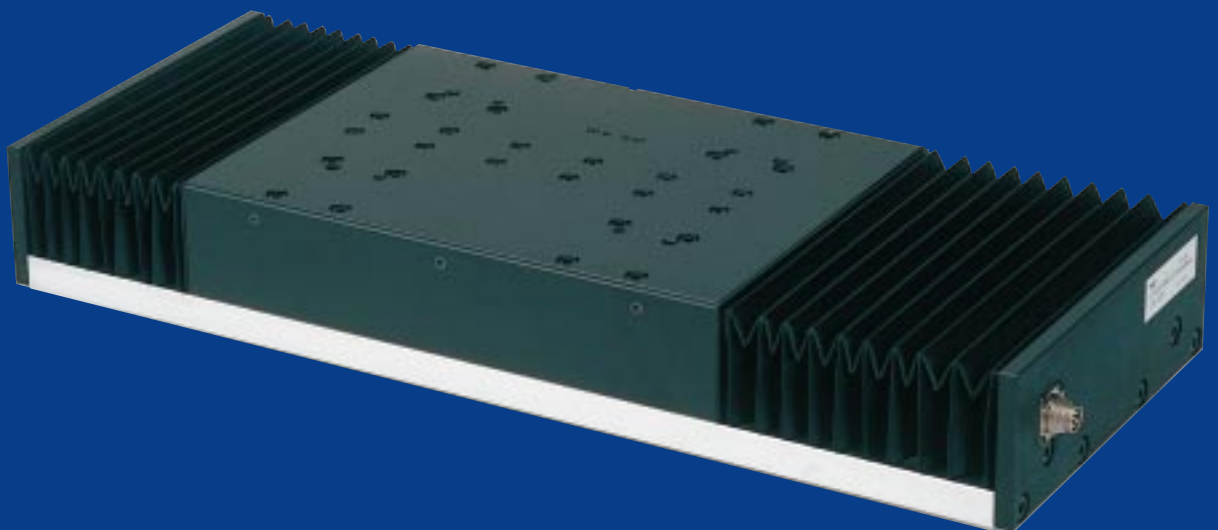
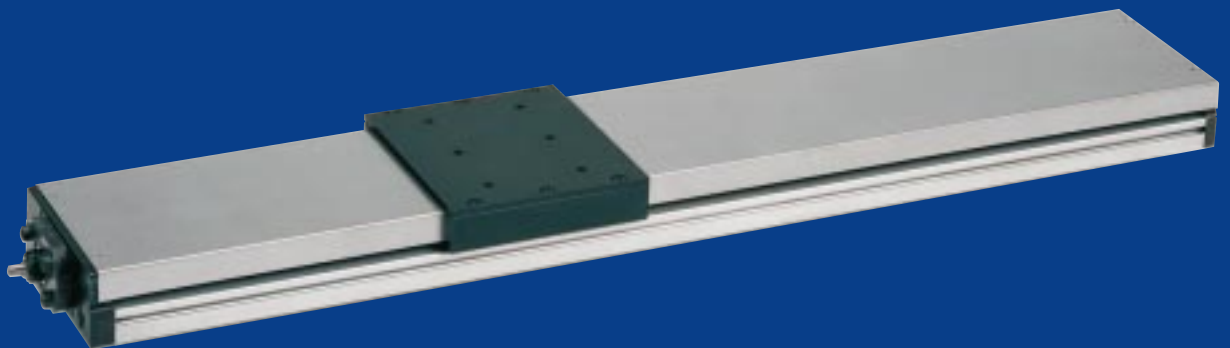


Rail guide tables



The SKF Group

The SKF Group is an international industrial corporation of AB SKF Sweden, founded in 1907, operating in 130 countries. The company has some 45000 employees and more than 80 manufacturing facilities throughout the world. Its international network is supported up by nearly 20000 distributors and retailers. SKF is the world leader in the rolling bearing business. Bearings, seals and special steels are SKF's main product areas. In addition, they also manufacture and sell, other industrial precision components and products.

SKF Linear Motion

One of these industrial precision products assortment is manufactured and sold by the SKF Linear Motion Division. This unit has some 700 employees, 6 manufacturing facilities, 3 product lines. One of the division's strengths is its ability to serve the market through its organization based on 10 specialized Sales Companies located in Europe and North America; however product availability and product application support is provided world-wide by the SKF international network.

CD-ROM "Designer"

All linear Motion products are available in this CD, in DWG and DXF files. Thanks to "Designer", you can easily copy the drawing of the product you need into your own design drawing. If you are interested, please do not hesitate to contact your local SKF sales organization. It is free of charge.

The Linear Motion product range covers:

- High Efficiency Screws
- Linear Guiding Systems
- Electromechanical Actuators



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Design and characteristic features

General

SKF rail guide tables are state-of-the-art tables with high accuracy and high load carrying capacity.

They are available in the following variations:

- five different sizes,
- three different covers and
- three different drives
- four precision classes.

Sizes:

SKF rail guide tables are available in widths of 110, 170, 235, 320 and 400 mm.

Drives:

Three different drives can be fitted: ball screws, linear motors, toothed belt drives.

Cover:

The rail guide tables can be supplied in three versions: without cover, with bellows, with steel cover.

Precision classes:

Depending on their application, the slides are available in four precision classes: P10, P5, P2, P1.

Customer benefits:

- Modular and compact design.
- Variants having high load carrying capacity and stiffness.
- Large number of drives, providing the optimum solution for any application.
- Different covers to suit the environmental conditions.
- Precision class matched with application, thus more cost-efficient.

General

Depending on the precision class, SKF rail guide tables are equipped with different guides.

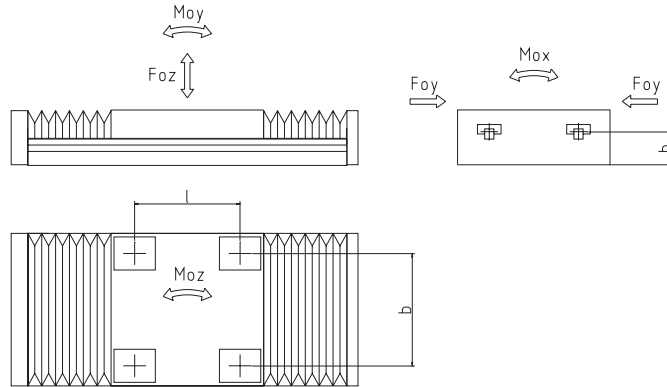
In precision classes P10 and P5 these are in part roller guides, in precision classes P2 and P1 profile rails. Both versions use a pair of rails fitted with a total of four carriages (with the exception of table LTA 110 with linear motor FS220 having six carriages and FS300 having eight carriages).

Customer benefits:

- Low-noise roller guide for high travel speeds
- Profile rail with high load carrying capacity and stiffness

See Table 1 for further technical details.

Table 1: Load carrying capacity of the tables



Type Size	Precision class	Load rating per carriage		Distance			Maximum static load per table ¹⁾				
		C	Co	b	l	h	Foz	Foy	Mox	Moy	Moz
		N	N	mm	mm	mm	N	N	Nm	Nm	Nm
LTA110.L1.SH/TN	P10 - P1	1.785	3.330	81	76	23	13.320	6.660	539	506	506
LTA110.L1.FS100	P5 - P1	1.785	3.330	81	62	23	13.120	6.560	531	407	407
LTA110.L1.FS220	P5 - P1	1.785	3.330	81	2x72	23	19.580	9.790	793	959	959
LTA110.L1.FS300	P5 - P1	1.785	3.330	81	3x78	23	26.040	13.020	1.055	2.078	2.078
LTA110.L1.AT	P10 - P1	1.785	3.330	81	76	23	13.320	6.660	539	506	506
LTA170.L1.SH/TN	P10 + P5	4.070	7.070	116	92	32	28.280	28.280	1.640	1.301	2.602
LTA170.L1.TN	P2 + P1	7.350	11.600	116	92	29	46.400	23.200	2.691	2.134	2.134
LTA170.L1.FS220	P5	4.070	7.070	116	124	32	27.880	27.880	1.617	1.729	3.457
LTA170.L1.FS220	P2 + P1	7.350	7.070	116	124	29	46.000	23.000	2.668	2.852	2.852
LTA170.L1.FS300	P5	4.070	7.070	116	195	32	27.680	27.680	1.605	2.699	5.398
LTA170.L1.FS300	P2 + P1	7.350	11.600	116	195	29	45.800	22.900	2.656	4.466	4.466
LTA170.L1.AT	P10 + P5	4.070	7.070	116	92	32	28.280	28.280	1.640	1.301	2.602
LTA170.L1.AT	P2 + P1	7.350	11.600	116	92	29	46.400	23.200	2.691	2.134	2.134
LTA235.L1.SX/TN/TL	P10 + P5	7.790	15.560	156	115	45	62.240	62.240	4.855	3.579	7.158
LTA235.L1.TN/TL	P2 + P1	12.900	20.800	156	115	46	83.200	41.600	6.490	4.784	4.784
LTA235.L1.AC480	P5	7.790	15.560	156	168	45	60.440	60.440	4.714	5.077	10.154
LTA235.L1.AC480	P2 + P1	12.900	20.800	156	168	46	81.400	40.700	6.349	6.838	6.838
LTA235.L1.AC600	P5	7.790	15.560	156	180	45	59.540	59.540	4.644	5.359	10.717
LTA235.L1.AC600	P2 + P1	12.900	20.800	156	180	46	80.500	40.250	6.279	7.245	7.245
LTA235.L1.AC960	P5	7.790	15.560	156	235	45	58.640	58.640	4.574	6.890	13.780
LTA235.L1.AC960	P2 + P1	12.900	20.800	156	235	46	79.600	39.800	6.209	9.353	9.353
LTA320.L1.SX/TN/TL	P10 + P5	7.790	15.560	220	221	73	62.240	62.240	6.846	6.878	13.755
LTA320.L1.TN/TL	P2 + P1	17.000	26.000	220	221	70	104.000	52.000	11.440	11.492	11.492
LTA320.L1.AC1000	P5 - P1	17.000	26.000	220	160	70	101.400	50.700	11.154	8.112	8.112
LTA320.L1.AC1500	P5 - P1	17.000	26.000	220	200	70	98.600	49.300	10.846	9.860	9.860
LTA320.L1.AC2000	P5 - P1	17.000	26.000	220	290	70	96.800	48.400	10.648	14.036	14.036
LTA400.L1.SX/TN/TL	P10 + P5	18.000	37.900	270	270	77	151.600	151.600	20.466	20.466	40.932
LTA400.L1.TN/TL	P2 + P1	31.500	46.500	270	270	77	186.000	93.000	25.110	25.110	25.110

¹⁾ Loads Foz and Foy for central load application
 Moments Mox to Moz for pure moment load (without force).

Design and characteristic features

Drive

Tables with a ball screw:

These tables are equipped with SKF precision rolled thread ballscrew drives.

Screws SH and SX have a nut with internal ball recirculation. They are not preloaded, the axial clearance is

0.1 mm maximum. This screw is the standard for precision class P10 tables.

Screws TN and TL are fitted with a preloaded nut. TL screws have long leads and are therefore suitable for high travel speeds. They can be fitted in tables of precision classes P5 to P1.

Benefits:

- Robust drive.
- Suitable for high axial forces.
- Any drive can be fitted, e.g. manual drive, DC, AC or stepped motor.
- Attachment via motor flange or indirect toothed belt drive.

See Table 2 for further technical information.

