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YASKAWA

LINEAR SLIDER
PARTS & ACCESSORIES

GB
D
E
F
I



About YASKAWA



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Experience and Innovation

For more than 90 years YASKAWA has been supplying mechatronic products and is one of the leading companies for motion control products worldwide. YASKAWA develops and manufactures Inverter Drives, Servo Drives and Machine Controllers and has introduced many ground-breaking innovations over the past decades. YASKAWA products are used in all fields of machine building and industrial automation and have a high reputation for their outstanding quality and durability.

Linear Slider ready to use

- Highly enclosed construction avoids falling parts into the magnets and bearings area
- Plug and drive, shorten start-up time
- Long durability, reliable and constant performance after years of use
- Designed for easy servicing
- Direct control of the slider using Σ-V (Sigma-5) and Σ-II (Sigma-2) SERVOPACKs
- Extremely energy efficient, due to its optimised magnetic circuitry design and high-density winding
- For special lenghts, special specifications and XY systems contact your YASKAWA sales office

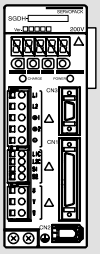
Ratings

- 230 VAC single-phase 80 to 560 N (1200 N peak)
- 400 VAC three-phase 80 to 1200 N (2400 N peak)



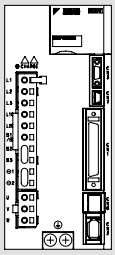
SYSTEM CONFIGURATION

Drive options (refer to AC servo drive brochure)

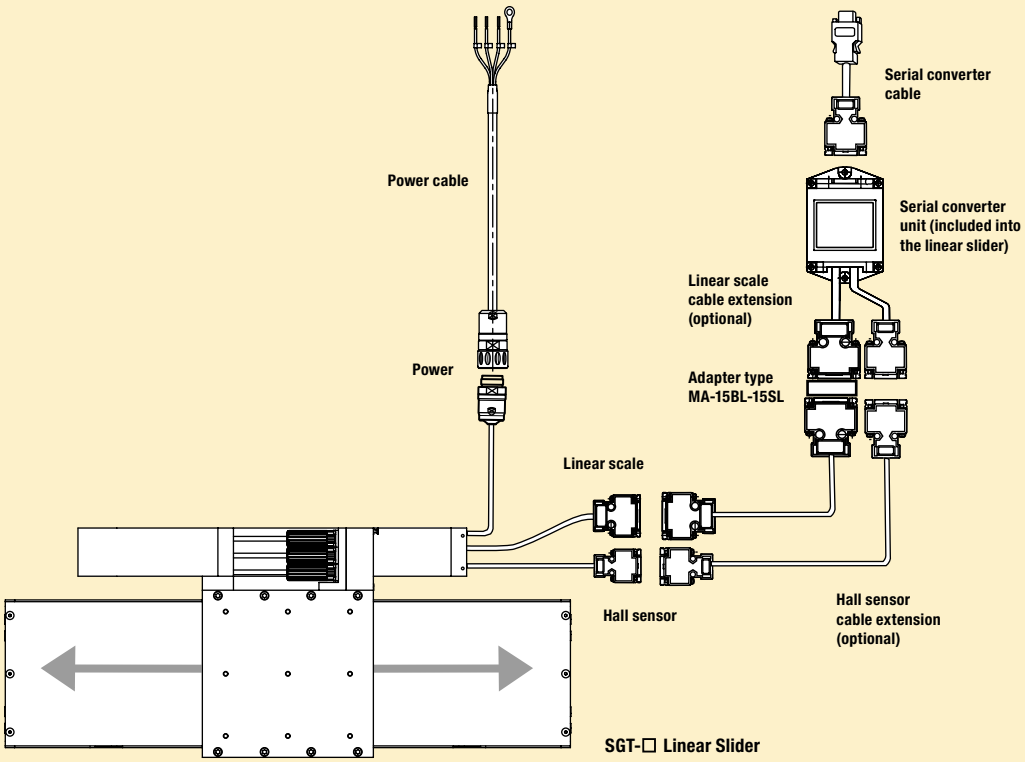


SERVOPACK with option boards for flexible system configuration

∑-II SERVOPACK

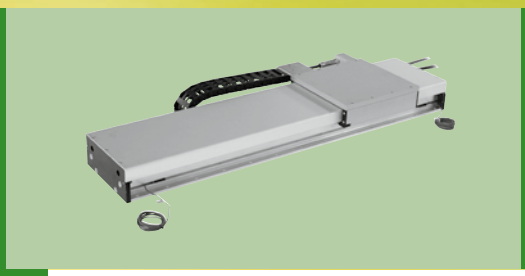


∑-V SERVOPACK



Sigma series Linear Slider					Serial converter (included in SGT)	SERVOPACK			
						∑-II series		∑-V series	
Type	Voltage	Rated force	Peak force	Model*	Model JZDP-☐008-	230 V (1-phase)	400 V (3-phase)	230 V (1-phase)	400 V (3-phase)
SGT-☐- Linear Slider	230 V	80 N	220 N	SGT-F35A120☐	019	SGDH-02AE	–	SGDV-1R6A☐5A	–
		160 N	440 N	SGT-F35A230☐	020	SGDH-08AE-S	–	SGDV-3R8A☐5A	–
		280 N	600 N	SGT-F50A200☐	181	SGDH-08AE-S	–	SGDV-5A5A☐5A	–
		560 N	1200 N	SGT-F50A380☐	182	SGDH-15AE-S	–	SGDV-5A5A☐5A	–
		560 N	1200 N	SGT-F1ZA200☐	183	SGDH-15AE-S	–	SGDV-120A☐5A**	–
	400 V	80 N	220 N	SGT-F35D120☐	211	–	SGDH-05DE	–	SGDV-1R9D☐5A
		160 N	440 N	SGT-F35D230☐	212	–	SGDH-05DE	–	SGDV-1R9D☐5A
		280 N	600 N	SGT-F50D200☐	189	–	SGDH-10DE	–	SGDV-3R5D☐5A
		560 N	1200 N	SGT-F50D380☐	190	–	SGDH-15DE	–	SGDV-5R4D☐5A
		560 N	1200 N	SGT-F1ZD200☐	191	–	SGDH-15DE	–	SGDV-5R4D☐5A
		1120 N	2400 N	SGT-F1ZD380☐	192	–	SGDH-30DE	–	SGDV-120D☐5A

* Manufactured by YASKAWA Engineering Europe GmbH.
** Single-phase 230 VAC, 1.5 kW, SGDV-120A☐1A008000



Type Descriptions

Linear Slider type designation

SGT – F 50 A 200 0549 N A 0020 D C

∑ Linear Slider

Slider model	
Specification	**Code**
F-type iron core	F

Magnet height

Voltage	
Specification	**Code**
230 VAC	A
400 VAC	D

Length of coil assembly

Stroke length

Encoder manufacturer	
Specification	**Code**
Numerik Jena	N

Encoder type	
Specification	**Code**
Incremental	A

Encoder pitch	
Specification	**Code**
20 µm	0020

Home sensor option	
Specification	**Code**
Positive end	B
Center	C
Negative end (standard)	D

Limit switch	
Specification	**Code**
PNP output	C

Linear Slider SGT-F□□A (230 V)

