to the example showing the correct installation.

When determining the length of the moving coil's stroke or the length of the magnetic way, consider the total length of the moving coil and the hall sensor unit. Refer to the following table.



The total length of moving coil with hall sensor



Moving Coil Model	Length of Moving Coil	Length of Hall Sensor Unit	Total Length
SGLFW-	L1 (mm)	A (mm)	L (mm)
20A090AP	91	22	113
20A120AP	127	22	149
35_120AP_	127	22	149
35□230AP□	235	22	257
50□200□P□	215	22	237
50□380□P□	395	22	417
1Z_200_P_	215	22	237
1Z_380_P_	395	22	417

Ratings and Specifications

Time Rating: Continuous

Insulation Resistance: 500 VDC, 10 $\mbox{M}\Omega$ min.

Ambient Temperature: 0 to 40°C Excitation: Permanent magnet

Withstand Voltage: 1500 VAC for one minute

Enclosure: Self-cooled

Ambient Humidity: 20% to 80% (no condensation)
Allowable Winding Temperature: 130°C (Thermal class B)

200-V Class

Linear Servomotor Model			DΑ	38	5A	50)A	12	ZA
SGLFW-		090A	120A	120A	230A	200B	380B	200B	380B
Peak Speed	m/s	5.0	5.0	5.0	5.0	5.0	5.0	4.9	4.9
Rated Force*	N	25	40	80	160	280	560	560	1120
Rated Current	Arms	0.70	0.80	1.4	2.8	5.0	10.0	8.7	17.5
Peak Force	N	86	125	220	440	600	1200	1200	2400
Peak Current*	Arms	3.0	2.9	4.4	8.8	12.4	25.0	21.6	43.6
Moving Coil Mass	kg	0.7	0.9	1.3	2.3	3.5	6.9	6.4	11.5
Force Constant	N/Arms	36.0	54.0	62.4	62.4	60.2	60.2	69.0	69.0
BEMF Constant	V/ (m/s)	12.0	18.0	20.8	20.8	20.1	20.1	23.0	23.0
Motor Constant	N/√W	7.9	9.8	14.4	20.4	34.3	48.5	52.4	74.0
Electrical Time Constant	ms	3.2	3.3	3.6	3.6	15.9	15.8	18.3	18.3
Mechanical Time Constant	ms	11.0	9.3	6.2	5.5	3.0	2.9	2.3	2.1
Thermal Resistance (With Heat Sink)	K/W	4.35	3.19	1.57	0.96	0.56	0.38	0.47	0.2
Thermal Resistance (Without Heat Sink)	K/W	7.69	5.02	4.10	1.94	1.65	0.95	1.3	0.73
Magnetic Attraction	N	314	462	809	1590	1650	3260	3300	6520
Applicable SERVOPACK	SGDV-	1R6	1R6	1R6	3R8	5R5	120A	120A	200A

Notes: 1 The items marked with an * and Force and Speed Characteristics (the table on the next page) are the values at a motor winding temperature of 100°C during operation in combination with a SERVOPACK. The others are at 20°C.

2 The above specifications show the values under the cooling condition when a heat sink (aluminum board) listed in the following table is mounted on the moving coil.

Heat Sink Size :125 mm × 125 mm × 13 mm: SGLFW-20A090A, -20A120A 254 mm × 254 mm × 25 mm: SGLFW-35A120A, -35A230A

400 mm×500 mm×40 mm: SGLFW-50A200B, -50A380B, -1ZA200B

600 mm×762 mm×50 mm: SGLFW-1ZA380B

400-V Class

Linear Servomotor Model		35	5D	50)D	12	ZD	18	ED
SGLFW-		120A	230A	200B	380B	200B	380B	380B	560B
Peak Speed	m/s	4.5	4.5	5.0	5.0	5.0	5.0	2.4	2.4
Rated Force*	N	80	160	280	560	560	1120	1500	2250
Rated Current	Arms	0.6	1.3	2.3	4.5	4.9	9.8	6.4	9.6
Peak Force*	N	220	440	600	1200	1200	2400	3600	5400
Peak Current	Arms	2.0	4.0	5.6	11.0	12.3	24.6	18.1	27.2
Moving Coil Mass	kg	1.3	2.3	3.5	6.9	6.4	11.5	20	29
Force Constant	N/Arms	136.0	136.0	134.7	134.7	122.6	122.6	250	250
BEMF Constant	V/ (m/s)	45.3	45.3	44.9	44.9	40.9	40.9	83.2	83.2
Motor Constant	N/√W	14.2	20.1	33.4	47.2	51.0	72.1	95.4	117
Electrical Time Constant	ms	3.7	3.6	15.0	15.0	17.4	17.2	16.9	16.9
Mechanical Time Constant	ms	5.2	5.1	3.2	3.2	2.5	2.2	2.2	2.1
Thermal Resistance (With Heat Sink)	K/W	1.57	0.96	0.56	0.38	0.47	0.2	0.19	0.15
Thermal Resistance (Without Heat Sink)	K/W	4.1	1.94	1.65	0.95	1.3	0.73	0.45	0.37
Magnetic Attraction	N	810	1590	1650	3260	3300	6520	9780	14600
Applicable SERVOPACK	SGDV-	1R9D	1R9D	3R5D	5R4D	5R4D	120D	8R4D	120D