Table 2: Ball screw technical details

Table	Screw		Nominal diameter do	Lead p	Lead accuracy ¹ acc. to ISO V300p	Load rating ²		Table drive torque		
	Type	Precision class				dynamic Ca	static Coa	idling Ms	Max. permissible Ma	
Type Size	Type Size	Precision class	mm	mm	µm/300 mm	N	N	Nm	Nm	
LTA110	P10	SH1204	12	4	G9	87	3.400	5.400	0,17	2,6
	P5-P1	TN1205		5	G7	35	7.100	8.600	0,27	2,6
	P5-P1	TN1210		10	G7	35	4.400	4.300	0,30	2,6
LTA170	P10	SH1605	16	5	G9	87	5.200	8.700	0,18	5,8
	P5-P1	TN1605		5	G7	35	4.800	8.300	0,33	5,5
	P5-P1	TN1610		10	G7	35	6.590	6.360	0,38	8,4
	P5-P1	TN1616		16	G7	35	6.590	6.360	0,42	12,0
LTA235	P10	SX2505	25	5	G9	87	15.600	31.000	0,19	20,6
	P10	SX2510		10	G9	87	18.800	31.000	0,21	32,9
	P5-P1	TN2505		5	G7	35	10.100	22.600	0,49	15,0
	P5-P1	TN2510		10	G7	35	10.400	19.500	0,61	25,
	P5-P1	TL2520		20	G7	35	10.700	27.200	0,62	32,9
	P5-P1	TL2525		25	G7	35	10.500	27.300	0,65	32,9
LTA320	P10	SX3205	32	5	G9	87	17.800	50.400	0,19	33,4
	P10	SX3210		10	G9	87	27.500	55.000	0,22	72,9
	P5-P1	TN3205		5	G7	35	14.700	40.200	0,59	26,7
	P5-P1	TN3210		10	G7	35	17.300	40.700	0,82	54,0
	P5-P1	TL3220		20	G7	35	11.900	34.000	0,72	90,2
	P5-P1	TL3232		32	G7	35	14.400	20.480	0,79	86,9
LTA400	P10	SX4005	40	5	G9	87	19.500	63.100	0,21	41,8
	P10	SX4010		10	G9	87	29.000	64.000	0,26	84,9
	P5-P1	TN4005		5	G7	35	19.400	63.000	0,81	41,8
	P5-P1	TN4010		10	G7	35	29.000	64.000	1,66	84,9
	P5-P1	TL4020		20	G7	35	19.400	64.000	0,90	169,7
	P5-P1	TL4040		40	G7	35	24.100	64.000	1,09	187,5

¹⁾ Lead accuracy G5 at V300p = 23 µm/300 mm available on request.

²⁾ Value indicated = minimum load rating of either screw or locating bearing

Tables with a linear motor drive:

These are equipped with brushless AC motors and work as follows:

- The secondary part in the lower part of the table takes the form of a magnetic rail.
- The primary part is located in the travelling upper part of the table and takes the form of a coil system.
- Two or three-phase AC synchronous motors with electronic commutation.
- Linear measuring system, integrated in the table as standard. Other linear measuring systems with side attachment are available as an option.

Customer benefits:

- High dynamics and stiffness in a closed loop system.
- Good synchronous characteristics.
- High acceleration capacity.
- High travel speeds, even with large strokes.
- Friction and wear free drive.

See Table 3 for further technical details.

Tables with toothed belt drive:

These are currently available in sizes 110 and 170. They have a moving toothed belt with high stiffness.

Customer benefits:

- High travel speeds, even with large strokes..
- Simple, cost-efficient drive.

See Table 4 for further technical details.

Table 3: Linear motor technical details

For table:	LTA	110	110+170			235		320		
Motor size		FS100	FS220	FS300	AC480	AC600	AC960	AC1000	AC1500	AC2000
Number of motor phases		2P			2P		3P			
Static maximum force FM (2 to 3 s) N		100	220	300	480	600	960	1.000	1.500	2.000
Nominal force Fd (without cooling) N		42	70	98	150	220	350	380	570	760
Force constant Kf	N/A	14	14	14	24	24	48	126±10		
Motor constant Km	N/W ²	7	9,9	12,1	20	25	28	37,3±3	45,1±3,6	52,8±4,2
Maximum current Ima (2 to 3 s) A	A	7,5	15	22,5	20	25	20	10	15	20
Continuous current Ima (without cooling) A	A	3	5	7	8	12	8	3	4,5	6
Power loss Pv at Id	W	36	51	66	100	150	200	103	158	206
Back emf constant Ke	V/m/s	14,5	14,5	14,5	25	25	50	110		
Maximum speed Vmax	m/s	3	3 or 3,2		3,2		3,2			
Attractive force between secondary and primary motor parts	N	200	400	600	1.800	2.700	3.600	2.600	5.400	7.200
Linear measuring system										
Signal output		Sinusoidal signal, 11 µm ASS or 1 Vss								
Scale grading		20 µm								
Scale grading (depending on dividing electronic unit)		=< 1 µm								
Precision class		Standard: ±5 µm; Option: ±3 µm, ±2 µm or ±1 µm								

Table 4: Toothed belt drive technical details

			LTA110.L1.AT-SC	LTA170.L1.AT-SC
Maximum permissible axial force	Fa	N	580	740
Maximum permissible axial torque	Ta	Nm	7,4	14,1
Stroke per revolution	s	mm/U	80	120
Minimum drive stiffness	Cmin	N/mm	1,68*E6/L1	2,24*E6/L1
Toothed belt size			AT5-25	AT5-32
Maximum permissible linear speed	Vmax	m/s	3	3,2

Design and characteristic features

Cover

The slides with ball screw and linear motor drive are available as follows:

- **With bellows** made of oil and water resistant polyurethane fibre material on both sides. The carriages and ballscrew nut are additionally protected by wipers (with the exception of the SH screws). The screw thrust bearings are also sealed.
- **Without cover** for applications without exposure to dirt, e.g. in laboratories. The carriages, ballscrew nut and bearings are sealed as they are in the bellows version. The effective stroke is, of course, longer than in the bellows version.

- **With steel cover**, made from corrosion resistant steel sheet, for applications with extreme exposure to dirt from above or for those applications where shock impacts on the cover cannot be excluded. The effective stroke is as long as in the version without cover. The adapter plate can be supplied optionally.

Tables with toothed belt drive are available with steel cover only.

Precision classes

The characteristics of the different precision classes are listed in the table below.

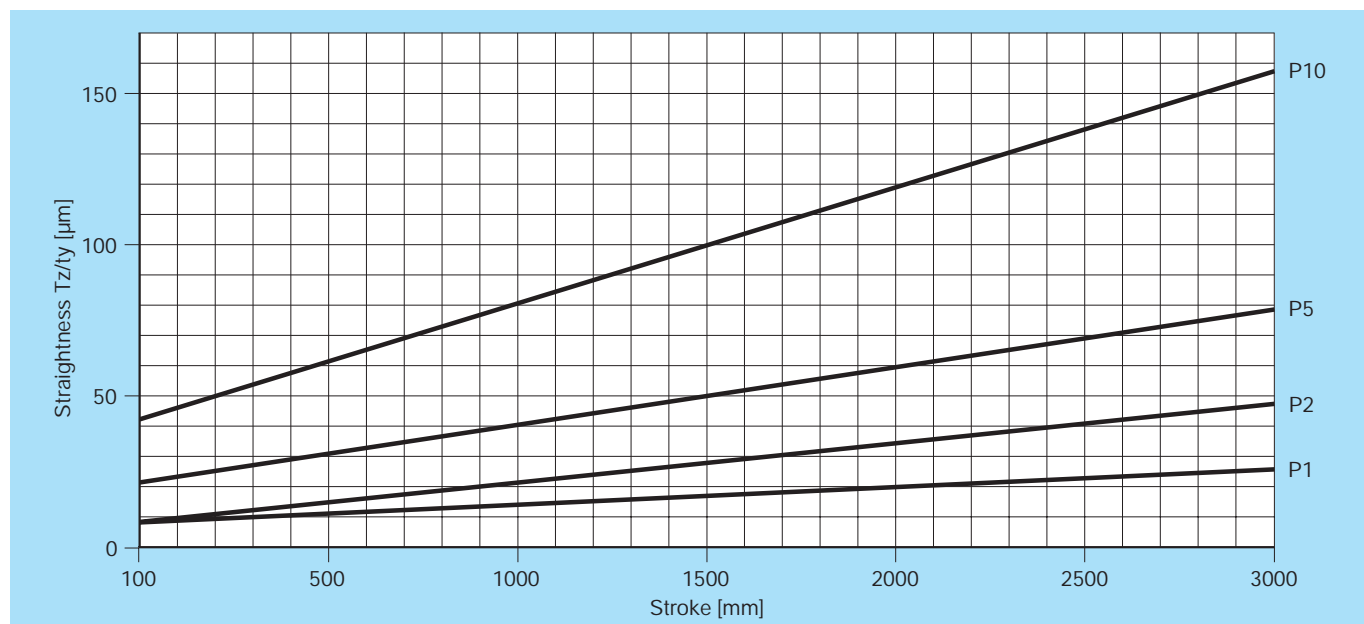
The precision given in Diagram 1 applies to a single table in clamped condition on an ideal plane clamping surface.

Straightness defined as in VDI 2617 sheet 3.

Precision class	P10	P5	P2	P1
Guidance	in part roller guidance	in part roller guidance	profile rail	profile rail
Precision	see Diagram 1			
Load carrying capacity	medium	medium	high	high
Stiffness	medium	medium	high	high
Screw	reduced axial clearance	preloaded	preloaded	preloaded
Screw accuracy	G9	G7	G7	G7
Price *)	x	xx	xxxx	xxxxxx
Delivery time *)	x	xxx	xxx	xxxxx

*) Applies only to tables with screw drive. The figures given in the Price and Delivery time lines only indicate an approximate trend and must not be considered as absolute values.

Diagram 1: Precision



Stroke

The strokes S1 (with bellows), S2 (without bellows) and S (with steel cover) are the maximum travel distances between the end stops. Depending on the speed and the moving mass the operating stroke is correspondingly less. The overrun on both sides must be larger than the length of the brake path of the drive. The value of $2 \times p$ (spindle lead) can be considered to be a reliable guideline value.

Materials

As standard, the table components are made of aluminium and are black oxidised. The bottom part of the table is made of untreated aluminium. On request the bottom part is also available in corrosion-resistant steel.

Permissible operating temperature

Tables with screw and toothed belt drives:

-20°C to +80°C constant temperature.

Linear motor slides: 0°C to + 55°C constant temperature.

Lubrication

The guides and screw are greased with an all-purpose SKF grease (**LGEP2**) by the manufacturing unit. The carriages and the screw nut can be relubricated. For further information please refer to the operating instructions.

On request the carriages can be fitted with a lubricating connection in the central position. Three lubricating holes are provided in the side plate.

Load carrying capacity and life

For exact dimensioning and design of SKF rail guide tables and drives please contact SKF Linear Motion. Special calculation programs are available for your support. In order to provide the required data correctly, please fill in the **specification sheet** on page 35.

Accessories

Limit and reference switches

Tables with ball screw and toothed belt drives can be equipped with inductive limit and reference switches on request. These are integral with the slide. They are connected via a central plug connection on one of the end plates (see dimension specifications).

Slides with linear motor drive are fitted with inductive limit switches as standard.

Cross table assembly

Individual tables can be mounted to form a cross table. The standard drill hole patterns of the table top and bottom parts are matched so that mounting of the same or next smaller size is possible. Please note the details in the corresponding column of the dimensional specifications.

Linear measuring system

The attachment of a direct linear measurement system is possible. The slides with linear motor drive are equipped with a linear measuring system as standard. It is integral with the table. Further information can be found in Table 3 on page 7.

Motor flange

The slides with ball screw and toothed belt drives can be equipped with a motor flange and coupling on request. When ordering please indicate the motor manufacturer, model and type.

Indirect toothed belt drive

If space is restricted, an indirect drive using a toothed belt may be the best choice. The motor can be mounted on either the right or left hand side. Standard transmission ratio 1:1.

