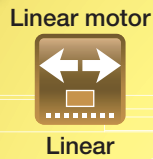


LT
(LT...CE, LT...LD, LT...H, LT...H2)

LT



Major product specifications

Driving method	Linear motor
Linear motion rolling guide	Linear Way (ball type)
Built-in lubrication part	Lubrication part "C-Lube" is built-in
Material of table and bed	High-strength aluminum alloy (High carbon steel is used for the LT100CE bed)
Sensor	Select by identification number

Accuracy

Positioning repeatability	±0.0005~0.0010
Positioning accuracy	—
Lost motion	—
Parallelism in table motion A	—
Parallelism in table motion B	—
Attitude accuracy	—
Straightness	—
Backlash	—

unit: mm

LT

Compact, high thrust, and long stroke LT series!

Linear Motor Table LT is a compact and high-precision positioning table with an optical linear encoder built in and with AC linear servomotor incorporated between moving table and bed. Lightweight moving table and large thrust force enables the operation of high acceleration / deceleration and high response. And, the advanced servo technology achieves high static stability and speed stability. Three types, consisting of Compact type LT...CE, Long stroke type LT...LD, and High thrust type LT...H, are listed on lineup, which allows customers to select the most suitable model depending on the usage.

Linear Motor Table LT specification list

Model and size	Compact type LT...CE									High thrust type LT...H					
	LT100CEG ⁽¹⁾			LT150CEG ⁽¹⁾			LT150CETF ⁽¹⁾			LT170H			LT170H2		
Thrust / speed specification	High thrust specification			High thrust specification 1			High thrust specification 2			—			—		
Sectional shape															
Maximum thrust N	120			350			390			900			500		
Rated thrust N	15			60			70			Natural air cooling : 120 Air cooling : 150			260		
Maximum load mass kg	12			35			39			90			40		
Effective stroke length mm	1000			1200			1200			2670			2750		
Resolution μm	0.1	0.5	1.0	0.1	0.5	1.0	0.1	0.5	1.0	0.1	0.5	1.0	0.1	0.5	1.0
Maximum speed mm/s	690	2000	2000	690	2000	2000	690	2000	2000	690	1500 (2000)	1500 (2000)	690	3000	3000
Positioning repeatability μm	±0.5	±0.5	±1.0	±0.5	±0.5	±1.0	±0.5	±0.5	±1.0	±0.5	±0.5	±1.0	±0.5	±0.5	±1.0

Model and size	Long stroke type LT...LD											
	LT130LDG ⁽¹⁾			LT170LDG ⁽¹⁾			LT170LDV			LT170LDTF ⁽¹⁾		
Thrust / speed specification	High thrust specification			High thrust specification 1			High speed specification			High thrust specification 2		
Sectional shape												
Maximum thrust N	120			350			145			390		
Rated thrust N	15			60			25			70		
Maximum load mass kg	12			35			20			39		
Effective stroke length mm	2760			2720			2720			1640		
Resolution μm	0.1	0.5	1.0	0.1	0.5	1.0	0.1	0.5	1.0	0.1	0.5	1.0
Maximum speed mm/s	690	2000	3000	690	2000	2000	690	2000	3000	690	2000	2000
Positioning repeatability μm	±0.5	±0.5	±1.0	±0.5	±0.5	±1.0	±0.5	±0.5	±1.0	±0.5	±0.5	±1.0

Note⁽¹⁾ Switching to absolute linear encoder specifications is also possible.

Absolute Linear Encoder Specifications

Linear Motor Table LT comes with an incremental linear encoder as standard, but an absolute linear encoder may also be considered to meet your demand. If needed, please contact IKO.

Linear encoder type	RSF Elektronik linear encoder model	Compatible driver	Resolution [μm]
Absolute linear encoder	AK MC15	AD7 Series made by Hitachi Industrial Equipment Systems Co., Ltd.	0.05
	AK MC15M	Mitsubishi Electric Corporation J4 Series	0.05
	AK MC15Y	Yaskawa Electric Corporation Σ-7 Series	0.05
	AK MC15P	Panasonic Corporation A6L Series	0.05

Return to origin/magnetic pole position detection operation not required

Because absolute position information is read from the linear scale, origin detection operation and magnetic pole position detection are not required upon restarting power.

High resolution and high-speed travel

Because high-speed serial communication is used for position measurement in response to requirements, high-speed travel at high resolution is possible.

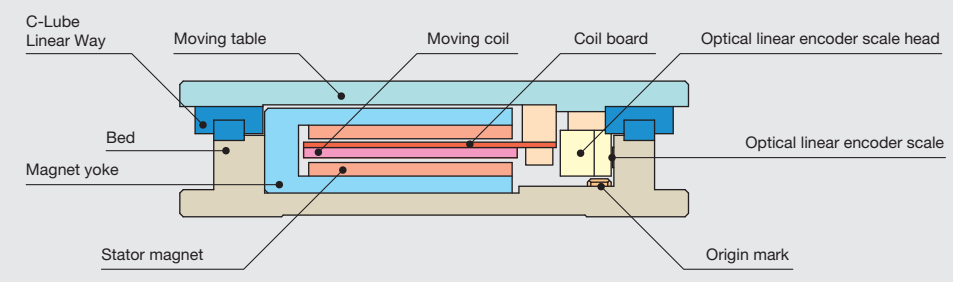
Improved noise resistance

Because position information is acquired as digital data through serial communication, noise resistance is excellent compared to incremental linear encoders.

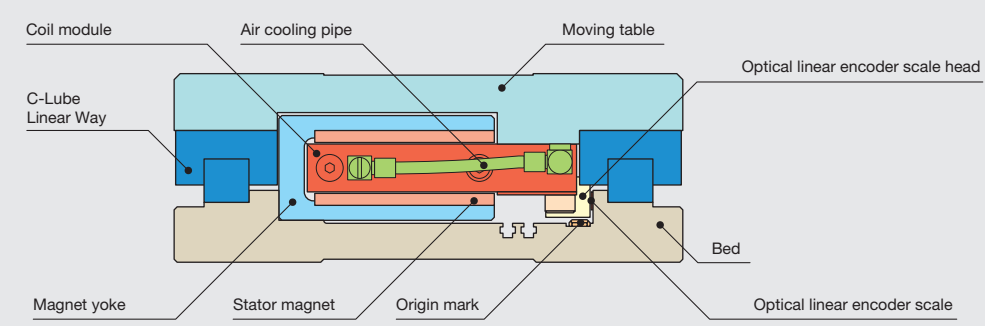
1N=0.102kgf=0.2248lbs.
1mm=0.03937inch

Sectional Structure of Linear Motor Table LT

Structures of LT...CE and LT...LD



Structure of LT...H

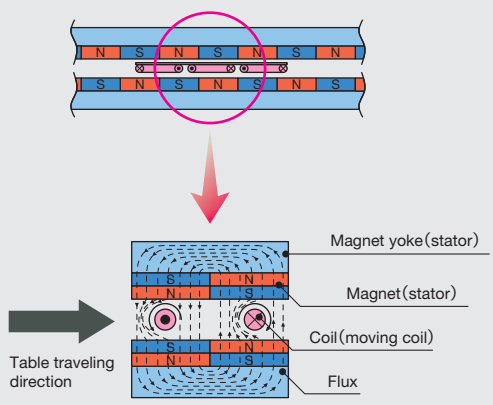


Operating principle of Linear Motor Table LT

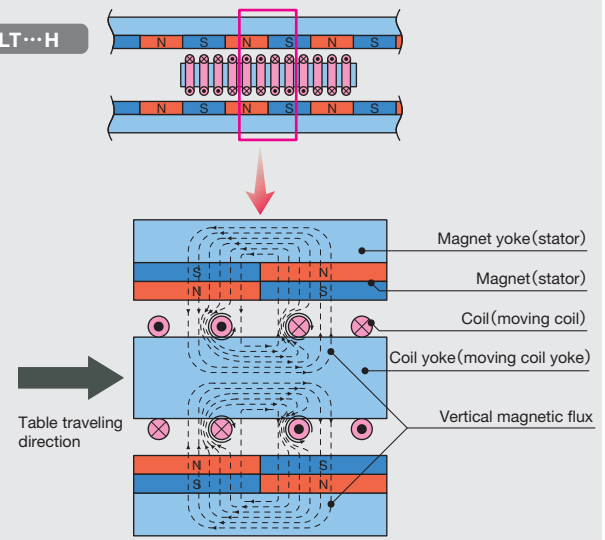
Linear Motor Table LT consists of moving field coil and stator having a magnet arranged facing the inside of yoke. Magnetic flux vertically exerted by magnet and rotational flux generated around the coil by electric current causes the coil to be forced horizontally. (Fleming's left-hand rule)

By switching the coil current to certain direction corresponding to the flux direction, continuous thrust force in a certain direction can be obtained and linear motions of the rotator is maintained. In the High Thrust Series, as the coils are densely arranged in vertical magnetic flux generated by a pair of coil yokes arranged one above the other, it can produce extremely high thrust force although it is small.

LT...CE and LT...LD



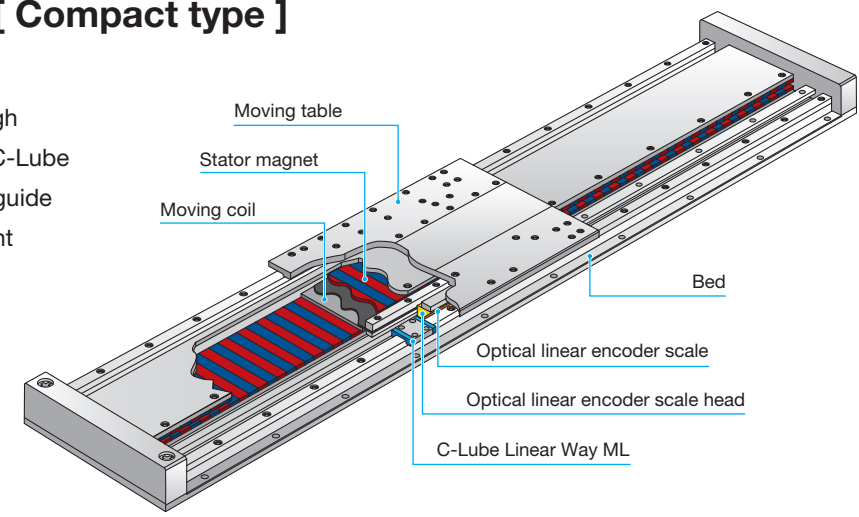
LT...H



LT...CE

[Compact type]

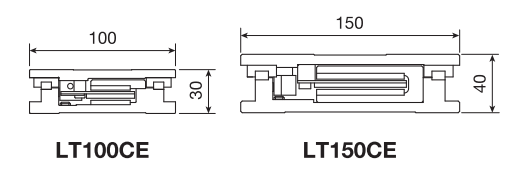
LT...CE is a compact linear motor table with high thrust force generating capability, which uses C-Lube Linear Way ML, miniature linear motion rolling guide in the table guiding parts and adopts lightweight aluminum alloy in the moving table.



Points

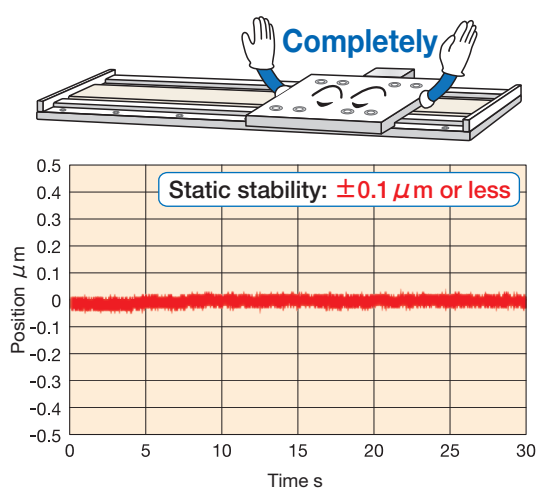
1 ● Compact

Low profile design with downsizing thoroughly pursued by adopting C-Lube Linear Way ML and small optical linear encoder. Minimum sectional height of 30mm (LT100CE) is achieved.



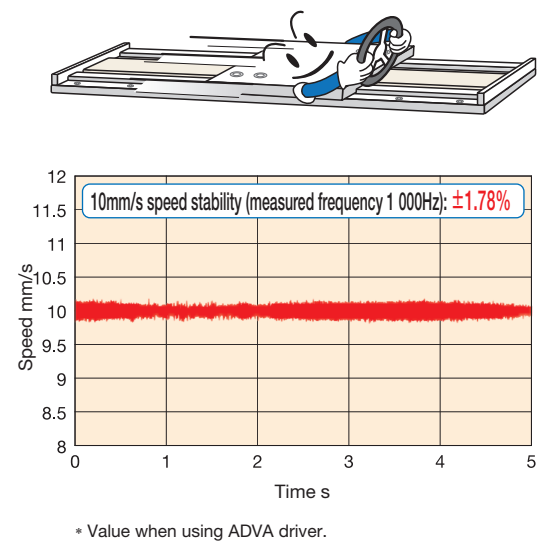
2 ● Static stability

Advanced servo technology has achieved high static stability.



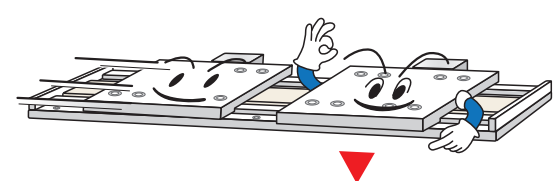
3 ● High speed stability

Direct drive and advanced servo technology has achieved high speed stability.



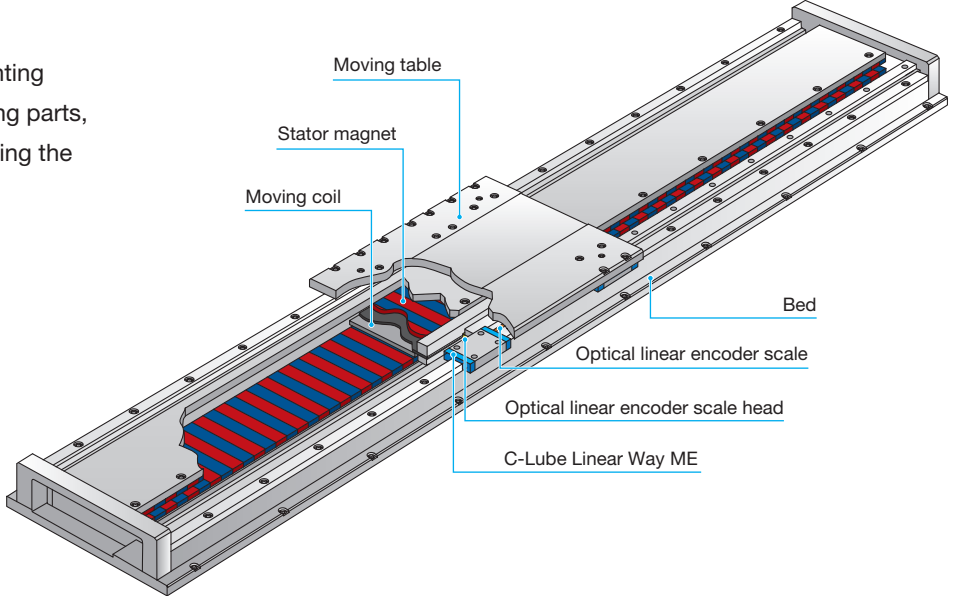
4 ● High acceleration / deceleration and high response

This unit is small but can produce a great thrust force. Aluminum alloy-made and lightweight moving table has achieved the positioning by high acceleration / deceleration and high response. It contributes to shortening of tact time.



LT...LD [Long stroke type]

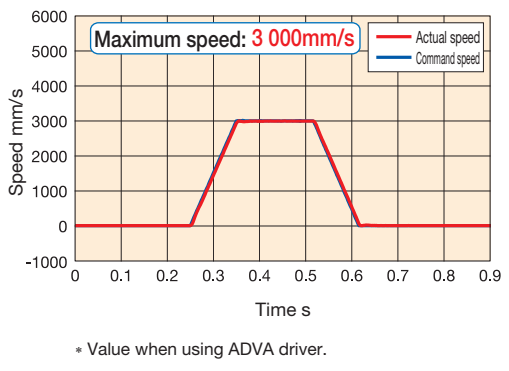
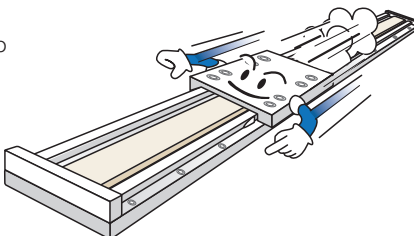
Using C-Lube Linear Way ME of the jointing specification track rail in the table guiding parts, the LT...LD is a linear motor table enabling the long stroke and high-speed operation.



Points

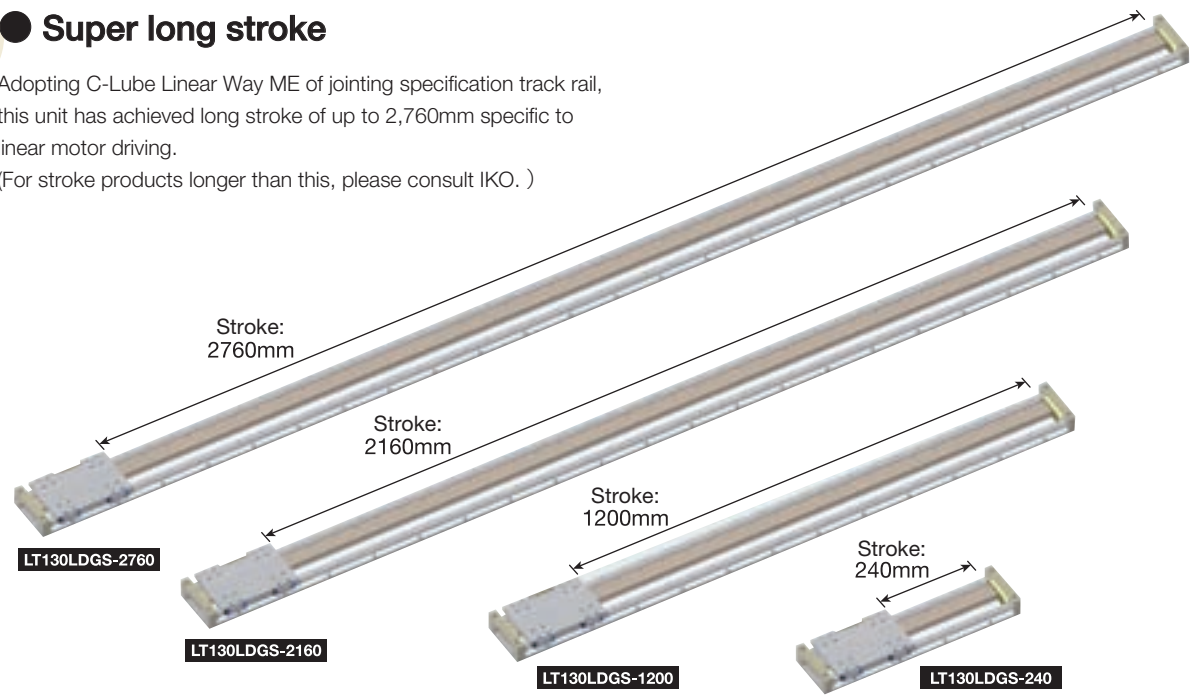
1 ● High speed

Direct drive enables both high-precision positioning and high speed. Supports high speed operation required for long stroke motion. It is possible to perform high-speed motion of up to 3,000mm/s.