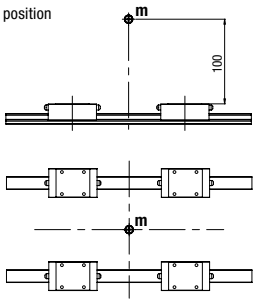
	Voltage		230 V				
Linear Slider model		SGT-	F35A120-□-NA0020	F35A230-□-NA0020	F50A200-□-NA0020	F50A380-□-NA0020	F1ZA200-□-NA0020
Motor coil specifications	Linear servo motor coil used	SGLFW	35A120A	35A230A	50A200B	50A380B	1ZA200B
	Rated force*1	N	80	160	280	560	560
	Instantaneous peak force*1	N	220	440	600	1200	1200
	Rated current*1	A_{rms}	1.4	2.8	5.0	10.0	8.7
	Instantaneous peak current*1	A_{rms}	4.4	8.8	12.4	25.0	21.6
	Force constant	N/A_{rms}	62.4	62.4	60.2	60.2	69.0
	BEMF constant	V/(m/s)	20.8	20.8	20.1	20.1	23.0
	Motor constant	$N/\sqrt{w}$	14.4	20.4	34.3	48.5	52.4
	Electrical time constant	ms	3.6	3.6	15.9	15.8	18.3
	Mechanical time constant	ms	6.2	5.5	3.0	2.9	2.3
Slider specifications	Position accuracy repetibility*2	µm	±1				
	Absolute position accuracy*2	µm/100 mm	±5				
	Linear encoder resolution	µm	40 µm/256, 20 µm/256				
	Static friction of the slider*3	N	20	25	30	35	50
	Maximum load*3	kg	60	60	80	80	150
	Available lengths	m	Standard lenght up to 2.5 m (see dimensions section) / for lengths up to 5 m contact your YASKAWA sales office				
Basic specifications	Time rating		Continuous				
	Insulation class		Class B				
	Ambient temperature		0 to +40 °C				
	Ambient humidity		20 to 80% (non-condensing)				
	Insulation resistance		500 VDC, 10 MΩ min.				
	Excitation		Permanent magnet				
	Dielectric strength		1500 VAC for 1 minute				
	Protection methods		Self-cooled				
	Allowable winding temperature		130 °C				

Notes:
*1 All values given for items marked with an *1 and in "force and speed characteristics" graphs are at a motor winding temperature of 100°C during operation in combination with a SERVOPACK. All other values are at 20°C.
*2 With stable environmental conditions and motor temperature unchanged.
*3 Items calculated with load position like in figure below.

Centre of mass position

Side view

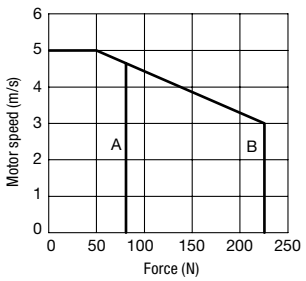
Top view



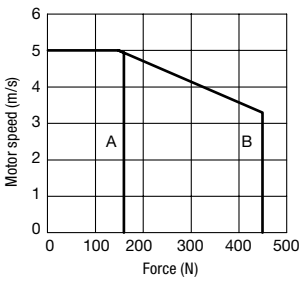
Force-speed characteristics (230 V)

A: Continuous duty zone B: Intermittent duty zone

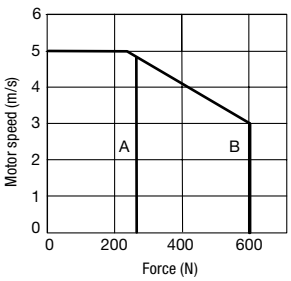
SGLFW-35A120



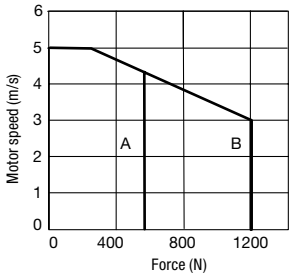
SGLFW-35A230A



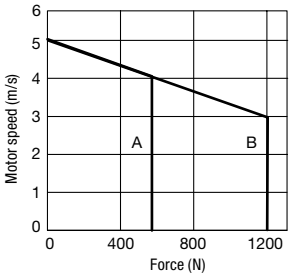
SGLFW-50A200B



SGLFW-50A380B



SGLFW-1ZA200B



Slider Specification

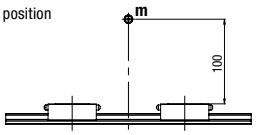
Linear Slider SGT-F□□D (400 V)

	Voltage		230 V					
Linear Slider model		SGT-	F35D120-□-NA0020	F35D230-□-NA0020	F50D20-□-NA0020	F50D380-□-NA0020	F50D200-□-NA0020	F1ZD380-□-NA0020
Motor coil specifications	Linear servo motor coil used	SGLFW	35D120A	35D230A	50D200B	50A380B	1ZD200B	1ZD380B
	Rated force *1	N	80	160	280	560	560	1120
	Instantaneous peak force *1	N	220	440	600	1200	1200	2400
	Rated current *1	A_{rms}	0.7	1.4	2.3	4.5	4.9	9.8
	Instantaneous peak current *1	A_{rms}	2.3	4.6	5.6	11.0	12.3	24.6
	Force constant	N/A_{rms}	120.2	120.2	134.7	134.7	122.6	122.6
	BEMF constant	V/(m/s)	40.1	40.1	44.9	44.9	40.9	40.9
	Motor constant	$N/\sqrt{w}$	13.8	19.5	33.4	47.2	51.0	72.1
	Electrical time constant	ms	3.5	3.5	15.0	15.0	17.4	17.2
	Mechanical time constant	ms	5.5	5.5	3.2	3.2	2.5	2.2
Slider specifications	Position accuracy repetibility *2	µm	±1					
	Absolute position accuracy *2	µm/100 mm	±5					
	Linear encoder resolution	µm	40 µm/256, 20 µm/256					
	Static friction of the slider *3	N	20	25	30	35	50	60
	Maximum load *3	kg	60	60	80	80	150	150
	Available lengths	m	Standard lenght up to 2.5 m (see dimensions section) / for lengths up to 5 m contact your YASKAWA sales office					
Basic specifications	Time rating		Continuous					
	Insulation class		Class B					
	Ambient temperature		0 to +40 °C					
	Ambient humidity		20 to 80% (non-condensing)					
	Insulation resistance		500 VDC, 10 MΩ min.					
	Excitation		Permanent magnet					
	Dielectric strength		1500 VAC for 1 minute					
	Protection methods		Self-cooled					
	Allowable winding temperature		130 °C					

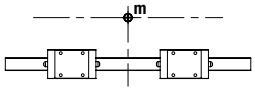
Notes:
*1 All values given for items marked with an *1 and in "force and speed characteristics" graphs are at a motor winding temperature of 100°C during operation in combination with a SERVOPACK. All other values are at 20°C.
*2 With stable environmental conditions and motor temperature unchanged.
*3 Items calculated with load position like in figure below.

