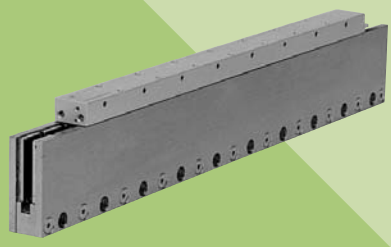
Linear Servomotors

SGLGW

(Coreless Type)



Model Designations

● Moving Coil

S	G	L	G	W	-	30	A	050	C	P	□
Linear ∑ Series Linear Servomotor	1st digit	2nd digit				3rd+4th digits	5th digit	6th+7th+8th digits	9th digit	10th digit	11th digit

1st digit Servomotor Type

Code	Specifications
G	Coreless

2nd digit Moving Coil/ Magnetic Way

Code	Specifications
W	Moving Coil

3rd+4th digits Magnet Height

5th digit Voltage

Code	Specifications
A	200 VAC

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

9th digit Design Revision Order
A, B, C...

10th digit Hall Sensor/Cooling Method

Code	Specifications	Applicable Model
P	With hall sensor	All models
C	Forced cooling	SGLGW -40A, -60A, -90A
H	With hall sensor and forced cooling	
Blank	Without hall sensor	All models

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	SGLGW -30A,-40A,-60A

● Magnetic Way

S	G	L	G	M	-	30	108	A	□
Linear ∑ Series Linear Servomotor	1st 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, C*...

*: The coreless linear servomotor has revision CT.
C = without mounting holes on the bottom
CT = with mounting holes on the bottom

9th digit Options

Code	Specifications	Applicable Model
Blank	standard	All models
-M	High force	SGLGM-40, -60

Features

- Direct-feed mechanism for high-speed and high-precision positioning.
- Lack of magnetic attraction force helps extend the life of linear motion guides and minimizes noise.
- Zero cogging for minimal force ripple.

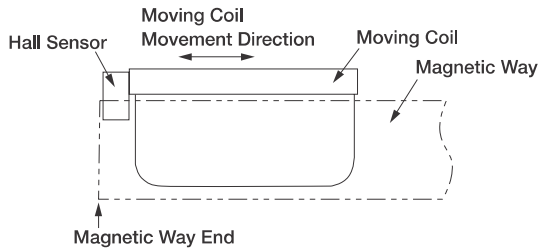
Application Examples

- 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.

<Correct>



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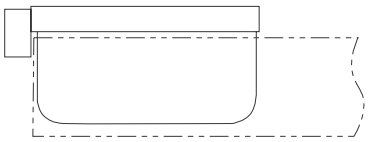
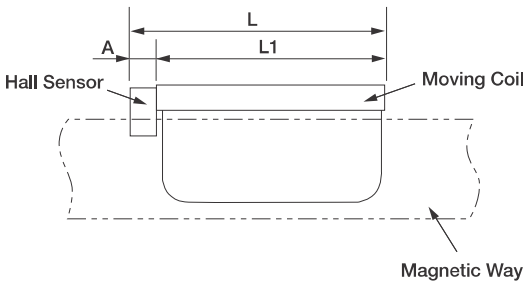


The total length of moving coil with hall sensor



Moving Coil Model SGLGW-	Length of Moving Coil L1 (mm)	Length of Hall Sensor Unit A (mm)	Total Length L (mm)
30A050□P□	50	0 (Included in the length of moving coil)	50
30A080□P□	80		80
40A140□P□	140	16	156
40A253□P□	252.5		268.5
40A365□P□	365		381
60A140□P□	140	16	156
60A253□P□	252.5		268.5
60A365□P□	365		381
90A200□P□	199	0 (Included in the length of moving coil)	199
90A370□P□	367		367
90A535□P□	535		535

Ratings and Specifications

Time Rating: Continuous
Insulation Resistance: 500 VDC, 10 MΩ min.
Ambient Temperature: 0 to 40°C
Excitation: Permanent magnet
Withstand Voltage: 1500 VAC for one minute

Enclosure: Self-cooled, air-cooling (Only self-cooled type available for SGLGW-30A linear servomotor)
Ambient Humidity: 20% to 80% (no condensation)
Allowable Winding Temperature: 130°C (Thermal class B)

● With Standard-force Magnetic Ways

Linear Servomotor Model SGLGW-		30A		40A			60A			90A		
		050C	080C	140C	253C	365C	140C	253C	365C	200C	370C	535C
Peak Speed*	m/s	5	5	5	5	5	4.8	4.8	4.8	4	4	4
Rated Force*	N	12.5	25	47	93	140	70	140	210	325	550	750
Rated Current*	Arms	0.51	0.79	0.8	1.6	2.4	1.2	2.2	3.3	4.4	7.5	10.2
Peak Force*	N	40	80	140	280	420	220	440	660	1300	2200	3000
Peak Current*	Arms	1.62	2.53	2.4	4.9	7.3	3.5	7.0	10.5	17.6	30.0	40.8
Moving Coil Mass	kg	0.10	0.15	0.34	0.60	0.87	0.42	0.76	1.10	2.15	3.6	4.9
Force Constant	N/Arms	26.4	33.9	61.5	61.5	61.5	66.6	66.6	66.6	78.0	78.0	78.0
BEMF Constant	V/(m/s)	8.8	11.3	20.5	20.5	20.5	22.2	22.2	22.2	26.0	26.0	26.0
Motor Constant	$N/\sqrt{W}$	3.7	5.6	7.8	11.0	13.5	11.1	15.7	19.2	26.0	36.8	45.0
Electrical Time Constant	ms	0.2	0.4	0.4	0.4	0.4	0.5	0.5	0.5	1.4	1.4	1.4
Mechanical Time Constant	ms	7.30	4.78	5.59	4.96	4.77	3.41	3.08	2.98	3.18	2.66	2.42
Thermal Resistance (With heat sink)	K/W	5.19	3.11	1.67	0.87	0.58	1.56	0.77	0.51	0.39	0.26	0.22
Thermal Resistance (Without heat sink)	K/W	8.13	6.32	3.02	1.80	1.23	2.59	1.48	1.15	1.09	0.63	0.47
Magnetic Attraction	N	0	0	0	0	0	0	0	0	0	0	0
Applicable SERVOPACK	SGDV-	R70A	R90A	R90A	1R6A	2R8A	1R6A	2R8A	5R5A	120A	180A	200A

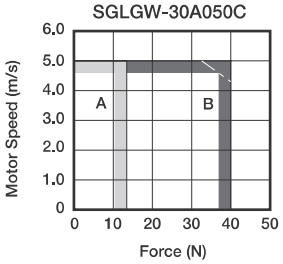
Notes: 1 The items marked with an * and *Force and Speed Characteristics* (the table on the next page) are the values at a motor winding temperature of 100°C during operation in combination with a SERVOPACK. The others are at 20°C.
2 The above specifications show the values under the cooling condition when a heat sink (aluminum board) listed in the following table is mounted on the moving coil.