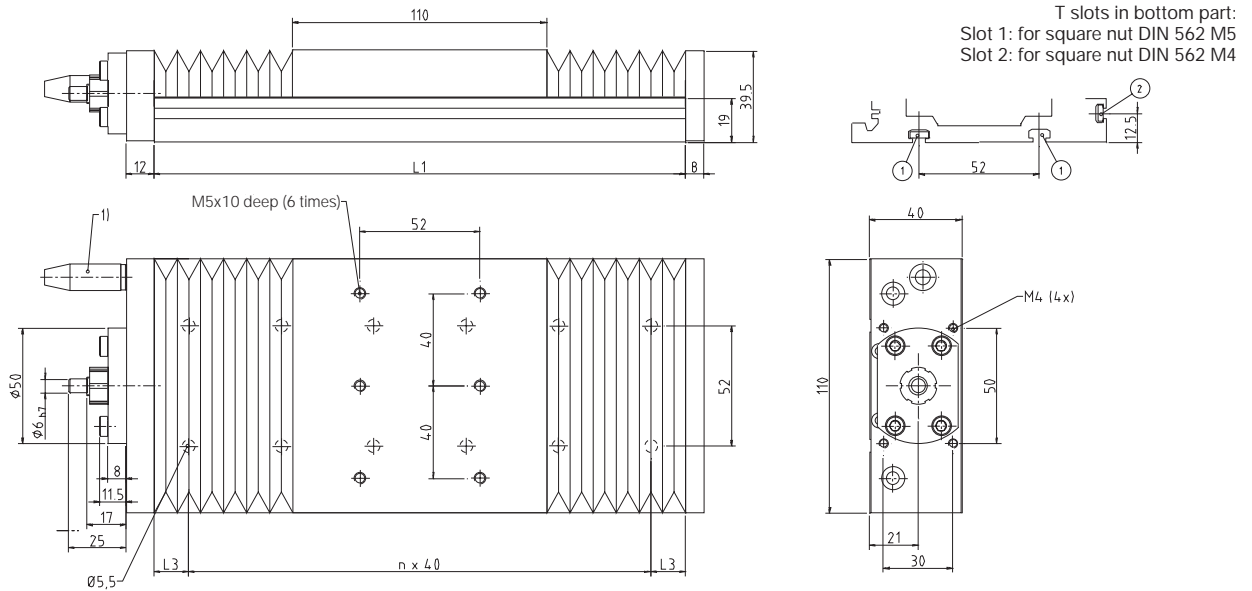
Linear motor control units and control components

The following components are available for controlling the linear motors:

- Dividing electronics for measuring system
- Servo module with and without power supply unit
- PDCON-C-L compact control unit for position-controlled point-to-point control and for linear interpolation positioning control
- PDCON-C-B compact control unit for continuous path control

Further information available on request or in the offer as submitted.

LTA 110.L1.SH/TN12xx-BL Rail guide tables with ball screw drive, with and without bellows



1) Plug connection for limit and reference switches (optional)

Direction of travel - <----> +

Length			2) KN	Stroke ³⁾		Screwdata SH/TN nmax	Weight ⁴⁾	
L1	L3	n		S1	S2		GA	GO
mm			-	mm		1/min		
150	15	3		20	30	4150	1,7	0,7
190	15	4	x	45	70	4150	1,6	
230	15	5		70	110	4150	1,8	
270	15	6	x	95	150	4150	2,0	
310	15	7		115	190	4150	2,2	
350	15	8	x	140	230	4150	2,3	
390	15	9		165	270	4150	2,5	
430	15	10	x	190	310	4150	2,7	
470	15	11		215	350	4150	2,9	
510	15	12	x	240	390	4150	3,1	
550	15	13		265	430	4150	3,2	
590	15	14	x	285	470	4150	3,4	
630	15	15		310	510	4150	3,6	
670	15	16	x	335	550	3900	3,8	
710	15	17		360	590	3430	4,0	
750	15	18	x	385	630	3030	4,1	
790	15	19		410	670	2700	4,3	
830	15	20	x	430	710	2420	4,5	
870	15	21		455	750	2190	4,7	
910	15	22	x	480	790	1980	4,9	
950	15	23		505	830	1810	5,0	
990	15	24	x	530	870	1650	5,2	

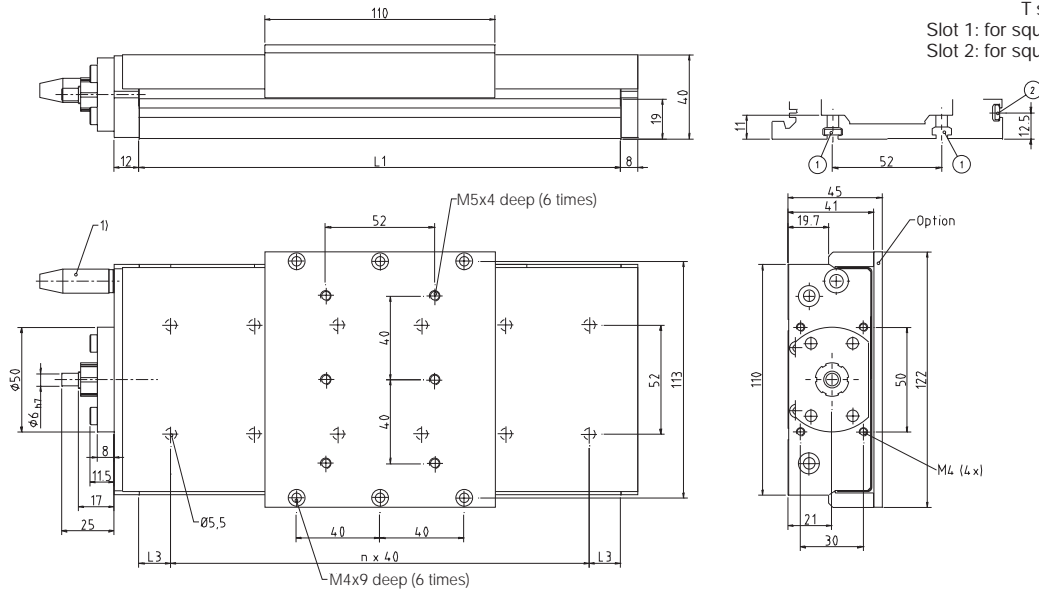
2) Suitable as top axis for central cross table mounting

3) Maximum stroke between end stops:
S1 with bellows (standard version)
S2 without bellows (special version)

4) GA = Total mass of table
GO = Mobile mass of table top

LTA 110.L1.SH/TN12xx-SC

Rail guide tables with ball screw drive, with steel cover



1) Plug connection for limit and reference switches (optional)

Direction of travel: - <----> +

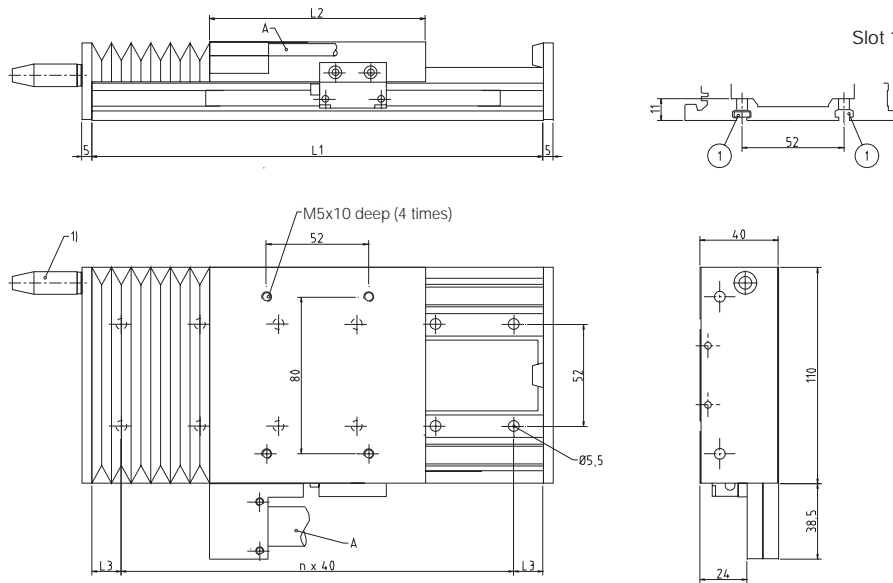
Length		n	2) KN	Stroke ³⁾ S	Screw data SH/TN nmax	Weight ⁴⁾	
L1	L3					GA	GO
mm		-		mm	1/min	kg	
150	15	3		30	4150	1,9	0,9
190	15	4	x	70	4150	2,1	
230	15	5		110	4150	2,3	
270	15	6	x	150	4150	2,5	
310	15	7		190	4150	2,7	
350	15	8	x	230	4150	2,9	
390	15	9		270	4150	3,1	
430	15	10	x	310	4150	3,3	
470	15	11		350	4150	3,5	
510	15	12	x	390	4150	3,7	
550	15	13		430	4150	3,9	
590	15	14	x	470	4150	4,1	
630	15	15		510	4150	4,3	
670	15	16	x	550	3900	4,5	
710	15	17		590	3430	4,8	
750	15	18	x	630	3030	5,0	
790	15	19		670	2700	5,2	
830	15	20	x	710	2420	5,4	
870	15	21		750	2190	5,6	
910	15	22	x	790	1980	5,8	
950	15	23		830	1810	6,0	
990	15	24	x	870	1650	6,2	

2) Suitable as top axis for central cross table mounting

3) Maximum stroke between end stops

4) GA = Total mass of table
GO = Mobile mass of table top

LTA 110.L1.FSxxx-BL Rail guide tables with linear motor drive, with and without bellows



T slots in bottom part:
Slot 1: for square nut DIN 562 M5

1) Plug connection for limit and reference switches

A Cable output for motor and measuring system. Flat ribbon cable 20 x 6.3 mm

Direction of travel: - <---> +

Length			FS100					FS220					FS300				
L1	L3	n	2) KN	4) GU	L2	Stroke ³⁾		5) GO	L2	Stroke ³⁾		5) GO	L2	Stroke ³⁾		5) GO	
mm		-		kg	mm	S1	S2	kg	mm	S1	S2	kg	mm	S1	S2	kg	
150	15	3		1,3	110	20	30	0,7	190			1,2	280			1,8	
190	15	4	x	1,6		45	70										
230	15	5		2,0		70	110			20	30						
270	15	6	x	2,2		95	150			45	70						
310	15	7		2,5		115	190			70	110						
350	15	8	x	2,9		140	230			95	150			40	60		
390	15	9		3,2		165	270			115	190			65	100		
430	15	10	x	3,5		190	310			140	230			90	140		
470	15	11		3,9		215	350			165	270			110	180		
510	15	12	x	4,1		240	390			190	310			135	220		
550	15	13		4,4		265	430			215	350			160	260		
590	15	14	x	4,8		285	470			240	390			185	300		
630	15	15		5,1		310	510			265	430			210	340		
670	15	16	x	5,4		335	550			285	470			235	380		
710	15	17		5,8		360	590			310	510			260	420		
750	15	18	x	6,0		385	630			335	550			280	460		
790	15	19		6,3		410	670			360	590			305	500		
830	15	20	x	6,7		430	710			385	630			330	540		
870	15	21		7,0		455	750			410	670			355	580		
910	15	22	x	7,3		480	790			430	710			380	620		
950	15	23		7,7		505	830			455	750			405	660		
990	15	24	x	8,0		530	870			480	790			430	700		

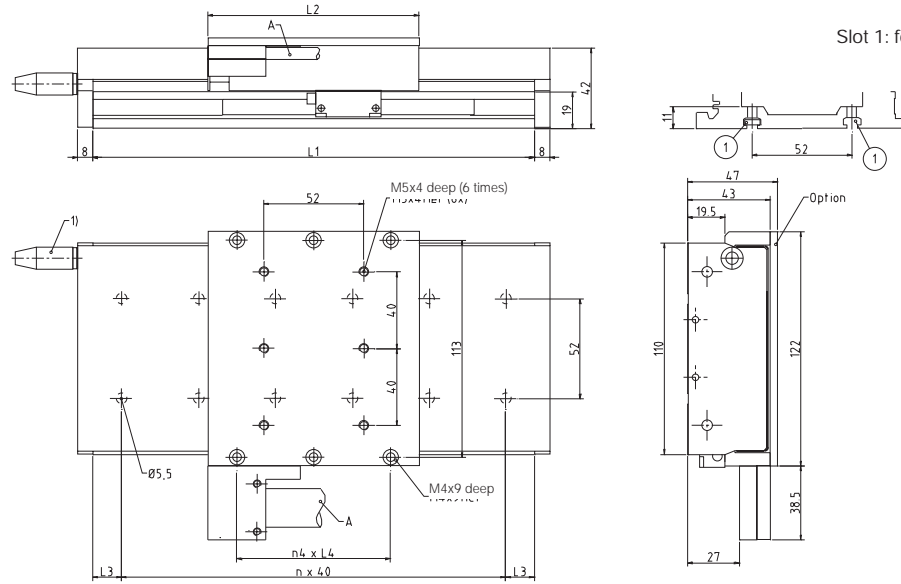
2) Suitable as top axis for central cross table mounting