Notes: 1 The items marked with an * and Force and Speed Characteristics (the table on the next page) are the values at a motor winding temperature of 100°C during operation in combination with a SERVOPACK. The others are at 20°C.

2 The above specifications show the values under the cooling condition when a heat sink (aluminum board) listed in the following table is mounted on the moving coil.

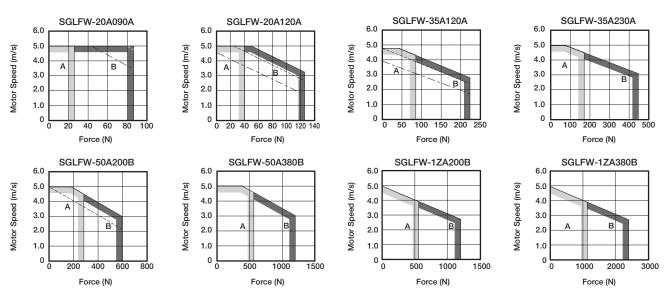
Heat Sink Size :254 mm × 254 mm × 25 mm: SGLFW-35D120A, -35D230A

 $400~mm\times500~mm\times40~mm$: SGLFW-50D200B, -50D380B, -1ZD200B $600~mm\times762~mm\times50~mm$: SGLFW-1ZD380B

609 mm×762 mm×50 mm: SGLFW-1ED380B, SGLFW-1ED560B

Patings and Specifications

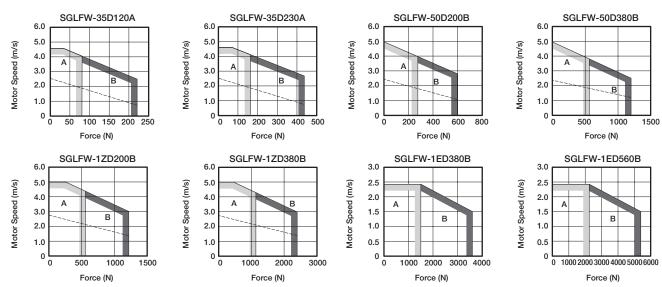
● Force and Speed Characteristics A : Continuous Duty Zone B : Intermittent Duty Zone 200-V Class



Notes: 1 The characteristics of the intermittent duty zone differ depending on the supply voltages. The solid, dotted, and dashed-dotted lines of the intermittent duty zone indicate the characteristics when a servomotor runs with the following combinations:

- The solid line: With a three-phase 200 V SERVOPACK
- The dotted line: With a single-phase 200 V SERVOPACK
- The dashed-dotted line: With a single-phase 100 V SERVOPACK
- 2 When the effective force is within the rated force, the servomotor can be used within the intermittent duty zone.

400-V Class



Notes: 1 The characteristics of the intermittent duty zone differ depending on the supply voltages. The solid and dotted lines of the intermittent duty zone indicate the characteristics when a servomotor runs with the following combinations:

- The solid line: With a three-phase 400 V SERVOPACK
- The dotted line: With a three-phase 200 V SERVOPACK

2 When using the servomotor with a three-phase 200-V input power supply, a different serial converter unit is required. For details, contact your Yaskawa representative. 3 When the effective force is within the rated force, the servomotor can be used within the intermittent duty zone.