2 ● Super long stroke

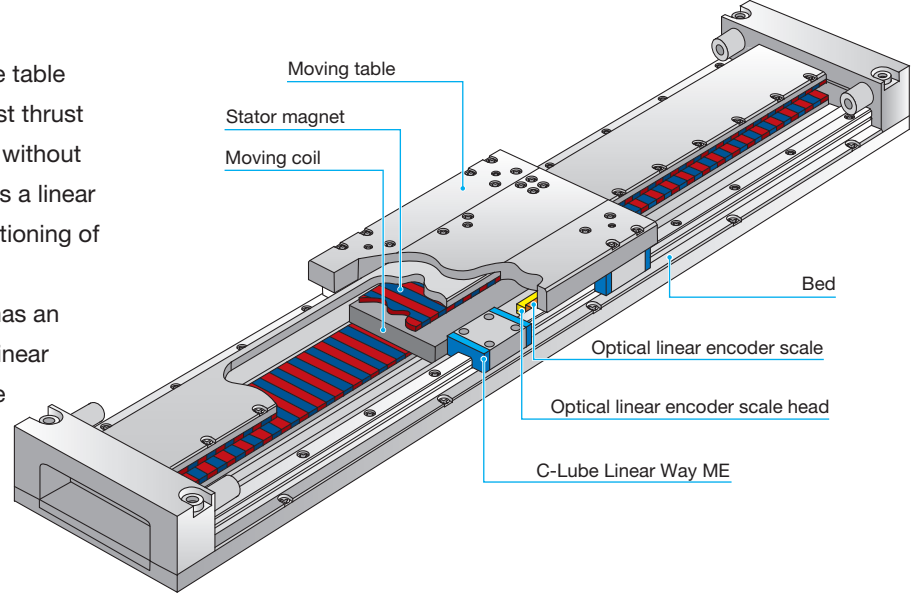
Adopting C-Lube Linear Way ME of jointing specification track rail, this unit has achieved long stroke of up to 2,760mm specific to linear motor driving. (For stroke products longer than this, please consult IKO.)



LT...H [High thrust type]

LT...H uses C-Lube Linear Way ME in the table guiding parts and can produce the biggest thrust force among Linear Motor Table LT units without impairing the compact feature, so that it is a linear motor table best suited for precision positioning of a heavy load.

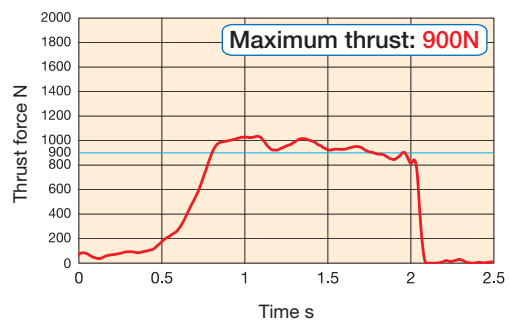
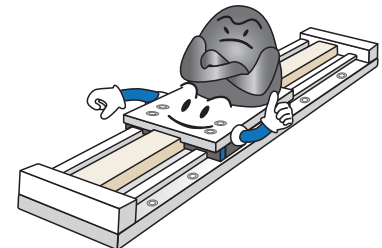
The lineup also includes LT...H2, which has an improved rated thrust because it uses a linear motor. It has a different structure than the LT...H above.



Points

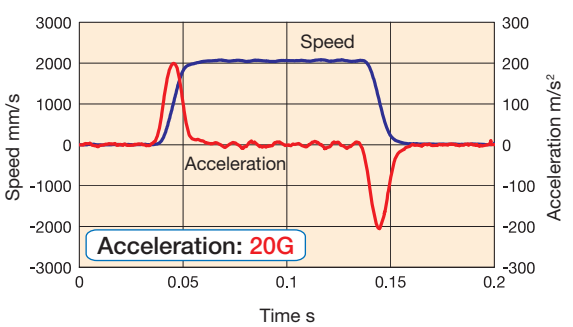
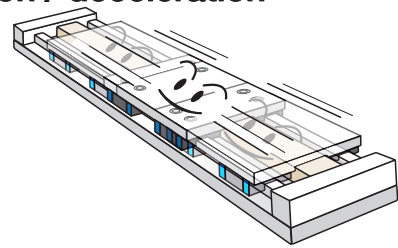
1 ● High thrust

Although this table is compact in shape, it can produce maximum thrust force of 900N. This unit is best suited to the precision positioning of heavy load.



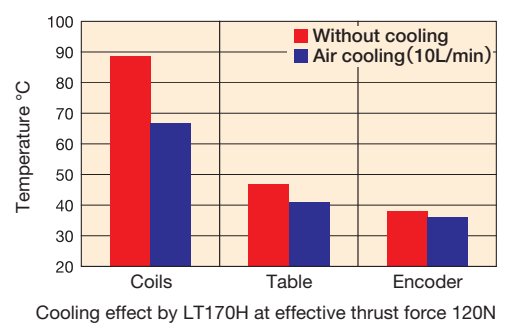
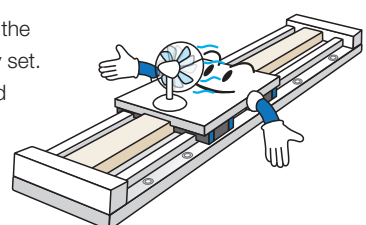
2 ● High acceleration / deceleration

Lightweight table and high thrust have achieved high acceleration / deceleration and high response.



3 ● Air cooling

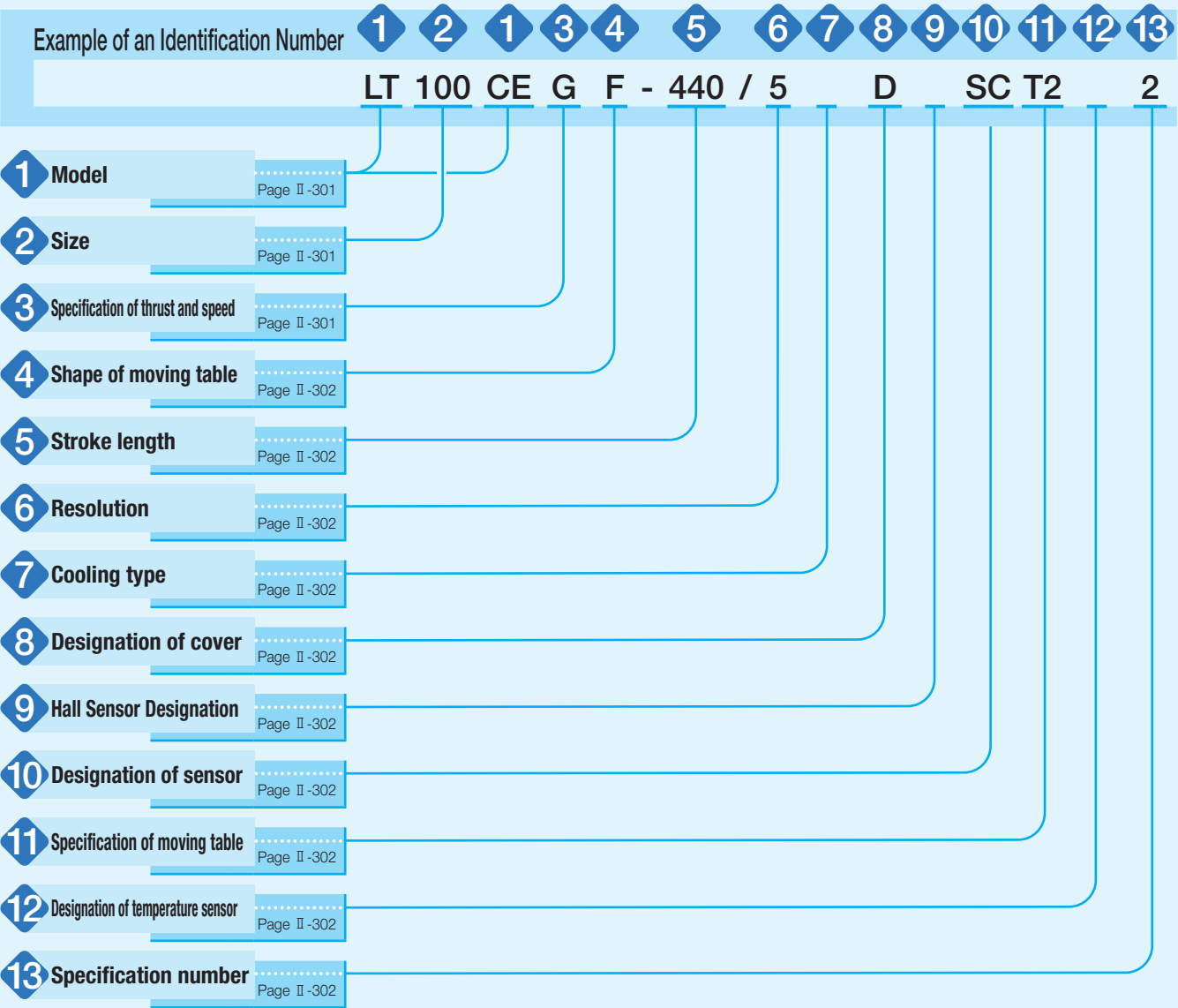
Cooling mechanism for suppressing the heating of motor section is optionally set. It enables shortening of tact time and contributes to improving the production efficiency.



Cooling effect by LT170H at effective thrust force 120N

1N=0.102kgf=0.2248lbs.
1mm=0.03937inch

Identification Number



Identification Number and Specification

1 Model	LT...CE: Linear Motor Table LT compact series LT...LD: Linear Motor Table LT long stroke series LT...H : Linear Motor Table LT high thrust series LT...H2: Linear Motor Table LT high thrust series		
2 Size	100: Width 100mm (applicable to LT...CE) 150: Width 150mm (applicable to LT...CE) 130: Width 130mm (applicable to LT...LD) 170: Width 170mm (applicable to LT...LD, LT...H and LT...H2)		
3 Specification of thrust and speed	G : High thrust (high speed) specification 1 T : High thrust (high speed) specification 2 V : High speed specification No symbol	For application of respective specifications, please see Table 1. When selecting T, select F in the entry of section 4 Shape of moving table.	

Table 1 Application of thrust force and speed symbols

Model	Size	Thrust / speed specification			
		G	T	V	No symbol
LT...CE	100	○	—	—	—
	150	○	○(1)	—	—
LT...LD	130	○	—	—	—
	170	○	○(1)	○	—
LT...H, LT...H2	170	—	—	—	○

Note (1) Applicable only for type with flange.

Identification Number and Specification

4

Shape of moving table

S: Standard
F: With flange

When selecting S, set "No symbol" in the entry of section 8 "Designation of cover".
When selecting F, select D in the entry of section 8 "Designation of cover".

5

Stroke length

Select a stroke length from the list of Table 2.

Table 2

Stroke length

Model and size	Stroke length mm
LT100CEG(S, F)	200, 400, 600, 800, 1 000
LT100CEG(S, F)···/T2	240, 440, 640, 840
LT150CEG(S, F)	400, 600, 800, 1 000, 1 200
LT150CEG(S, F)···/T2	360, 560, 760, 960
LT150CETF	400, 600, 800, 1 000, 1 200
LT150CETF···/T2	360, 560, 760, 960
LT130LDGS	240, 720, 1 200, 1 680, 2 160, 2 640, 2 760
LT130LDGS···/T2	540, 940, 1 340, 1 740, 2 140, 2 540
LT130LDGF	240, 720, 1 200, 1 680
LT130LDGF···/T2	540, 940, 1 340
LT170LD(G, V)S	680, 1 160, 1 640, 2 120, 2 600, 2 720
LT170LD(G, V)S···/T2	450, 850, 1 250, 1 650, 2 050, 2 450
LT170LD(G, T, V)F	680, 1 160, 1 640
LT170LD(G, T, V)F···/T2	450, 850, 1 250
LT170HS	650, 1 130, 1 610, 2 090, 2 570, 2 670
LT170HS···T2	1 340, 2 540
LT170HF	650, 1 130, 1 610
LT170HF···T2	1 340
LT170H2S	750, 1 250, 1 750, 2 250, 2 750
LT170H2S···/T2	480, 980, 1 480, 1 980, 2 480
LT170H2F	750, 1 250
LT170H2F···/T2	480, 980

6

Resolution

1: 0.1 μm
5: 0.5 μm
10: 1.0 μm

7

Cooling type

No symbol: Natural air cooling
CA : Air cooling (applicable to LT···H)

8

Designation of cover⁽¹⁾

No symbol: Without cover (applicable to standard moving table)
D : With cover (applicable to moving table with flange)

9

Hall Sensor Designation⁽²⁾

No symbol: Without sensor
H : With Hall Sensor (applicable to LT···H2)

10

Designation of sensor

No symbol: Without sensor
SC : Sensor (limit and pre-origin), with sensor rail

11

Specification of moving table

No symbol: Single table
T2 : Twin table

12

Designation of temperature sensor

No symbol: Without temperature sensor
TH : With temperature sensor (applicable to LT···H)

13

Specification number

2 : Specification number 2

The specification number is limited to 2.

Note(1) LT150CET and LT170LDT are only available with covers.

(2) For models with a hall sensor, only the SANMOTION G driver manufactured by Sanyo Denki Co., Ltd. can be used.

Specifications

Table 3 LT···CE performance

Model and size		LT100CEG			LT150CEG			LT150CETF		
Item										
Maximum thrust ⁽¹⁾	N	120			350			390		
Rated thrust	N	15			60			70		
Maximum load mass	kg	12			35			39		
Resolution	μm	0.1	0.5	1.0	0.1	0.5	1.0	0.1	0.5	1.0
Maximum speed ⁽²⁾	mm/s	690	2 000	2 000	690	2 000	2 000	690	2 000	2 000
Positioning repeatability ⁽³⁾	μm	±0.5	±0.5	±1.0	±0.5	±0.5	±1.0	±0.5	±0.5	±1.0

Notes ⁽¹⁾ The duration of maximum thrust is up to 1 second.
⁽²⁾ This maximum speed may not be reached depending on the maximum output frequency of the controller used, and the driver type or settings.
⁽³⁾ When the temperature of the product is constant.

Table 4 LT···LD performance

Model and size		LT130LDG			LT170LDG			LT170LDV			LT170LDTF		
Item													
Maximum thrust ⁽¹⁾	N	120			350			145			390		
Rated thrust	N	15			60			25			70		
Maximum load mass	kg	12			35			20			39		
Resolution	μm	0.1	0.5	1.0	0.1	0.5	1.0	0.1	0.5	1.0	0.1	0.5	1.0
Maximum speed ⁽²⁾	mm/s	690	2 000	3 000	690	2 000	2 000	690	2 000	3 000	690	2 000	2 000
Positioning repeatability ⁽³⁾	μm	±0.5	±0.5	±1.0	±0.5	±0.5	±1.0	±0.5	±0.5	±1.0	±0.5	±0.5	±1.0

Notes ⁽¹⁾ The duration of maximum thrust is up to 1 second.
⁽²⁾ This maximum speed may not be reached depending on the maximum output frequency of the controller used, and the driver type or settings.
⁽³⁾ When the temperature of the product is constant.

Table 5 LT···H performance

Model and size		LT170H	
Item			
Maximum thrust ⁽¹⁾	N	900	
Rated thrust ⁽²⁾	Natural air cooling N	120	
	Air cooling ⁽³⁾ N	150	
Maximum load mass	kg	90	
Resolution	μm	0.1	1.0
Maximum speed ⁽⁴⁾ ⁽⁵⁾	mm/s	690	1 500(2 000)
Positioning repeatability ⁽⁶⁾	μm	±0.5	±1.0

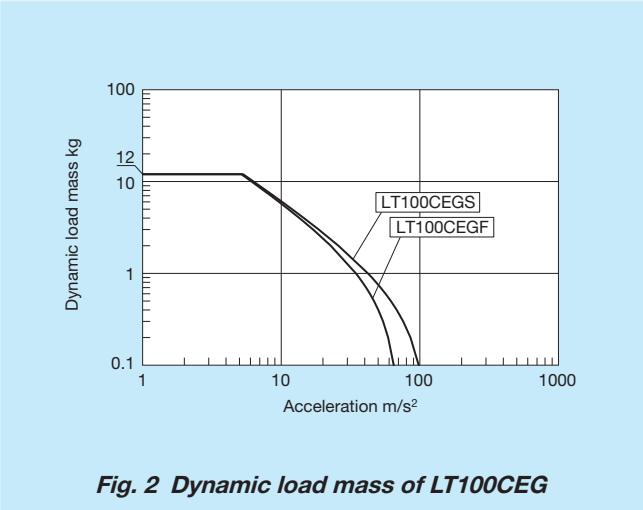
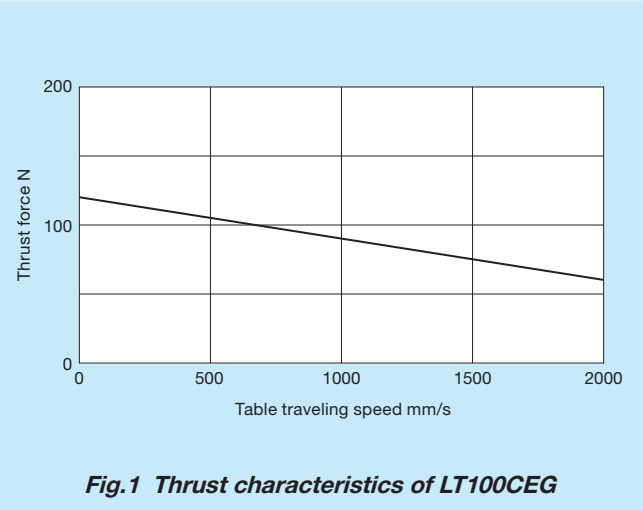
Notes ⁽¹⁾ The duration of maximum thrust is up to 1 second.
⁽²⁾ In the case where the unit is fixed on a steel-made cradle under ambient temperature of 0 to 25°C. For more information, please see Fig. 16 on page II -306.
⁽³⁾ This is under air flow rate of 30NL/min.
⁽⁴⁾ For the speed exceeding 1,500mm/s, please contact IKO.
⁽⁵⁾ This maximum speed may not be reached depending on the maximum output frequency of the controller used, and the driver type or settings.
⁽⁶⁾ When the temperature of the product is constant.

Table 6 LT···H2 performance

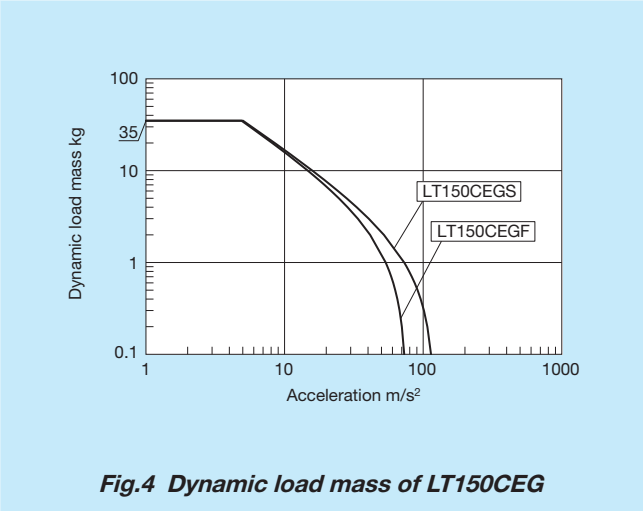
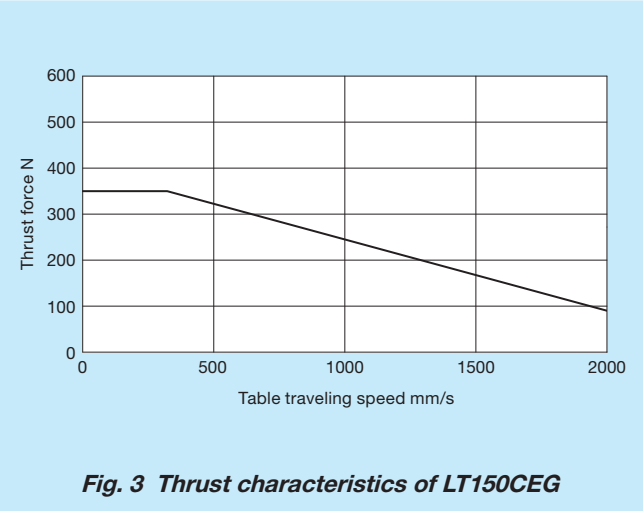
Model and size		LT170H2		
Item				
Maximum thrust ⁽¹⁾	N	500		
Rated thrust ⁽²⁾	N	260		
Maximum load mass	kg	40		
Resolution	μm	0.1	0.5	1.0
Maximum speed ⁽³⁾	mm/s	690	3 000	3 000
Positioning repeatability ⁽⁴⁾	μm	±0.5	±0.5	±1.0

Notes ⁽¹⁾ The duration of maximum thrust is up to 1 second.
⁽²⁾ In the case where the unit is fixed on a steel-made cradle under ambient temperature of 0 to 25°C.
⁽³⁾ This maximum speed may not be reached depending on the maximum output frequency of the controller used.
⁽⁴⁾ When the temperature of the product is constant.