Centre of mass position

Side view



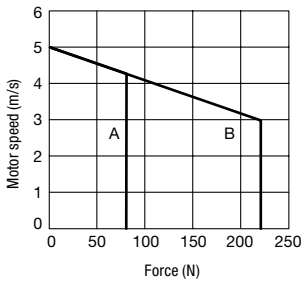
Top view



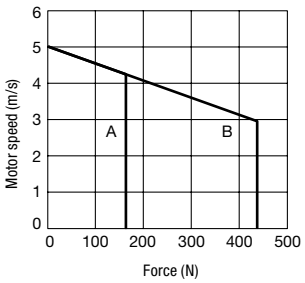
Force-speed characteristics (400 V)

A: Continuous duty zone B: Intermittent duty zone

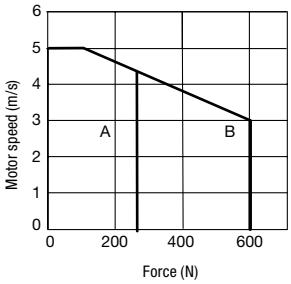
SGLFW-35D120A



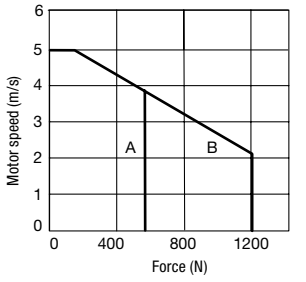
SGLFW-35D230A



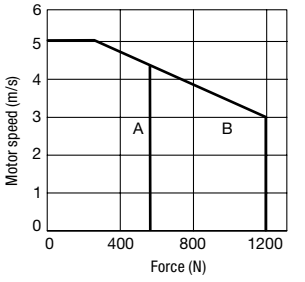
SGLFW-50D200B



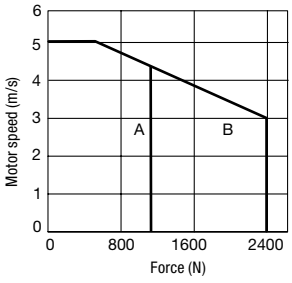
SGLFW-50D380B



SGLFW-1ZD200B



SGLFW-1ZD380B





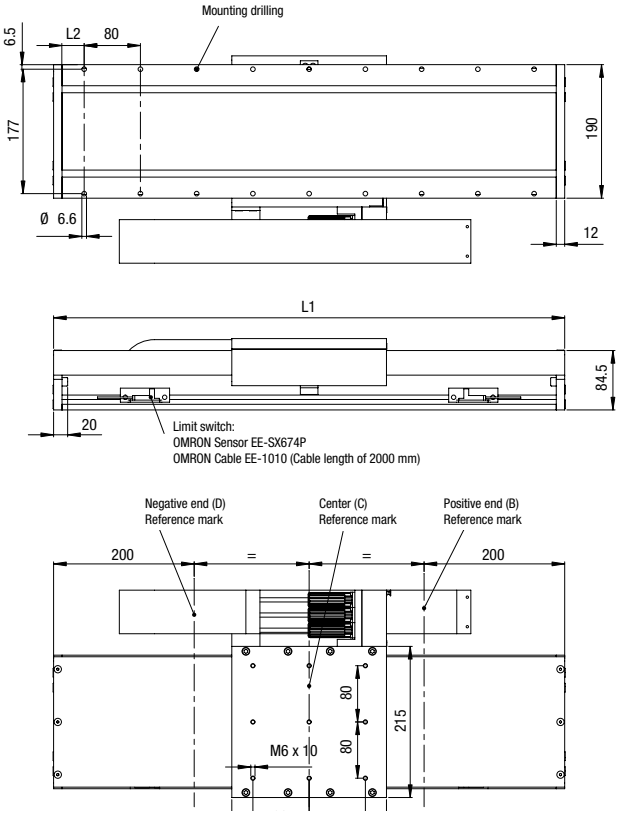
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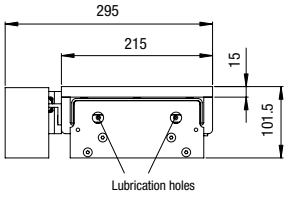
Units: mm

SGT-F35□120□

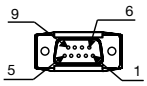
Linear Slider model*	Effective stroke in mm	L1 in mm	L2 in mm	Weight of moving table including motor coil (kg)	Weight of the complete slider (kg)
SGT-F35□1200103-NA0020-□C	103	403	29.5	7.6	16
SGT-F35□1200319-NA0020-□C	319	619	17.5	7.6	19
SGT-F35□1200427-NA0020-□C	427	727	31.5	7.6	21
SGT-F35□1200535-NA0020-□C	535	835	45.5	7.6	23
SGT-F35□1200643-NA0020-□C	643	943	19.5	7.6	25
SGT-F35□1200751-NA0020-□C	751	1051	33.5	7.6	27
SGT-F35□1200859-NA0020-□C	859	1159	47.5	7.6	29
SGT-F35□1200967-NA0020-□C	967	1267	21.5	7.6	31
SGT-F35□1201075-NA0020-□C	1075	1375	35.5	7.6	33
SGT-F35□1201183-NA0020-□C	1183	1483	49.5	7.6	35
SGT-F35□1201291-NA0020-□C	1291	1591	23.5	7.6	36
SGT-F35□1201399-NA0020-□C	1399	1699	37.5	7.6	38
SGT-F35□1201507-NA0020-□C	1507	1807	13.5	7.6	40
SGT-F35□1201615-NA0020-□C	1615	1915	25.5	7.6	42
SGT-F35□1201723-NA0020-□C	1723	2023	41.5	7.6	44
SGT-F35□1201831-NA0020-□C	1831	2131	13.5	7.6	46
SGT-F35□1201939-NA0020-□C	1939	2239	29.5	7.6	48
SGT-F35□1202047-NA0020-□C	2047	2347	41.5	7.6	50
SGT-F35□1202155-NA0020-□C	2155	2455	17.5	7.6	52

* Manufactured by YASKAWA Engineering Europe GmbH.





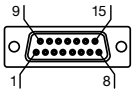
Hall sensor connector



Pin connector type:
7JE-23090-02 (D8C)
made by DDK Ltd.

Pin	Description
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

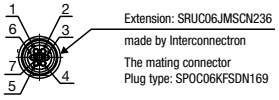
Linear scale connector



Adapter type:
MA-15BL-15SL

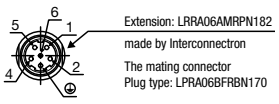
Pin	Description
1	/cos input (V1-)
2	/sin input (V2-)
3	Ref input (V0+)
4	+5V
5	5Vs
6	Empty
7	Empty
8	Empty
9	cos input (V1+)
10	sin input (V2+)
11	/Ref input (V0-)
12	0V
13	0Vs
14	Empty
15	Inner
Case	Shield

Linear Slider 230V connector specifications SGT-F35A120□



Pin	Description
1	Phase U
2	Phase V
3	Phase W
4	Not used
5	Not used
6	FG
7	Not used

Linear Slider 400V connector specifications SGT-F35D120□



Pin	Description
1	Phase U
2	Phase V
4	Phase W
5	Not used
6	Not used
⏚	Ground

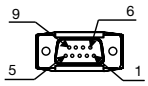
Dimensions

Units: mm

SGT-F35□230□

Hall sensor connector

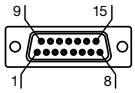
Pin	Description
1	+5V (Power supply)
2	Phase U
3	Phase V
4	Phase W
5	0V (Power supply)
6	Not used
7	Not used
8	Not used
9	Not used



Pin connector type:
7JE-23090-02 (D8C)
made by DDK Ltd.