Heat Sink Size
200 mm × 300 mm × 12 mm : SGLGW-30A050C, -30A080C, -40A140C, -60A140C
300 mm × 400 mm × 12 mm : SGLGW-40A253C, -60A253C
400 mm × 500 mm × 12 mm : SGLGW-40A365C, -60A365C
800 mm × 900 mm × 12 mm : SGLGW-90A200C, -90A370C, -90A535C

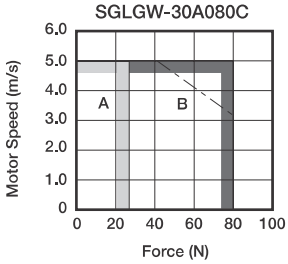
Ratings and Specifications

• Force and Speed Characteristics A : Continuous Duty Zone B : Intermittent Duty Zone

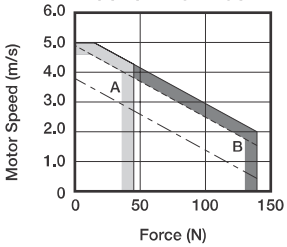
SGLGW-30A050C



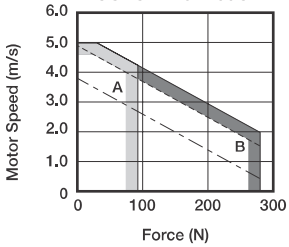
SGLGW-30A080C



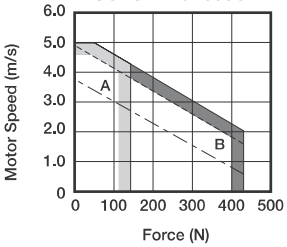
SGLGW-40A140C



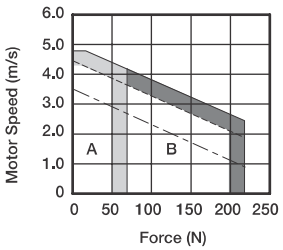
SGLGW-40A253C



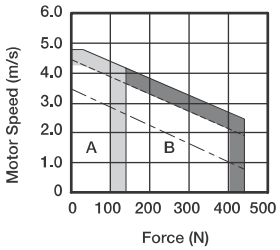
SGLGW-40A365C



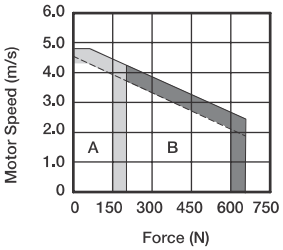
SGLGW-60A140C



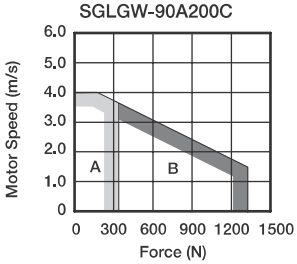
SGLGW-60A253C



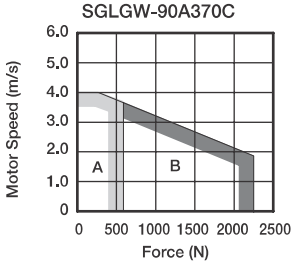
SGLGW-60A365C



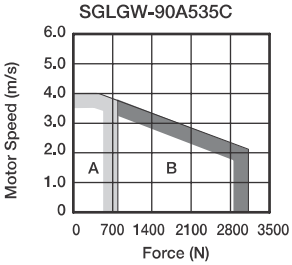
SGLGW-90A200C



SGLGW-90A370C



SGLGW-90A535C



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

SGLGW-30A050C and SGLGW-30A080C servomotors combined with single-phase 200 V SERVOPACKs have the same characteristics as those combined with three-phase ones.

2 When the effective force is within the rated force, the servomotor can be used within the intermittent duty zone.

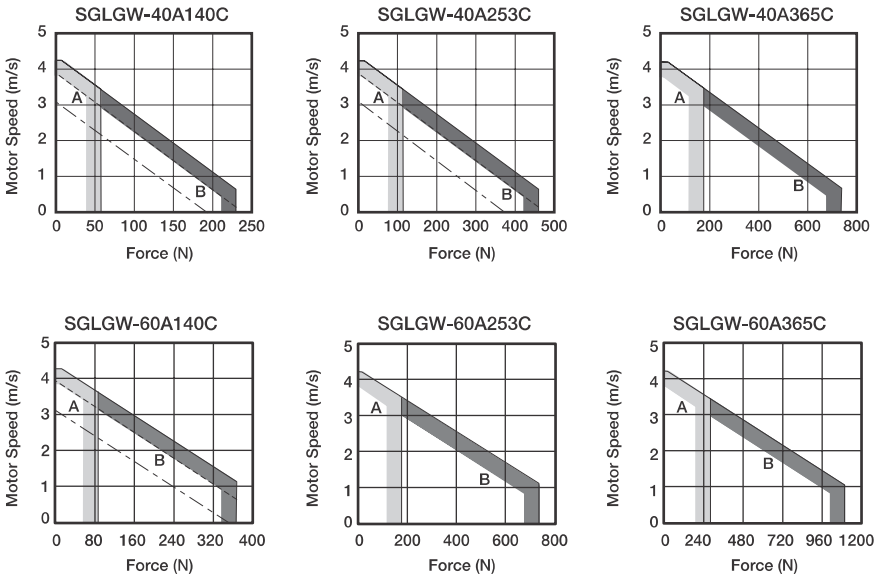
Ratings and Specifications

● With High-force Magnetic Ways

Linear Servomotor Model SGLGW-		40A			60A		
		140C	253C	365C	140C	253C	365C
Peak Speed*	m/s	4.2	4.2	4.2	4.2	4.2	4.2
Rated Force*	N	57	114	171	85	170	255
Rated Current*	Arms	0.8	1.6	2.4	1.2	2.2	3.3
Peak Force*	N	230	460	690	360	720	1080
Peak Current*	Arms	3.2	6.5	9.7	5.0	10.0	14.9
Moving Coil Mass	kg	0.34	0.60	0.87	0.42	0.76	1.10
Force Constant	N/Arms	76.0	76.0	76.0	77.4	77.4	77.4
BEMF Constant	V/(m/s)	25.3	25.3	25.3	25.8	25.8	25.8
Motor Constant	N/$\sqrt{W}$	9.6	13.6	16.7	12.9	18.2	22.3
Electrical Time Constant	ms	0.4	0.4	0.4	0.5	0.5	0.5
Mechanical Time Constant	ms	3.69	3.24	3.12	2.52	2.29	2.21
Thermal Resistance (With heat sink)	K/W	1.67	0.87	0.58	1.56	0.77	0.51
Thermal Resistance (Without heat sink)	K/W	3.02	1.80	1.23	2.59	1.48	1.15
Magnetic Attraction	N	0	0	0	0	0	0
Applicable SERVOPACK	SGDV-	1R6A	2R8A	3R8A	1R6A	3R8A	7R6A

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 200 mm × 300 mm × 12 mm : SGLGW-40A140C, -60A140C
300 mm × 400 mm × 12 mm : SGLGW-40A253C, -60A253C
400 mm × 500 mm × 12 mm : SGLGW-40A365C, -60A365C

● Force and Speed Characteristics A : Continuous Duty Zone B : Intermittent Duty Zone



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.