Mechanical Specifications

- (1) Impact Resistance
 - Impact acceleration: 196 m/s²
 - Impact occurrences: twice

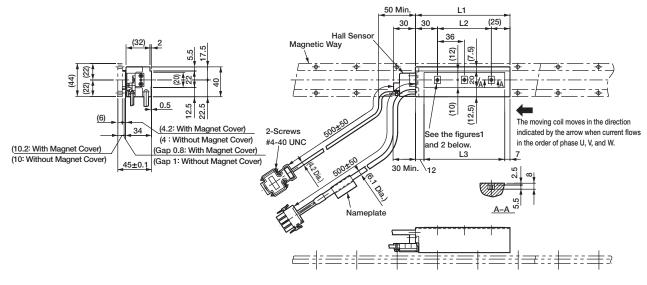
(2) Vibration Resistance

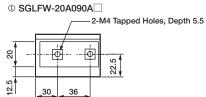
The linear servomotors will withstand the following vibration acceleration in three directions: Vertical, side to side, and front to back.

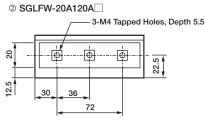
● Vibration acceleration: 49 m/s²

(1) SGLFW-20

Moving Coil: SGLFW-20A□□□A□ (With a connector by Tyco Electronics AMP K.K.)







Moving Coil Model SGLFW-	L1	L2	L3	Approx. Mass kg
20A090A	91	36	72	0.7
20A120A	127	72	108	0.9

Hall Sensor Connector Specifications



Pin Connector: 17JE-13090-02 (D8C) by DDK Ltd.

The Mating Connector

Socket Connector: 17JE-13090-02 (D8C) Stud: 17L-002C o 17L-002C1

Pin No.	Signal		
1	+5V (Power supply)		
2	Phase U		
3	Phase V		
4	Phase W		
5	0V (Power supply)		
6	Not used		
7	Not used		
8	Not used		
9	Not used		

Linear Servomotor Connector Specifications

1000						
lug:350779-1						
in :350218-3 or						
350547-3(No.1 to 3)						
350654-1						

350669-1(No.4) by Tyco Electronics AMP K.K.

The Mating Connector		
Cap : 350780-1 Socket: 350536-3 or 350550-3		

Note: Models compatible with connectors by Interconnectron GmbH are also available

1

2

3

4

Phase U

Phase V

FG

Red

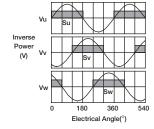
White

Black

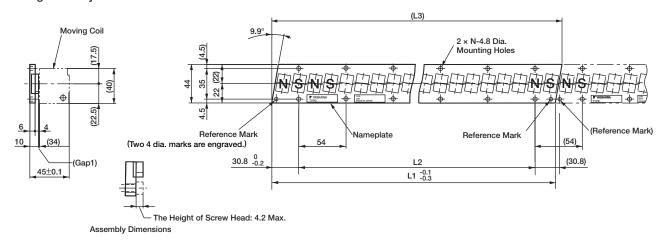
Green

Hall Sensor Output Signals

When the moving coil moves in the direction indicated by the arrow in the figure, the relationship between the hall sensor output signals Su, Sv, Sw and the inverse power of each motor phase Vu, Vv, Vw becomes as shown in the



● Magnetic Way: SGLFM-20□□□A



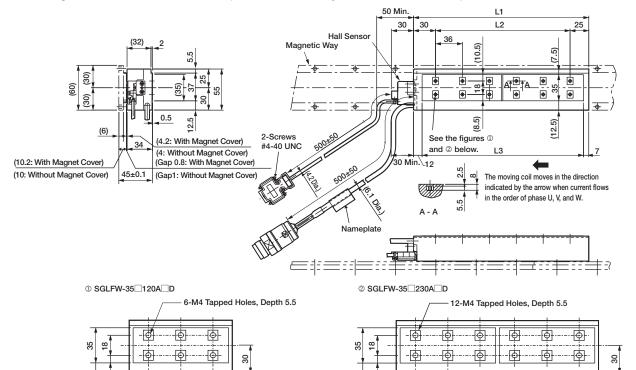
Notes: 1 Multiple SGLFM-20 ... A magnetic ways can be connected. Connect magnetic ways so that the reference marks match one on the other in the same direction as shown in the figure.

2 If you have a pacemaker or any other electronic medical device, do not go near the magnetic way of the linear servomotor.

	Magnetic Way Model SGLFM-	L1 ^{-0.1}	L2	(L3)	N	Approx. Mass kg
I	20324A	324	270 (54×5)	(331.6)	6	0.9
ĺ	20540A	540	486 (54×9)	(547.6)	10	1.4
ĺ	20756A	756	702 (54×13)	(763.6)	14	2

(2) SGLFW-35

● Moving Coil: SGLFW-35□□□□A□D (With a connector by Interconnectron GmbH)



Moving Coil Model SGLFW-	L1	L2	L3	N	Approx. Mass kg
35□120A□D	127	72	108	6	1.3
35□230A□D	235	180	216	12	2.3

Hall Sensor Connector Specifications



8.5

30

36

Pin Connector : 17JE-23090-02 (D8C) by DDK Ltd.