3) Maximum stroke between end stops:
S1 with bellows (standard version)
S2 without bellows (special version)

4) GU = Stationary mass of bottom part
GO = Mobile mass of table top

LTA 110.L1.FSxxx-SC

Rail guide tables with linear motor drive, with steel cover



T slots in bottom part:
Slot 1: for square nut DIN 562 M5

1) Plug connection for limit and reference switches
A Cable output for motor and measuring system. Flat ribbon cable 20 x 6.3 mm

Direction of travel: - <---> +

Length			FS100					FS220					FS300				
L1	L3	n	2) KN	4) GU	L2	Stroke ³⁾ S	n4xL4	5) GO	L2	Stroke ³⁾ S	n4xL4	5) GO	L2	Stroke ³⁾ S	n4xL4	5) GO	
mm	-	-		kg	mm			kg	mm			kg	mm			kg	
150	15	3		1,3	110	30	2x40	0,9	190		4x40	1,6	280		6x40	2,4	
190	15	4	x	1,6	70												
230	15	5		2,1	110				30								
270	15	6	x	2,4	150				70								
310	15	7		2,6	190				110								
350	15	8	x	3,1	230				150						60		
390	15	9		3,4	270				190						100		
430	15	10	x	3,7	310				230						140		
470	15	11		4,1	350				270						180		
510	15	12	x	4,4	390				310						220		
550	15	13		4,7	430				350						260		
590	15	14	x	5,1	470				390						300		
630	15	15		5,4	510				430						340		
670	15	16	x	5,7	550				470						380		
710	15	17		6,1	590				510						420		
750	15	18	x	6,4	630				550						460		
790	15	19		6,7	670				590						500		
830	15	20	x	7,1	710				630						540		
870	15	21		7,4	750				670						580		
910	15	22	x	7,7	790				710						620		
950	15	23		8,2	830				750						660		
990	15	24	x	8,5	870				790						700		

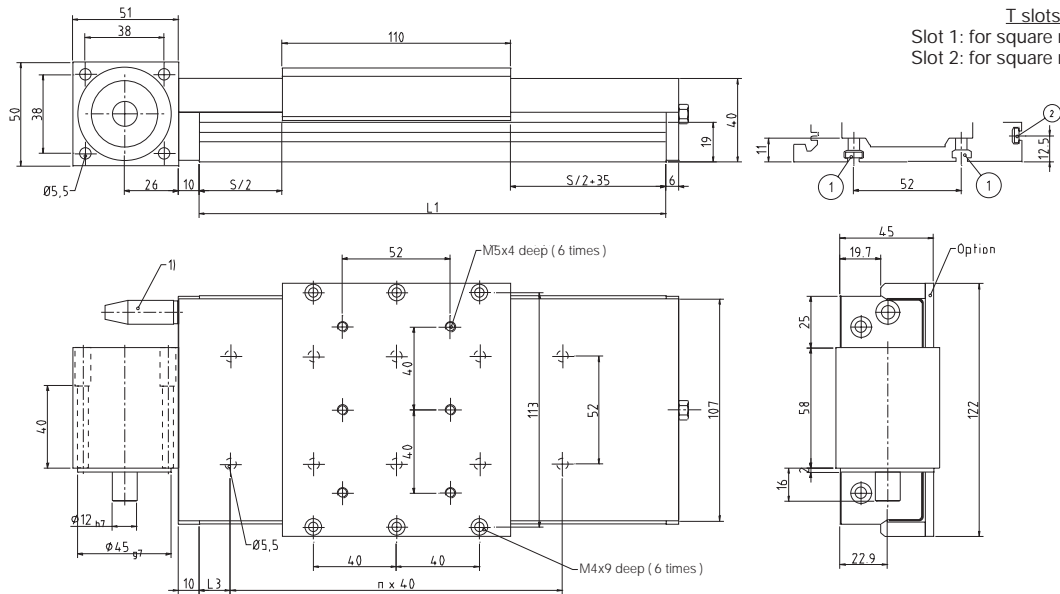
2) Suitable as top axis for central cross table mounting

3) Maximum stroke between end stops

4) GU = Stationary mass of bottom part
GO = Mobile mass of table top

LTA 110.L1.AT-SC

Rail guide tables with toothed belt drive, with steel cover



1) Plug connection for limit and reference switches (optional)

Direction of travel: - <---> +

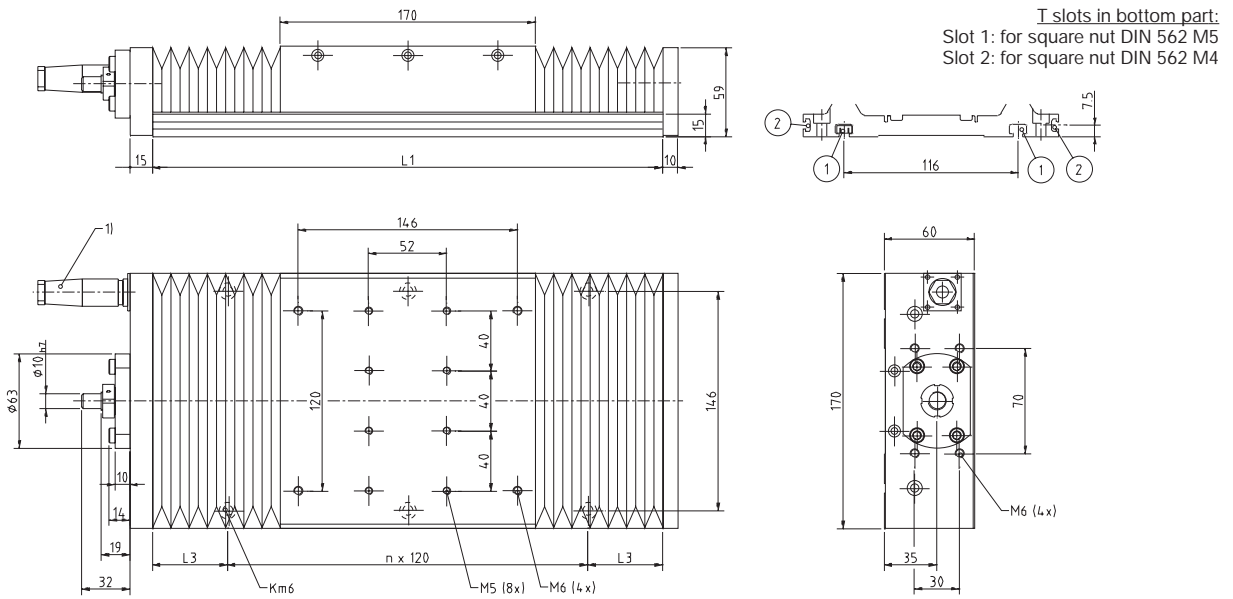
Length				2) KN	Stroke ³⁾ S	Weight ⁴⁾	
L1	L3	n	GA			GO	
mm			-	mm		kg	
185	15	3			30	2,2	0,6
225	15	4	x		70	2,3	0,6
265	15	5			110	2,5	0,7
305	15	6	x		150	2,7	0,7
345	15	7			190	2,9	0,7
385	15	8	x		230	3,1	0,7
425	15	9			270	3,2	0,7
465	15	10	x		310	3,4	0,7
505	15	11			350	3,6	0,7
545	15	12	x		390	3,8	0,7
585	15	13			430	4,0	0,7
625	15	14	x		470	4,1	0,7
665	15	15			510	4,3	0,7
705	15	16	x		550	4,5	0,7
745	15	17			590	4,7	0,7
785	15	18	x		630	4,9	0,7
825	15	19			670	5,0	0,7
865	15	20	x		710	5,2	0,7
905	15	21			750	5,4	0,8
945	15	22	x		790	5,6	0,8
985	15	23			830	5,8	0,8
1025	15	24	x		870	5,9	0,8

2) Suitable as top axis for central cross table mounting

3) Maximum stroke between end stops:

4) GA = Total weight of table
GO = Weight of mobile mass of table top

LTA 170.L1.SH/TN16xx-BL Rail guide tables with ball screw drive, with and without bellows



1) Plug connection for limit and reference switches (optional)

Direction of travel: - <----> +

Length		n	2) KN	Stroke ³⁾		Screw data SH/TN nmax	Weight ⁴⁾	
L1	L3			S1	S2		GA	GO
mm		-		mm		1/min	kg	
220	50	1	x	35	40	3100	5,8	2,6
280	20	2		80	100	3100	6,4	
340	50	2		125	160	3100	7,0	
400	20	3	x	175	220	3100	7,7	
460	50	3	x	220	280	3100	8,3	
520	20	4		260	340	3100	9,0	
580	50	4		305	400	3100	9,6	
640	20	5	x	355	460	3100	10,3	
700	50	5	x	400	520	3100	10,9	
760	20	6		445	580	3100	11,6	
820	50	6		495	640	3100	12,2	
880	20	7	x	540	700	3100	12,9	
940	50	7	x	580	760	2840	13,5	
1000	20	8		625	820	2460	14,2	
1060	50	8		675	880	2150	14,8	
1120	20	9	x	720	940	1900	15,5	
1180	50	9	x	765	1000	1690	16,1	
1240	20	10		815	1060	1510	16,8	
1300	50	10		860	1120	1360	17,4	
1360	20	11	x	900	1180	1230	18,1	
1420	50	11	x	945	1240	1120	18,7	
1480	20	12		995	1300	1020	19,4	
1540	50	12		1040	1360	940	20,0	
1600	20	13	x	1085	1420	860	20,7	
1660	50	13	x	1135	1480	800	21,3	
1720	20	14		1180	1540	740	21,9	
1780	50	14		1225	1600	690	22,6	
1840	20	15	x	1265	1660	640	23,2	
1900	50	15	x	1315	1720	600	23,9	
1960	20	16		1360	1780	560	24,5	

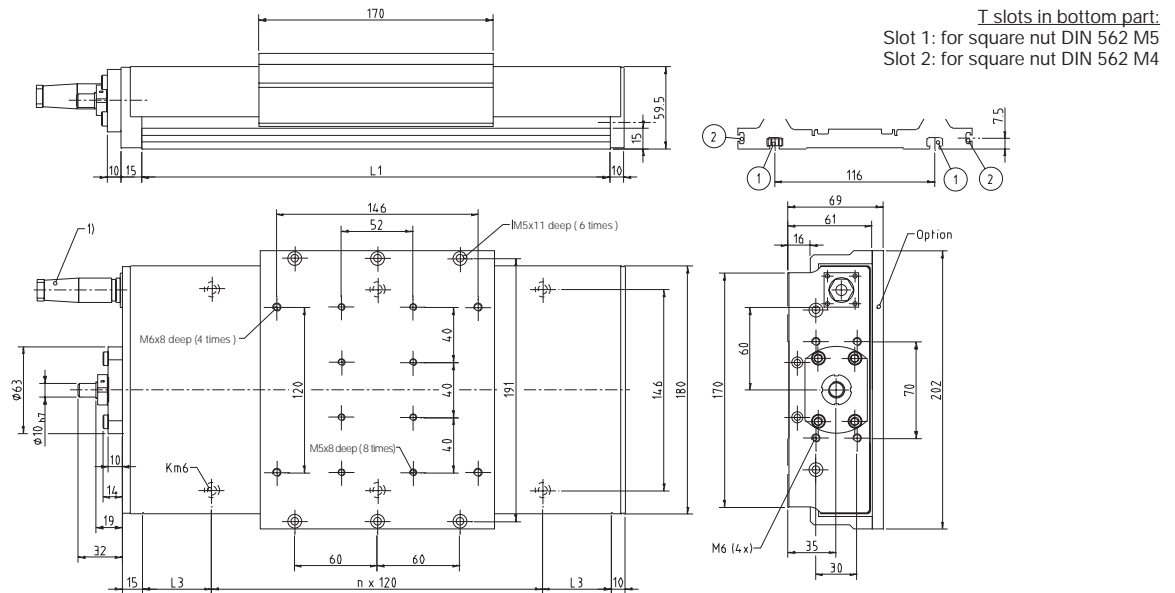
2) Suitable as top axis for central cross table mounting