● Mechanical Specifications

(1) Impact Resistance
- Impact acceleration: 196 m/s^2
- Impact occurrences: twice

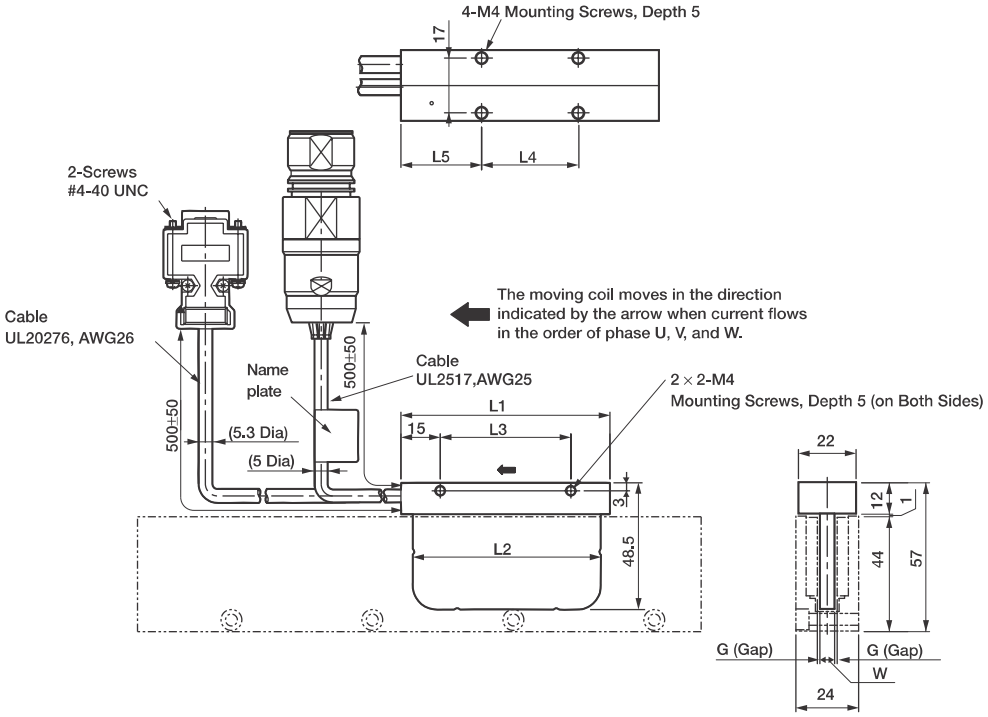
(2) Vibration Resistance

The linear servomotors will withstand the following vibration acceleration in three directions: Vertical, side to side, and front to back.
- Vibration acceleration: 49 m/s^2

External Dimensions Units: mm

(1) SGLGW-30

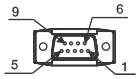
● Moving Coil: SGLGW-30A□□□C□D (With a connector by Interconnectron GmbH)



Moving Coil Model SGLGW-	L1	L2	L3	L4	L5	W	G (Gap)	Approx. Mass* kg
30A050C□D	50	48	30	20	20	5.9	0.85	0.14
30A080C□D	80	72	50	30	25	5.7	0.95	0.19

*: The values indicate the mass of moving coil with a hall sensor unit.

Hall Sensor
Connector Specifications

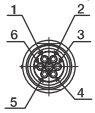


Pin Connector :
17JE-23090-02 (D8C)
by DDK Ltd.

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

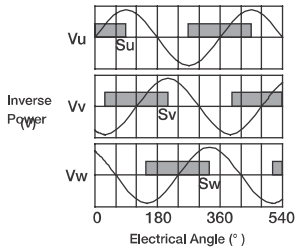


Extension: SROC06JMSCN169
Pin : 021.423.1020
by Interconnectron GmbH

The Mating Connector
Plug : SPUC06KFSDN236
Socket: 020.030.1020

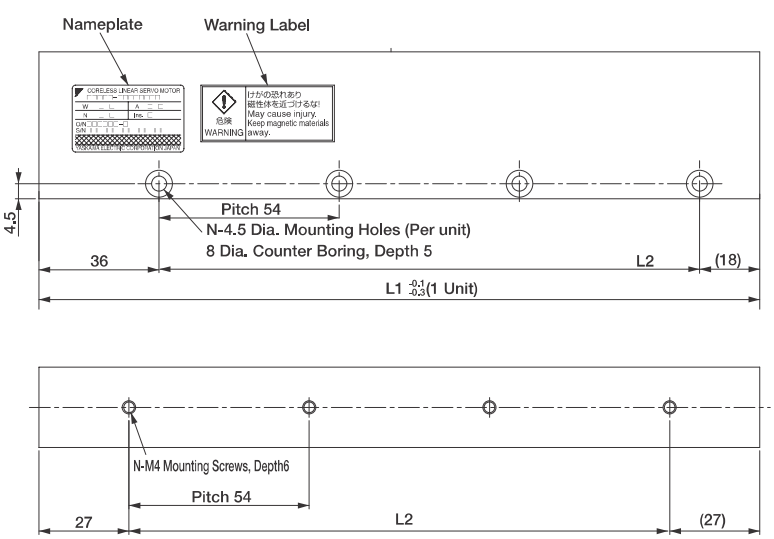
Pin No.	Signal	Wire Color
1	Phase U	Red
2	Phase V	White
3	Phase W	Blue
4	Not used	–
5	Not used	–
6	FG	Green

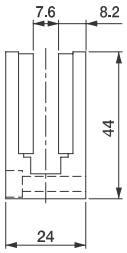
Hall Sensor Output Signals
When the moving coil moves in the direction indicated by the arrow in the figure, the relationship between the hall sensor output signals Su, Sv, Sw and the inverse power of each motor phase Vu, Vv, Vw becomes as shown in the figure below.



External Dimensions Units: mm

● Magnetic Way: SGLGM-30□□□A





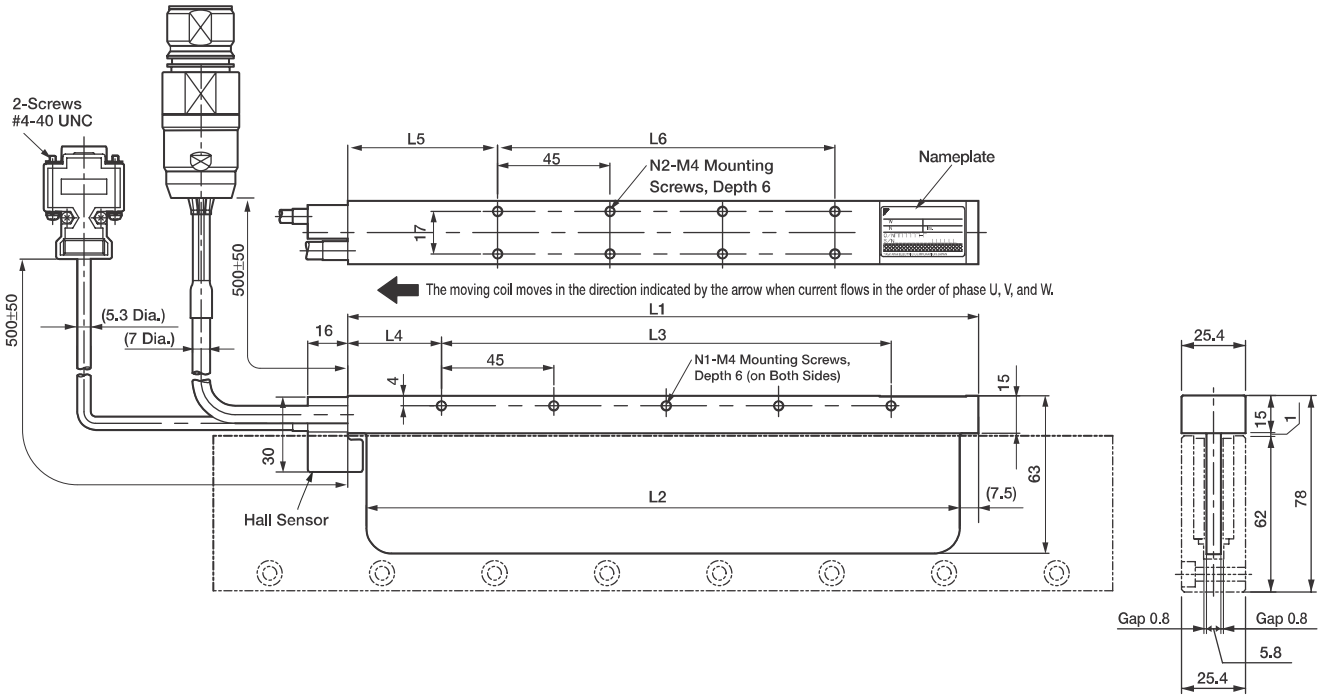
Magnetic Way Model SGLGM-	L1	L2	N	Approx. Mass kg
30108A	108	54	2	0.6
30216A	216	162	4	1.1
30432A	432	378	8	2.3