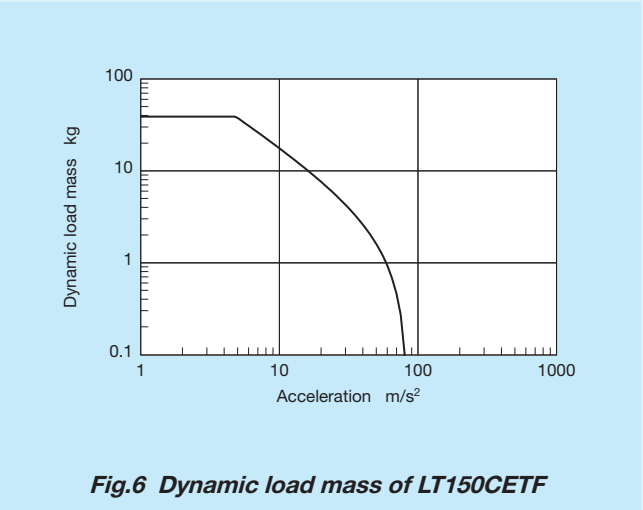
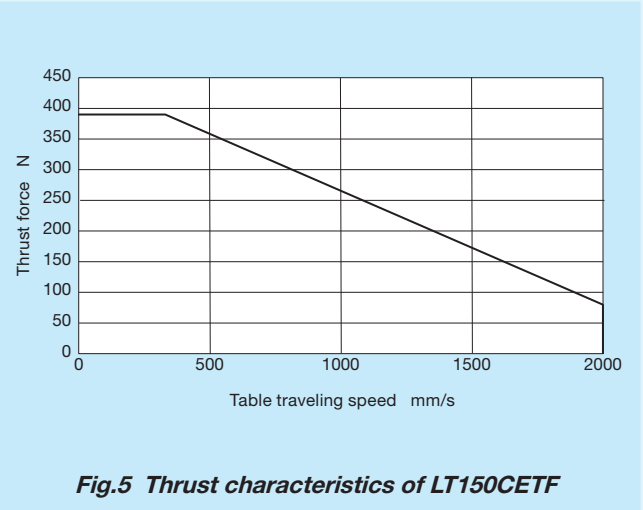
Thrust characteristics of LT···CE



Remark: These are values calculated based on the thrust force with table moving speed set to 1,000mm/s.

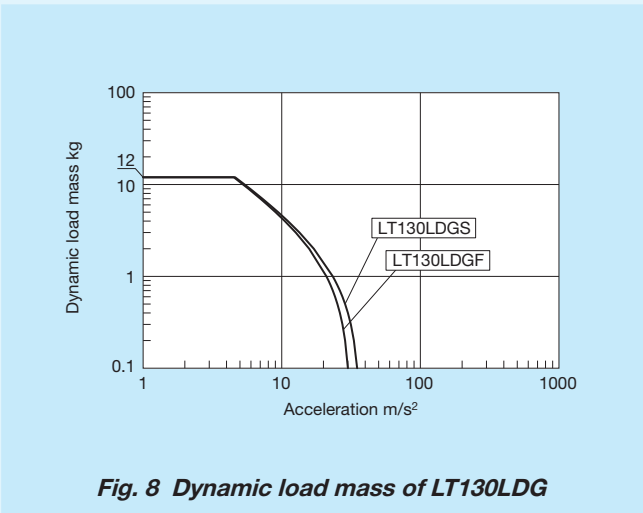
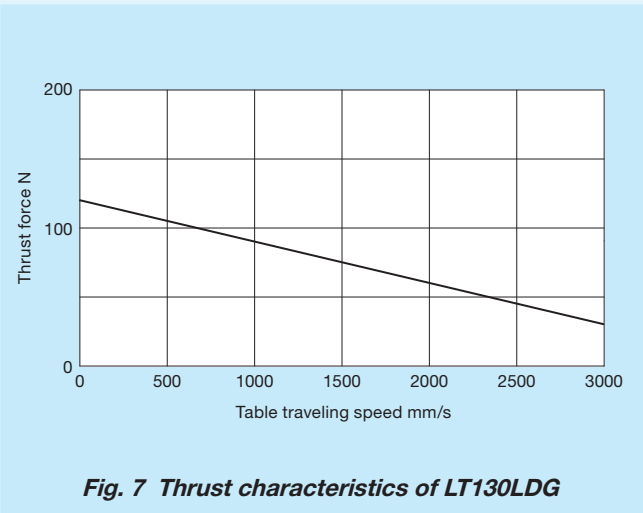


Remark: These are values calculated based on the thrust force with table moving speed set to 1,000mm/s.

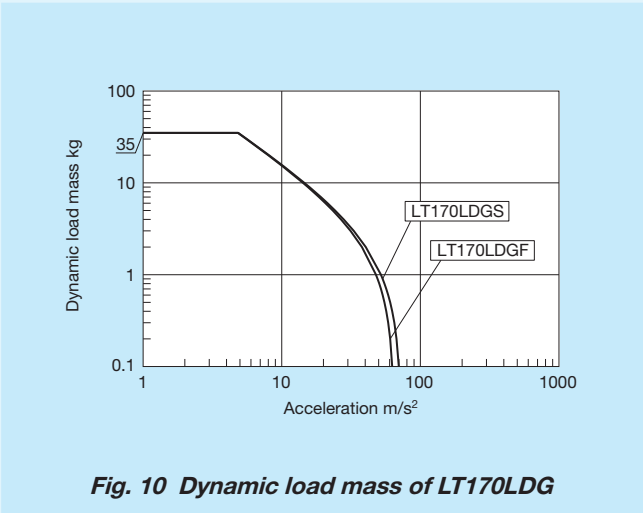
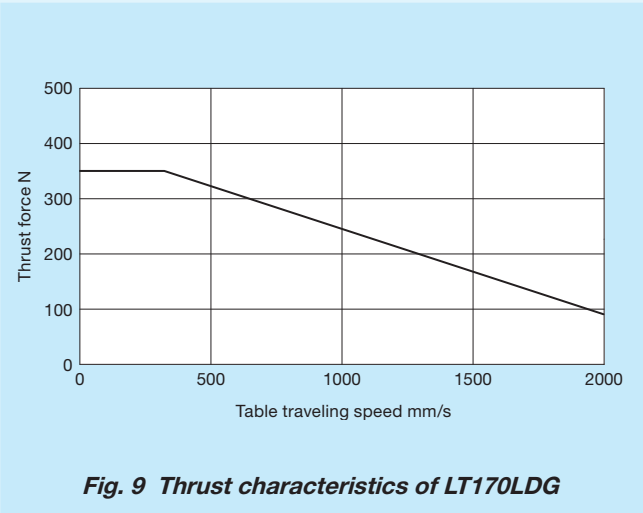


Remark: These are values calculated based on the thrust force with table moving speed set to 1,000mm/s.

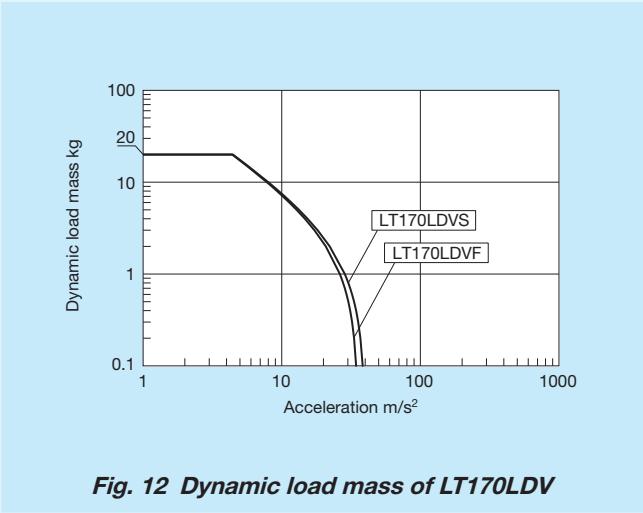
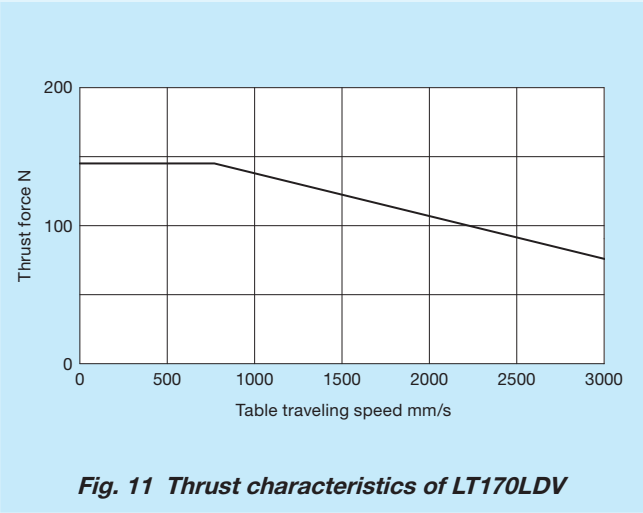
■ Thrust characteristics of LT···LD



Remark: These are values calculated based on the thrust force with table moving speed set to 1,000mm/s.

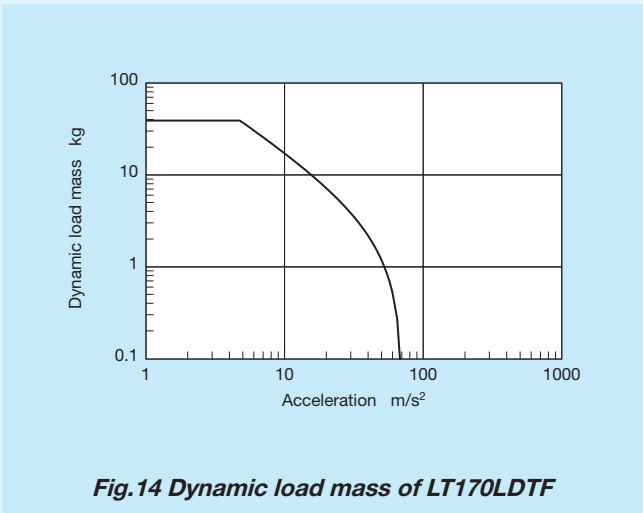
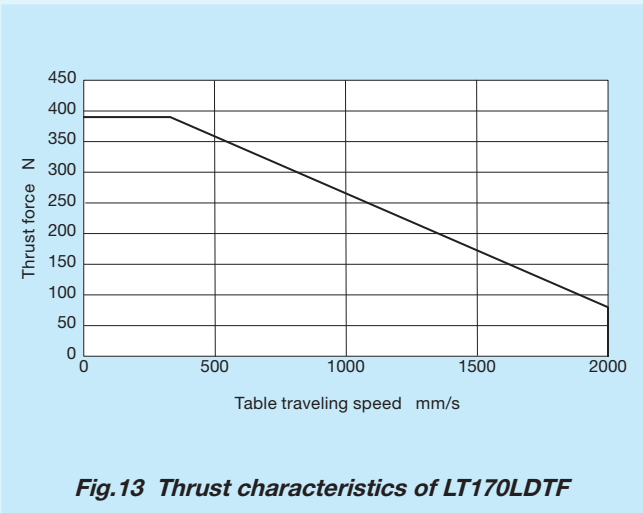


Remark: These are values calculated based on the thrust force with table moving speed set to 1,000mm/s.



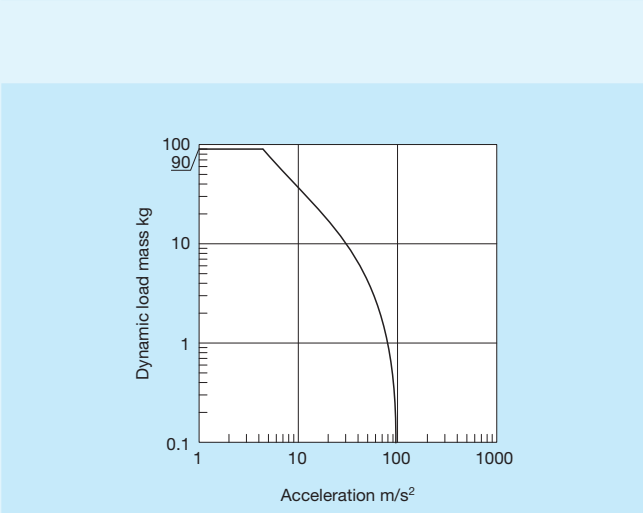
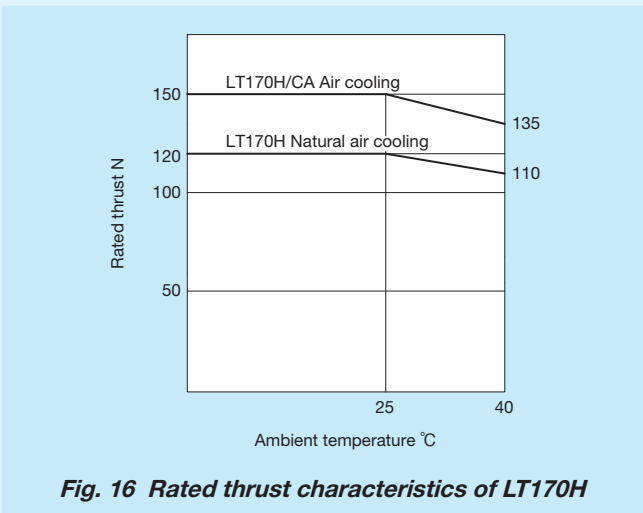
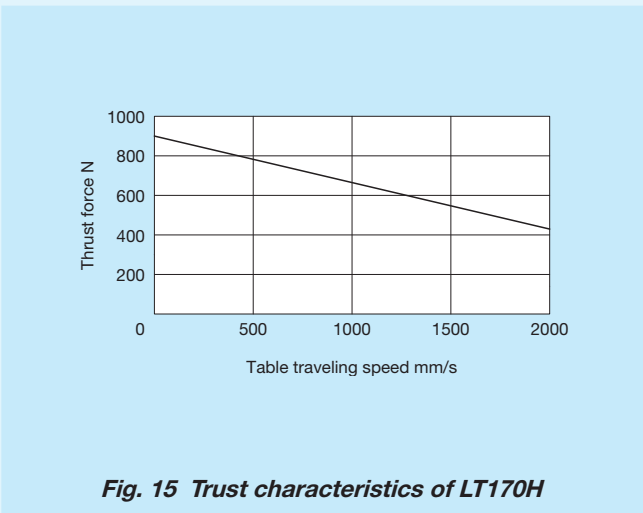
Remark: These are values calculated based on the thrust force with table moving speed set to 1,000mm/s.

■ Thrust characteristics of LT···LD



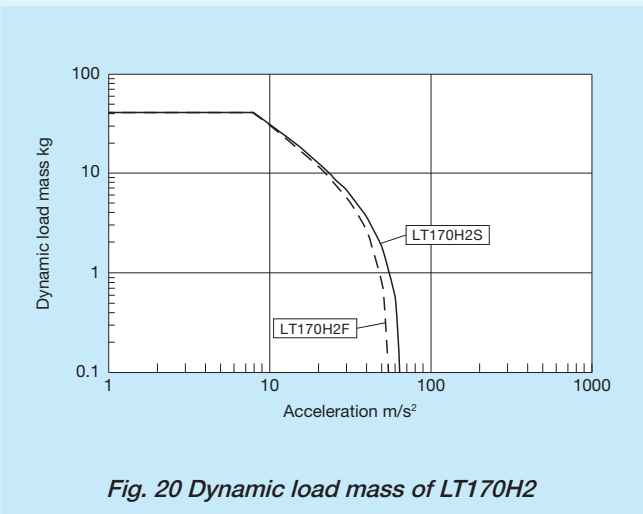
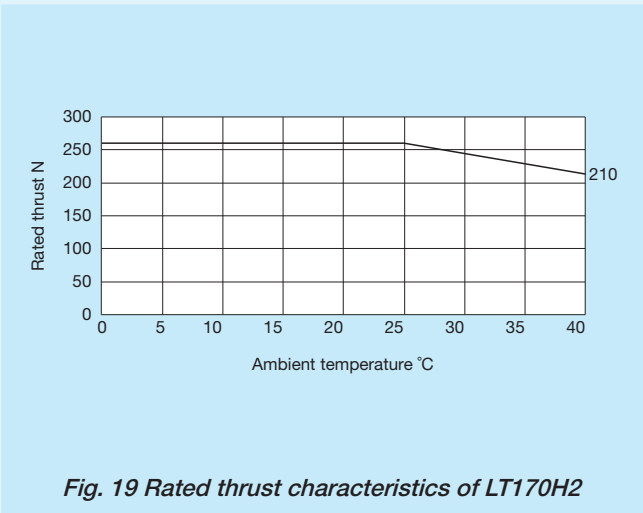
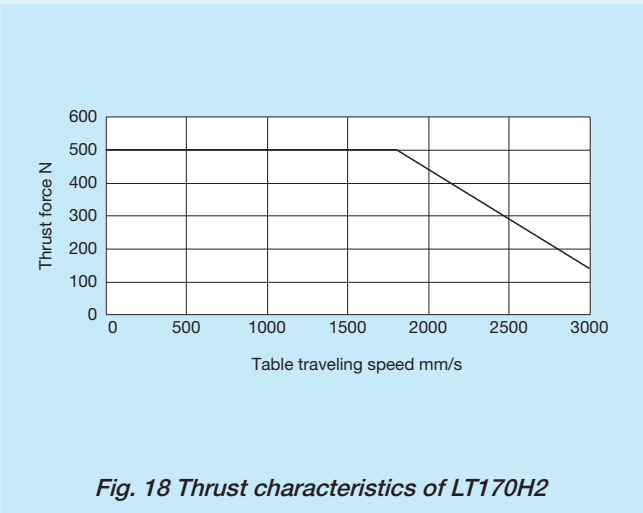
Remark: These are values calculated based on the thrust force with table moving speed set to 1,000mm/s.

■ Thrust characteristics of LT···H



Remark: These are values calculated based on the thrust force with table moving speed set to 1,000mm/s.

Thrust characteristics of LT···H2



Remark: These are values calculated based on the thrust force with table moving speed set to 1,000mm/s.

Mounting

For the processing accuracy of the Precision Positioning Table mounting surface and the tightening torque of the fixing screws, see page III-36.