Linear scale connector

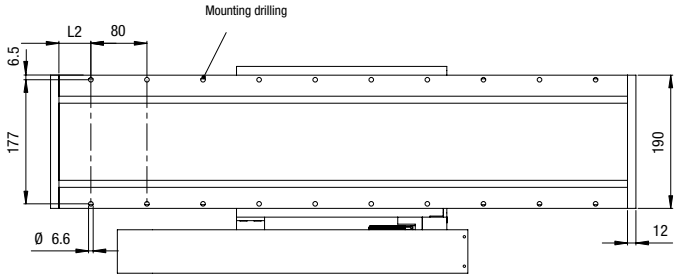
Pin	Description
1	/cos input (V1-)
2	/sin input (V2-)
3	Ref input (V0+)
4	+5V
5	5Vs
6	Empty
7	Empty
8	Empty
9	cos input (V1+)
10	sin input (V2+)
11	/Ref input (V0-)
12	0V
13	0Vs
14	Empty
15	Inner
Case	Shield

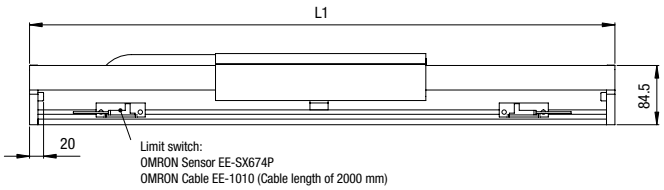


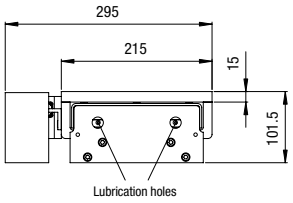
Adapter type:
MA-15BL-15SL

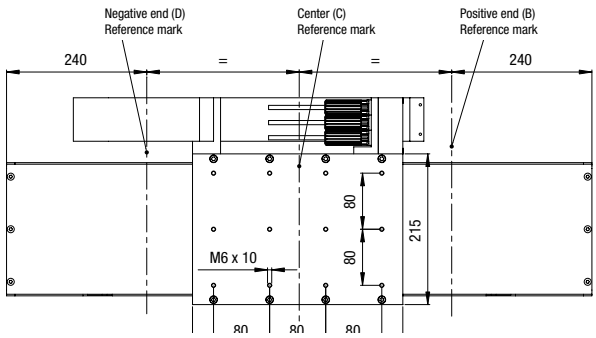
Linear Slider model*	Effective stroke in mm	L1 in mm	L2 in mm	Weight of moving table including motor coil (kg)	Weight of the complete slider (kg)
SGT-F35□2300239-NA0020-□C	239	619	17.5	11.5	23
SGT-F35□2300347-NA0020-□C	347	727	31.5	11.5	25
SGT-F35□2300455-NA0020-□C	455	835	45.5	11.5	27
SGT-F35□2300563-NA0020-□C	563	943	19.5	11.5	28
SGT-F35□2300671-NA0020-□C	671	1051	33.5	11.5	30
SGT-F35□2300779-NA0020-□C	779	1159	47.5	11.5	32
SGT-F35□2300887-NA0020-□C	887	1267	21.5	11.5	34
SGT-F35□2300995-NA0020-□C	995	1375	35.5	11.5	36
SGT-F35□2301103-NA0020-□C	1103	1483	49.5	11.5	38
SGT-F35□2301211-NA0020-□C	1211	1591	23.5	11.5	40
SGT-F35□2301319-NA0020-□C	1319	1699	37.5	11.5	42
SGT-F35□2301427-NA0020-□C	1427	1807	13.5	11.5	44
SGT-F35□2301535-NA0020-□C	1535	1915	25.5	11.5	45
SGT-F35□2301643-NA0020-□C	1643	2023	41.5	11.5	47
SGT-F35□2301751-NA0020-□C	1751	2131	13.5	11.5	49
SGT-F35□2301859-NA0020-□C	1859	2239	29.5	11.5	51
SGT-F35□2301967-NA0020-□C	1967	2347	41.5	11.5	53
SGT-F35□2302075-NA0020-□C	2075	2455	17.5	11.5	55
SGT-F35□2302183-NA0020-□C	2183	2563	29.5	11.5	57

* Manufactured by YASKAWA Engineering Europe GmbH.

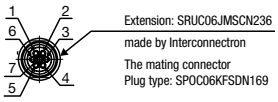








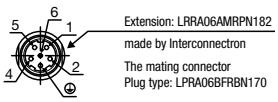
Linear Slider 230V connector specifications SGT-F35A230□



Extension: SRUC06JMSCN236
made by Interconnectron
The mating connector
Plug type: SPOC06KFSDN169

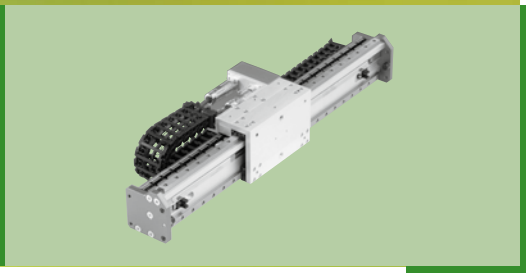
Pin	Description
1	Phase U
2	Phase V
3	Phase W
4	Not used
5	Not used
6	FG
7	Not used

Linear Slider 400V connector specifications SGT-F35D230□



Extension: LRRA06AMRPN182
made by Interconnectron
The mating connector
Plug type: LPRA06BFRBN170

Pin	Description
1	Phase U
2	Phase V
4	Phase W
5	Not used
6	Not used
⏚	Ground



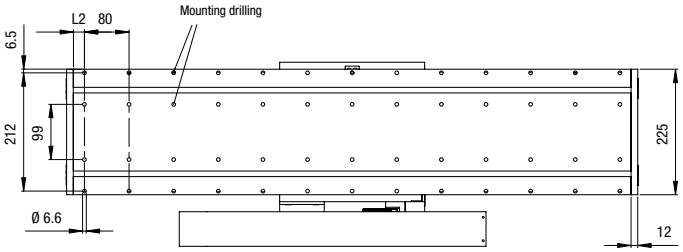
Dimensions

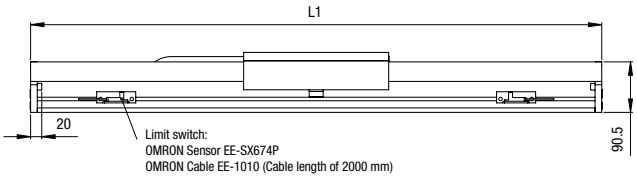
Units: mm

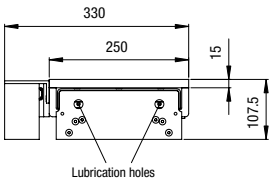
SGT-F50□200□

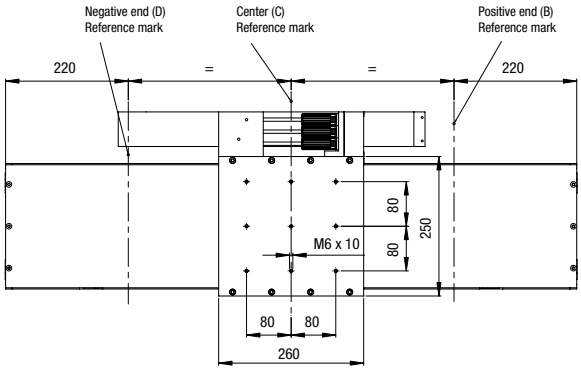
Linear Slider model*	Effective stroke in mm	L1 in mm	L2 in mm	Weight of moving table including motor coil (kg)	Weight of the complete slider (kg)
SGT-F50□2000144-NA0020-□C	144	484	30.0	11.2	25
SGT-F50□2000414-NA0020-□C	414	754	45.0	11.2	31
SGT-F50□2000549-NA0020-□C	549	889	32.5	11.2	34
SGT-F50□2000684-NA0020-□C	684	1024	20.0	11.2	37
SGT-F50□2000819-NA0020-□C	819	1159	47.5	11.2	40
SGT-F50□2000954-NA0020-□C	954	1294	35.0	11.2	43
SGT-F50□2001089-NA0020-□C	1089	1429	22.5	11.2	46
SGT-F50□2001224-NA0020-□C	1224	1564	50.0	11.2	49
SGT-F50□2001359-NA0020-□C	1359	1699	37.5	11.2	52
SGT-F50□2001494-NA0020-□C	1494	1834	25.0	11.2	55
SGT-F50□2001629-NA0020-□C	1629	1969	12.5	11.2	58
SGT-F50□2001764-NA0020-□C	1764	2104	40.0	11.2	61
SGT-F50□2001899-NA0020-□C	1899	2239	27.5	11.2	64
SGT-F50□2002034-NA0020-□C	2034	2374	15.0	11.2	67
SGT-F50□2002169-NA0020-□C	2169	2509	42.5	11.2	70

* Manufactured by YASKAWA Engineering Europe GmbH.