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

External Dimensions Units: mm

(2) SGLGW-40

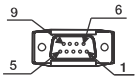
● Moving Coil: SGLGW-40A□□□C□D (With a connector by Interconnectron GmbH)



Moving Coil Model SGLGW-	L1	L2	L3	L4	L5	L6	N1	N2	Approx. Mass* kg
40A140C□D	140	125	90	30	52.5	45	3	4	0.40
40A253C□D	252.5	237.5	180	37.5	60	135	5	8	0.66
40A365C□D	365	350	315	30	52.5	270	8	14	0.93

*: The values indicate the mass of moving coil with a hall sensor unit.

Hall Sensor
Connector Specifications

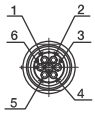


Pin Connector :
17JE-23090-02 (D8C)
by DDK Ltd.

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



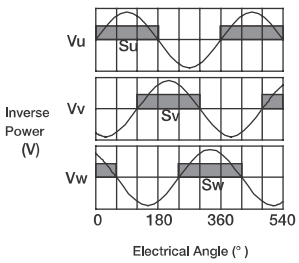
Extension: SROC06JMSCN169
Pin : 021.423.1020
by Interconnectron GmbH

The Mating Connector
Plug : SPUC06KFSDN236
Socket: 020.030.1020

Pin No.	Signal	Wire Color
1	Phase U	Red
2	Phase V	White
3	Phase W	Blue
4	Not used	–
5	Not used	–
6	FG	Green

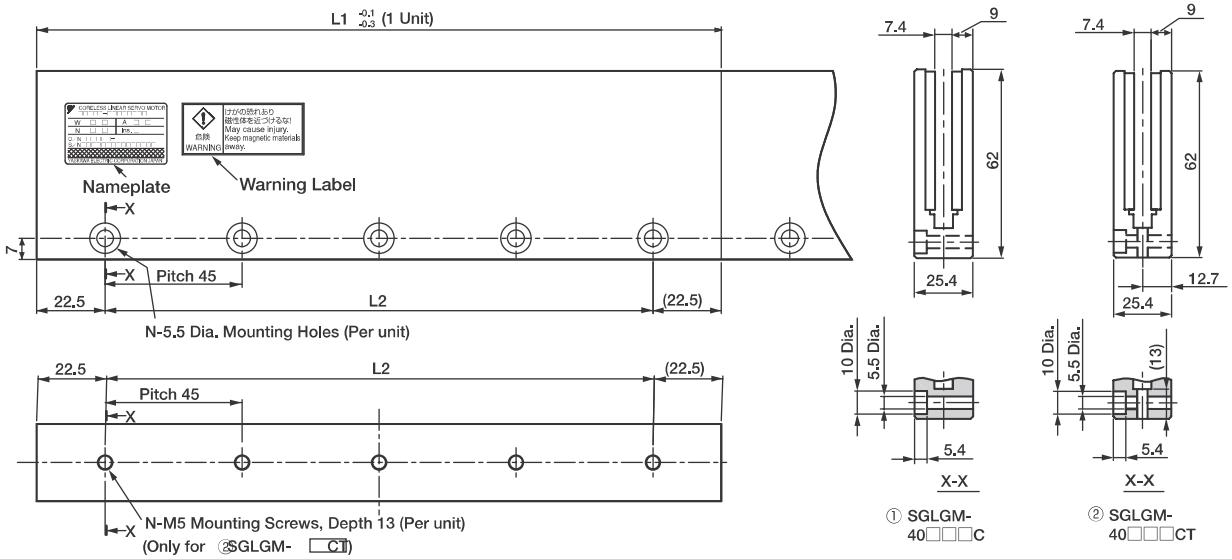
Hall Sensor Output Signals

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 figure below.



External Dimensions Units: mm

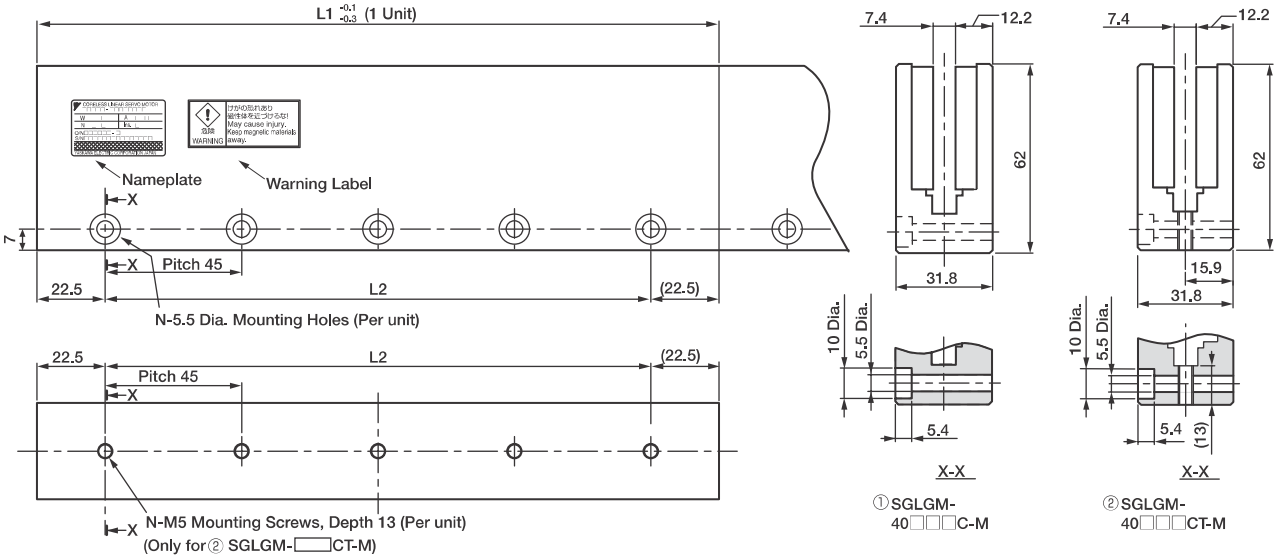
● Magnetic Way :SGLGM-40□□□C (Without mounting holes on the bottom)
SGLGM-40□□□CT (With mounting holes on the bottom)



Type	Standard-force Magnetic Way Model SGLGM-	L1	L2	N	Approx. Mass kg
Standard Force	40090C or 40090CT	90	45	2	0.8
	40225C or 40225CT	225	180	5	2.0
	40360C or 40360CT	360	315	8	3.1
	40405C or 40405CT	405	360	9	3.5
	40450C or 40450CT	450	405	10	3.9

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

● High-force Magnetic Way : SGLGM-40□□□C-M (Without mounting holes on the bottom)
SGLGM-40□□□CT-M (With mounting holes on the bottom)