Sensor Specification

Table 7.1 Sensor timing chart for single table of LT···CE, LT···LD, LT···H, and LT···H2

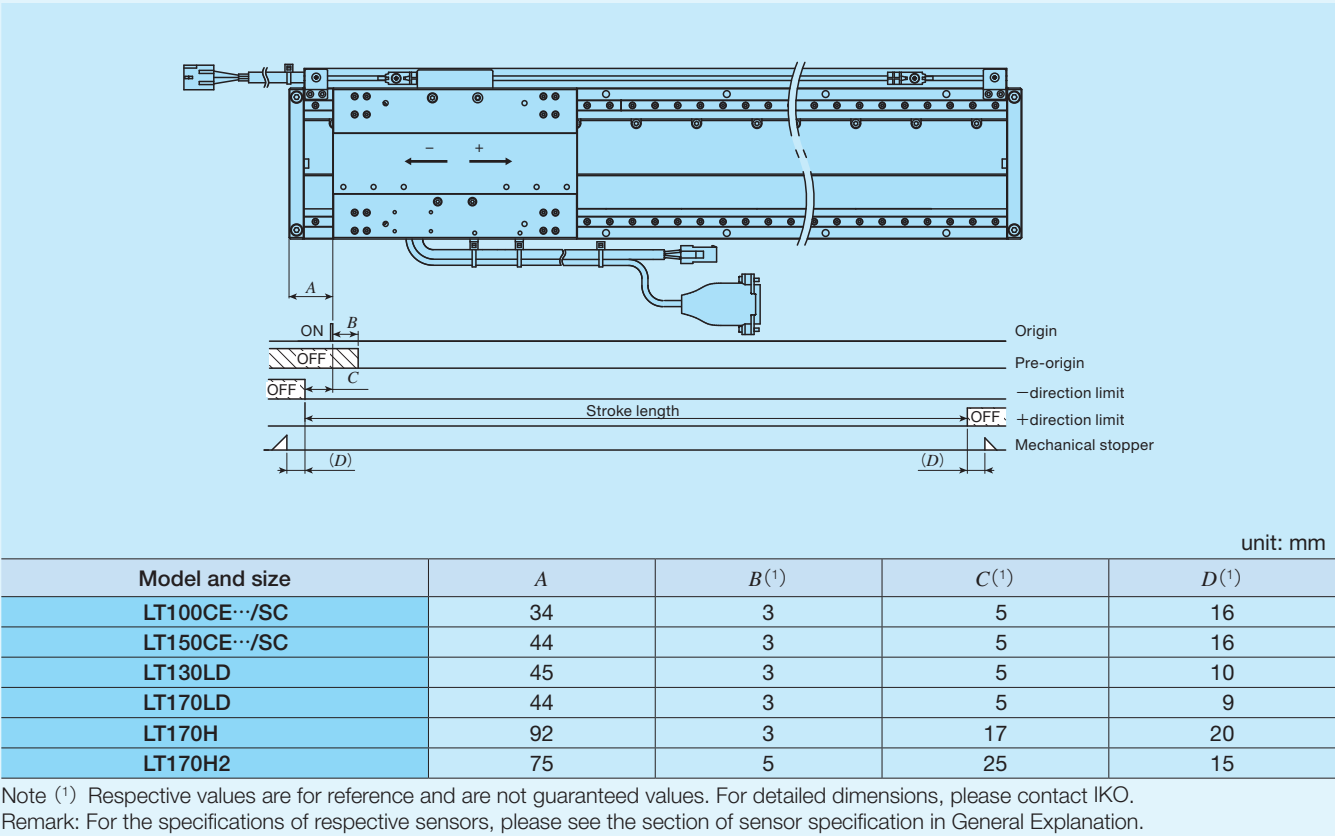
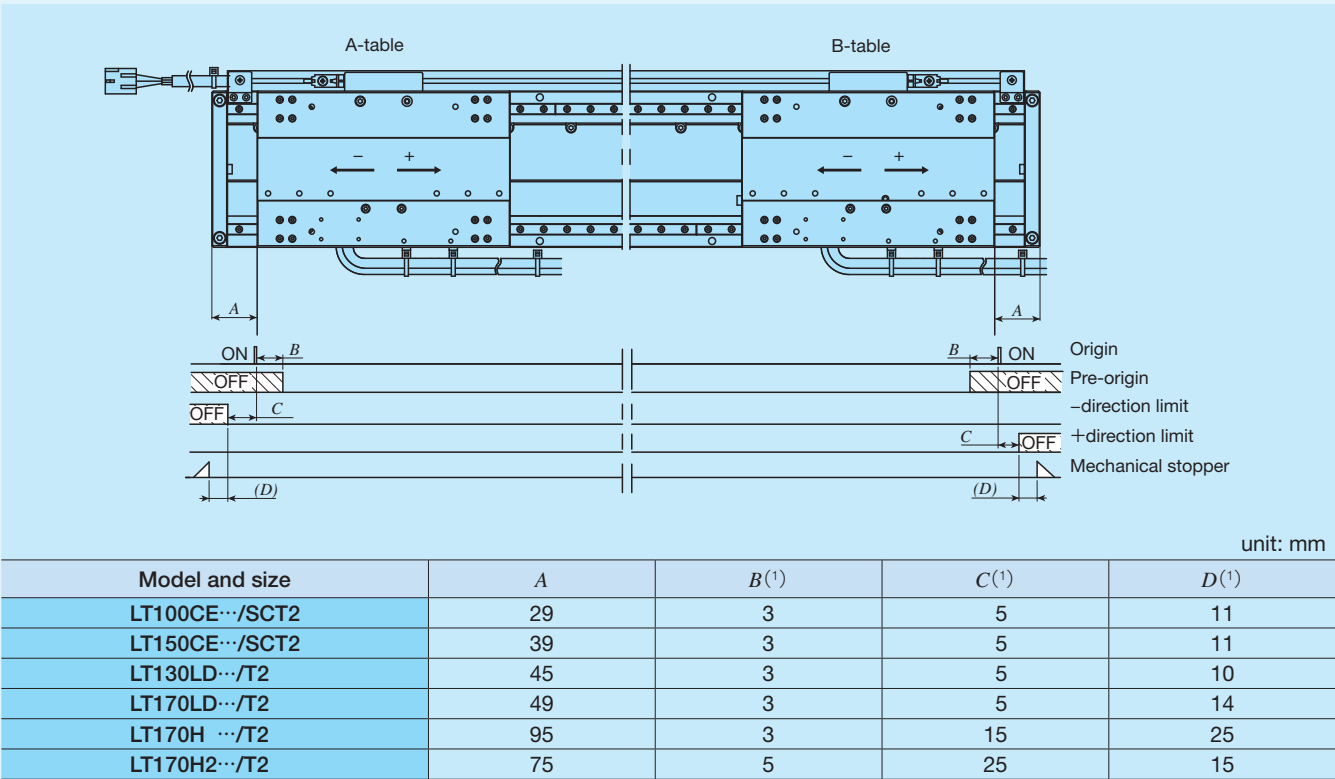


Table 7.2 Sensor timing chart for twin tables of LT···CE, LT···LD, LT···H, and LT···H2



System Configuration

ADVA (Hitachi Industrial Equipment Systems Co., Ltd.) and SANMOTION G (Sanyo Denki Co., Ltd.) are available as dedicated drivers for Linear Motor Table LT. For the system configuration, there are two available specification types, pulse train specification, and high speed network EtherCAT specification. Tables 8 and 9 show examples of identification numbers for ADVA and SANMOTION G respectively, and Tables 10 to 13 show their system configurations. For detailed ADVA and SANMOTION G specifications, see the driver specifications on pages II-388 to 390. Please also note that the driver (MR-J4-10B made by Mitsubishi Electric Corporation) compatible with SSCNET III/H and that compatible with MECHATROLINK (Σ-7 Series AC servo amplifier made by Yaskawa Electric Corporation) will be prepared based on usage. If needed, please contact IKO.

Table 8 Identification number for ADVA

<u>ADVA</u>	-	<u>01NL</u>	<u>EC</u>	/	<u>LT100CEG</u>	<u>1</u>
(1) Model		(2)	(3)		(4)	(5)
(2) Power supply voltage/maximum applicable motor capacity						
01NL	Single-phase / Three-phase 200 V, 100 W (Applicable to LT...CE, LT...LD)					
08NL	Single-phase / Three-phase 200 V, 750 W (Applicable to LT170H, LT170H2)					
(3) Command type						
No symbol	Pulse train command					
EC	EtherCAT					
(4) Applicable Linear Motor Table model						
LT100CEG	LT100CEG					
LT150CEG	LT150CEG (high thrust specification 1)					
LT150CET	LT150CET (high thrust specification 2)					
LT130LDG	LT130LDG					
LT170LDG	LT170LDG (high thrust specification 1)					
LT170LDT	LT170LDT (high thrust specification 2)					
LT170LDV	LT170LDV (high speed specification)					
LT170H	LT170H					
LT170H2	LT170H2					
(5) Specification number						
1	Specification number 1					

The specification number is limited to 1.

Table 9 Identification number for SANMOTION G

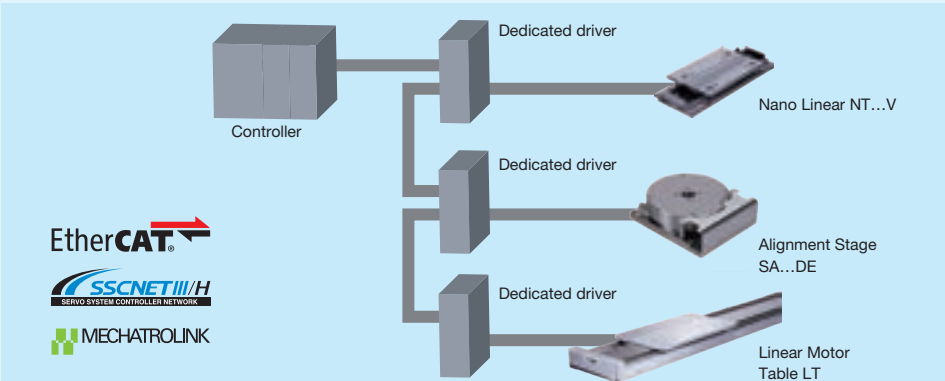
<u>SANMOTION G</u>		<u>SADSA03AAA2</u>	/	<u>LT170H2</u>
(1) Model		(2)		(3)
(2) Power supply voltage / current / command type				
SADSA03AAA2	Single-phase / Three-phase 200 V, 30 A Pulse train			
SADSA03AHA4	Single-phase / Three-phase 200 V, 30 A EtherCAT			
(3) Applicable Linear Motor Table model				
LT170H2		LT170H2		

● Setup Software

When operating Linear Motor Table LT through ADVA or SANMOTION G, initial setting of driver parameters is required. Parameter setting for driver is performed using the setup software. It can also be used for gain adjustment and operational status check. In the driver, the setup software and PC connection cable are not provided. These can be shared in plural drivers but at least 1 set is required. Please prepare these on your own or place an order separately according to your requirement.

●Motion Network

The linear motor-driven table LT drivers ADVA and SANMOTION G support the motion network EtherCAT. Motion network realizes higher performance and higher accuracy of devices free from pulse frequency constraint in pulse train command, noise effects in analog command (voltage command), voltage drop due to cable length and effects of temperature drifting. Reduction of wiring can also be achieved, so synchronization system with more than one table can easily be established.

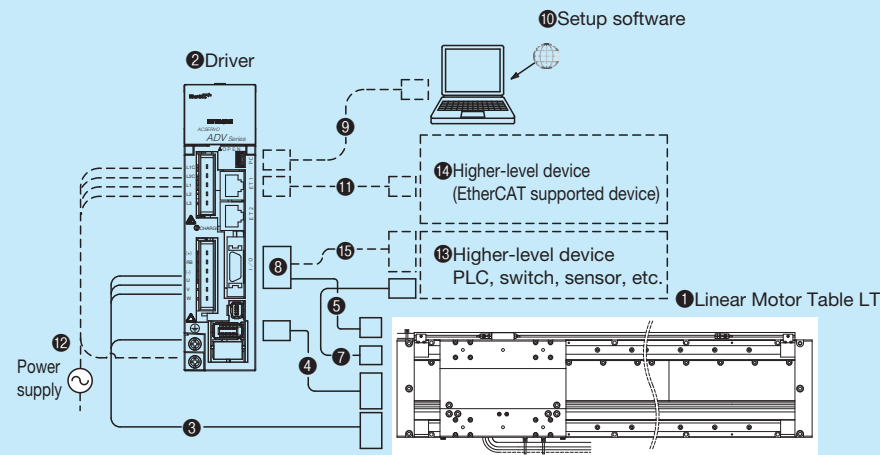


Remark: Please also note that the driver (MR-J4-10B made by Mitsubishi Electric Corporation) compatible with SSCNET III/H and that compatible with MECHATROLINK (Σ-7 Series AC servo amplifier made by Yaskawa Electric Corporation) will be prepared based on usage. If needed, please contact IKO.

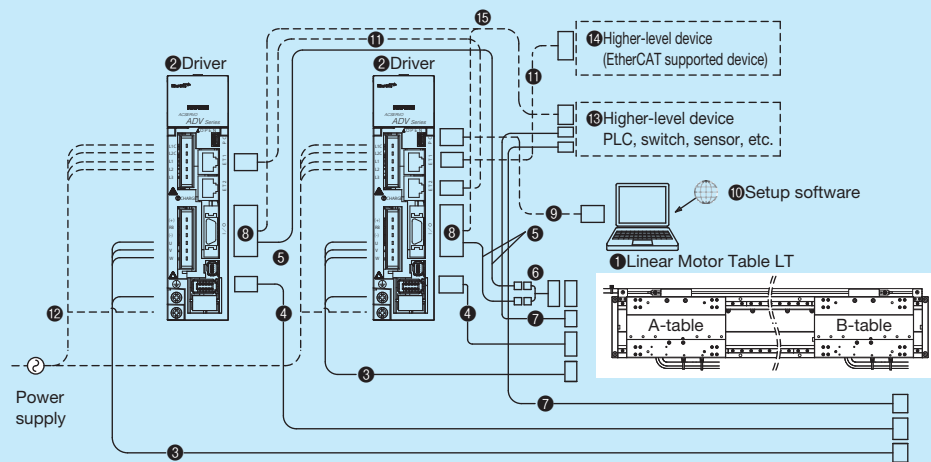
Model	Features
EtherCAT	This is an Ethernet-based open network communication system developed by Beckhoff of Germany, allowing real time control. High speed communication and high accuracy inter-node synchronization provide higher performance and higher accuracy of devices. In addition, Ethernet cables available on the market can be used and various wiring types can be supported.
SSCNET III/H	This is a motion network communication system for servo system control developed by Mitsubishi Electric Corporation. It applies the optical fiber cables, so noise immunity is improved relative to conventional SSCNET.
MECHATROLINK	The open field network communication that connects the controller and various components. Developed by Yaskawa Electric Corporation and managed by MECHATROLINK Members Association.

Table 10 System configuration for LT with driver ADVA...EC

● Example of system configuration for single table



● Example of system configuration for twin table

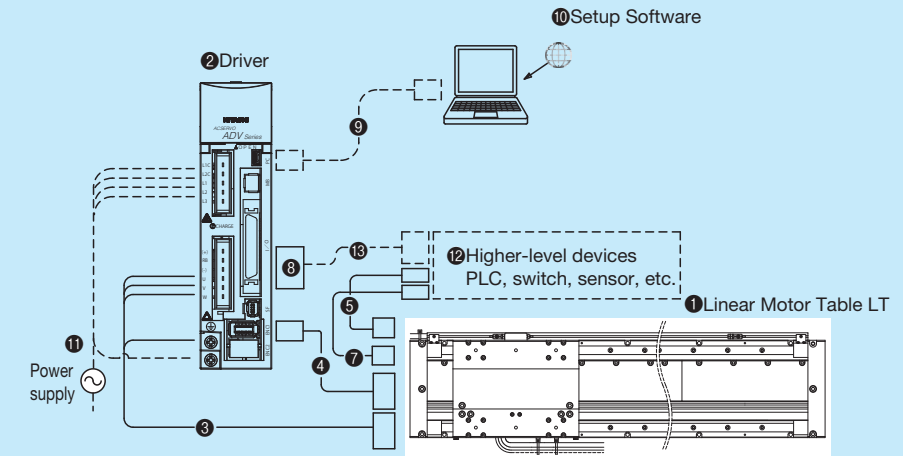


No.	Name	Identification number
1	Linear motor table	Please see pages of II-315 to II-326.
2	Driver	Please see Table 8 to select suitable driver for Linear Motor Table model.
3	Motor extension cord	TAE20V7-AM□□ (applicable to LT...CE, LT...LD) TAE20V9-AM□□ (applicable to LT...H)
4	Encoder extension cord	TAE20V4-EC□□
5	Sensor extension cord	TAE10V8-LC□□
6	Limit branch cord (0.1m)	TAE20V2-BC
7	Thermal protector extension cord	TAE20X8-TH□□ (applicable to LT...H)
8	I/O connector	TAE20V5-CN ⁽¹⁾ (applicable to driver for EtherCAT)
9	PC connection cable	USB mini B cable This must be prepared by customer.
10	Setup software	ProDriveNext Please download from the official website of Hitachi Industrial Equipment Systems Co., Ltd.
11	Ethernet cable	This must be prepared by customer.
12	Power cord	
13	Higher-level device	
14	Higher-level device (EtherCAT supported device)	
15	I/O connector connection cable	

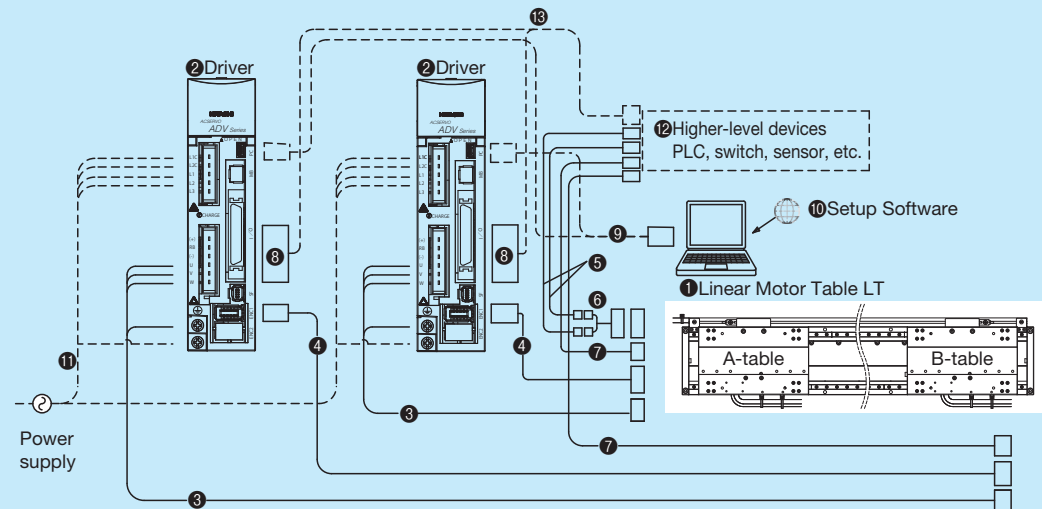
Note⁽¹⁾ I/O connector TAE20V5-CN is a combined product of 10120-3000PE (connector) and 10320-52F0-008 (cover) from 3M Japan Limited.
Remark: The lengths of motor extension cord, encoder extension cord, and sensor extension cord are specified in the □□ located at the end of the identification number for length of 3 to 10m in units of 1m.
The cord length is specified in two digits even when the length is less than 10m. (For 3m: TAE20V7-AM03)