3) Maximum stroke between end stops:
S1 with bellows (standard version)
S2 without bellows (special version)

4) GA = Total weight of table
GO = Weight of mobile mass of table top

LTA 170.L1.SH/TN16xx-SC

Rail guide tables with ball screw drive, with steel cover



1) Plug connection for limit and reference switches (optional)

Direction of travel: - <----> +

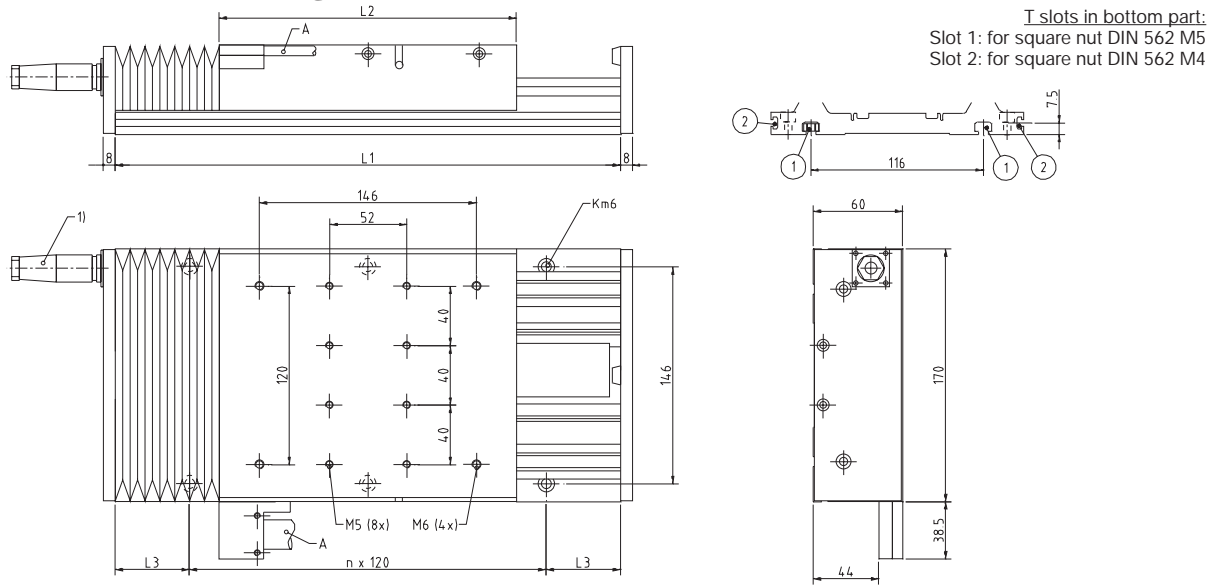
Length				Screw data		Weight ⁴⁾	
L1	L3	n	2) KN	Stroke ³⁾ S	SH/TN nmax	GA	GO
mm		-		mm	1/min	kg	
220	50	1	x	40	3100	7,0	3,6
280	20	2		100	3100	7,7	
340	50	2		160	3100	8,4	
400	20	3	x	220	3100	9,1	
460	50	3	x	280	3100	9,8	
520	20	4		340	3100	10,5	
580	50	4		400	3100	11,2	
640	20	5	x	460	3100	11,9	
700	50	5	x	520	3100	12,6	
760	20	6		580	3100	13,3	
820	50	6		640	3100	14,0	
880	20	7	x	700	3100	14,7	
940	50	7	x	760	2840	15,4	
1000	20	8		820	2460	16,1	
1060	50	8		880	2150	16,8	
1120	20	9	x	940	1900	17,6	
1180	50	9	x	1000	1690	18,3	
1240	20	10		1060	1510	19,0	
1300	50	10		1120	1360	19,7	
1360	20	11	x	1180	1230	20,4	
1420	50	11	x	1240	1120	21,1	
1480	20	12		1300	1020	21,8	
1540	50	12		1360	940	22,5	
1600	20	13	x	1420	860	23,2	
1660	50	13	x	1480	800	23,9	
1720	20	14		1540	740	24,6	
1780	50	14		1600	690	25,3	
1840	20	15	x	1660	640	26,0	
1900	50	15	x	1720	600	26,7	
1960	20	16		1780	560	27,4	

2) Suitable as top axis for central cross table mounting

3) Maximum stroke between end stops

4) GA = Total weight of table
GO = Weight of mobile mass of table top

LTA 170.L1.FSxxx-BL Rail guide tables with linear motor drive, with and without bellows



1) Plug connection for limit and reference switches
 A Cable output for motor and measuring system. Flat ribbon cable 20 x 6.3 mm

Direction of travel: - <----> +

Length			FS220						FS300			
L1	L3	n	2) KN	4) GU	L2	Stroke ³⁾ S1 S2		5) GO	L2	Stroke ³⁾ S1 S2		5) GO
mm		-		kg	mm			kg	mm			kg
280	20	2		4,2	200	55	70	3,1	280			4,0
340	50	2		5,0		105	130			40	50	
400	20	3	x	5,8		150	190			90	110	
460	50	3	x	6,6		195	250			135	170	
520	20	4		7,4		240	310			180	230	
580	50	4		8,3		285	370			220	290	
640	20	5	x	9,1		330	430			270	350	
700	50	5	x	9,9		375	490			315	410	
760	20	6		10,7		425	550			360	470	
820	50	6		11,6		470	610			410	530	
880	20	7	x	12,4		515	670			455	590	
940	50	7	x	13,2		565	730			500	650	
1000	20	8		14,0		605	790			545	710	
1060	50	8		14,8		650	850			590	770	
1120	20	9	x	15,7		695	910			635	830	
1180	50	9	x	16,5		745	970			680	890	
1240	20	10		17,3		790	1030			730	950	
1300	50	10		18,1		835	1090			775	1010	
1360	20	11	x	19,0		885	1150			820	1070	
1420	50	11	x	19,8		925	1210			865	1130	
1480	20	12		20,6		970	1270			910	1190	
1540	50	12		21,4		1015	1330			955	1250	
1600	20	13	x	22,2		1065	1390			1000	1310	
1660	50	13	x	23,1		1110	1450			1050	1370	
1720	20	14		23,9		1155	1510			1095	1430	
1780	50	14		24,7		1205	1570			1140	1490	
1840	20	15	x	25,5		1245	1630			1185	1550	
1900	50	15	x	26,4		1290	1690			1235	1610	
1960	20	16		27,2		1335	1750			1275	1670	

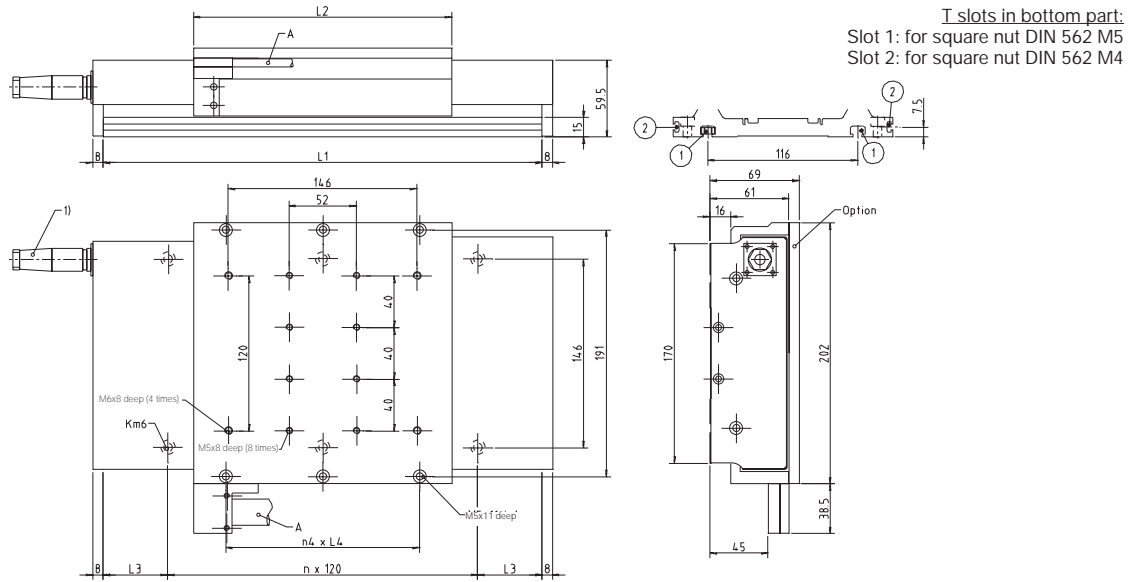
²⁾ Suitable as top axis for central cross table mounting

³⁾ Maximum stroke between end stops:
 S1 with bellows (standard version)
 S2 without bellows (special version)

⁴⁾ GU = Stationary mass of bottom part
 GO = Mobile mass of table top

LTA 170.L1.FSxxx-SC

Rail guide tables with linear motor drive, with steel cover



1) Plug connection for limit and reference switches
 A Cable output for motor and measuring system. Flat ribbon cable 20 x 6.3 mm

Direction of travel: - <----> +

Length			FS220						FS300			
L1	L3	n	2) KN	4) GU	L2	Stroke ³⁾ S	n4xL4	5) GO	L2	Stroke ³⁾ S	n4xL4	5) GO
mm		-		kg	mm			kg	mm			kg
280	20	2		4,4	200	70	2x75	4,4	280		3x75	5,8
340	50	2		5,3		130				50		
400	20	3	x	6,2		190				110		
460	50	3	x	7,1		250				170		
520	20	4		8,0		310				230		
580	50	4		8,8		370				290		
640	20	5	x	9,7		430				350		
700	50	5	x	10,6		490				410		
760	20	6		11,5		550				470		
820	50	6		12,4		610				530		
880	20	7	x	13,2		670				590		
940	50	7	x	14,1		730				650		
1000	20	8		15,0		790				710		
1060	50	8		15,9		850				770		
1120	20	9	x	16,8		910				830		
1180	50	9	x	17,6		970				890		
1240	20	10		18,5		1030				950		
1300	50	10		19,4		1090				1010		
1360	20	11	x	20,3		1150				1070		
1420	50	11	x	21,2		1210				1130		
1480	20	12		22,0		1270				1190		
1540	50	12		22,9		1330				1250		
1600	20	13	x	23,8		1390				1310		
1660	50	13	x	24,7		1450				1370		
1720	20	14		25,6		1510				1430		
1780	50	14		26,4		1570				1490		
1840	20	15	x	27,3		1630				1550		
1900	50	15	x	28,2		1690				1610		
1960	20	16		29,1		1750				1670		