The Mating Connector

Socket Connector: 17JE-13090-02 (D8C) Stud: 17L-002C or 17L-002C1

Pin No.	Signal
1	+5V (Power supply)
2	Phase U
3	Phase V
4	Phase W
5	0V (Power supply)
6	Not used
7	Not used
8	Not used
	NI-4 d

Linear Servomotor Connector Specifications

8.5

30 36



Extension: ARRA06AMRPN182 Pin : 021.279.1020 by Interconnectron GmbH

The Mating Connector

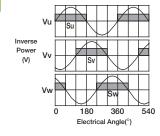
Plug : APRA06BFRDN170
Socket: 020.105.1020

Pin No.	Name				
1	Phase U				
2	Phase V				
4	Phase W				
5	Not used				
6	Not used				
(Ground				

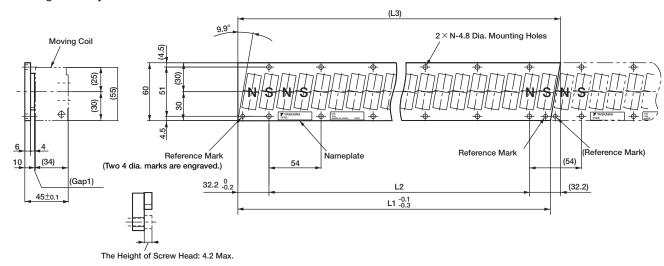
 $180(36 \times 5)$

Hall Sensor Output Signals

When the moving coil moves in the direction indicated by the arrow in the figure, the relationship between the has sensor output signals Su, Sv, Sw and the inverse power of each motor phase Vu, Vv, Vw becomes as shown in the figure below.



Magnetic Way: SGLFM-35□□□A



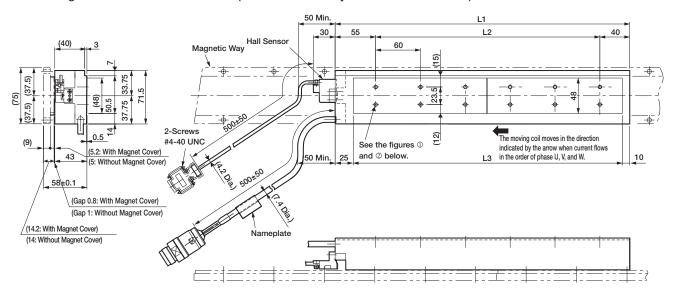
Assembly Dimensions

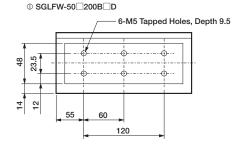
Notes: 1 Multiple SGLFM-35 — A magnetic ways can be connected. Connect magnetic ways so that the reference marks match one on the other in the same direction as

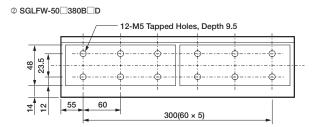
2 If you have a pacemaker or any other electronic medical device, do not go near the magnetic way of the linear servomotor.

Magnetic Way Model SGLFM-	L1 ^{-0.1}	L2	(L3)	N	Approx. Mass kg
35324A	324	270 (54×5)	(334.4)	6	1.2
35540A	540	486 (54×9)	(550.4)	10	2
35756A	756	702 (54×13)	(766.4)	14	2.9

● Moving Coil: SGLFW-50 □ □ □ B □ D (With a connector by Interconnectron GmbH)







Moving Coil Model SGLFW-	Lt	L2	L3	N	Approx. Mass kg
50□200B□D	215	120	180	6	3.5
50□380B□D	395	300	360	12	6.9

Hall Sensor Connector Specifications



Pin Connector: 17JE-23090-02 (D8C) by DDK Ltd.