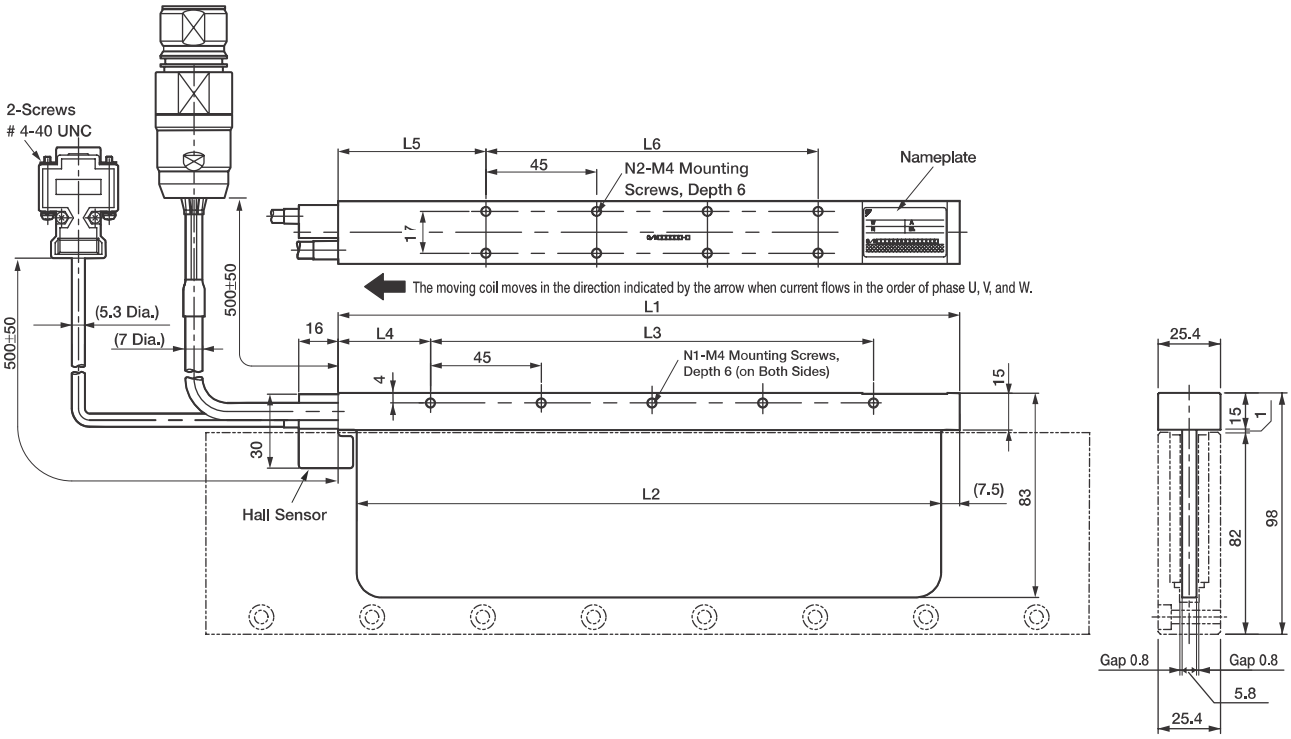
Type	High-force Magnetic Way Model SGLGM-	L1	L2	N	Approx. Mass kg
High Force	40090C-M or 40090CT-M	90	45	2	1.0
	40225C-M or 40225CT-M	225	180	5	2.6
	40360C-M or 40360CT-M	360	315	8	4.1
	40405C-M or 40405CT-M	405	360	9	4.6
	40450C-M or 40450CT-M	450	405	10	5.1

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

External Dimensions Units: mm

(3) SGLGW-60

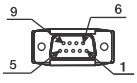
● Moving Coil: SGLGW-60A□□□C□D (With a connector by Interconnectron GmbH)



Moving Coil Model SGLGW-	L1	L2	L3	L4	L5	L6	N1	N2	Approx. Mass* kg
60A140C□D	140	125	90	30	52.5	45	3	4	0.48
60A253C□D	252.5	237.5	180	37.5	60	135	5	8	0.82
60A365C□D	365	350	315	30	52.5	270	8	14	1.16

*: The values indicate the mass of moving coil with a hall sensor unit.

Hall Sensor
Connector Specifications

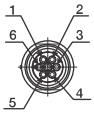


Pin Connector :
17JE-23090-02 (D8C)
by DDK Ltd.

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



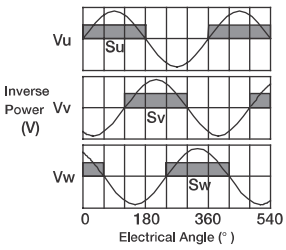
Extension: SROC06JMSCN169
Pin : 021.423.1020
by Interconnectron GmbH

The Mating Connector
Plug : SPUC06KFSDN236
Socket: 020.030.1020

Pin No.	Signal	Wire Color
1	Phase U	Red
2	Phase V	White
3	Phase W	Blue
4	Not used	–
5	Not used	–
6	FG	Green

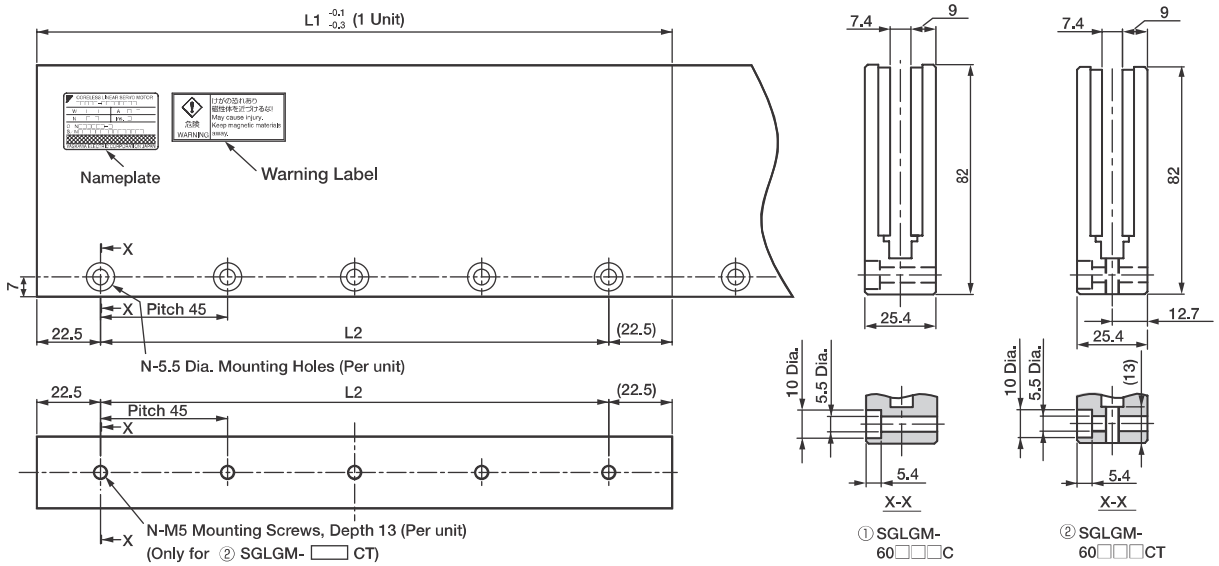
Hall Sensor Output Signals

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 figure below.