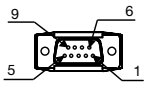








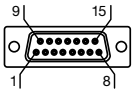
Hall sensor connector



Pin connector type:
7JE-23090-02 (D8C)
made by DDK Ltd.

Pin	Description
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

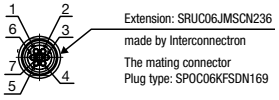
Linear scale connector



Adapter type:
MA-15BL-15SL

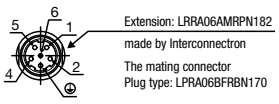
Pin	Description
1	/cos input (V1-)
2	/sin input (V2-)
3	Ref input (V0+)
4	+5V
5	5Vs
6	Empty
7	Empty
8	Empty
9	cos input (V1+)
10	sin input (V2+)
11	/Ref input (V0-)
12	0V
13	0Vs
14	Empty
15	Inner
Case	Shield

Linear Slider 230V connector specifications SGT-F50A200□



Pin	Description
1	Phase U
2	Phase V
3	Phase W
4	Not used
5	Not used
6	FG
7	Not used

Linear Slider 400V connector specifications SGT-F50D200□



Pin	Description
1	Phase U
2	Phase V
4	Phase W
5	Not used
6	Not used
⏚	Ground

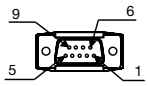
Dimensions

Units: mm

SGT-F50□380□

Hall sensor connector

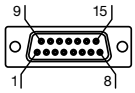
Pin	Description
1	+5V (Power supply)
2	Phase U
3	Phase V
4	Phase W
5	0V (Power supply)
6	Not used
7	Not used
8	Not used
9	Not used



Pin connector type:
7JE-23090-02 (D8C)
made by DDK Ltd.

Linear scale connector

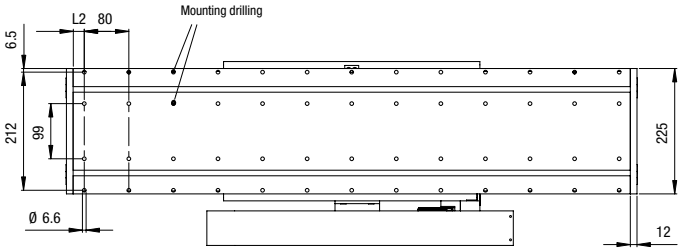
Pin	Description
1	/cos input (V1-)
2	/sin input (V2-)
3	Ref input (V0+)
4	+5V
5	5Vs
6	Empty
7	Empty
8	Empty
9	cos input (V1+)
10	sin input (V2+)
11	/Ref input (V0-)
12	0V
13	0Vs
14	Empty
15	Inner
Case	Shield

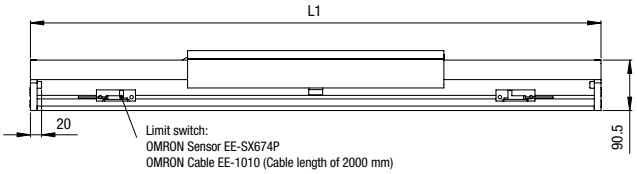


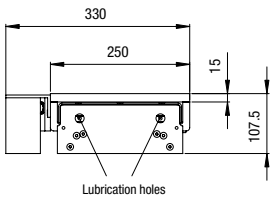
Adapter type:
MA-15BL-15SL

Linear Slider model*	Effective stroke in mm	L1 in mm	L2 in mm	Weight of moving table including motor coil (kg)	Weight of the complete slider (kg)
SGT-F50□3800214-NA0020-□C	214	754	45.0	22.5	40
SGT-F50□3800349-NA0020-□C	349	889	32.5	22.5	43
SGT-F50□3800484-NA0020-□C	484	1024	20.0	22.5	46
SGT-F50□3800619-NA0020-□C	619	1159	47.5	22.5	49
SGT-F50□3800754-NA0020-□C	754	1294	35.0	22.5	52
SGT-F50□3800889-NA0020-□C	889	1429	22.5	22.5	55
SGT-F50□3801024-NA0020-□C	1024	1564	50.0	22.5	58
SGT-F50□3801159-NA0020-□C	1159	1699	37.5	22.5	61
SGT-F50□3801294-NA0020-□C	1294	1834	25.0	22.5	64
SGT-F50□3801429-NA0020-□C	1429	1969	12.5	22.5	67
SGT-F50□3801564-NA0020-□C	1564	2104	40.0	22.5	70
SGT-F50□3801699-NA0020-□C	1699	2239	27.5	22.5	74
SGT-F50□3801834-NA0020-□C	1834	2374	15.0	22.5	77
SGT-F50□3801969-NA0020-□C	1969	2509	42.5	22.5	80
SGT-F50□3802104-NA0020-□C	2104	2644	30.0	22.5	83

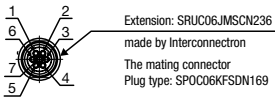
* Manufactured by YASKAWA Engineering Europe GmbH.





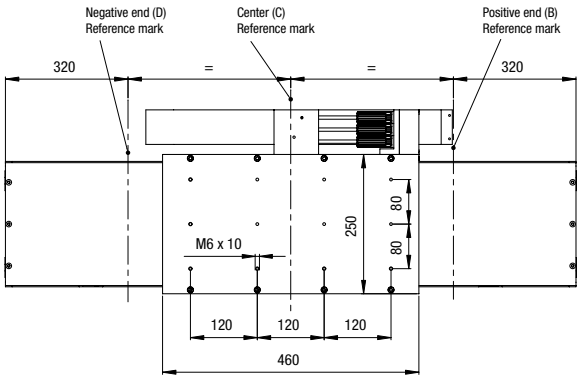


Linear Slider 230V connector specifications SGT-F50A380□

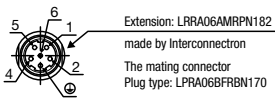


Extension: SRUC06JMSCN236
made by Interconnectron
The mating connector
Plug type: SPOC06KFSDN169

Pin	Description
1	Phase U
2	Phase V
3	Phase W
4	Not used
5	Not used
6	FG
7	Not used



Linear Slider 400V connector specifications SGT-F50D380□



Extension: LRRA06AMRPN182
made by Interconnectron
The mating connector
Plug type: LPRA06BFRBN170