The Mating Connector

Socket Connector: 17JE-13090-02 (D8C) Stud: 17L-002C or 17L-002C1

Pin No.	Signal			
1	+5V (Power supply)			
2	Phase U			
3	Phase V			
4	Phase W			
5	0V (Power supply)			
6	Not used			
7	Not used			
8	Not used			
9	Not used			

Linear Servomotor Connector Specifications



Extension: ARRA06AMRPN182 Pin : 021.279.1020 by Interconnectron GmbH

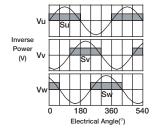
The Mating Connector

Plug : APRA06BFRDN170 Socket: 020.105.1020

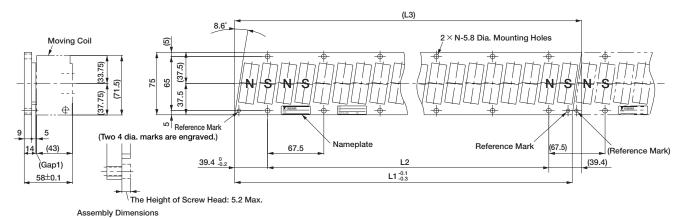
Pin No.	Name		
1	Phase U		
2	Phase V		
4	Phase W		
5	Not used		
6	Not used		
(Ground		

Hall Sensor Output Signals

When the moving coil moves in the direction indicated by the arrow in the figure, the relationship between the hall sensor output signals Su, Sv, Sw and the inverse power of each motor phase Vu, Vv, Vw becomes as shown in the figure



Magnetic Way: SGLFM-50□□□A



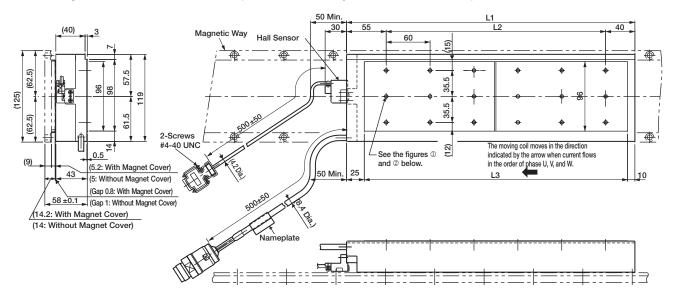
Notes: 1 Multiple SGLFM-50 — A magnetic ways can be connected. Connect magnetic ways so that the reference marks match one on the other in the same direction as shown in the figure.

2 If you have a pacemaker or any other electronic medical device, do not go near the magnetic way of the linear servomotor.

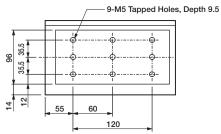
Magnetic Way Model SGLFM-	L1 ^{-0.1}	L2	(L3)	N	Approx. Mass kg
50405A	405	337.5 (67.5×5)	(416.3)	6	2.8
50675A	675	607.5 (67.5×9)	(686.3)	10	4.6
50945A	945	877.5 (67.5×13)	(956.3)	14	6.5

(4) SGLFW-1Z

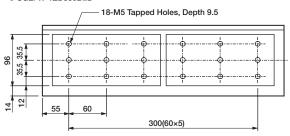
● Moving Coil: SGLFW-1Z□□□□B□D (With a connector by Interconnectron GmbH)



SGLFW-1Z□200B□D



② SGLFW-1ZD380B□D



Moving Coil Model SGLFW-	L1	L2	L3	N	Approx. Mass kg
1Z□200B□D	215	120	180	9	6.4
1ZD380B□D	395	300	360	18	11.5

Hall Sensor Connector Specifications



Pin Connector : 17JE-23090-02 (D8C) by DDK Ltd.

The Mating Connector

Socket Connector: 17JE-13090-02 (D8C) Stud: 17L-002C or 17L-002C1

Pin No.	Signal			
1	+5V (Power supply)			
2	Phase U			
3	Phase V			
4	Phase W			
5	0V (Power supply)			
6	Not used			
7	Not used			
8	Not used			
9	Not used			

Linear Servomotor Connector Specifications



Extension: ARRA06AMRPN182 Pin : 021.279.1020 by Interconnectron GmbH

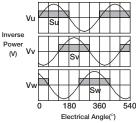
The Mating Connector

Plug : APRA06BFRDN170 Socket: 020.105.1020

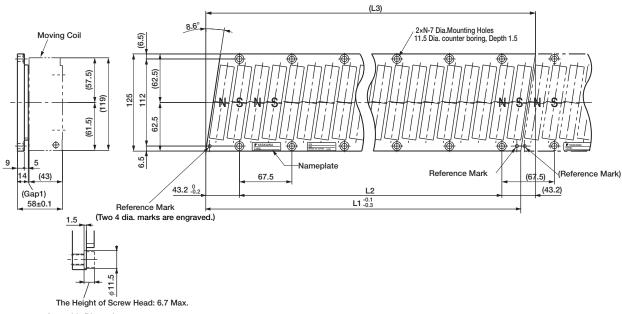
Pin No.	Name			
1	Phase U			
2	Phase V			
4	Phase W			
5	Not used			
6	Not used			
	Ground			