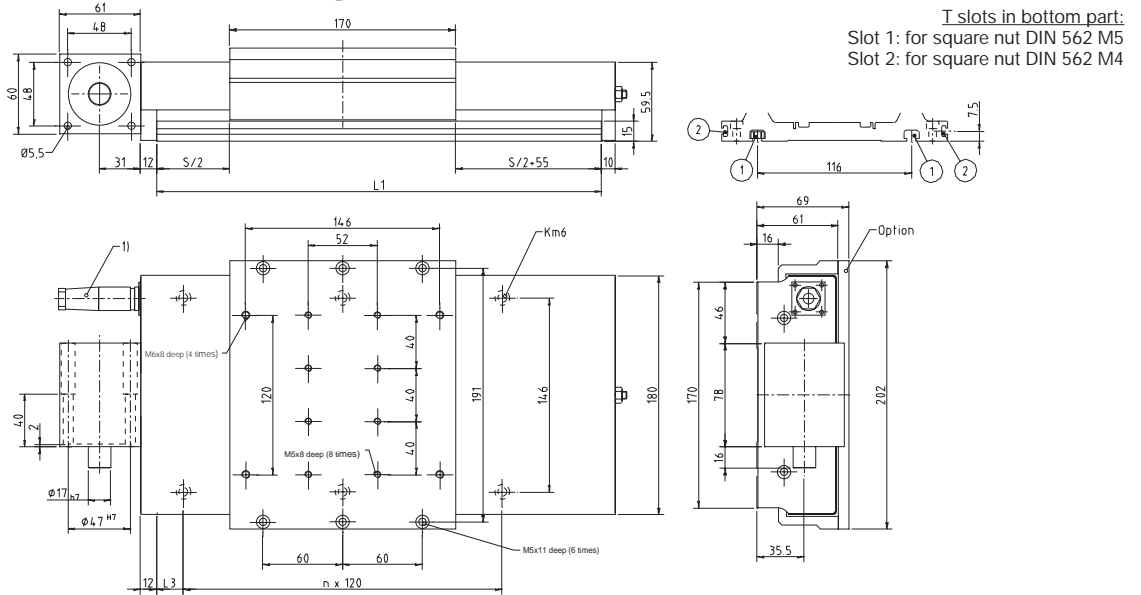
2) Suitable as top axis for central cross table mounting

3) Maximum stroke between end stops

4) GU = Stationary mass of bottom part
 GO = Mobile mass of table top

LTA 170.L1.AT-SC

Rail guide tables with toothed belt drive, with steel cover



1) Plug connection for limit and reference switches (optional)

Direction of travel: - <----> +

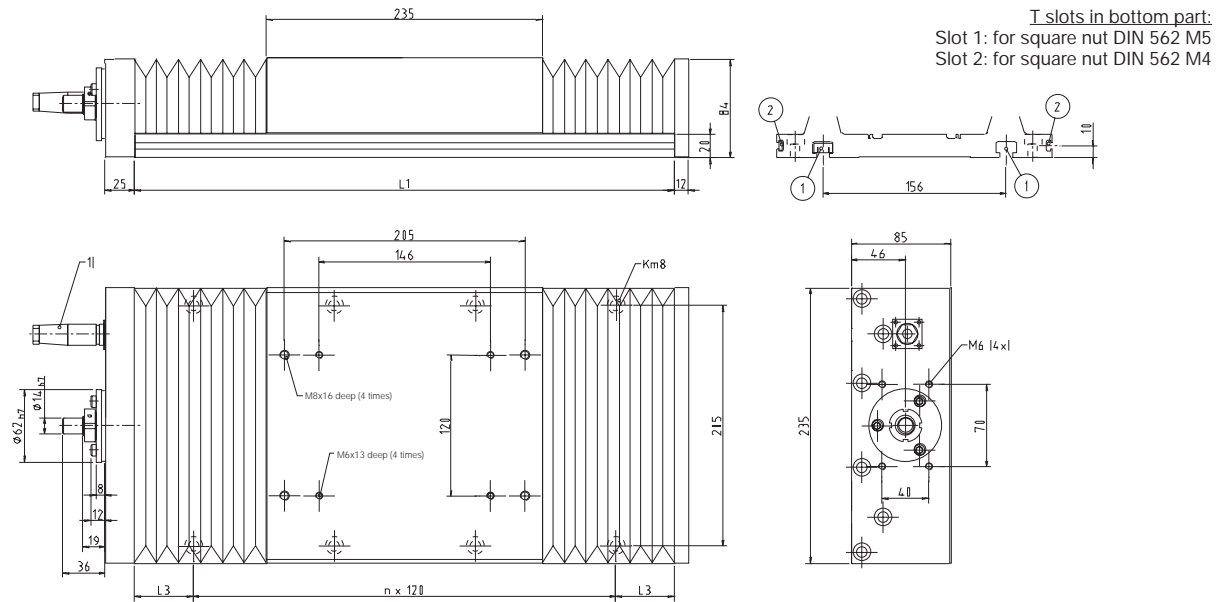
Length		n	2) KN	Screw data Stroke ³⁾ S	Weight ⁴⁾	
L1	L3				GA	GO
mm		-		mm	kg	
275	50	1	x	40	7,0	2,5
335	20	2		100	7,7	2,5
395	50	2		160	8,3	2,5
455	20	3	x	220	8,9	2,5
515	50	3	x	280	9,6	2,5
575	20	4		340	10,2	2,6
635	50	4		400	10,9	2,6
695	20	5	x	460	11,5	2,6
755	50	5	x	520	12,1	2,6
815	20	6		580	12,8	2,6
875	50	6		640	13,4	2,6
935	20	7	x	700	14,1	2,6
995	50	7	x	760	14,7	2,6
1055	20	8		820	15,3	2,7
1115	50	8		880	16,0	2,7
1175	20	9	x	940	16,6	2,7
1235	50	9	x	1000	17,3	2,7
1295	20	10		1060	17,9	2,7
1355	50	10		1120	18,5	2,7
1415	20	11	x	1180	19,2	2,7
1475	50	11	x	1240	19,8	2,7
1535	20	12		1300	20,4	2,8
1595	50	12		1360	21,1	2,8
1655	20	13	x	1420	21,7	2,8
1715	50	13	x	1480	22,4	2,8
1775	20	14		1540	23,0	2,8
1835	50	14		1600	23,6	2,8
1895	20	15	x	1660	24,3	2,8
1955	50	15	x	1720	24,9	2,8
2015	20	16		1780	25,6	2,9

2) Suitable as top axis for central cross table mounting

3) Maximum stroke between end stops

4) GA = Total weight of table
GO = Weight of mobile mass of table top

LTA 235.L1.SX/TN/TL25xx-BL Rail guide tables with ball screw drive, with and without bellows



1) Plug connection for limit and reference switches (optional)

Direction of travel: - <----> +

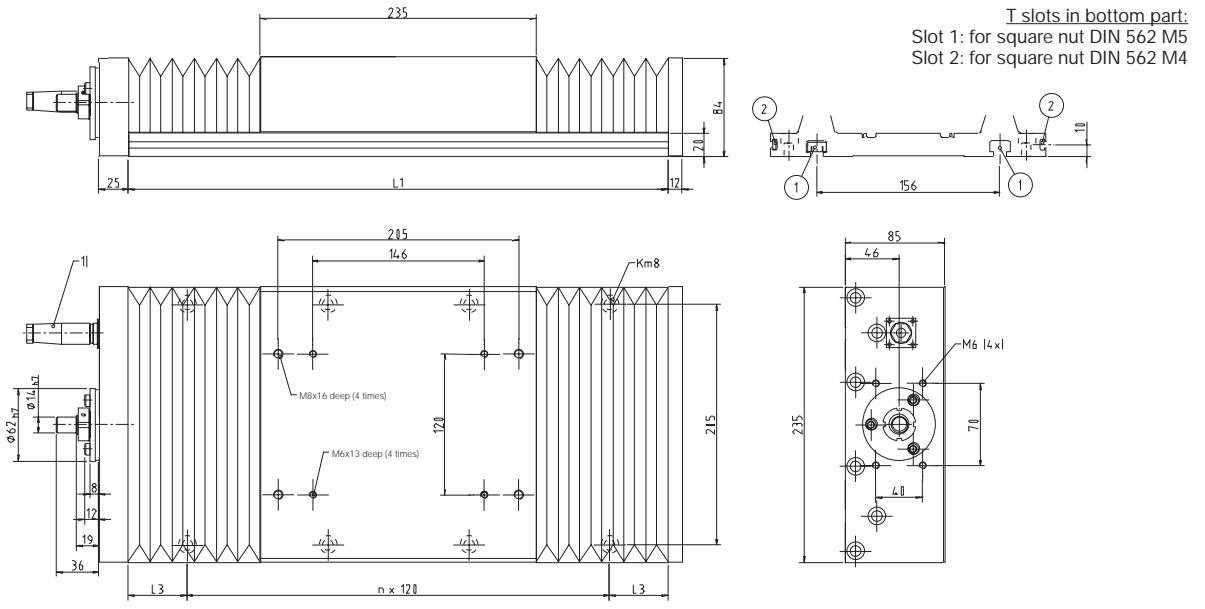
Length		n	2) KN	Stroke ³⁾		Screw data SX/TN/TL nmax	Weight ⁴⁾	
L1	L3			S1	S2		GA	GO
mm		-		mm		1/min	kg	
280	20	2		35	35	2000	14,4	5,9
340	50	2		85	95	2000	15,7	
400	20	3	x	135	155	2000	17,0	
460	50	3	x	185	215	2000	18,4	
520	20	4		235	275	2000	19,7	
580	50	4		285	335	2000	21,0	
640	20	5	x	340	395	2000	22,3	
700	50	5	x	385	455	2000	23,7	
760	20	6		435	515	2000	25,0	
820	50	6		485	575	2000	26,3	
880	20	7	x	535	635	2000	27,7	
940	50	7	x	585	695	2000	29,0	
1000	20	8		635	755	2000	30,3	
1060	50	8		690	815	2000	31,7	
1120	20	9	x	740	875	2000	33,0	
1180	50	9	x	790	935	2000	34,3	
1240	20	10		840	995	2000	35,6	
1300	50	10		890	1055	2000	37,0	
1360	20	11	x	935	1115	2000	38,3	
1420	50	11	x	990	1175	1880	39,6	
1480	20	12		1040	1235	1720	41,0	
1540	50	12		1090	1295	1570	42,3	
1600	20	13	x	1140	1355	1450	43,6	
1660	50	13	x	1190	1415	1330	44,9	
1720	20	14		1240	1475	1230	46,3	
1780	50	14		1290	1535	1140	47,6	
1840	20	15	x	1345	1595	1070	48,9	
1900	50	15	x	1395	1655	990	50,3	
1960	20	16		1445	1715	930	51,6	
2020	50	16		1490	1775	870	52,9	

2) Suitable as top axis for central cross table mounting

3) Maximum stroke between end stops:
S1 with bellows (standard version)
S2 without bellows (special version)

4) GA = Total weight of table
GO = Weight of mobile mass of table top

LTA 235.L1.SX/TN/TL25xx-BL Rail guide tables with ball screw drive, with and without bellows



1) Plug connection for limit and reference switches (optional)

Direction of travel: - <----> +

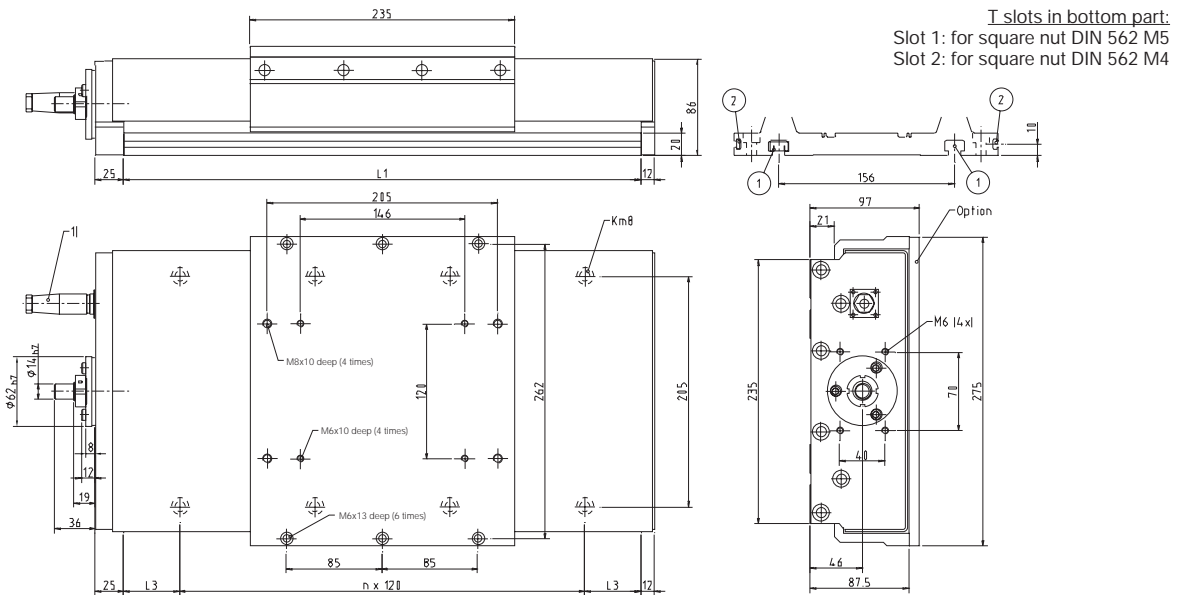
Length			2) KN	Stroke ³⁾		Screw data	Weight ⁴⁾	
L1	L3	n		S1	S2	SX/TN/TL nmax	GA	GO
mm			-	mm		1/min	kg	
2080	20	17	x	1540	1835	820	54,3	5,9
2140	50	17	x	1590	1895	770	55,6	
2200	20	18		1645	1955	720	56,9	
2260	50	18		1695	2015	680	58,2	
2320	20	19	x	1745	2075	650	59,6	
2380	50	19	x	1795	2135	610	60,9	
2440	20	20		1845	2195	580	62,2	
2500	50	20		1895	2255	550	63,6	
2560	20	21	x	1945	2315	520	64,9	
2620	50	21	x	2000	2375	500	66,2	
2680	20	22		2045	2435	480	67,6	
2740	50	22		1095	2495	450	68,9	
2800	20	23	x	2145	2555	430	70,2	
2860	50	23	x	2195	2615	410	71,5	
2920	20	24		2245	2675	400	72,9	
2980	50	24		2300	2735	380	74,2	