Pin	Description
1	Phase U
2	Phase V
4	Phase W
5	Not used
6	Not used
⏚	Ground



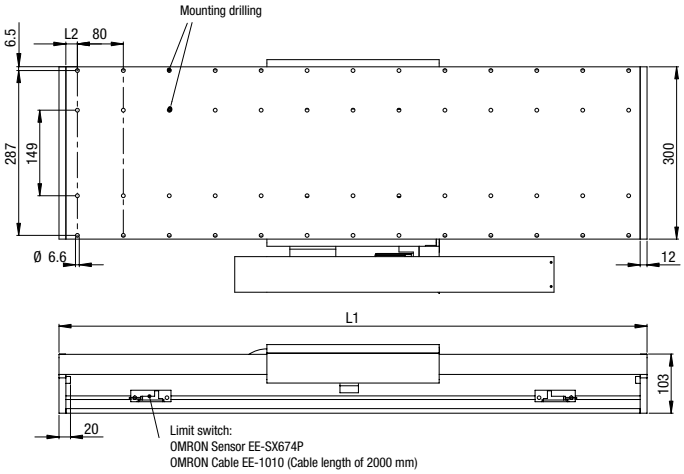
Dimensions

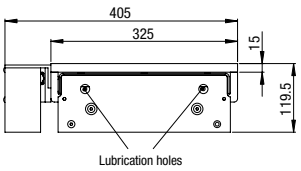
Units: mm

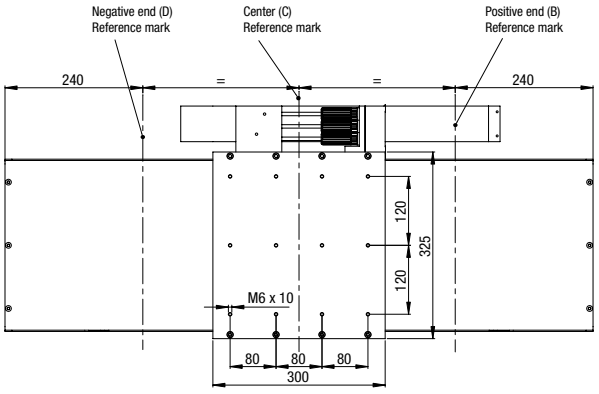
SGT-F1Z□200□

Linear Slider model*	Effective stroke in mm	L1 in mm	L2 in mm	Weight of moving table including motor coil (kg)	Weight of the complete slider (kg)
SGT-F1Z□200-0104-NA0020-□C	104	484	30.0	18	37
SGT-F1Z□200-0374-NA0020-□C	374	754	45.0	18	47
SGT-F1Z□200-0509-NA0020-□C	509	889	32.5	18	52
SGT-F1Z□200-0644-NA0020-□C	644	1024	20.0	18	57
SGT-F1Z□200-0779-NA0020-□C	779	1159	47.5	18	62
SGT-F1Z□200-0914-NA0020-□C	914	1294	35.0	18	67
SGT-F1Z□200-1049-NA0020-□C	1049	1429	22.5	18	72
SGT-F1Z□200-1184-NA0020-□C	1184	1564	50.0	18	77
SGT-F1Z□200-1319-NA0020-□C	1319	1699	37.5	18	82
SGT-F1Z□200-1454-NA0020-□C	1454	1834	25.0	18	87
SGT-F1Z□200-1589-NA0020-□C	1589	1969	12.5	18	92
SGT-F1Z□200-1724-NA0020-□C	1724	2104	40.0	18	97
SGT-F1Z□200-1859-NA0020-□C	1859	2239	27.5	18	102
SGT-F1Z□200-1994-NA0020-□C	1994	2374	15.0	18	107
SGT-F1Z□200-2129-NA0020-□C	2129	2509	42.5	18	111

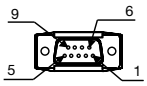
* Manufactured by YASKAWA Engineering Europe GmbH.







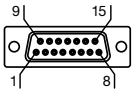
Hall sensor connector



Pin connector type:
7JE-23090-02 (D8C)
made by DDK Ltd.

Pin	Description
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

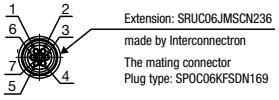
Linear scale connector



Adapter type:
MA-15BL-15SL

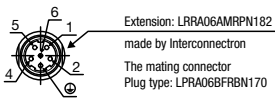
Pin	Description
1	/cos input (V1-)
2	/sin input (V2-)
3	Ref input (V0+)
4	+5V
5	5Vs
6	Empty
7	Empty
8	Empty
9	cos input (V1+)
10	sin input (V2+)
11	/Ref input (V0-)
12	0V
13	0Vs
14	Empty
15	Inner
Case	Shield

Linear Slider 230V connector specifications SGT-F1ZA200□

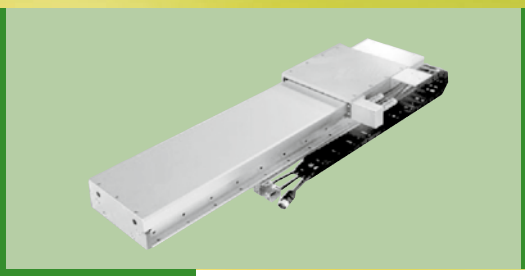


Pin	Description
1	Phase U
2	Phase V
3	Phase W
4	Not used
5	Not used
6	FG
7	Not used

Linear Slider 400V connector specifications SGT-F1ZD200□



Pin	Description
1	Phase U
2	Phase V
4	Phase W
5	Not used
6	Not used
⏚	Ground



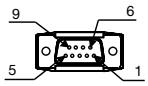
Dimensions

Units: mm

SGT-F1Z□380-□

Hall sensor connector

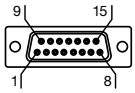
Pin	Description
1	+5V (Power supply)
2	Phase U
3	Phase V
4	Phase W
5	0V (Power supply)
6	Not used
7	Not used
8	Not used
9	Not used



Pin connector type:
7JE-23090-02 (D8C)
made by DDK Ltd.

Linear scale connector

Pin	Description
1	/cos input (V1-)
2	/sin input (V2-)
3	Ref input (V0+)
4	+5V
5	5Vs
6	Empty
7	Empty
8	Empty
9	cos input (V1+)
10	sin input (V2+)
11	/Ref input (V0-)
12	0V
13	0Vs
14	Empty
15	Inner
Case	Shield



Adapter type:
MA-15BL-15SL

Linear Slider 400V connector specifications SGT-F1ZD380□

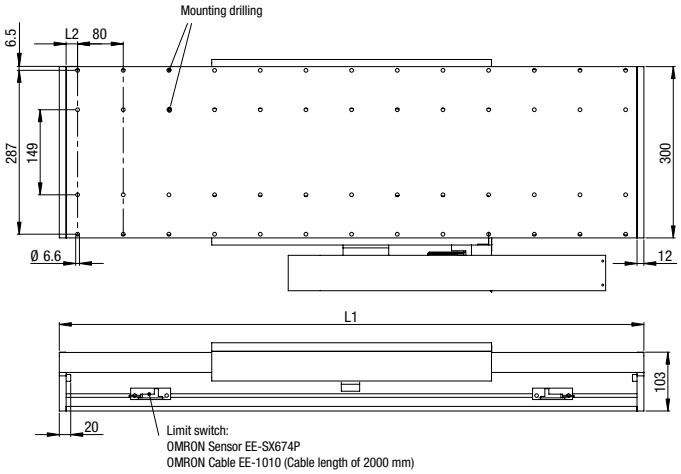


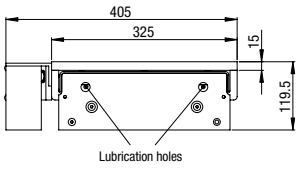
Extension: LRRA06AMRPN182
made by Interconnectron
The mating connector
Plug type: LPRA06BFRBN170