Hall Sensor Output Signals

When the moving coil moves in the direction indicated by the arrow in the figure, the relationship between the hall sensor output signals Su, Sv, Sw and the inverse power of each motor phase Vu, Vv, Vw becomes as shown in the figure



Magnetic Way: SGLFM-1Z□□□A



Assembly Dimensions

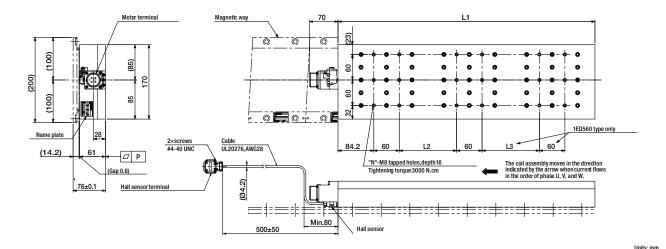
Notes: 1 Multiple SGLFM-1Z \ and a magnetic ways can be connected. Connect magnetic ways so that the reference marks match one on the other in the same direction as shown in the figure.

2 If you have a pacemaker or any other electronic medical device, do not go near the magnetic way of the linear servomotor.

Magnetic Way Model SGLFM-	L1 ^{-0.1} -0.3	L2	L3	N	Approx. Mass kg
1Z405A	405	337.5 (67.5 × 5)	(423.9)	6	5
1Z675A	675	607.5 (67.5 × 9)	(693.9)	10	8.3
1Z945A	945	877.5 (67.5 × 13)	(963.9)	14	12

(4) SGLFW-1ED

Moving Coil: SGLFW-1ED□□□B□ (With a connector by Tyco Electronics AMP K.K.)



Hall sensor Connector specifications



Pin connector type: 17JE-23090-02 (D8C) made by DDK Ltd.

The mating connector

Socket connector type:
17JE-13090-02 (DBC)

Pin No.	Name
1	+5V (Power supply)
2	Phase U
3	Phase V
4	Phase W
5	OV (Power supply)
6	Not used
7	Not used
8	Not used
0	Metuced

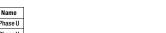




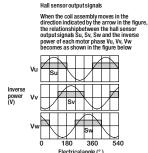
Receptade type: MS3102A-22-22P made by DDK Ltd.

The mating connector

L-shaped plug type:
MS3108E22-22S

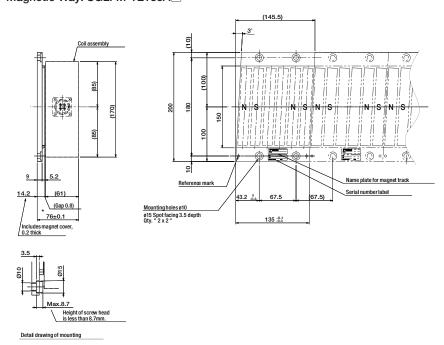






Moving Coil M SGLFW-		L2	L3	N	Р	Approx. Mass kg
1ED380B	390	120	-	12	0.3	20
1ED560B	600	135	135	18	0.5	29

■ Magnetic Way: SGLFM-1E135A



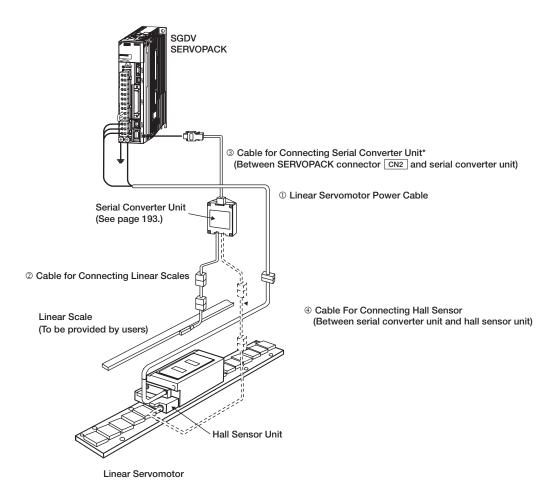
Notes: 1 Multiple SGLFM-1E — A magnetic ways can be connected. Connect magnetic ways so that the reference marks match one on the other in the same direction as shown in the figure.

2 If you have a pacemaker or any other electronic medical device, do not go near the magnetic way of the linear servomotor.