Table 11 System configuration for LT with driver ADVA

● Example of system configuration for single table



● Example of system configuration for twin table

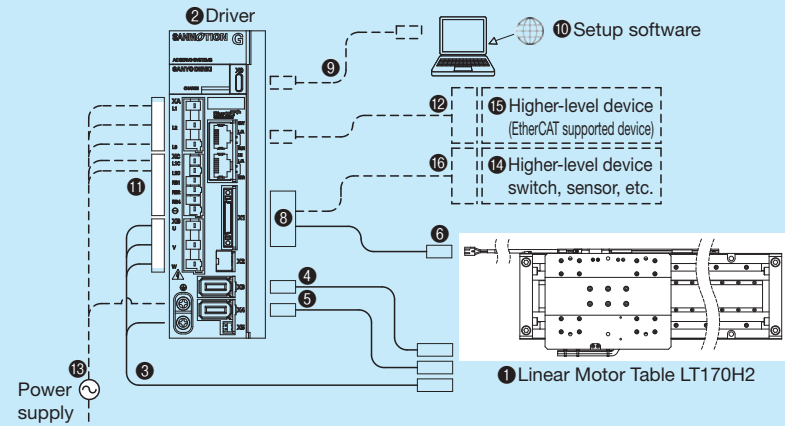


No.	Name	Identification number
1	Linear Motor Table	Please see pages of II-315 to II-326.
2	Driver	Please select a driver compatible with the linear motor table model, referring to Table 8.
3	Motor extension cord	TAE20V7-AM□□ (Applicable to LT...CE, LT...LD) TAE20V9-AM□□ (Applicable to LT...H)
4	Encoder extension cord	TAE20V4-EC□□
5	Sensor extension cord	TAE10V8-LC□□
6	Limit branch cord (0.1m)	TAE20V2-BC
7	Thermal protector extension cord	TAE20X8-TH□□ (applicable to LT...H)
8	I/O connector	TAE20R5-CN ⁽¹⁾ (Applicable to driver for pulse train command)
9	PC connection cable	USB mini B cable This must be prepared by customer.
10	Setup Software	ProDriveNext Please download from the official website of Hitachi Industrial Equipment Systems Co., Ltd.
11	Power cord	This must be prepared by the customer.
12	Higher-level device	
13	I/O connector connection cable	

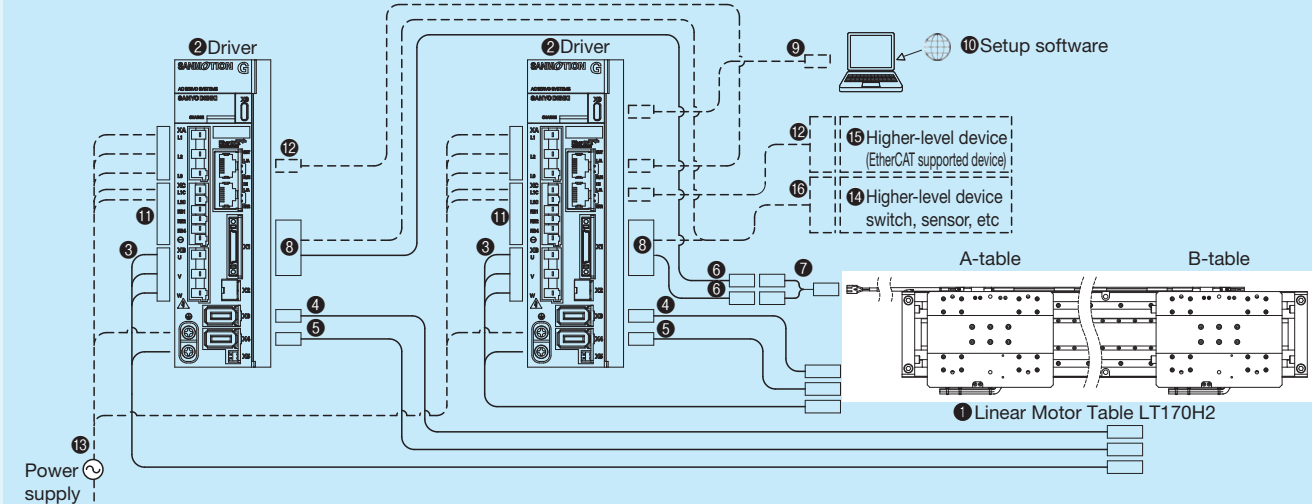
Note⁽¹⁾ I/O connector TAE20R5-CN is a combined product of 10150-3000PE (connector) and 10350-52F0-008 (cover) from 3M Japan Limited.
Remark: The lengths of motor extension cord, encoder extension cord, and sensor extension cord are specified in the □□ located at the end of the identification number for length of 3 to 10m in units of 1m.
The cord length is specified in two digits even when the length is less than 10m. (For 3m: TAE20V7-AM03)

Table 12 System configuration when using the SANMOTION G (EtherCAT communication) driver

● Example of system configuration for single table



● Example of system configuration for twin table

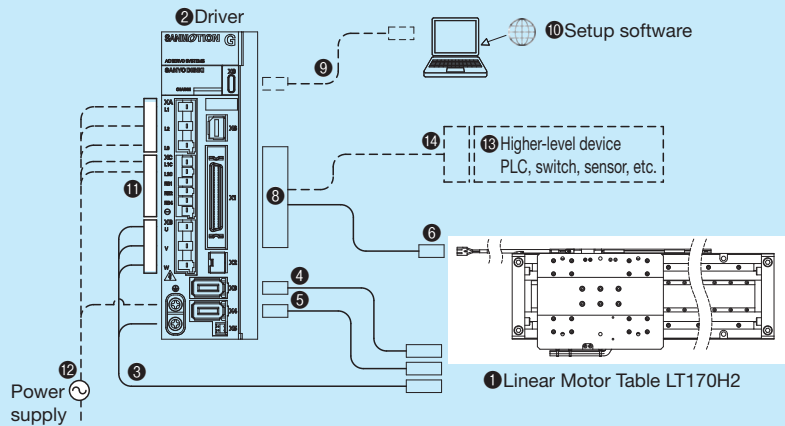


No.	Name	Identification number
1	Linear Motor Table	Please see pages of II-315 to II-326.
2	Driver	GADSA03AHA4
3	Motor extension cord	TAE20V7-AM□□
4	Encoder extension cord	TAE20V4-EC□□
5	Hall sensor extension cord	TAE20V8-EC□□
6	Sensor extension cord	TAE10V8-LC□□
7	Limit branch cord (0.1 m)	TAE20V2-BC
8	I/O connector	AL-01131482-01 (Sanyo Denki Co., Ltd.)
9	PC connection cable	USB Type-C cable (This must be provided by the customer)
10	Setup Software	SANMOTION MOTOR SETUP SOFTWARE Please download from the official website of Sanyo Denki Co., Ltd.
11	Power Connector Set A	AL-01135740-01 (Sanyo Denki Co., Ltd.)
12	Ethernet cable	This must be provided by the customer.
13	Power cord	
14	Higher-level device	
15	Higher-level device (EtherCAT supported device)	
16	I/O connector connection cable	

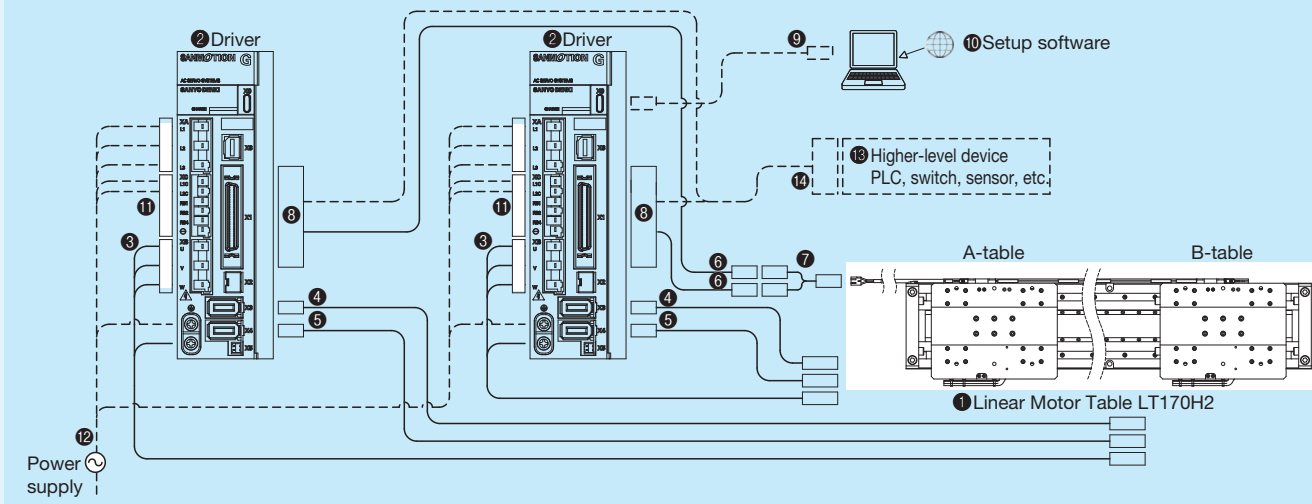
Remark: The lengths of motor extension cord, encoder extension cord, and sensor extension cord are specified in the □□ located at the end of the identification number for length of 3 to 10 m in units of 1 m.
The cord length is specified in two digits even when the length is less than 10m. (For 3m: TAE20V7-AM03)

Table 13 System configuration when using the SANMOTION G (pulse train command) driver

● Example of system configuration for single table



● Example of system configuration for twin table

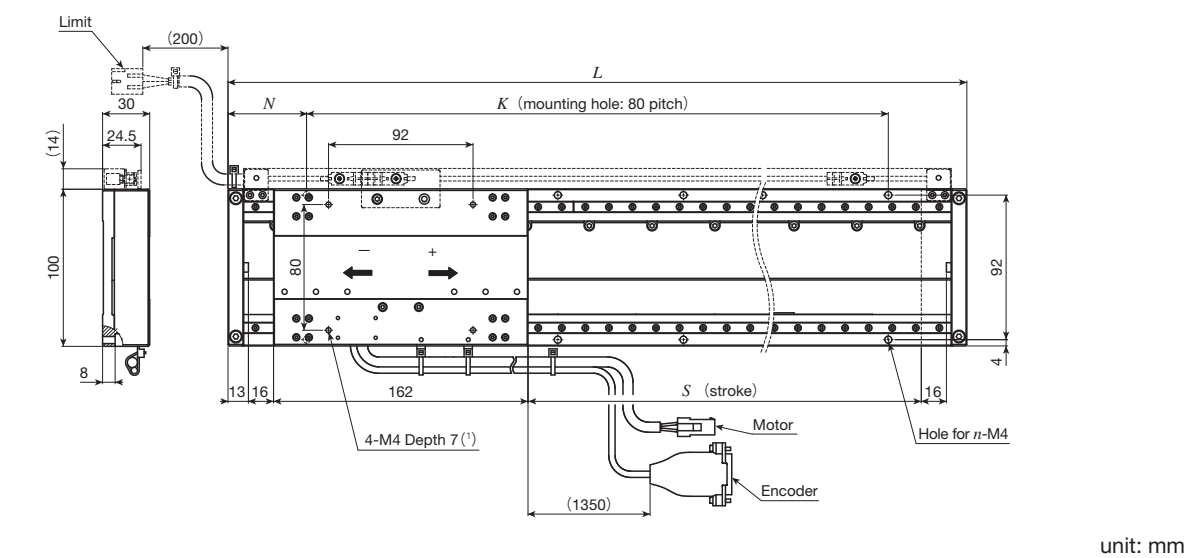


No.	Name	Identification number
1	Linear Motor Table	Please see pages of II-315 to II-326.
2	Driver	GADSA03AAA2
3	Motor extension cord	TAE20V7-AM□□
4	Encoder extension cord	TAE20V4-EC□□
5	Hall sensor extension cord	TAE20V8-EC□□
6	Sensor extension cord	TAE10V8-LC□□
7	Limit branch cord (0.1 m)	TAE20V2-BC
8	I/O connector	TAE20R5-CN (3M Japan Co., Ltd. 10150-3000PE (connector)/10350-52F0-008 (cover))
9	PC connection cable	USB Type-C cable (This must be provided by the customer)
10	Setup Software	SANMOTION MOTOR SETUP SOFTWARE Please download from the official website of Sanyo Denki Co., Ltd.
11	Power Connector Set A	AL-01135740-01 (Sanyo Denki Co., Ltd.)
12	Power cord	This must be provided by the customer.
13	Higher-level device	
14	I/O connector connection cable	

Remark: The lengths of motor extension cord, encoder extension cord, and sensor extension cord are specified in the □□ located at the end of the identification number for length of 3 to 10 m in units of 1 m.
The cord length is specified in two digits even when the length is less than 10m. (For 3m: TAE20V7-AM03)

Iko Linear Motor Table LT

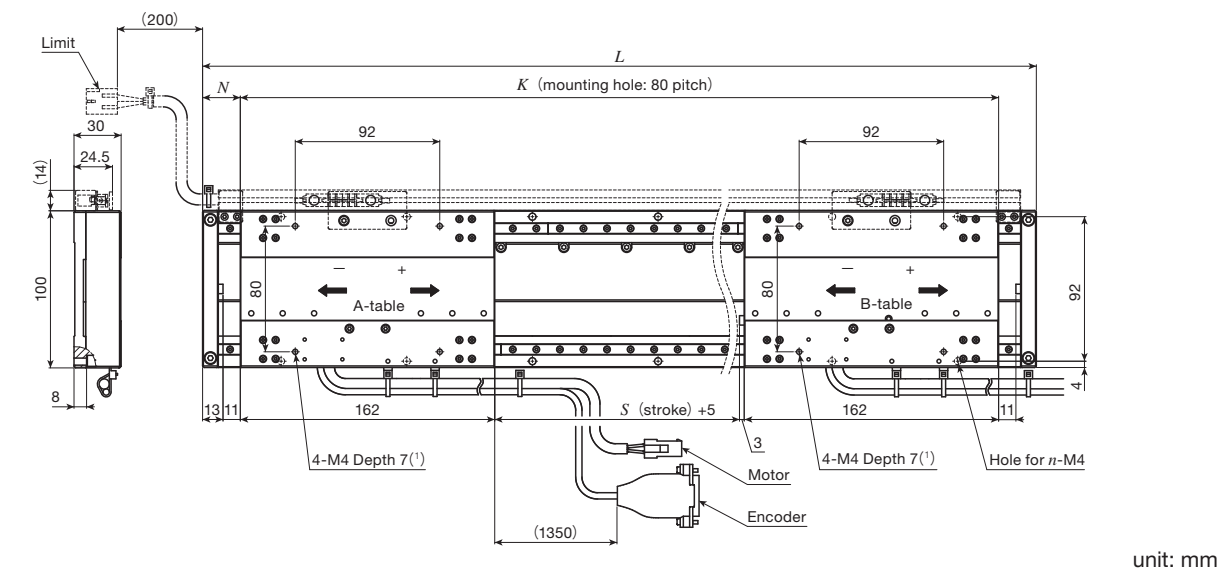
LT100CEGS Single table



Identification number	Stroke length S ⁽²⁾	Overall length L	Mounting holes of bed			Total mass of table kg	Mass of moving table kg
			N	K	n		
LT100CEGS- 200	200	420	50	320	10	4.9	0.58
LT100CEGS- 400	400	620	30	560	16	6.9	
LT100CEGS- 600	600	820	50	720	20	9.0	
LT100CEGS- 800	800	1 020	30	960	26	11.1	
LT100CEGS-1000	1 000	1 220	50	1 120	30	13.1	

Notes ⁽¹⁾ Too deep insertion depth of the mounting bolt may affect the running performance of the moving table, so never insert a bolt longer than the depth of the through hole.
⁽²⁾ For other stroke lengths, please contact IKO.
Remark: Dashed line portions in the dimensional figures indicate the sensor-included specification / SC.

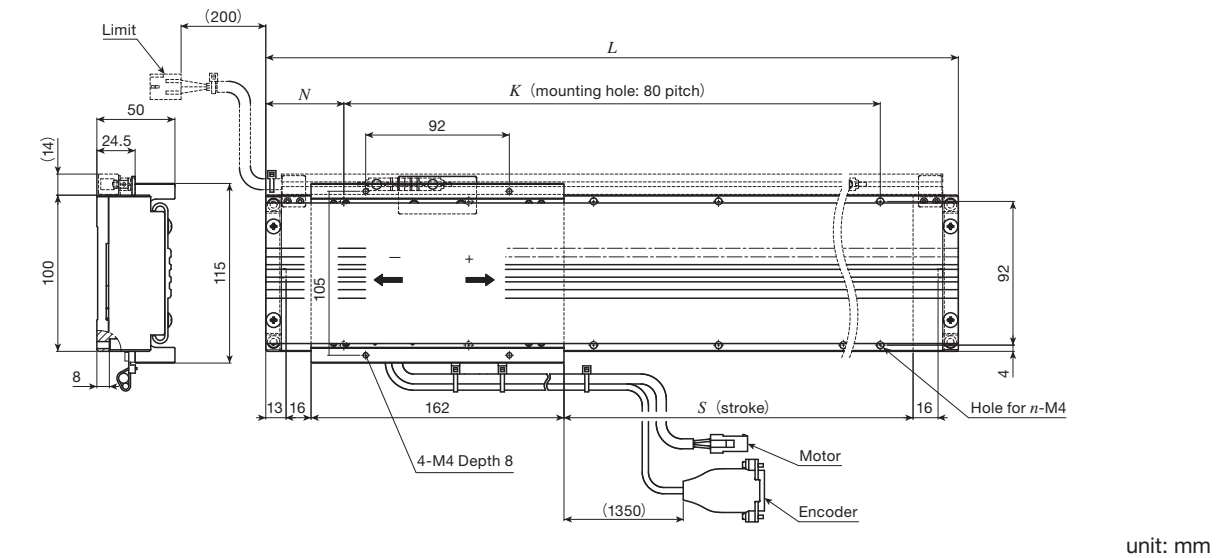
LT100CEGS/T2 Twin table



Identification number	Stroke length S ⁽²⁾	Overall length L	Mounting holes of bed			Total mass of table kg	Mass of moving table kg
			N	K	n		
LT100CEGS-240/T2	240	620	30	560	16	7.5	0.58
LT100CEGS-440/T2	440	820	50	720	20	9.6	
LT100CEGS-640/T2	640	1 020	30	960	26	11.7	
LT100CEGS-840/T2	840	1 220	50	1 120	30	13.7	

Notes ⁽¹⁾ Too deep insertion depth of the mounting bolt may affect the running performance of the moving table, so never insert a bolt longer than the depth of the through hole.
⁽²⁾ For other stroke lengths, please contact IKO.
Remark: Dashed line portions in the dimensional figures indicate the sensor-included specification / SC.

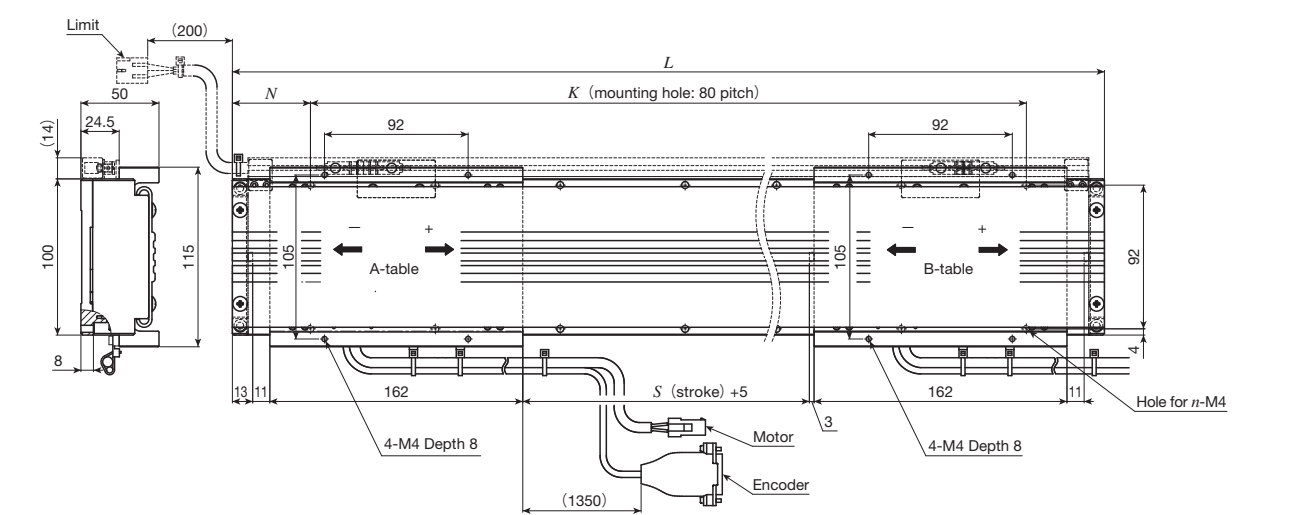
LT100CEGF/D Single table with cover



Identification number	Stroke length S ⁽¹⁾	Overall length L	Mounting holes of bed			Total mass of table kg	Mass of moving table kg
			N	K	n		
LT100CEGF- 200/D	200	420	50	320	10	5.6	0.93
LT100CEGF- 400/D	400	620	30	560	16	7.8	
LT100CEGF- 600/D	600	820	50	720	20	10.0	
LT100CEGF- 800/D	800	1 020	30	960	26	12.2	
LT100CEGF-1000/D	1 000	1 220	50	1 120	30	14.4	

Note ⁽¹⁾ For other stroke lengths, please contact IKO.
Remark: Dashed line portions in the dimensional figures indicate the sensor-included specification / SC.