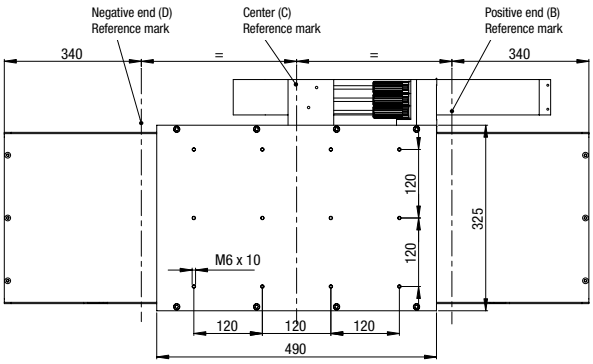
Pin	Description
1	Phase U
2	Phase V
4	Phase W
5	Not used
6	Not used
⏚	Ground

Linear Slider model*	Effective stroke in mm	L1 in mm	L2 in mm	Weight of moving table including motor coil (kg)	Weight of the complete slider (kg)
SGT-F1Z□380-0184-NA0020-□C	184	754	45.0	31	60
SGT-F1Z□380-0319-NA0020-□C	319	889	32.5	31	65
SGT-F1Z□380-0454-NA0020-□C	454	1024	20.0	31	70
SGT-F1Z□380-0589-NA0020-□C	589	1159	47.5	31	75
SGT-F1Z□380-0724-NA0020-□C	724	1294	35.0	31	80
SGT-F1Z□380-0859-NA0020-□C	859	1429	22.5	31	84
SGT-F1Z□380-0994-NA0020-□C	994	1564	50.0	31	89
SGT-F1Z□380-1129-NA0020-□C	1129	1699	37.5	31	94
SGT-F1Z□380-1264-NA0020-□C	1264	1834	25.0	31	99
SGT-F1Z□380-1399-NA0020-□C	1399	1969	12.5	31	104
SGT-F1Z□380-1534-NA0020-□C	1534	2104	40.0	31	109
SGT-F1Z□380-1669-NA0020-□C	1669	2239	27.5	31	114
SGT-F1Z□380-1804-NA0020-□C	1804	2374	15.0	31	119
SGT-F1Z□380-1939-NA0020-□C	1939	2509	42.5	31	124
SGT-F1Z□380-2074-NA0020-□C	2074	2644	30.0	31	129

* Manufactured by YASKAWA Engineering Europe GmbH.



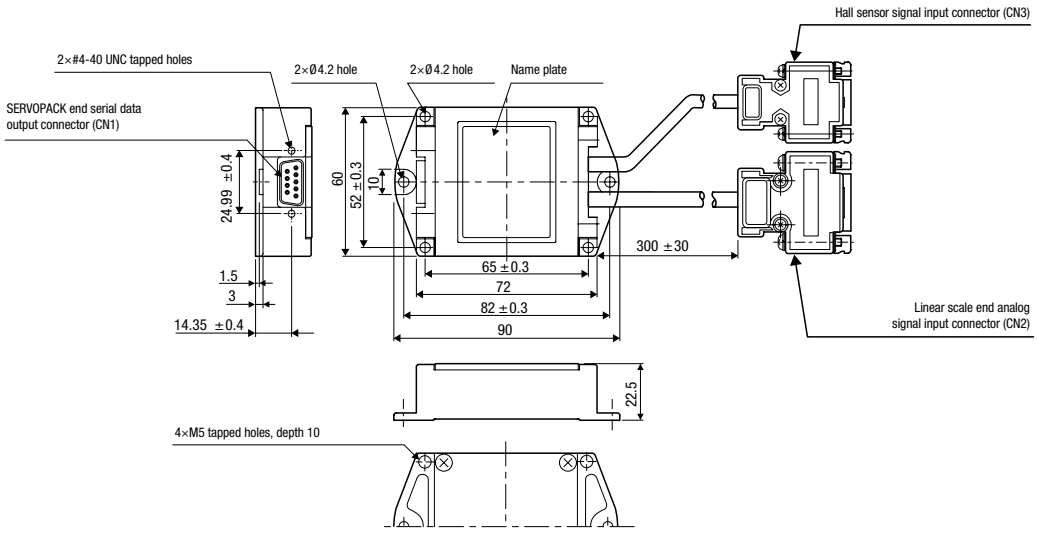




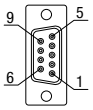
Units: mm

Serial converter unit: JZDP-D008-□□□-E

Items		Specifications
Electrical characteristics	Power supply voltage	+5.0 V ±5%, ripple content 5% max.
	Current consumption	120 mA typ., 350 mA max.
	Signal resolution	Input 2-phase sine wave: 1/256 pitch
	Max. response frequency	250 kHz
	Analog input signals (cos, sin, Ref)	Differential input amplitude: 0.4 V to 1.2 V, input signal level: 1.5 V to 3.5 V
	Pole sensor input signal	CMOS level
	Output signals	Position data, hall sensor information, and alarms
	Output method	Serial data transmission (HDLC [High-level data link control] protocol format with Manchester codes)
	Transmission cycle	62.5 µs
	Output circuit	Balanced transceiver (SN75LBC176 or the equivalent); internal terminal resistance: 120 Ω
Mechanical characteristics	Approx. mass	150 g
	Vibration resistance	98 m/s² max. (1 to 2500 Hz) in three directions
	Shock resistance	980 m/s², (11 ms) two times in three directions
Environmental conditions	Operating temperature	0 °C to 55 °C (32 to 131 °F)
	Storage temperature	-20 °C to +80 °C (-4 to +176 °F)
	Humidity	20% to 90% RH (without condensation)

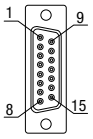


Connector CN1
SERVOPACK end serial data output



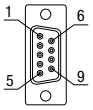
Pin	Description
1	+5V
2	S-phase output
3	Empty
4	Empty
5	0V
6	/S-phase output
7	Empty
8	Empty
9	Empty
Case	Shield

Connector CN2
Linear scale end analog signal input



Pin	Description
1	/cos input (V1-)
2	/sin input (V2-)
3	Ref input (V0+)
4	+5V
5	5Vs
6	Empty
7	Empty
8	Empty
9	cos input (V1+)
10	sin input (V2+)
11	/Ref input (V0-)
12	0V
13	0Vs
14	Empty
15	Inner shield
Case	Shield

Connector CN3
Hall sensor signal input

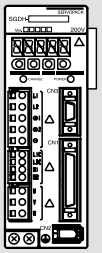


Pin	Description
1	+5V
2	U-phase input
3	V-phase input
4	W-phase input
5	0V
6	Empty
7	Empty
8	Empty
9	Empty
Case	Shield

Ordering Instructions

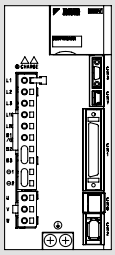
Linear Slider overview

Drive options (refer to SERVOPACK)