2) Suitable as top axis for central cross table mounting

3) Maximum stroke between end stops:
S1 with bellows (standard version)
S2 without bellows (special version)

4) GA = Total weight of table
GO = Weight of mobile mass of table top

LTA 235.L1.SX/TN/TL25xx-SC Rail guide tables with ball screw drive, with steel cover



1) Plug connection for limit and reference switches (optional)

Direction of travel: - <----> +

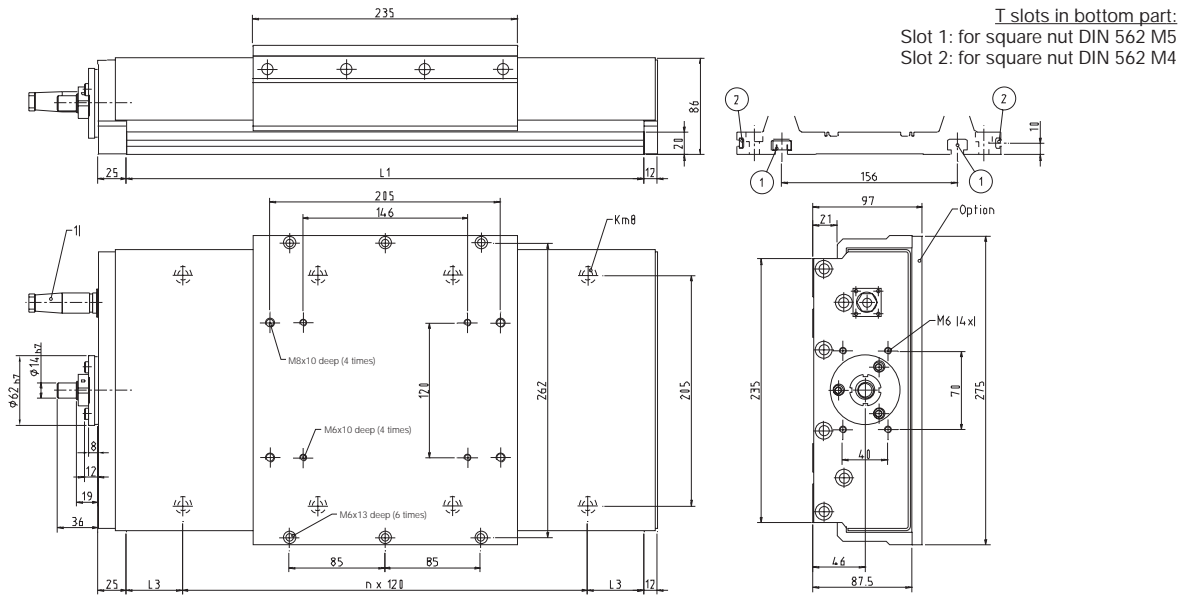
Length				Screw data		Weight ⁴⁾	
L1	L3	n	2) KN	Stroke ³⁾ S	SX/TN/TL nmax	GA	GO
mm		-			1/min	kg	
280	20	2		35	2000	17,9	8,5
340	50	2		95	2000	19,4	
400	20	3	x	155	2000	20,9	
460	50	3	x	215	2000	22,4	
520	20	4		275	2000	23,9	
580	50	4		335	2000	25,4	
640	20	5	x	395	2000	26,9	
700	50	5	x	455	2000	28,4	
760	20	6		515	2000	29,9	
820	50	6		575	2000	31,4	
880	20	7	x	635	2000	32,9	
940	50	7	x	695	2000	34,4	
1000	20	8		755	2000	35,9	
1060	50	8		815	2000	37,4	
1120	20	9	x	875	2000	38,9	
1180	50	9	x	935	2000	40,4	
1240	20	10		995	2000	41,9	
1300	50	10		1055	2000	43,4	
1360	20	11	x	1115	2000	44,8	
1420	50	11	x	1175	1880	46,3	
1480	20	12		1235	1720	47,8	
1540	50	12		1295	1570	49,3	
1600	20	13	x	1355	1450	50,8	
1660	50	13	x	1415	1330	52,3	
1720	20	14		1475	1230	53,8	
1780	50	14		1535	1140	55,3	
1840	20	15	x	1595	1070	56,8	
1900	50	15	x	1655	990	58,3	
1960	20	16		1715	930	59,8	
2020	50	16		1775	870	61,3	

²⁾ Suitable as top axis for central cross table mounting

³⁾ Maximum stroke between end stops

⁴⁾ GA = Total weight of table
GO = Weight of mobile mass of table top

LTA 235.L1.SX/TN/TL25xx-SC Rail guide tables with ball screw drive, with steel cover



1) Plug connection for limit and reference switches (optional)

Direction of travel: - <----> +

Length			2) KN	Stroke ³⁾ S	Screw data SX/TN/TL nmax	Weight ⁴⁾	
L1	L3	n				GA	GO
mm		-			1/min	kg	
2080	20	17	x	1835	820	62,8	8,5
2140	50	17	x	1895	770	64,3	
2200	20	18		1955	720	65,8	
2260	50	18		2015	680	67,3	
2320	20	19	x	2075	650	68,8	
2380	50	19	x	2135	610	70,3	
2440	20	20		2195	580	71,8	
2500	50	20		2255	550	73,2	
2560	20	21	x	2315	520	74,7	
2620	50	21	x	2375	500	76,2	
2680	20	22		2435	480	77,7	
2740	50	22		2495	450	79,2	
2800	20	23	x	2555	430	80,7	
2860	50	23	x	2615	410	82,2	
2920	20	24		2675	400	83,7	
2980	50	24		2735	380	85,2	

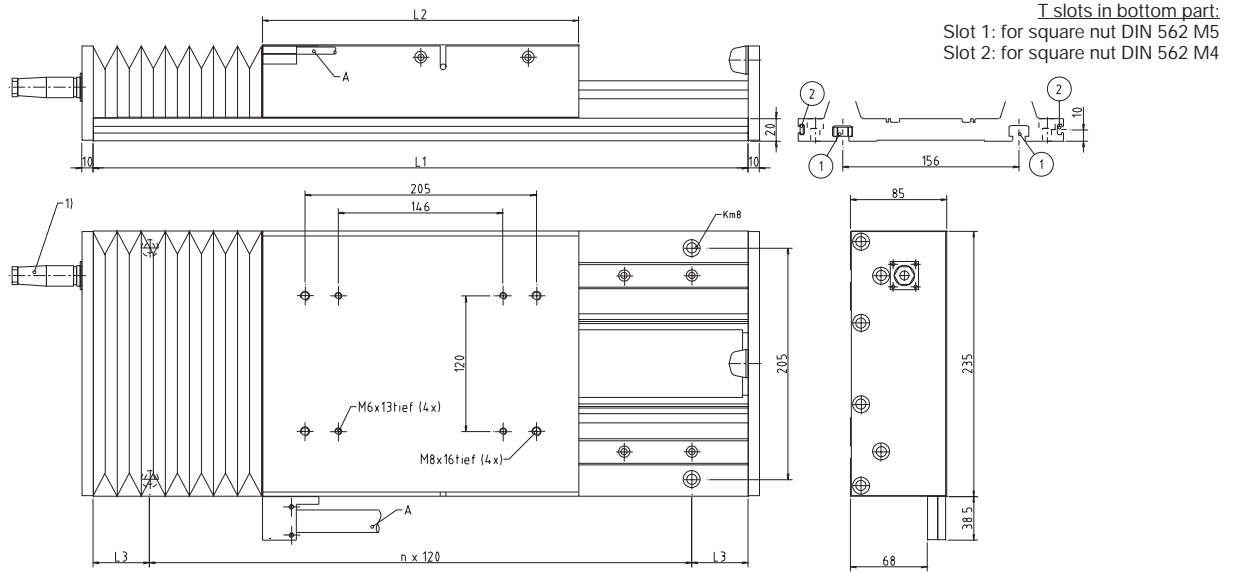
2) Suitable as top axis for central cross table mounting

3) Maximum stroke between end stops

4) GA = Total weight of table
GO = Weight of mobile mass of table top

LTA 235.L1.ACxxx-BL

Rail guide tables with linear motor drive, with and without bellows



1) Plug connection for limit and reference switches

A Cable output for motor and measuring system. Flat ribbon cable 20 x 6.3 mm

Direction of travel: - <----> +

Length			AC480					AC600					AC960				
L1	L3	n	2) KN	4) GU	L2	Stroke ³⁾		5) GO	L2	Stroke ³⁾		5) GO	L2	Stroke ³⁾		5) GO	
mm	-	-	-	kg	mm	S1	S2	kg	mm	S1	S2	kg	mm	S1	S2	kg	
340	50	2		8,8	280⁶⁾	25	25	9,7	320			12	410			14,1	
400	20	3	x	10,1		85	85			45	45						
460	50	3	x	11,5		145	145			105	105						
520	20	4		12,9		200	205			165	165			75	75		
580	50	4		14,2		250	265			215	225			135	135		
640	20	5	x	15,6		300	325			265	285			190	195		
700	50	5	x	17,0		350	385			315	345			240	255		
760	20	6		18,3		395	445			360	405			290	315		
820	50	6		19,7		445	505			415	465			340	375		
880	20	7	x	21,0		500	565			465	525			395	435		
940	50	7	x	22,4		550	625			515	585			440	495		
1000	20	8		23,8		600	685			565	645			490	555		
1060	50	8		25,1		650	745			615	705			540	615		
1120	20	9	x	26,5		700	805			665	765			590	675		
1180	50	9	x	27,9		750	865			720	825			640	735		
1240	20	10		29,2		800	925			770	885			690	795		
1300	50	10		30,6		855	985			820	945			745	855		
1360	20	11	x	32,0		905	1045			870	1005			795	915		
1420	50	11	x	33,3		950	1105			915	1065			845	975		
1480	20	12		34,7		1000	1165			965	1125			895	1035		
1540	50	12		36,1		1050	1225			1015	1185			940	1095		
1600	20	13	x	37,4		1100	1285			1070	1245			990	1155		
1660	50	13	x	38,8		1155	1345			1120	1305			1045	1215		
1720	20	14		40,2		1205	1405			1170	1365			1095	1275		
1780	50	14		41,5		1255	1465			1220	1425			1145	1335		
1840	20	15	x	42,9		1305	1525			1270	1485			1195	1395		
1900	50	15	x	44,3		1355	1585			1320	1545			1245	1455		
1960	20	16		45,6		1405	1645			1375	1605			1295	1515		
2020	50	16		47,0		1450	1705			1425	1665			1345	1575		