LT100CEGF/DT2 Twin table with cover



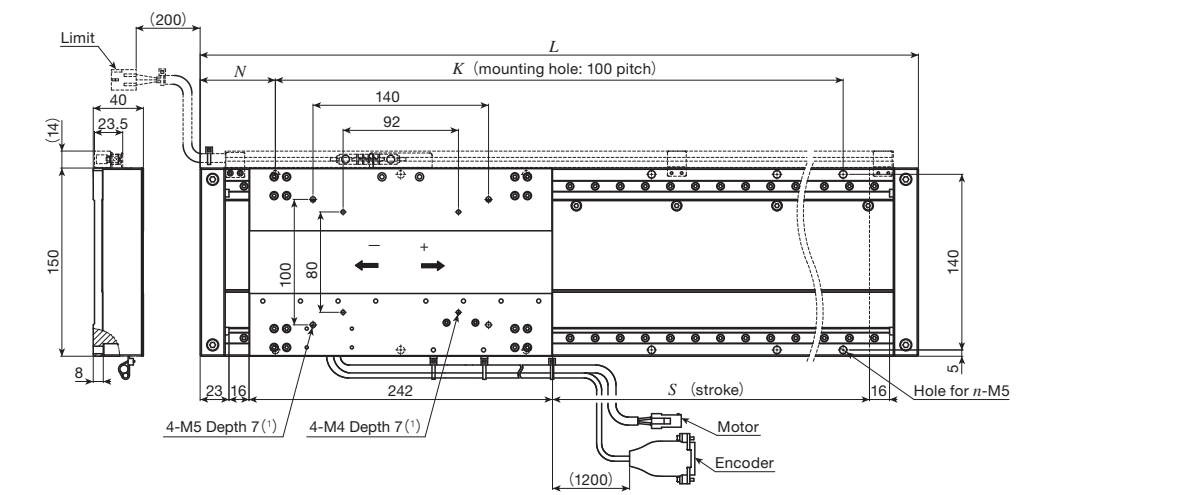
Identification number	Stroke length S ⁽¹⁾	Overall length L	Mounting holes of bed			Total mass of table kg	Mass of moving table kg
			N	K	n		
LT100CEGF-240/DT2	240	620	30	560	16	8.7	0.93
LT100CEGF-440/DT2	440	820	50	720	20	10.9	
LT100CEGF-640/DT2	640	1 020	30	960	26	13.2	
LT100CEGF-840/DT2	840	1 220	50	1 120	30	15.4	

Note ⁽¹⁾ For other stroke lengths, please contact IKO.
Remark: Dashed line portions in the dimensional figures indicate the sensor-included specification / SC.

1N=0.102kgf=0.2248lbs.
1mm=0.03937inch

IKO Linear Motor Table LT

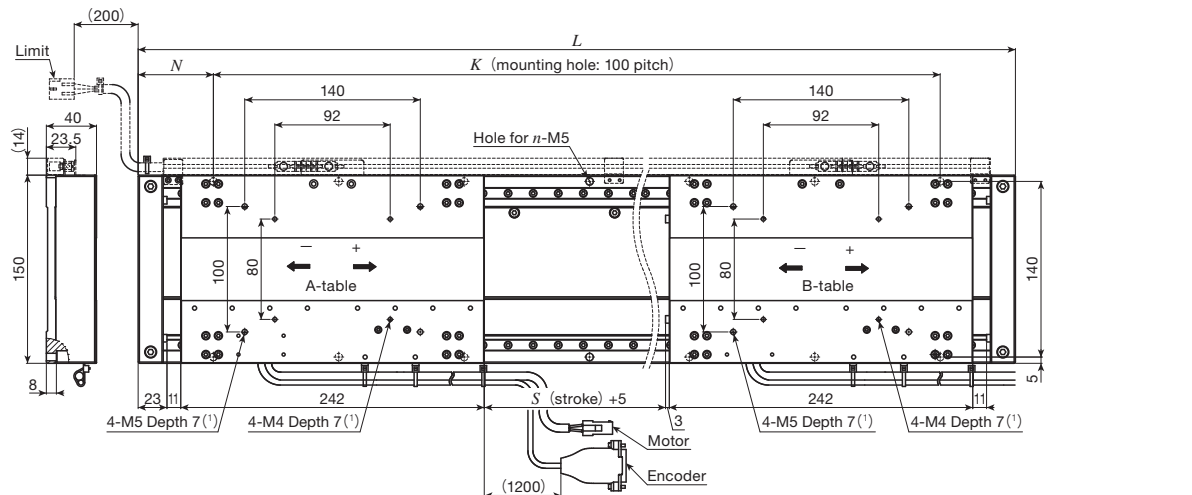
LT150CEGS Single table



Identification number	Stroke length <i>S</i> ⁽²⁾	Overall length <i>L</i>	Mounting holes of bed			Total mass of table kg	Mass of moving table kg
			<i>N</i>	<i>K</i>	<i>n</i>		
LT150CEGS- 400	400	720	60	600	14	12.4	1.5
LT150CEGS- 600	600	920	60	800	18	15.5	
LT150CEGS- 800	800	1 120	60	1 000	22	18.6	
LT150CEGS-1000	1 000	1 320	60	1 200	26	21.6	
LT150CEGS-1200	1 200	1 520	60	1 400	30	24.7	

Notes ⁽¹⁾ Too deep insertion depth of the mounting bolt may affect the running performance of the moving table, so never insert a bolt longer than the depth of the through hole.
⁽²⁾ For other stroke lengths, please contact IKO.
Remark: Dashed line portions in the dimensional figures indicate the sensor-included specification / SC.

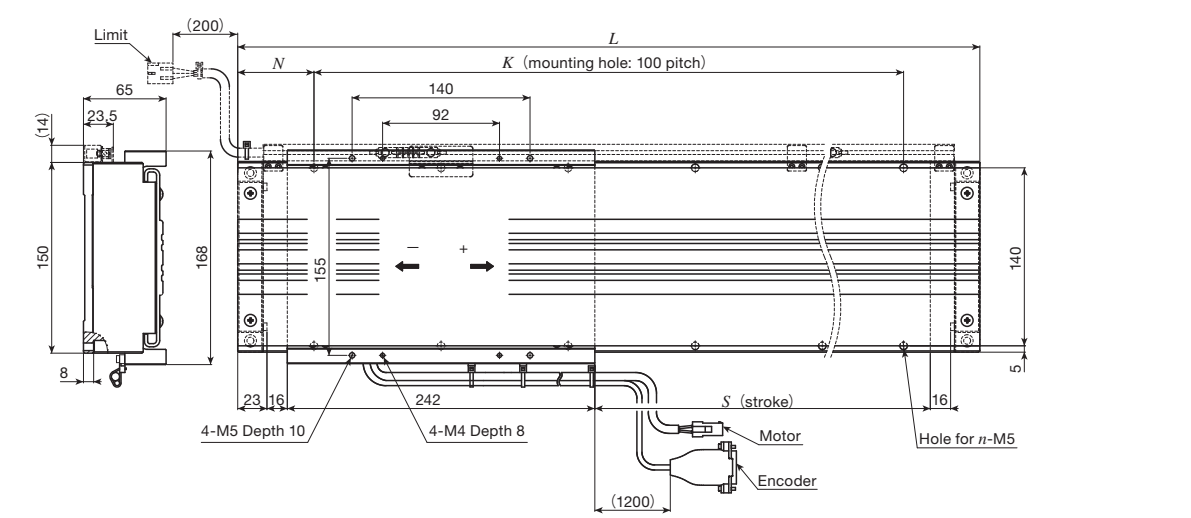
LT150CEGS/T2 Twin table



Identification number	Stroke length <i>S</i> ⁽²⁾	Overall length <i>L</i>	Mounting holes of bed			Total mass of table kg	Mass of moving table kg
			<i>N</i>	<i>K</i>	<i>n</i>		
LT150CEGS-360/T2	360	920	60	800	18	17.0	1.5
LT150CEGS-560/T2	560	1 120	60	1 000	22	20.1	
LT150CEGS-760/T2	760	1 320	60	1 200	26	23.1	
LT150CEGS-960/T2	960	1 520	60	1 400	30	26.2	

Notes ⁽¹⁾ Too deep insertion depth of the mounting bolt may affect the running performance of the moving table, so never insert a bolt longer than the depth of the through hole.
⁽²⁾ For other stroke lengths, please contact IKO.
Remark: Dashed line portions in the dimensional figures indicate the sensor-included specification / SC.

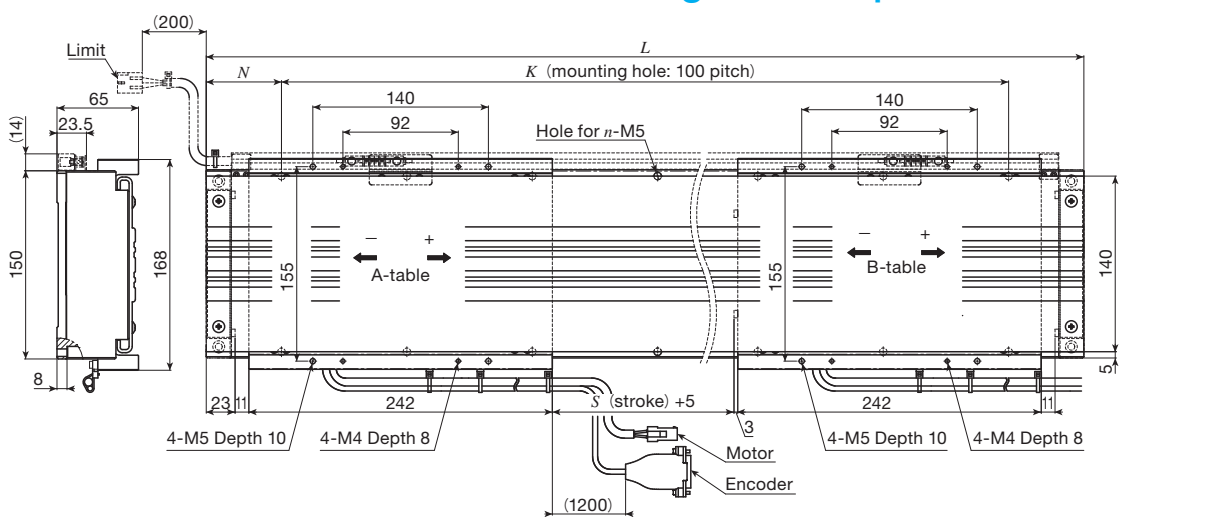
LT150CEGF/D Single table with cover / High thrust specification 1
LT150CETF/D Single table with cover / High thrust specification 2



Identification number	Stroke length <i>S</i> ⁽¹⁾	Overall length <i>L</i>	Mounting holes of bed			Total mass of table kg	Mass of moving table kg
			<i>N</i>	<i>K</i>	<i>n</i>		
LT150CEGF- 400/D	400	720	60	600	14	14.8	2.4
LT150CEGF- 600/D	600	920	60	800	18	18.1	
LT150CEGF- 800/D	800	1 120	60	1 000	22	21.5	
LT150CEGF-1000/D	1 000	1 320	60	1 200	26	24.8	
LT150CEGF-1200/D	1 200	1 520	60	1 400	30	28.2	
LT150CETF- 400/D	400	720	60	600	14	15.3	
LT150CETF- 600/D	600	920	60	800	18	18.7	
LT150CETF- 800/D	800	1 120	60	1 000	22	22.5	
LT150CETF- 1000/D	1 000	1 320	60	1 200	26	25.7	
LT150CETF- 1200/D	1 200	1 520	60	1 400	30	29.2	

Note ⁽¹⁾ For other stroke lengths, please contact IKO.
Remark: Dashed line portions in the dimensional figures indicate the sensor-included specification / SC.

LT150CEGF/DT2 Twin table with cover / High thrust specification 1
LT150CETF/DT2 Twin table with cover / High thrust specification 2



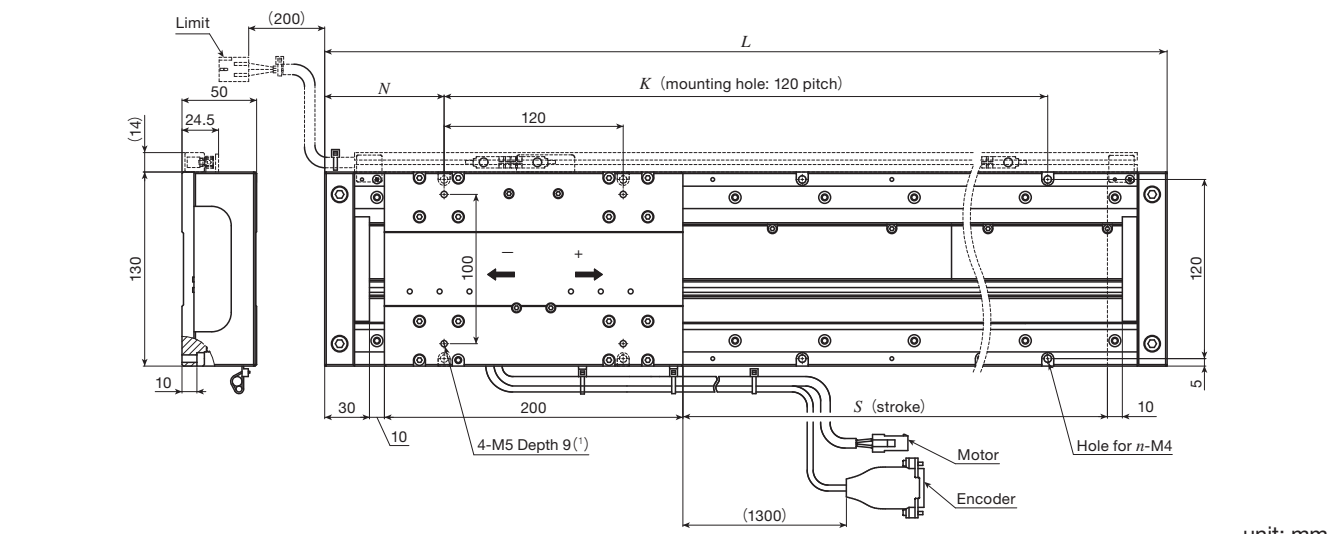
Identification number	Stroke length <i>S</i> ⁽¹⁾	Overall length <i>L</i>	Mounting holes of bed			Total mass of table kg	Mass of moving table kg
			<i>N</i>	<i>K</i>	<i>n</i>		
LT150CEGF-360/DT2	360	920	60	800	18	20.5	2.4
LT150CEGF-560/DT2	560	1 120	60	1 000	22	23.9	
LT150CEGF-760/DT2	760	1 320	60	1 200	26	27.3	
LT150CEGF-960/DT2	960	1 520	60	1 400	30	30.6	
LT150CETF-360/DT2	360	920	60	800	21	20.5	
LT150CETF-560/DT2	560	1 120	60	1 000	24.5	23.9	
LT150CETF-760/DT2	760	1 320	60	1 200	28	27.3	
LT150CETF-960/DT2	960	1 520	60	1 400	31.5	30.6	

Note ⁽¹⁾ For other stroke lengths, please contact IKO.
Remark: Dashed line portions in the dimensional figures indicate the sensor-included specification / SC.

1N=0.102kgf=0.2248lbs.
1mm=0.03937inch

IKO Linear Motor Table LT

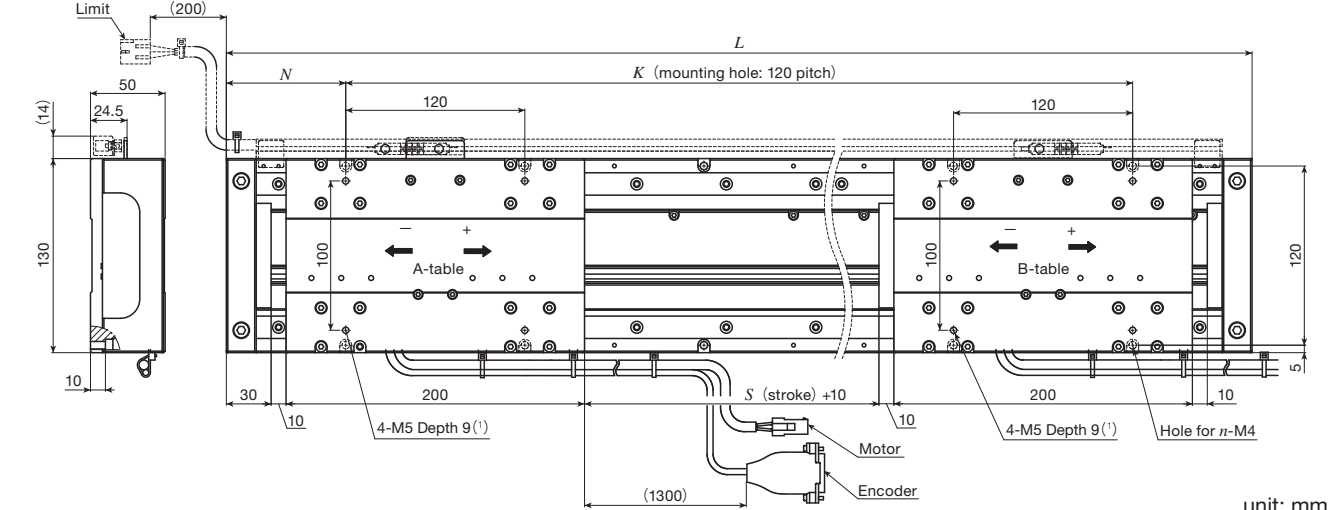
LT130LDGS Single table



Identification number	Stroke length $S^{(2)}$	Overall length L	Mounting holes of bed			Total mass of table kg	Mass of moving table kg
			N	K	n		
LT130LDGS- 240	240	520	80	360	8	7.6	1.7
LT130LDGS- 720	720	1 000	80	840	16	13.5	
LT130LDGS-1200	1 200	1 480	80	1320	24	19.4	
LT130LDGS-1680	1 680	1 960	80	1800	32	25.3	
LT130LDGS-2160	2 160	2 440	80	2280	40	31.2	
LT130LDGS-2640	2 640	2 920	80	2760	48	37.1	
LT130LDGS-2760	2 760	3 040	80	2880	50	38.6	

Notes ⁽¹⁾ Too deep insertion depth of the mounting bolt may affect the running performance of the moving table, so never insert a bolt longer than the depth of the through hole.
⁽²⁾ For other stroke lengths, please contact IKO.