Magnetic Way Model	Approx. Mass
SGLFM-	kg
1F135A	2.5

Selecting Cables

Cables Connections



^{*:} A serial converter unit can be connected directly to an absolute linear scale.

Cables

Name	Applicable Linear Servomotor Model	Length	Order No.	Specifications	Details
		1 m	JZSP-CLN11-01-E		
		3 m	JZSP-CLN11-03-E	SERVOPACK End Linear Servomotor End	
		5 m	JZSP-CLN11-05-E		
	SGLFW-20, -35	10 m	JZSP-CLN11-10-E		(1)
		15 m	JZSP-CLN11-15-E	*1	
		20 m	JZSP-CLN11-20-E	· '	
		1 m	JZSP-CLN21-01-E		
		3 m	JZSP-CLN21-03-E	SERVOPACK End Linear Servomotor End	
	001514 50 47	5 m	JZSP-CLN21-05-E		(0)
	SGLFW-50, -1Z	10 m	JZSP-CLN21-10-E		(2)
		15 m	JZSP-CLN21-15-E	- *1	
		20 m	JZSP-CLN21-20-E		
		3 m	DP9325254-03G	SERVOPACK End Linear Servomotor End	
0		5 m	DP9325254-05G	SELIVOTAGE ETIA	
Linear Servomotor	SGLFW-35, 50, 1Z A□□□□□□	10 m	DP9325254-10G		(3)
Power Cables		15 m	DP9325254-15G	©==== *2	
		20 m	DP9325254-20G		
		1 m	JZSP-CMM20D15-01G		
		3 m	JZSP-CMM20D15-03G	CERVORACK End Lineau Company End	
	SGLFW-35, 50, 1Z D D D D SGLFW-1E	5 m	JZSP-CMM20D15-05G	SERVOPACK End Linear Servomotor End	(4)
		10 m	JZSP-CMM20D15-10G		(4)
		15 m	JZSP-CMM20D15-15G	*2	
		20 m	JZSP-CMM20D15-20G		
		1 m	JZSP-CVMCA13-01-E-G#		
		3 m	JZSP-CVMCA13-03-E-G#	Servopack side Servomotor side	
		5 m	JZSP-CVMCA13-05-E-G#		
		10 m	JZSP-CVMCA13-10-E-G#		
		15 m	JZSP-CVMCA13-15-E-G#		
		20 m	JZSP-CVMCA13-20-E-G#		
		1 m	JZSP-CLL00-01-E-G#	Serial Converter	
2		3 m	JZSP-CLL00-03-E-G#	Unit End Linear Scale End	
Cables for Connecting	All models	5 m	JZSP-CLL00-05-E-G#		(5)
Linear Scales'3		10 m	JZSP-CLL00-10-E-G#		
		15 m	JZSP-CLL00-15-E-G#		
		1 m	JZSP-CLP70-01-E-G#		
3		3 m	JZSP-CLP70-03-E-G#	Serial Converter	
Cables for Connecting	All models	5 m	JZSP-CLP70-05-E-G#	SERVOPACK End Unit End	(6)
Serial Converter Units		10 m	JZSP-CLP70-10-E-G#		(5)
		15 m	JZSP-CLP70-15-E-G#		
		20 m	JZSP-CLP70-20-E-G#		
	All models	1 m	JZSP-CLL10-01-E-G#	Serial Converter Hall Sensor	
4		3 m	JZSP-CLL10-03-E-G#	Unit End Unit End Unit End	
Cables for Connecting		5 m	JZSP-CLL10-05-E-G#		(7)
Hall Sensors		10 m	JZSP-CLL10-10-E-G#		
		15 m	JZSP-CLL10-15-E-G#		

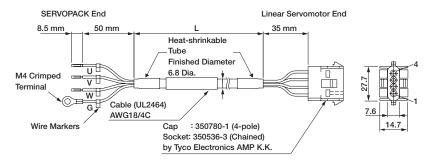
^{*1:} Connector by Tyco Electronics AMP K.K. *2: Connector by Interconnectron GmbH

Note: The digit "#" of the order number represents the design revision.

^{*3:} When using serial converter unit JZDP-G00 _- _ _ _ _ _ - E, the maximum cable length is 3 m.