External Dimensions Units: mm

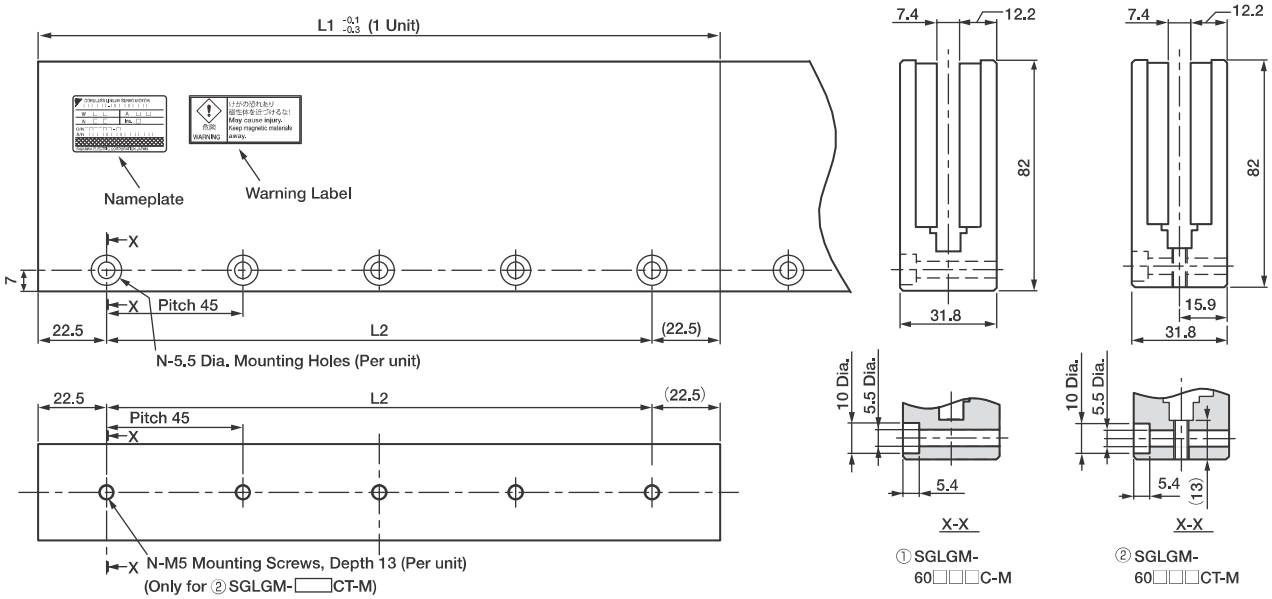
● Magnetic Way : SGLGM-60□□□C (Without mounting holes on the bottom)
SGLGM-60□□□CT (With mounting holes on the bottom)



Type	Standard-force Magnetic Way Model SGLGM-	L1	L2	N	Approx. Mass kg
Standard Force	60090C or 60090CT	90	45	2	1.1
	60225C or 60225CT	225	180	5	2.6
	60360C or 60360CT	360	315	8	4.1
	60405C or 60405CT	405	360	9	4.6
	60450C or 60450CT	450	405	10	5.1

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

● High-force Magnetic Way : SGLGM-60□□□C-M (Without mounting holes on the bottom)
SGLGM-60□□□CT-M (With mounting holes on the bottom)



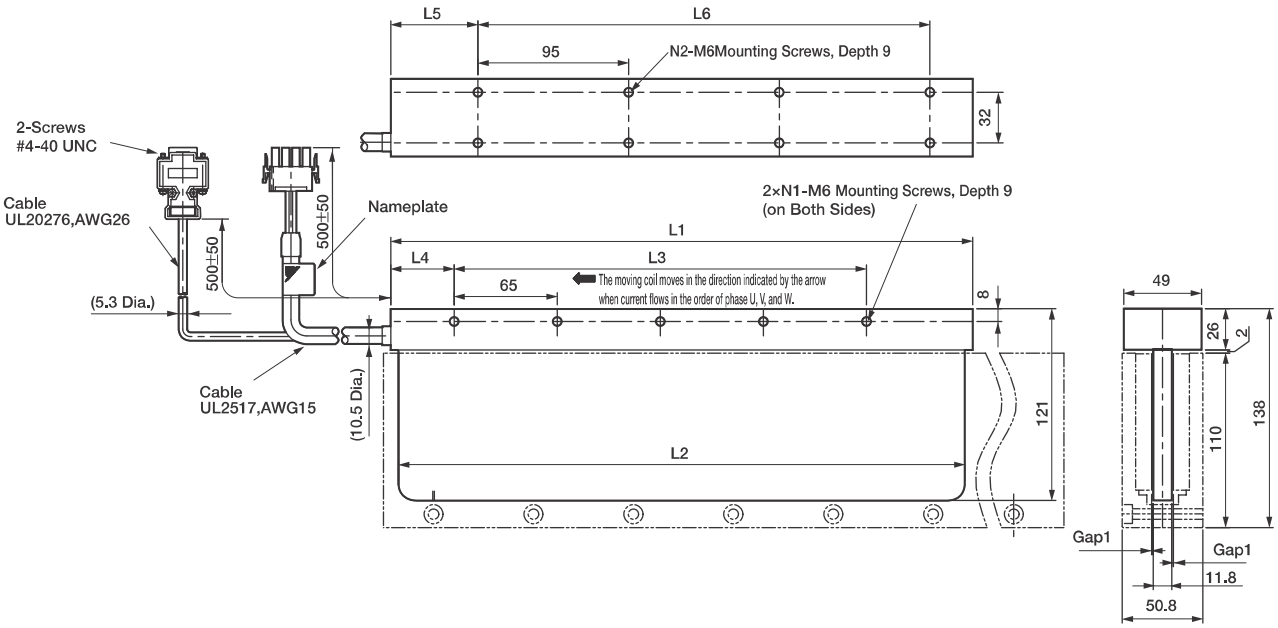
Type	High-force Magnetic Way Model SGLGM-	L1	L2	N	Approx. Mass kg
High Force	60090C-M or 60090CT-M	90	45	2	1.3
	60225C-M or 60225CT-M	225	180	5	3.3
	60360C-M or 60360CT-M	360	315	8	5.2
	60405C-M or 60405CT-M	405	360	9	5.9
	60450C-M or 60450CT-M	450	405	10	6.6

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

External Dimensions Units: mm

(4) SGLGW-90

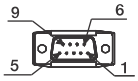
● Moving Coil: SGLGW-90A□□□C□ (With a connector by Tyco Electronics AMP K.K.)



Moving Coil Model SGLGW-	L1	L2	L3	L4	L5	L6	N1	N2	Approx. Mass* kg
90A200C□	199	189	130	40	60	95	3	4	2.2
90A370C□	367	357	260	40	55	285	5	8	3.65
90A535C□	535	525	455	40	60	380	8	10	4.95

*: The values indicate the mass of moving coil with a hall sensor unit.

Hall Sensor
Connector Specifications



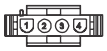
Pin Connector :
17JE-23090-02 (D8C)
by DDK Ltd.

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



Plug : 350779-1
Pin : 350218-3 or
350547-3 (No.1 or 3)
350654-1
350669-1 (No.4)
by Tyco Electronics AMP K.K.