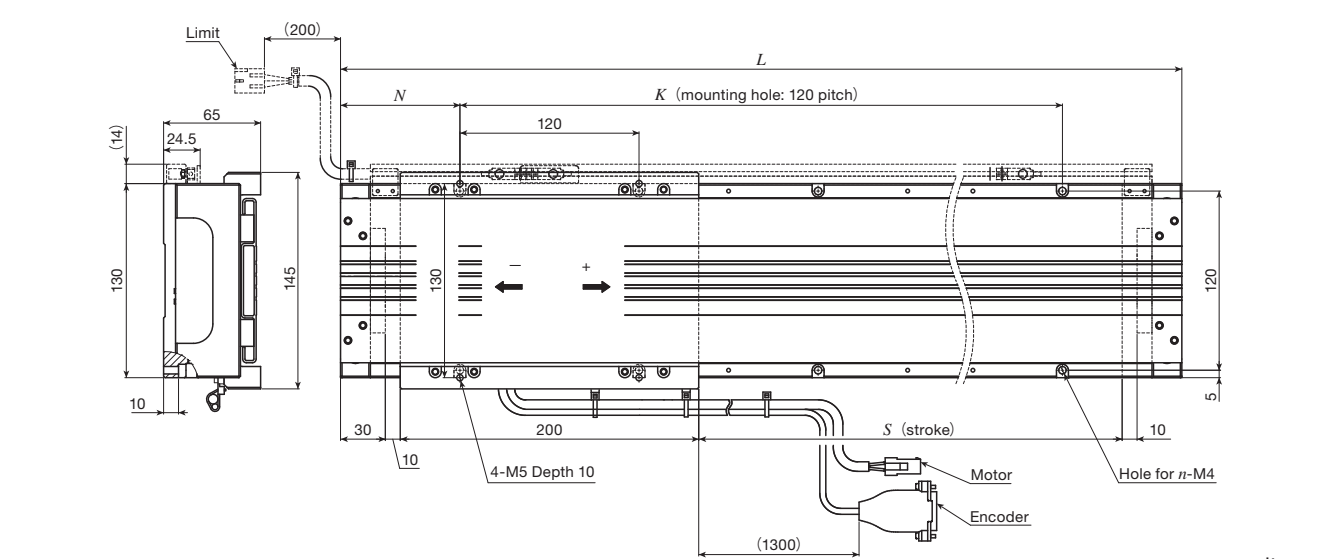
LT130LDGS/T2 Twin table



Identification number	Stroke length $S^{(2)}$	Overall length L	Mounting holes of bed			Total mass of table kg	Mass of moving table kg
			N	K	n		
LT130LDGS- 540/T2	540	1 040	100	840	16	15.6	1.7
LT130LDGS- 940/T2	940	1 440	60	1 320	24	20.6	
LT130LDGS-1340/T2	1 340	1 840	80	1 680	30	25.5	
LT130LDGS-1740/T2	1 740	2 240	100	2 040	36	30.4	
LT130LDGS-2140/T2	2 140	2 640	60	2 520	44	35.4	
LT130LDGS-2540/T2	2 540	3 040	80	2 880	50	40.3	

Notes ⁽¹⁾ Too deep insertion depth of the mounting bolt may affect the running performance of the moving table, so never insert a bolt longer than the depth of the through hole.
⁽²⁾ For other stroke lengths, please contact IKO.

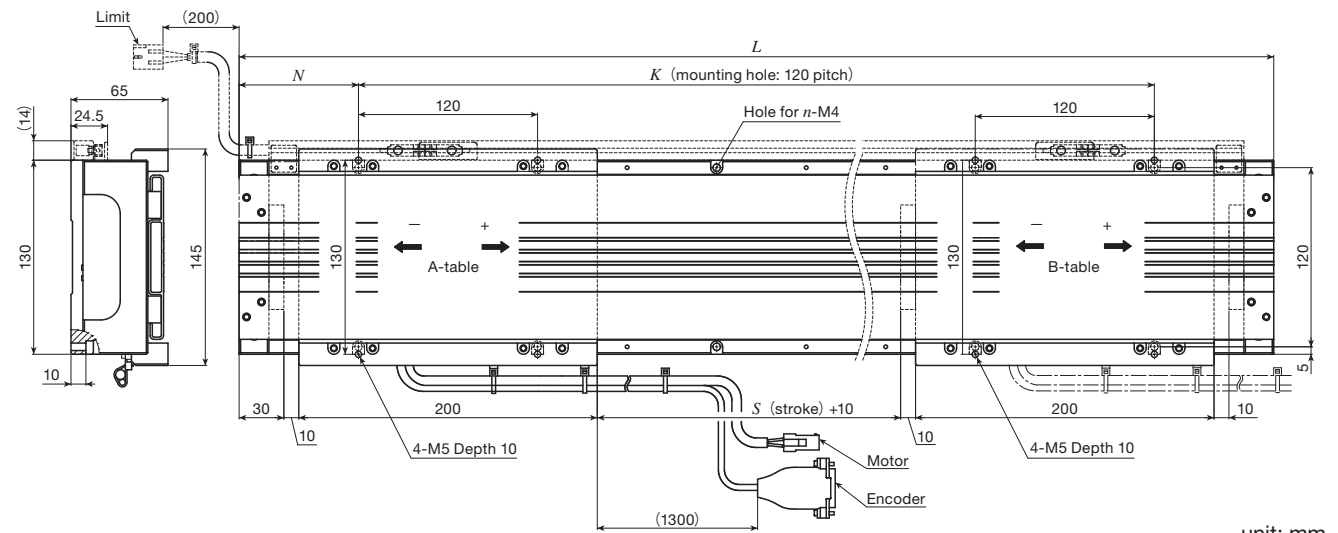
LT130LDGF/D Single table with cover



Identification number	Stroke length $S^{(1)}$	Overall length L	Mounting holes of bed			Total mass of table kg	Mass of moving table kg
			N	K	n		
LT130LDGF- 240/D	240	520	80	360	8	8.3	2.0
LT130LDGF- 720/D	720	1 000	80	840	16	14.6	
LT130LDGF-1200/D	1 200	1 480	80	1 320	24	20.9	
LT130LDGF-1680/D	1 680	1 960	80	1 800	32	27.2	

Note ⁽¹⁾ For other stroke lengths, please contact IKO.

LT130LDGF/DT2 Twin table with cover

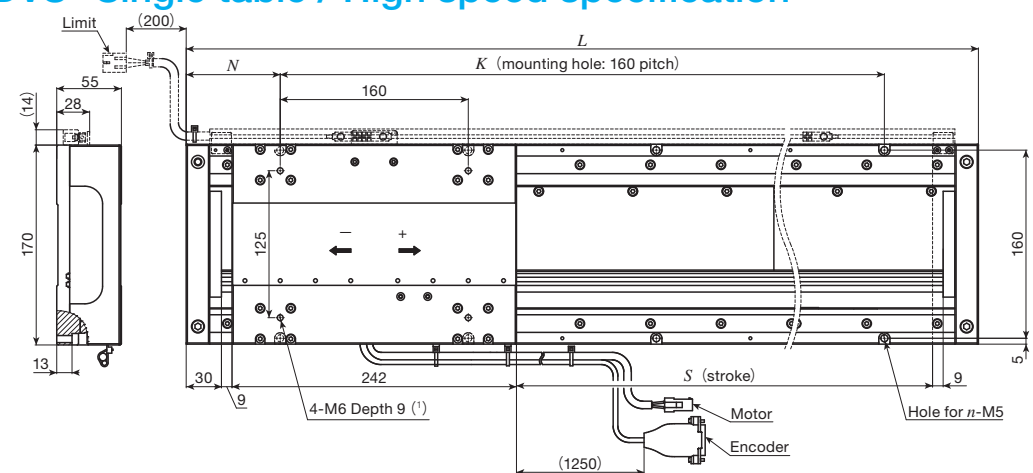


Identification number	Stroke length $S^{(1)}$	Overall length L	Mounting holes of bed			Total mass of table kg	Mass of moving table kg
			N	K	n		
LT130LDGF- 540/DT2	540	1 040	100	840	16	17.1	2.0
LT130LDGF- 940/DT2	940	1 440	60	1 320	24	22.3	
LT130LDGF-1340/DT2	1 340	1 840	80	1 680	30	27.5	

Note ⁽¹⁾ For other stroke lengths, please contact IKO.

IKO Linear Motor Table LT

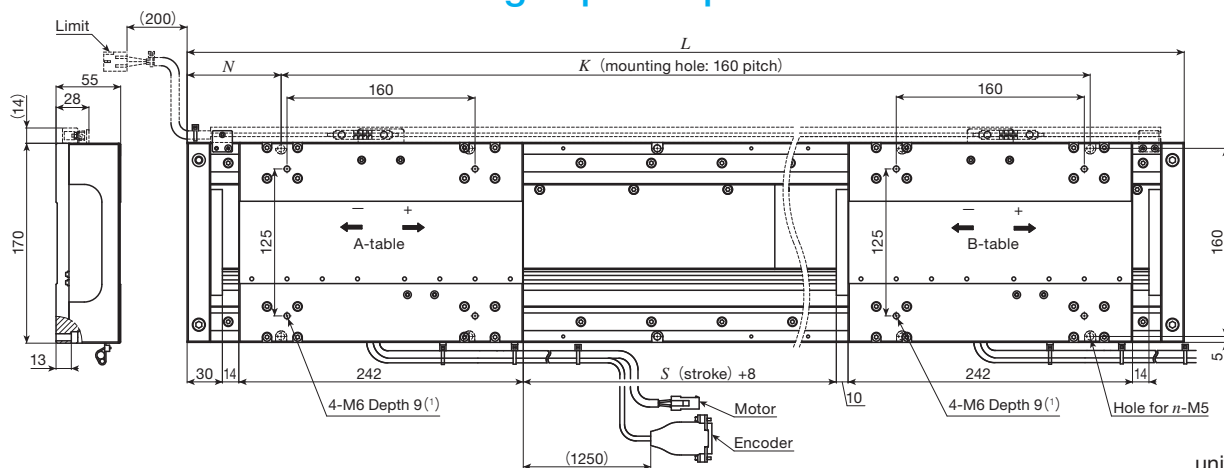
LT170LDGS Single table / High thrust specification
LT170LDVS Single table / High speed specification



Identification number	Stroke length	Overall length	Mounting holes of bed			Total mass of table	Mass of moving table
	$S^{(2)}$	L	N	K	n	kg	kg
LT170LDGS- 680 LT170LDVS- 680	680	1 000	100	800	12	22.6	2.5
LT170LDGS-1160 LT170LDVS-1160	1 160	1 480	100	1 280	18	32.7	
LT170LDGS-1640 LT170LDVS-1640	1 640	1 960	100	1 760	24	42.7	
LT170LDGS-2120 LT170LDVS-2120	2 120	2 440	100	2 240	30	52.8	
LT170LDGS-2600 LT170LDVS-2600	2 600	2 920	100	2 720	36	62.9	
LT170LDGS-2720 LT170LDVS-2720	2 720	3 040	80	2 880	38	65.4	

Notes (1) Too deep insertion depth of the mounting bolt may affect the running performance of the moving table, so never insert a bolt longer than the depth of the through hole.
(2) For other stroke lengths, please contact IKO.

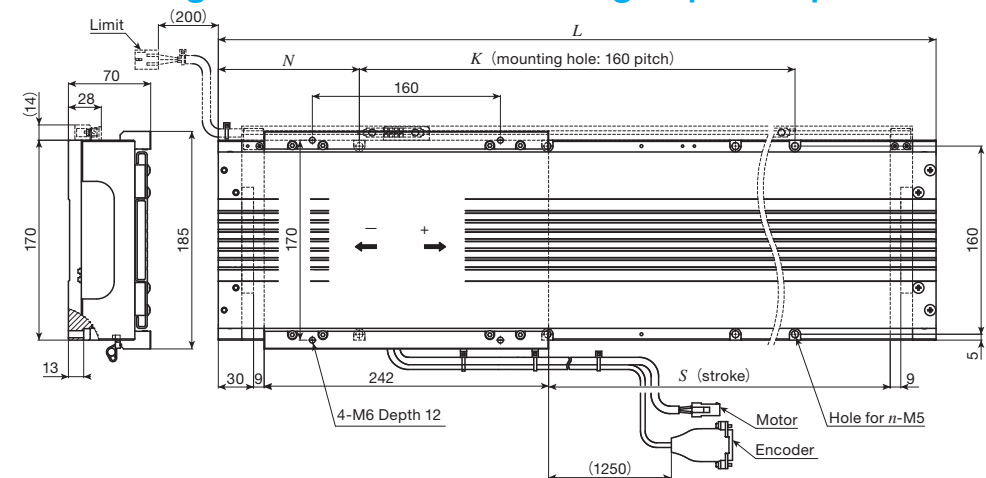
LT170LDGS/T2 Twin table / High thrust specification
LT170LDVS/T2 Twin table / High speed specification



Identification number	Stroke length	Overall length	Mounting holes of bed			Total mass of table	Mass of moving table
	$S^{(2)}$	L	N	K	n	kg	kg
LT170LDGS- 450/T2 LT170LDVS- 450/T2	450	1 040	40	960	14	26.0	2.5
LT170LDGS- 850/T2 LT170LDVS- 850/T2	850	1 440	80	1 280	18	34.4	
LT170LDGS-1250/T2 LT170LDVS-1250/T2	1 250	1 840	120	1 600	22	42.8	
LT170LDGS-1650/T2 LT170LDVS-1650/T2	1 650	2 240	80	2 080	28	51.1	
LT170LDGS-2050/T2 LT170LDVS-2050/T2	2 050	2 640	120	2 400	32	59.5	
LT170LDGS-2450/T2 LT170LDVS-2450/T2	2 450	3 040	80	2 880	38	67.9	

Notes (1) Too deep insertion depth of the mounting bolt may affect the running performance of the moving table, so never insert a bolt longer than the depth of the through hole.
(2) For other stroke lengths, please contact IKO.

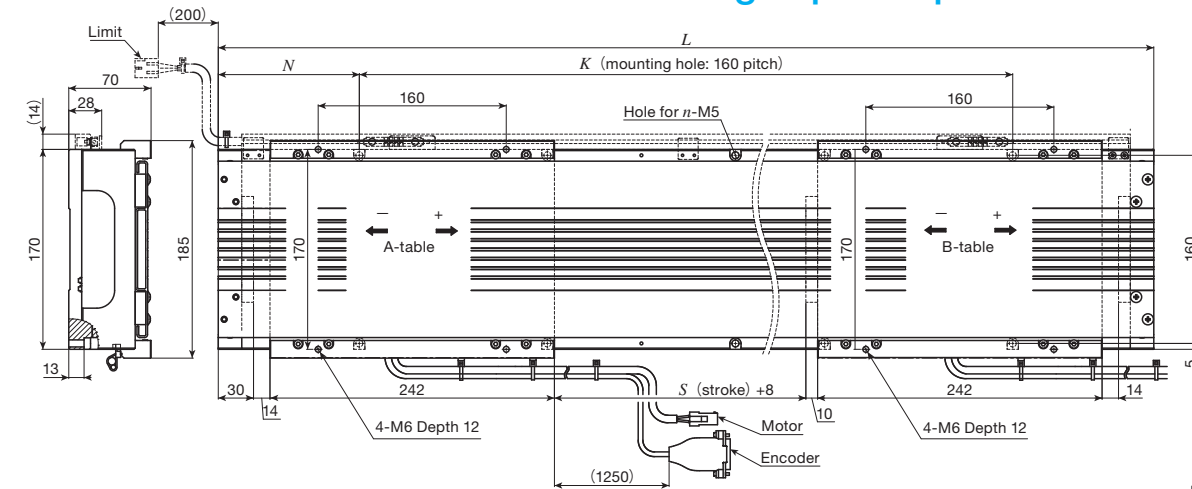
LT170LDGF/D Single table with cover / High thrust specification 1
LT170LDTF/D Single table with cover / High thrust specification 2
LT170LDVF/D Single table with cover / High speed specification



Identification number	Stroke length	Overall length	Mounting holes of bed			Total mass of table	Mass of moving table
	$S^{(1)}$	L	N	K	n	kg	kg
LT170LDGF- 680/D LT170LDVF- 680/D	680	1 000	100	800	12	24.0	2.8
LT170LDGF-1160/D LT170LDVF-1160/D	1 160	1 480	100	1 280	18	34.6	
LT170LDGF-1640/D LT170LDVF-1640/D	1 640	1 960	100	1 760	24	45.2	
LT170LDTF- 680/D	680	1 000	100	800	12	24.7	
LT170LDTF-1160/D	1 160	1 480	100	1 280	18	35.6	
LT170LDTF-1640/D	1 640	1 960	100	1 760	24	46.5	

Note (1) For other stroke lengths, please contact IKO.

LT170LDGF/DT2 Twin table with cover / High thrust specification 1
LT170LDTF/DT2 Twin table with cover / High thrust specification 2
LT170LDVF/DT2 Twin table with cover / High speed specification

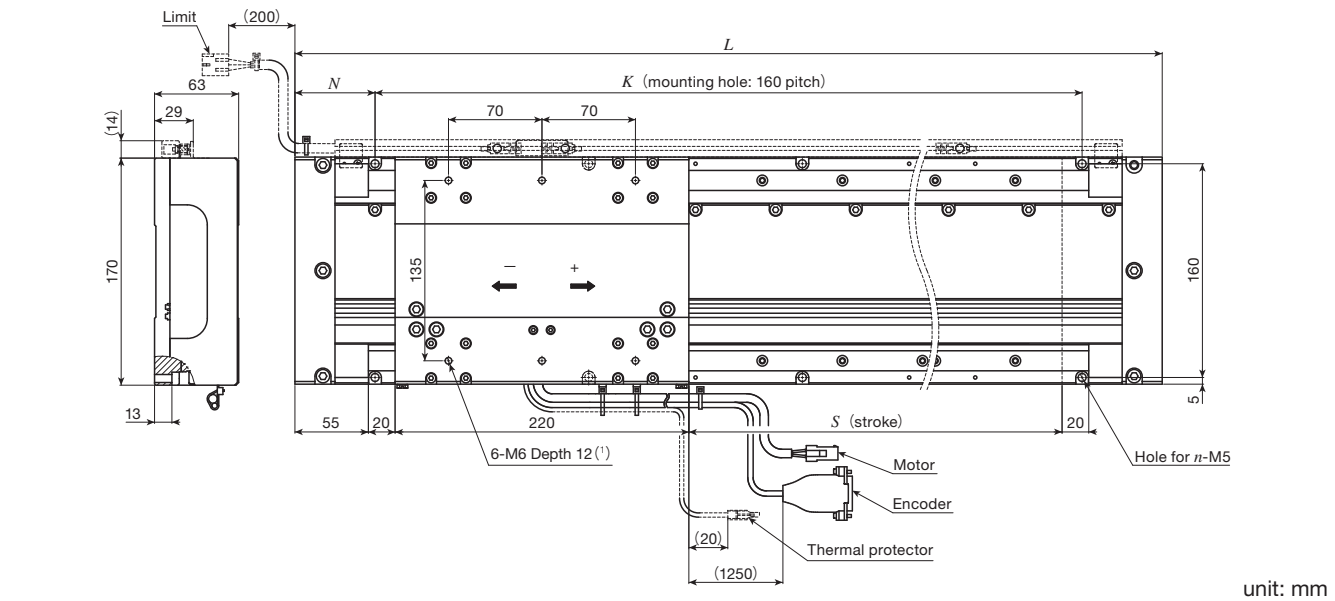


Identification number	Stroke length	Overall length	Mounting holes of bed			Total mass of table kg		Mass of moving table
	$S^{(1)}$	L	N	K	n	LT170LDGF LT170LDVF	LT170LDTF	kg
LT170LDGF- 450/DT2 LT170LDVF- 450/DT2	450	1 040	40	960	14	27.8	—	2.8
LT170LDGF- 850/DT2 LT170LDVF- 850/DT2	850	1 440	80	1 280	18	36.6	—	
LT170LDGF-1250/DT2 LT170LDVF-1250/DT2	1 250	1 840	120	1 600	22	45.4	—	
LT170LDTF- 450/DT2	450	1 040	40	960	14	—	28.5	
LT170LDTF- 850/DT2	850	1 440	80	1 280	18	—	37.5	
LT170LDTF-1250/DT2	1 250	1 840	120	1 600	22	—	46.6	

Note (1) For other stroke lengths, please contact IKO.