Selecting Cables

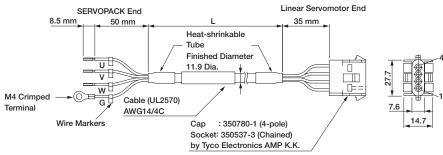
(1) Linear Servomotor Power Cables: JZSP-CLN11- ___-E



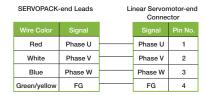
Wiring Specifications

SERVUPACK-6	nd Leads	Connector			
Wire Color Signal			Signal		
Red Phase U			Phase U	1	
White	White Phase V		Phase V	2	
Blue	Phase W		Phase W	3	
Green/yellow FG		<u> </u>	FG	4	

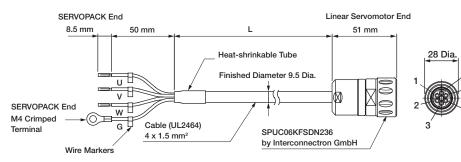
(2) Linear Servomotor Power Cables: JZSP-CLN21- -E



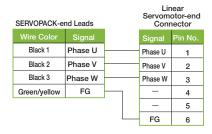
Wiring Specifications



(3) Linear Servomotor Power Cables: DP9325254- G

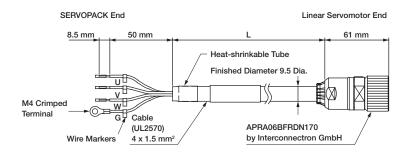


• Wiring Specifications

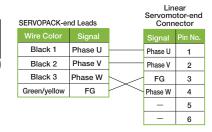


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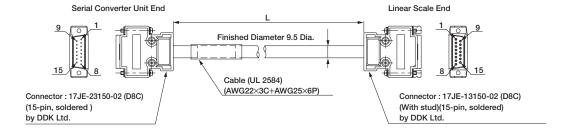




Wiring Specifications



(5) Cables for Connecting Linear Scales: JZSP-CLL00- -E-G#

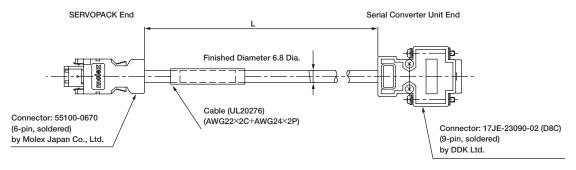


Wiring Specifications

Serial Conve	erter Unit End		Linear Scale End		
Pin No.	Signal	(Pin No.	Signal	
1	/Cos (V1-)		1	/Cos (V1-)	
2	/Sin (V2-)	-	2	/Sin (V2-)	
3	Ref (V0+)		3	Ref (V0+)	
4	+5V		4	+5V	
5	5Vs		5	5Vs	
6	BID		6	BID	
7	Vx		7	Vx	
8	Vq		8	Vq	
9	Cos (V1+)		9	Cos (V1+)	
10	Sin (V2+)		10	Sin (V2+)	
11	/Ref (V0+)		11	/Ref (V0-)	
12	0V		12	0V	
13	0Vs		13	0Vs	
14	DIR		14	DIR	
15	Inner	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	15	Inner	
Case	Shield	•	Case	Shield	

Selecting Cables

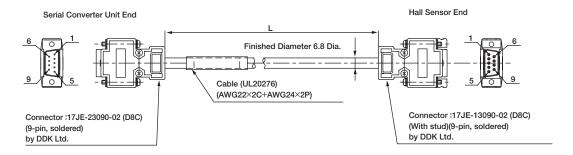
(6) Cables for Connecting Serial Converter Units: JZSP-CLP70- -E-G#



Wiring Specifications

SERVOPACK End			Serial Converter Unit End			
Pin No.	Signal	Wire Color	100	Pin No.	Signal	Wire Color
1	PG5V	Red		1	+5V	Red
2	PG0V	Black		5	0V	Black
3	-	-		3	-	-
4	-	-		4	-	-
5	PS	Light blue	-	2	Phase S output	Light blue
6	/PS	Light blue/white	\ <u></u>	6	Phase /S output	Light blue/white
Shell	Shield	-		Case	Shield	-
				7	-	ı
				8	-	-
				9	-	-

(7) Cables for Connecting Hall Sensors: JZSP-CLL10- -E-G#



Wiring Specifications

٠.	Serial Con	verter Unit End		Hall Sensor End		
		Signal	100	Pin No.	Signal	
	1	+5V		1	+5V	
	2	Phase U input		2	Phase U input	
	3	Phase V input		3	Phase V input	
	4	Phase W input		4	Phase W input	
	5	0V		5	0V	
	6	_		6	_	
l	7	-		7	-	
	8	-		8	-	
	9	-		9	-	
	Case	Shield	 	Case	Shield	