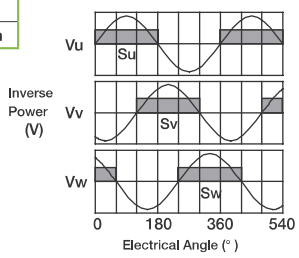
The Mating Connector

Cap : 350780-1
Socket : 350536-3 or
350550-3

Pin No.	Signal	Wire Color
1	Phase U	Red
2	Phase V	White
3	Phase W	Blue
4	FG	Green

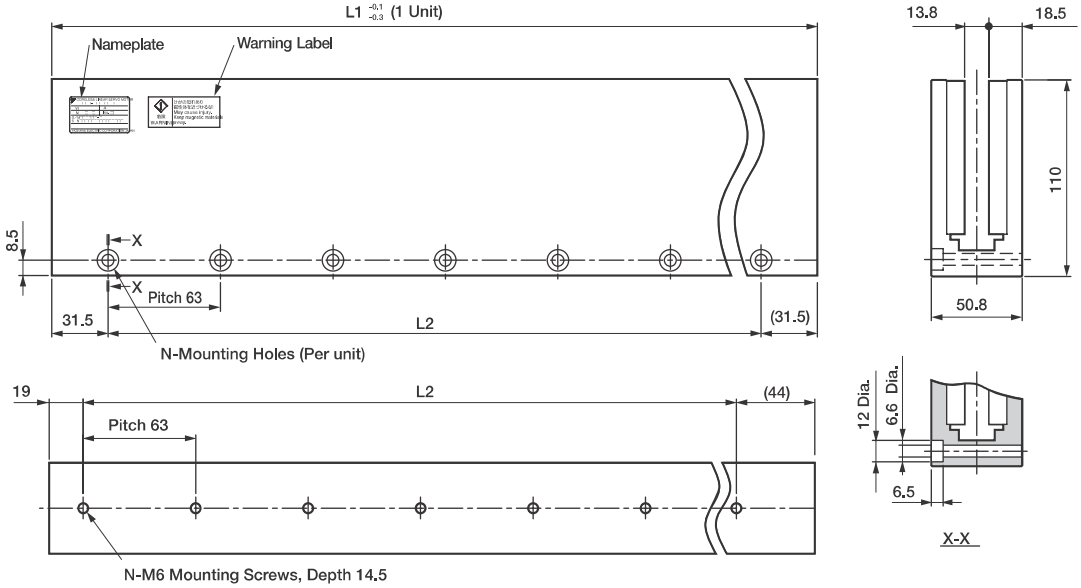
Hall Sensor Output Signals

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 figure below.



External Dimensions Units: mm

● Magnetic Way: SGLGM-90□□□A

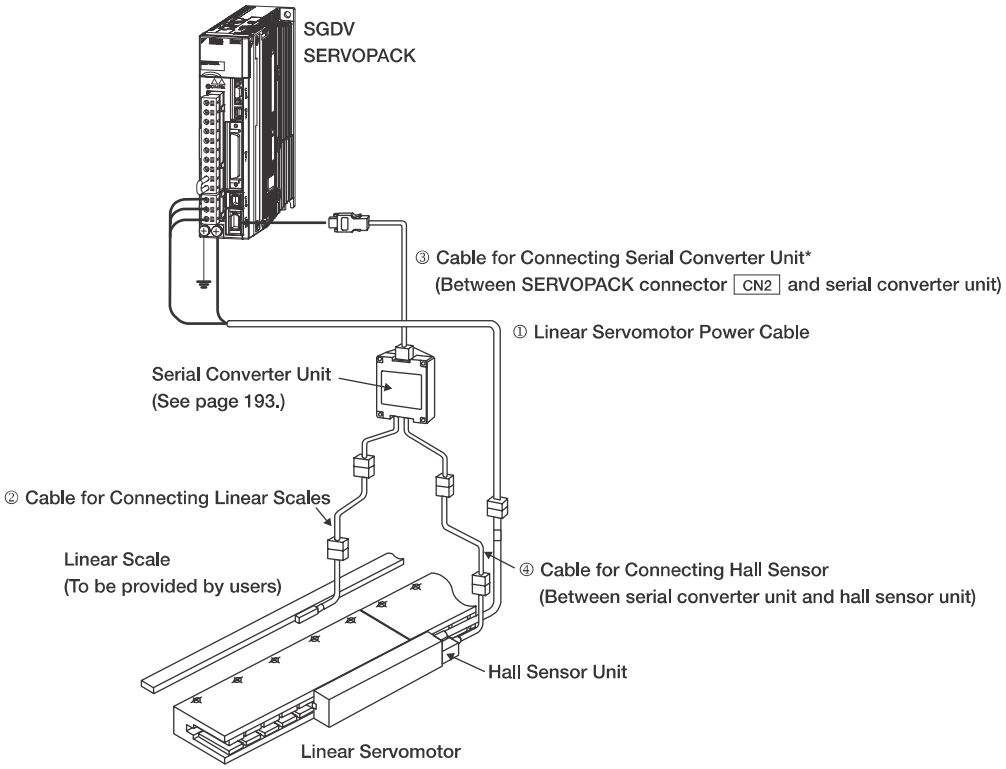


Note: If you have a pacemaker or any other electronic medical device, do not go near the magnetic way of the linear servomotor.

Magnetic Way SGLGM-	L1	L2	N	Approx. Mass kg
90252A	252	189	4	7.3
90504A	504	441	8	14.7

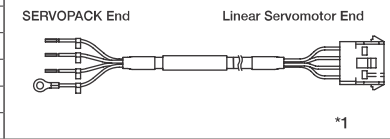
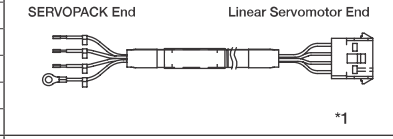
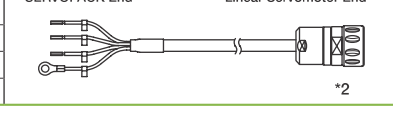
Selecting Cables

● 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 Linear Servomotor Power Cables	SGLGW-30, -40, -60	1 m	JZSP-CLN11-01-E		(1)
		3 m	JZSP-CLN11-03-E		
		5 m	JZSP-CLN11-05-E		
		10 m	JZSP-CLN11-10-E		
		15 m	JZSP-CLN11-15-E		
		20 m	JZSP-CLN11-20-E		
	SGLGW-90	1 m	JZSP-CLN21-01-E		(2)
		3 m	JZSP-CLN21-03-E		
		5 m	JZSP-CLN21-05-E		
		10 m	JZSP-CLN21-10-E		
		15 m	JZSP-CLN21-15-E		
		20 m	JZSP-CLN21-20-E		
	SGLGW -30□□□□□□D -40□□□□□□D -60□□□□□□D	3 m	DP9325252-03G		(3)
		5 m	DP9325252-05G		
		10 m	DP9325252-10G		
		15 m	DP9325252-15G		
		20 m	DP9325252-20G		

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

(Cont'd)