IKO Linear Motor Table LT

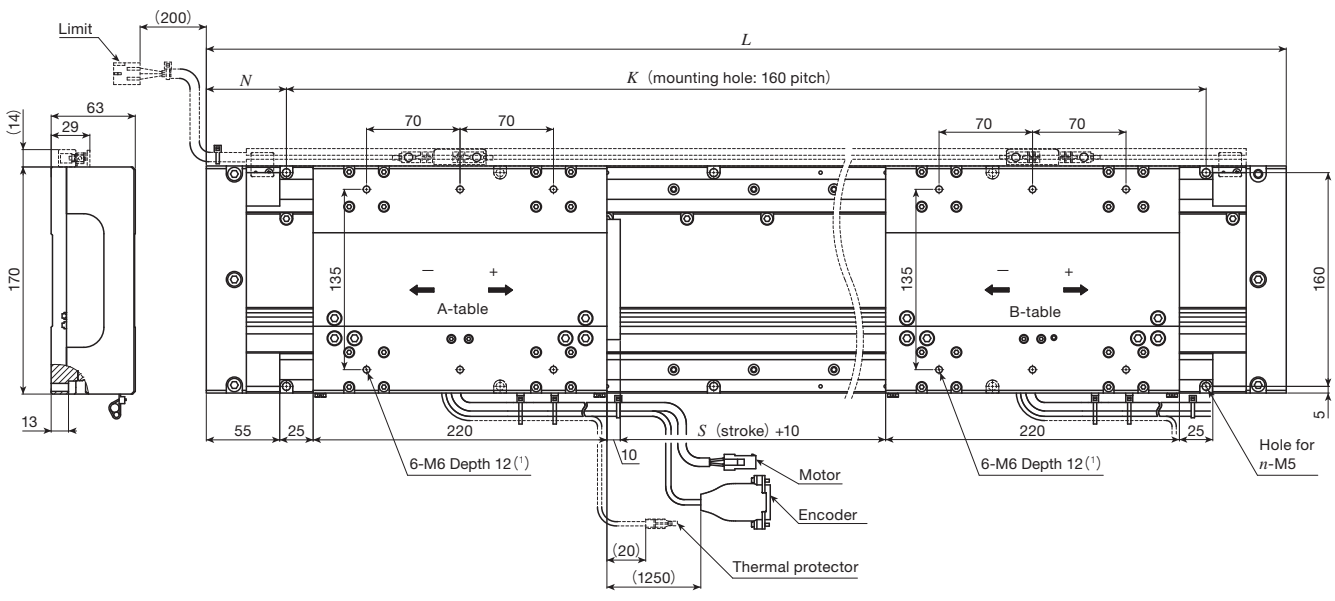
LT170HS Single table



Identification number	Stroke length $S^{(2)}$	Overall length L	Mounting holes of bed			Total mass of table kg	Mass of moving table kg
LT170HS- 650	650	1 020	N	K	n	25.1	4.0
LT170HS-1130	1 130	1 500	110	1 280	18	34.9	
LT170HS-1610	1 610	1 980	110	1 760	24	44.6	
LT170HS-2090	2 090	2 460	110	2 240	30	54.4	
LT170HS-2570	2 570	2 940	110	2 720	36	64.1	
LT170HS-2670	2 670	3 040	80	2 880	38	66.4	

Notes (1) Too deep insertion depth of the mounting bolt may affect the running performance of the moving table, so never insert a bolt longer than the depth of the through hole.
 (2) For other stroke lengths, please contact IKO.

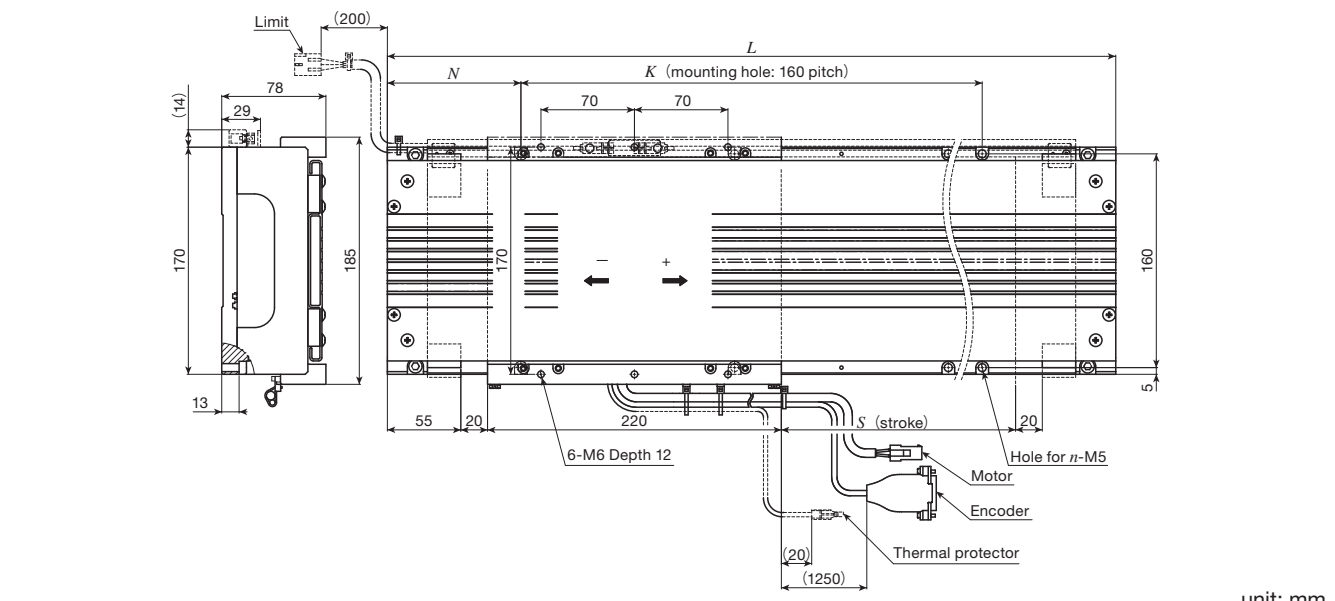
LT170HS/T2 Twin table



Identification number	Stroke length $S^{(2)}$	Overall length L	Mounting holes of bed			Total mass of table kg	Mass of moving table kg
LT170HS-1340/T2	1 340	1 960	N	K	n	25.5	4.0
LT170HS-2540/T2	2 540	3 160	60	3 040	40	33.9	

Notes (1) Too deep insertion depth of the mounting bolt may affect the running performance of the moving table, so never insert a bolt longer than the depth of the through hole.
 (2) For other stroke lengths, please contact IKO.

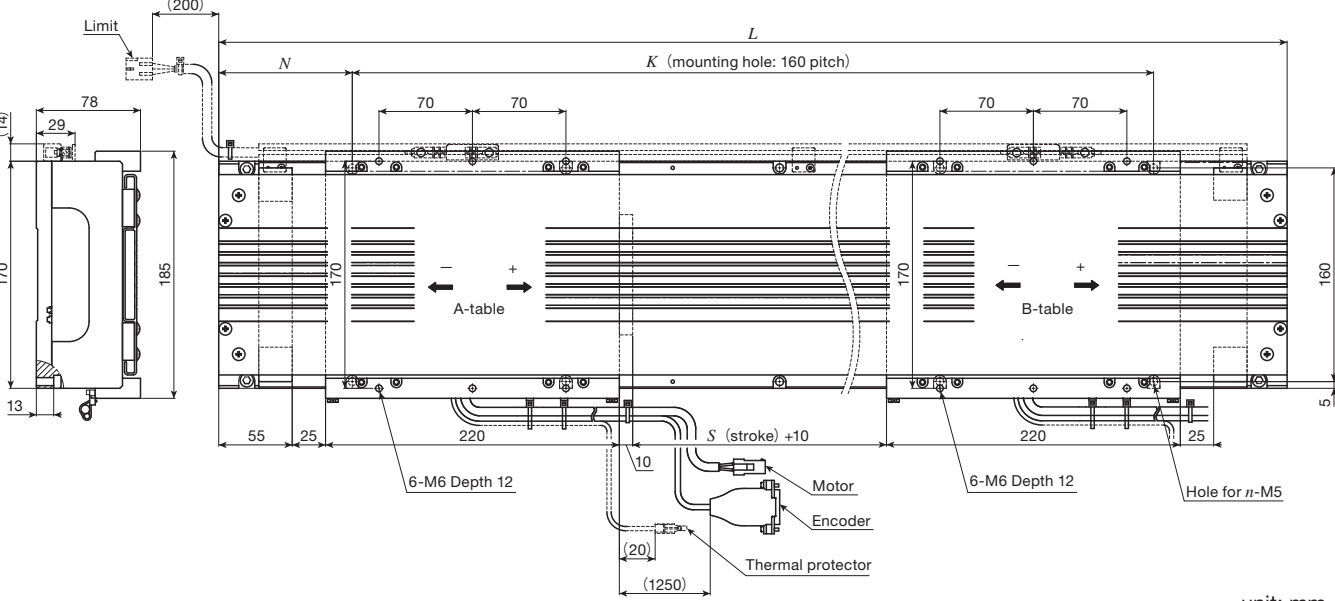
LT170HF/D Single table with cover



Identification number	Stroke length $S^{(1)}$	Overall length L	Mounting holes of bed			Total mass of table kg	Mass of moving table kg
LT170HF- 650/D	650	1 020	N	K	n	25.5	4.4
LT170HF-1130/D	1 130	1 500	110	1 280	18	35.2	
LT170HF-1610/D	1 610	1 980	110	1 760	24	45.0	

Note (1) For other stroke lengths, please contact IKO.

LT170HF/DT2 Twin table with cover

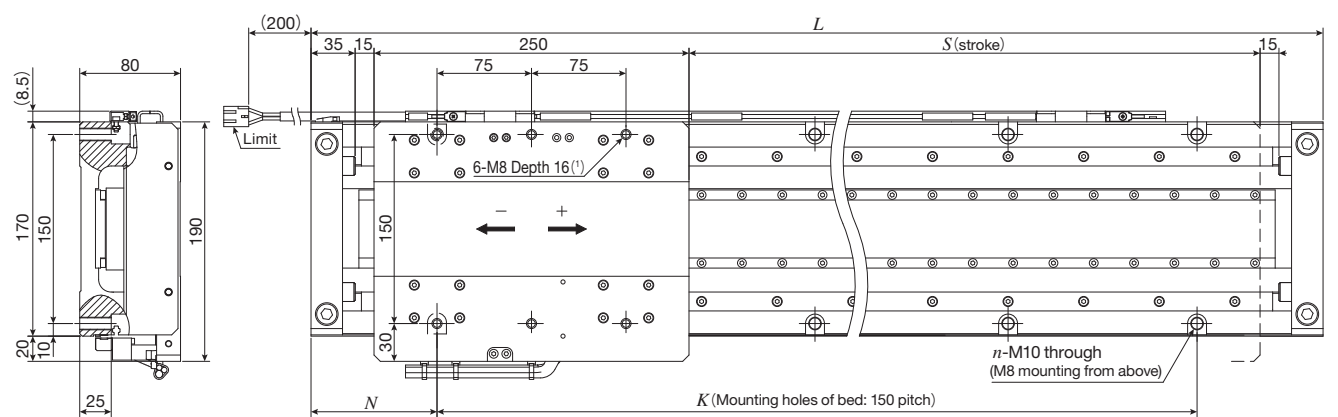


Identification number	Stroke length $S^{(1)}$	Overall length L	Mounting holes of bed			Total mass of table kg	Mass of moving table kg
LT170HF-1340/DT2	1 340	1 960	N	K	n	49	4.4

Note (1) For other stroke lengths, please contact IKO.

I^KO Linear Motor Table LT

LT170H2S Single table

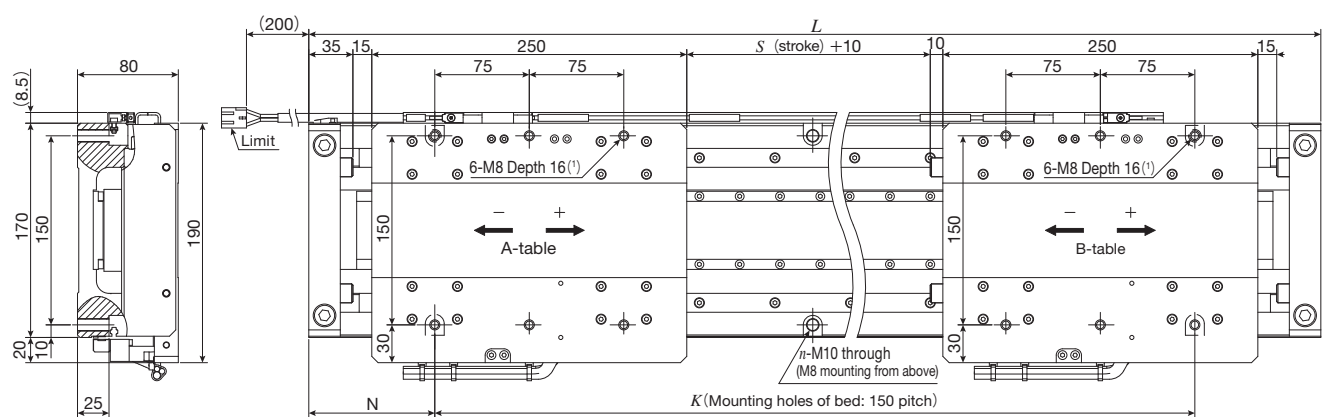


unit: mm

Identification number	Stroke length $S^{(2)}$	Overall length L	Mounting holes of bed			Total mass of table kg	Mass of moving table kg
			N	K	n		
LT170H2S- 750	750	1 100	100	900	14	25.5	5.5
LT170H2S-1250	1 250	1 600	50	1 500	22	34.5	
LT170H2S-1750	1 750	2 100	75	1 950	28	43.5	
LT170H2S-2250	2 250	2 600	100	2 400	34	52.5	
LT170H2S-2750	2 750	3 100	50	3 000	42	61.5	

Notes (1) Too deep insertion depth of the mounting bolt may affect the running performance of the moving table, so never insert a bolt longer than the depth of the through hole.
(2) For other stroke lengths, please contact IKO.

LT170H2S/T2 Twin table

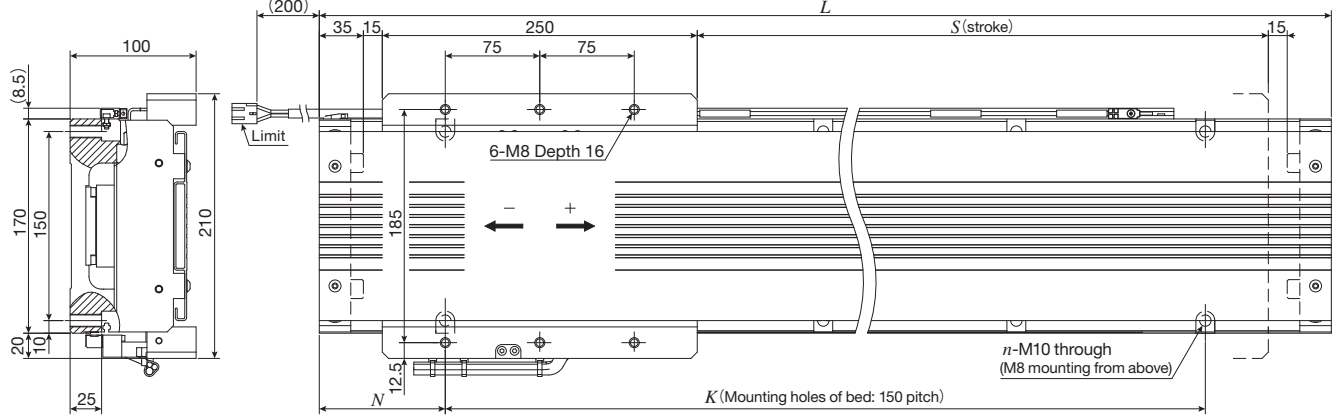


unit: mm

Identification number	Stroke length $S^{(2)}$	Overall length L	Mounting holes of bed			Total mass of table kg	Mass of moving table kg
			N	K	n		
LT170H2S- 480/T2	480	1 100	100	900	14	31	5.5
LT170H2S- 980/T2	980	1 600	50	1 500	22	40	
LT170H2S-1480/T2	1 480	2 100	75	1 950	28	49	
LT170H2S-1980/T2	1 980	2 600	100	2 400	34	58	
LT170H2S-2480/T2	2 480	3 100	50	3 000	42	67	

Notes (1) Too deep insertion depth of the mounting bolt may affect the running performance of the moving table, so never insert a bolt longer than the depth of the through hole.
(2) For other stroke lengths, please contact IKO.

LT170H2F/D Single table with cover

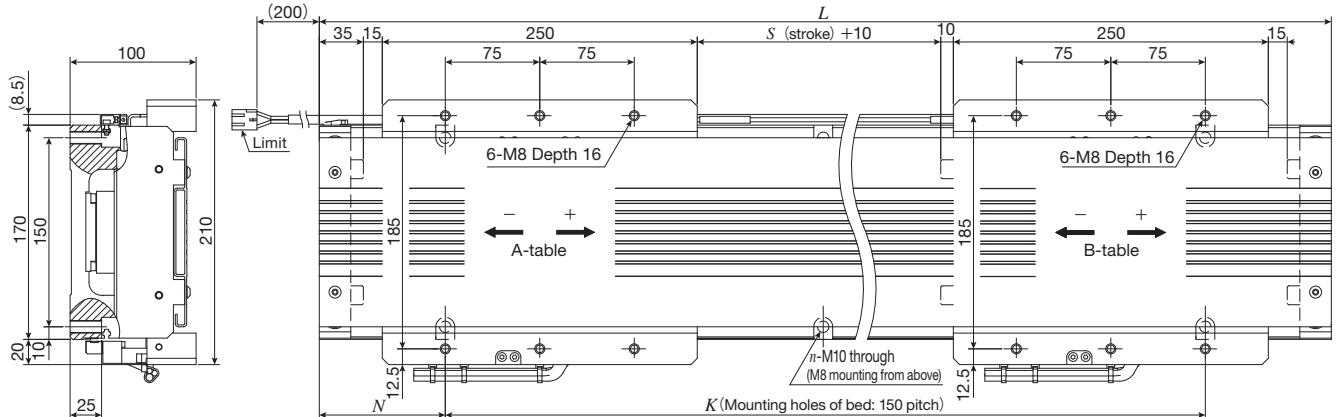


unit: mm

Identification number	Stroke length $S^{(1)}$	Overall length L	Mounting holes of bed			Total mass of table kg	Mass of moving table kg
			N	K	n		
LT170H2F- 750/D	750	1 100	100	900	14	28	6.5
LT170H2F-1250/D	1 250	1 600	50	1 500	22	37	

Note (1) For other stroke lengths, please contact IKO.

LT170H2F/DT2 Twin table with cover



unit: mm

Identification number	Stroke length $S^{(1)}$	Overall length L	Mounting holes of bed			Total mass of table kg	Mass of moving table kg
			N	K	n		
LT170H2F-480/DT2	480	1 100	100	900	14	34.5	6.5
LT170H2F-980/DT2	980	1 600	50	1 500	22	43.5	

Note (1) For other stroke lengths, please contact IKO.