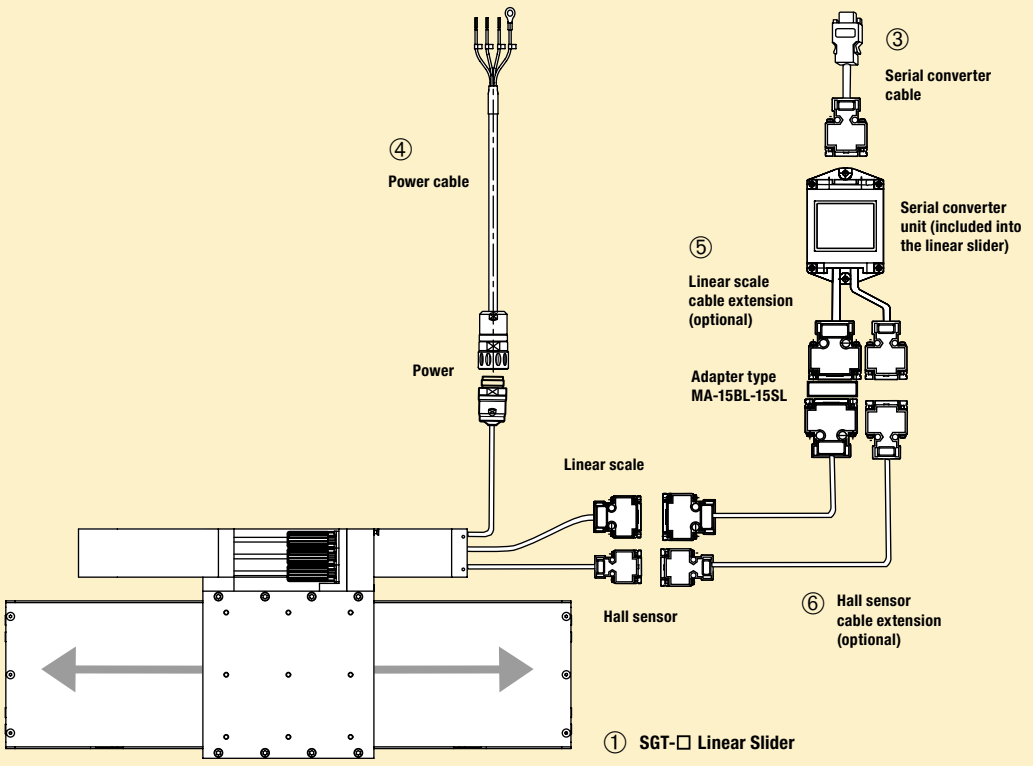
② 

SERVOPACK with option boards for flexible system configuration

∑-II SERVOPACK

② 

∑-V SERVOPACK



Note:
The symbols ①②③… show the recommended sequence to select the servo motor, cables and serial converter for a linear motors system.

SERVOPACK

Note:
② Refer to ∑-II or ∑-V SERVOPACK brochure for detailed drive specifications and selection of drive accessories.

Linear Slider SGT-F☐

230 VAC single-phase

Symbol	Specifications		Model		
	Rated force	Peak force	① Linear Slider model	② SERVOPACK ∑-II series	② SERVOPACK ∑-V series
①②	80 N	220 N	SGT-F35A120 [stroke]-NA0020-DC	SGDH-02AE	SGDV-1R6A☐5A
	160 N	440 N	SGT-F35A230 [stroke]-NA0020-DC	SGDH-08AE-S	SGDV-3R8A☐5A
	280 N	600 N	SGT-F50A200 [stroke]-NA0020-DC	SGDH-08AE-S	SGDV-5A5A☐5A
	560 N	1200 N	SGT-F50A380 [stroke]-NA0020-DC	SGDH-15AE-S	SGDV-5A5A☐5A
	560 N	1200 N	SGT-F1ZA200 [stroke]-NA0020-DC	SGDH-15AE-S	SGDV-120A☐5A*

* Single-phase 230 VAC, 1.5 kW, SGDV-120A☐ 1A008000

Note:
For effective stroke distances available see dimensions section.

Ordering Instructions

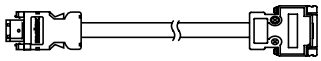
Linear Slider SGT-F☐

400 VAC three-phase

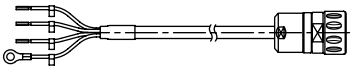
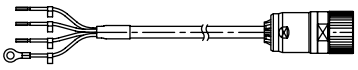
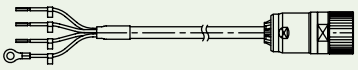
Symbol	Specifications		Model		
	Rated force	Peak force	① Linear Slider model	② SERVOPACK	
				∑-II series	∑-V series
①②	80 N	220 N	SGT-F35D120-[stroke]-NA0020-DC	SGDH-05DE	SGDV-1R9D☐5A
	160 N	440 N	SGT-F35D230-[stroke]-NA0020-DC	SGDH-05DE	SGDV-1R9D☐5A
	280 N	600 N	SGT-F50D200-[stroke]-NA0020-DC	SGDH-10DE	SGDV-3R5D☐5A
	560 N	1200 N	SGT-F50D380-[stroke]-NA0020-DC	SGDH-15DE	SGDV-5R4D☐5A
	560 N	1200 N	SGT-F1ZD200-[stroke]-NA0020-DC	SGDH-15DE	SGDV-5R4D☐5A
	1120 N	2400 N	SGT-F1ZD380-[stroke]-NA0020-DC	SGDH-30DE	SGDV-120D☐5A

Note:
For effective stroke distances available see dimensions section.

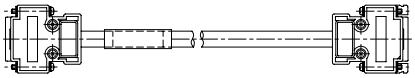
Serial converter cable to SERVOPACK

Symbol	Specifications		Model	Appearance
③	∑-II and ∑-V SERVOPACK to serial converter cable	3 m	JZSP-CLP70-03-E	
		5 m	JZSP-CLP70-05-E	
		10 m	JZSP-CLP70-10-E	
		15 m	JZSP-CLP70-15-E	
		20 m	JZSP-CLP70-20-E	

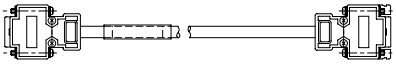
Power cables

Symbol	Specifications		Model	Appearance
④	For 230 V servo motors SGT-F35A☐	3 m	DP9325252-03G	
		5 m	DP9325252-05G	
		10 m	DP9325252-10G	
		15 m	DP9325252-15G	
		20 m	DP9325252-20G	
	For 230 V servo motors SGT-F50A☐ SGT-F1ZA200☐	3 m	DP9325253-03G	
		5 m	DP9325253-05G	
		10 m	DP9325253-10G	
		15 m	DP9325253-15G	
		20 m	DP9325253-20G	
	For 400 V servo motors SGT-F35D☐ SGT-F50D200D☐	3 m	JZSP-CMM20D15-03G	
		5 m	JZSP-CMM20D15-05G	
		10 m	JZSP-CMM20D15-10G	
		15 m	JZSP-CMM20D15-15G	
		20 m	JZSP-CMM20D15-20G	
	For 400 V servo motors SGT-F50D380☐ SGT-F1ZD☐	3 m	JZSP-CLN15-03-E	
		5 m	JZSP-CLN15-05-E	
		10 m	JZSP-CLN15-10-E	
		15 m	JZSP-CLN15-15-E	
		20 m	JZSP-CLN15-20-E	

Linear scale cable to serial converter

Symbol	Specifications		Model	Appearance
⑤	Extension cable for linear scale to serial converter (Connector DB-15) (The extension cable is optional)	1 m	JZSP-CLL00-01-E	
		3 m	JZSP-CLL00-03-E	
		5 m	JZSP-CLL00-05-E	
		10 m	JZSP-CLL00-10-E	
		15 m	JZSP-CLL00-15-E	

Hall sensor cable to serial converter

Symbol	Specifications		Model	Appearance
⑥	Extension cable for hall sensor to serial converter (The extension cable is optional)	1 m	JZSP-CLL10-01-E	
		3 m	JZSP-CLL10-03-E	
		5 m	JZSP-CLL10-05-E	
		10 m	JZSP-CLL10-10-E	
		15 m	JZSP-CLL10-15-E	

Connectors

Specification	Model
Hypertac power connector IP67 (for 230 V motors)	SPOC-06K-FSDN169
Hypertac power connector IP67 (for 400 V motors)	LPRA-06B-FRBN170

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