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

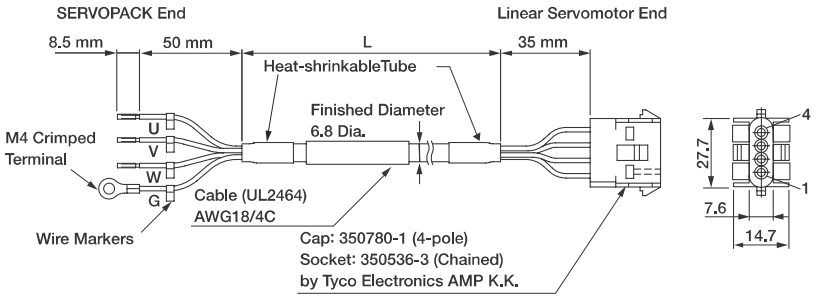
Selecting Cables

● Cables

Name	Applicable Linear Servomotor Model	Length	Order No.	Specifications	Details
② Cables for Connecting Linear Scales*	All models	1 m	JZSP-CLL00-01-E-G#	Serial Converter Unit End — Linear Scale End	(4)
		3 m	JZSP-CLL00-03-E-G#		
		5 m	JZSP-CLL00-05-E-G#		
		10 m	JZSP-CLL00-10-E-G#		
		15 m	JZSP-CLL00-15-E-G#		
③ Cables for Connecting Serial Converter Units	All models	1 m	JZSP-CLP70-01-E-G#	SERVOPACK End — Serial Converter Unit End	(5)
		3 m	JZSP-CLP70-03-E-G#		
		5 m	JZSP-CLP70-05-E-G#		
		10 m	JZSP-CLP70-10-E-G#		
		15 m	JZSP-CLP70-15-E-G#		
		20 m	JZSP-CLP70-20-E-G#		
④ Cables for Connecting Hall Sensors	All models	1 m	JZSP-CLL10-01-E-G#	Serial Converter Unit End — Hall Sensor Unit End	(6)
		3 m	JZSP-CLL10-03-E-G#		
		5 m	JZSP-CLL10-05-E-G#		
		10 m	JZSP-CLL10-10-E-G#		
		15 m	JZSP-CLL10-15-E-G#		

*: When using serial converter unit JZDP-G00□-□□□-E, the maximum cable length is 3 m.
Note: The digit "#" of the order number represents the design revision.

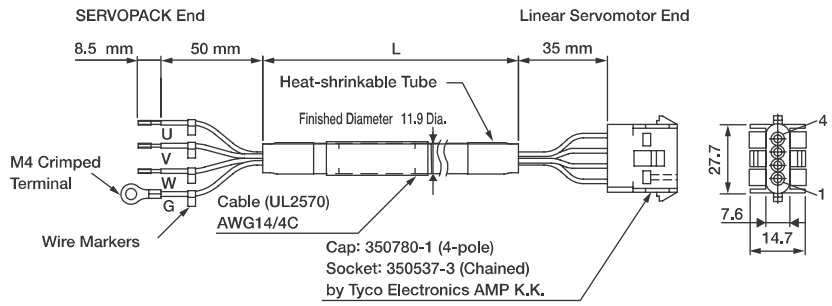
(1) Linear Servomotor Power Cables: JZSP-CLN11-□□-E



● Wiring Specifications

SERVOPACK-end Leads		Linear Servomotor-end Connector	
Wire Color	Signal	Signal	Pin. No.
Red	Phase U	Phase U	1
White	Phase V	Phase V	2
Blue	Phase W	Phase W	3
Green/yellow	FG	FG	4

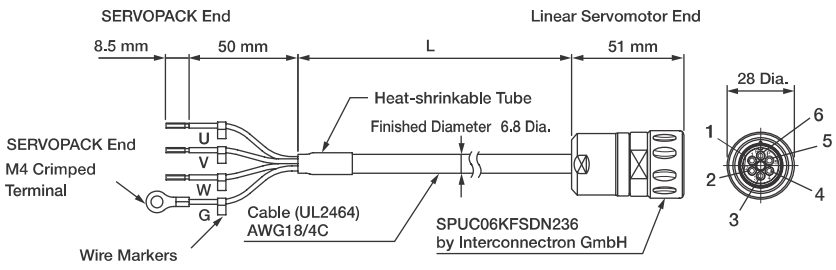
(2) Linear Servomotor Power Cables: JZSP-CLN21-□□-E



● Wiring Specifications

SERVOPACK-end Leads		Linear Servomotor-end Connector	
Wire Color	Signal	Signal	Pin. No.
Red	Phase U	Phase U	1
White	Phase V	Phase V	2
Blue	Phase W	Phase W	3
Green/yellow	FG	FG	4

(3) Linear Servomotor Power Cables: DP9325252-□□G

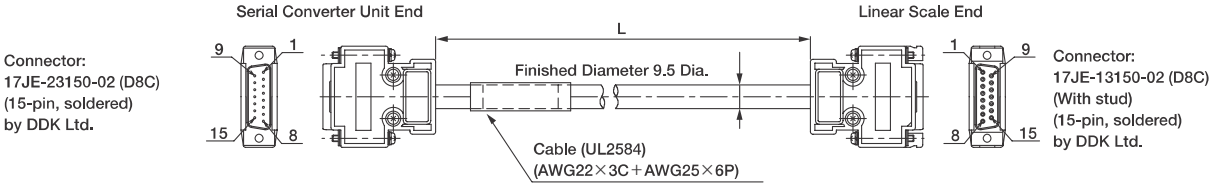


● Wiring Specifications

SERVOPACK-end Leads		Linear Servomotor-end Connector	
Wire Color	Signal	Signal	Pin No.
Black 1	Phase U	Phase U	1
Black 2	Phase V	Phase V	2
Black 3	Phase W	Phase W	3
Green/yellow	FG	—	4
		—	5
		FG	6

Selecting Cables

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



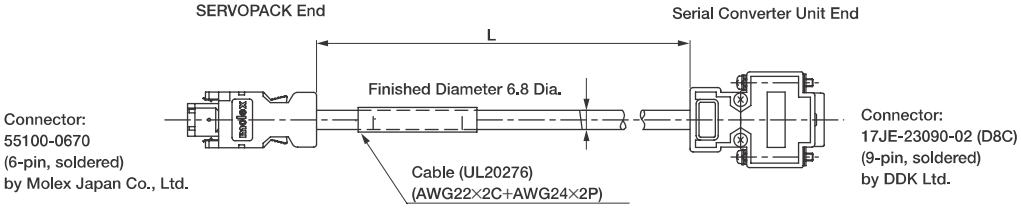
Connector:
17JE-23150-02 (D8C)
(15-pin, soldered)
by DDK Ltd.

Connector:
17JE-13150-02 (D8C)
(With stud)
(15-pin, soldered)
by DDK Ltd.

• Wiring Specifications

Serial Converter 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

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



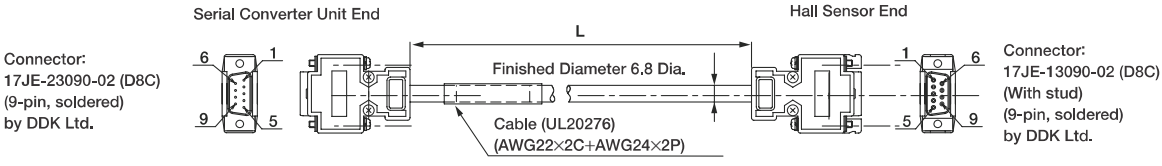
Connector:
55100-0670
(6-pin, soldered)
by Molex Japan Co., Ltd.

Connector:
17JE-23090-02 (D8C)
(9-pin, soldered)
by DDK Ltd.

• Wiring Specifications

SERVOPACK End			Serial Converter Unit End		
Pin No.	Signal	Wire Color	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	6	Phase /S output	Light blue/white
Shell	Shield	–	Case	Shield	–
			7	–	–
			8	–	–
			9	–	–

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



Connector:
17JE-23090-02 (D8C)
(9-pin, soldered)
by DDK Ltd.

Connector:
17JE-13090-02 (D8C)
(With stud)
(9-pin, soldered)
by DDK Ltd.

• Wiring Specifications

Serial Converter Unit End		Hall Sensor End	
Pin No.	Signal	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	–
7	–	7	–
8	–	8	–
9	–	9	–
Case	Shield	Case	Shield