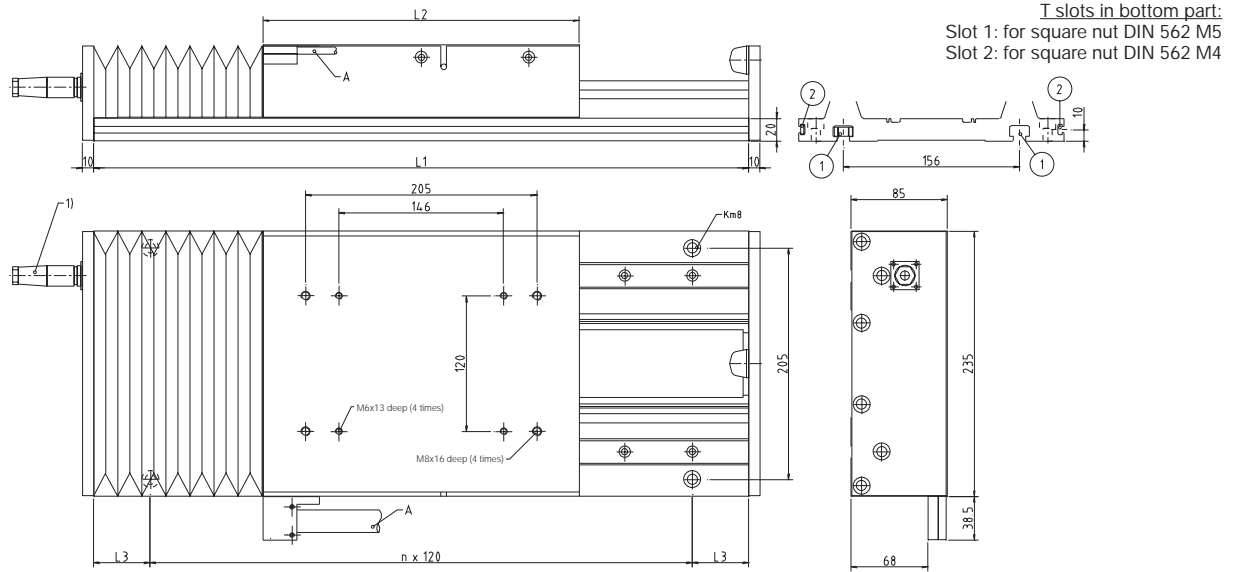
2) Suitable as top axis for central cross table mounting

3) Maximum stroke between end stops:
S1 with bellows (standard version)
S2 without bellows (special version)

4) GU = Stationary mass of bottom part
5) GO = Mobile mass of table top
6) With profile rails this dimension can also be 235 mm.

LTA 235.L1.ACxxx-BL

Rail guide tables with linear motor drive, with and without bellows



1) Plug connection for limit and reference switches
 A Cable output for motor and measuring system. Flat ribbon cable 20 x 6.3 mm

Direction of travel: - <----> +

Length			AC480				AC600				AC960					
L1	L3	n	2) KN	4) GU	Stroke ³⁾ S1	Stroke ³⁾ S2	5) GO	Stroke ³⁾ S1	Stroke ³⁾ S2	5) GO	Stroke ³⁾ S1	Stroke ³⁾ S2	5) GO	Stroke ³⁾ S1	Stroke ³⁾ S2	5) GO
mm	-	-	-	kg	mm	mm	kg	mm	mm	kg	mm	mm	kg	mm	mm	kg
2080	20	17	x	48,4	280⁶⁾	1505	1765	9,7	320	1470	1725	11,7	410	1400	1635	14,1
2140	50	17	x	49,7		1555	1825			1520	1785			1450	1695	
2200	20	18		51,1		1605	1885			1570	1845			1495	1755	
2260	50	18		52,5		1655	1945			1620	1905			1545	1815	
2320	20	19	x	53,8		1705	2005			1670	1965			1595	1875	
2380	50	19	x	55,2		1755	2065			1725	2025			1645	1935	
2440	20	20		56,6		1810	2125			1775	2085			1700	1995	
2500	50	20		57,9		1860	2185			1825	2145			1750	2055	
2560	20	21	x	59,3		1910	2245			1875	2205			1800	2115	
2620	50	21	x	60,6		1960	2305			1925	2265			1850	2175	
2680	20	22		62,0		2005	2365			1975	2325			1900	2235	
2740	50	22		63,4		2055	2425			2025	2385			1950	2295	
2800	20	23	x	64,7		2105	2485			2075	2445			1995	2355	
2860	50	23	x	66,1		2160	2545			2125	2505			2050	2415	
2920	20	24		67,5		2210	2605			2175	2565			2100	2475	
2980	50	24		68,8		2260	2665			2225	2625			2150	2535	

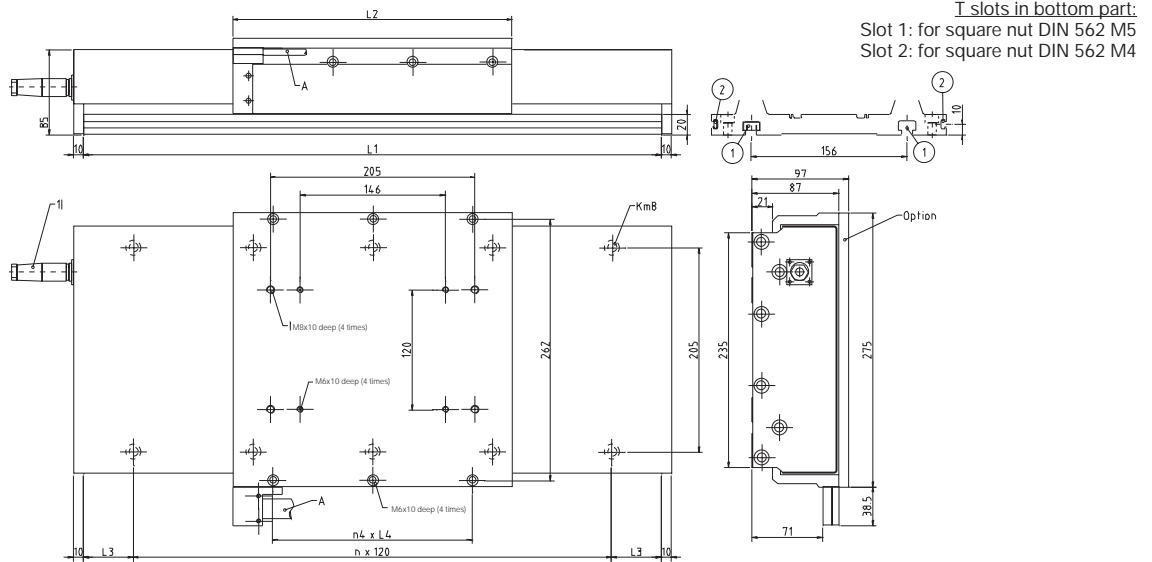
2) Suitable as top axis for central cross table mounting

3) Maximum stroke between end stops:
 S1 with bellows (standard version)
 S2 without bellows (special version)

4) GU = Stationary mass of bottom part
 5) GO = Mobile mass of table top
 6) With profile rails this dimension can also be 235 mm.

LTA 235.L1.ACxxx-SC

Rail guide tables with linear motor drive, with steel cover



1) Plug connection for limit and reference switches

A Cable output for motor and measuring system. Flat ribbon cable 20 x 6.3 mm

Direction of travel: - <----> +

Length			AC480				AC600				AC960					
L1	L3	n	2) KN	4) GU	Stroke ³⁾ S	5) n4xL4	GO	L2	Stroke ³⁾ S	5) n4xL4	GO	L2	Stroke ³⁾ S	5) n4xL4	GO	
mm	-	-	-	kg	mm	kg	mm	mm	kg	mm	mm	mm	kg	mm	kg	
340	50	2		9,9	280 ⁶⁾	25	2x100	12,4	320		3x80	14,8	410		4x82,5	18,2
400	20	3	x	11,4	85				45							
460	50	3	x	12,9	145				105							
520	20	4		14,5	205				165				75			
580	50	4		16,0	265				225				135			
640	20	5	x	17,5	325				285				195			
700	50	5	x	19,0	385				345				255			
760	20	6		20,6	445				405				315			
820	50	6		22,1	505				465				375			
880	20	7	x	23,6	565				525				435			
940	50	7	x	25,2	625				585				495			
1000	20	8		26,7	685				645				555			
1060	50	8		28,2	745				705				615			
1120	20	9	x	29,8	805				765				675			
1180	50	9	x	31,3	865				825				735			
1240	20	10		32,8	925				885				795			
1300	50	10		34,4	985				945				855			
1360	20	11	x	35,9	1045				1005				915			
1420	50	11	x	37,4	1105				1065				975			
1480	20	12		38,9	1165				1125				1035			
1540	50	12		40,5	1225				1185				1095			
1600	20	13	x	42,0	1285				1245				1155			
1660	50	13	x	43,5	1345				1305				1215			
1720	20	14		45,1	1405				1365				1275			
1780	50	14		46,6	1465				1425				1335			
1840	20	15	x	48,1	1525				1485				1395			
1900	50	15	x	49,7	1585				1545				1455			
1960	20	16		51,2	1645				1605				1515			
2020	50	16		52,7	1705				1665				1575			

2) Suitable as top axis for central cross table mounting

3) Maximum stroke between end stops

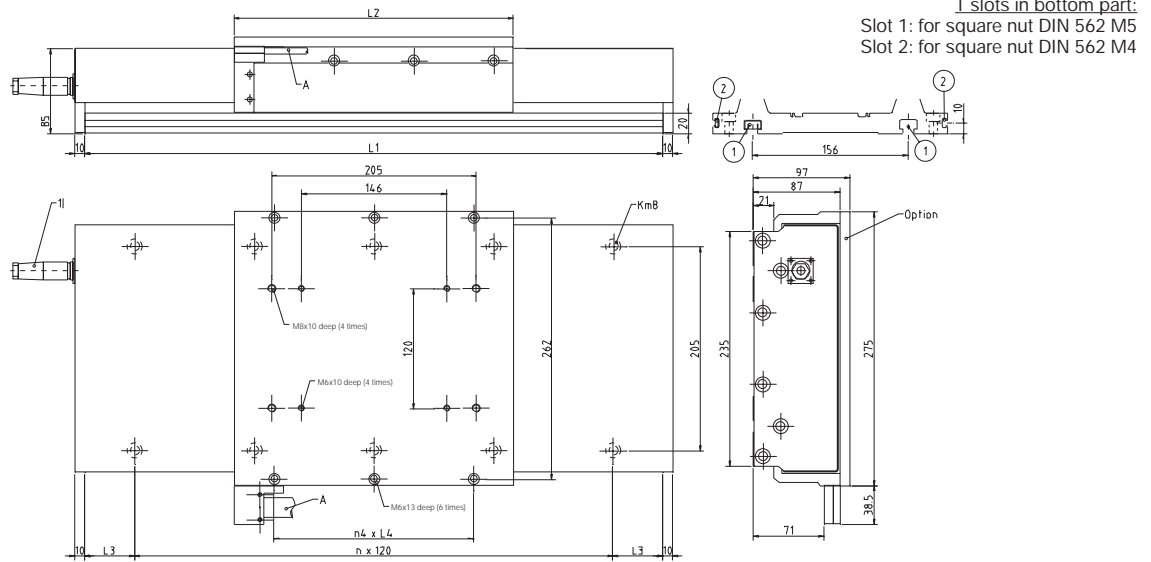
4) GU = Stationary mass of bottom part

5) GO = Mobile mass of table top

6) With profile rails this dimension can also be 235 mm.

LTA 235.L1.ACxxx-SC

Rail guide tables with linear motor drive, with steel cover



1) Plug connection for limit and reference switches
 A Cable output for motor and measuring system. Flat ribbon cable 20 x 6.3 mm

Direction of travel: - <- -> +

Length				AC480				AC600				AC960				
L1	L3	n	2) 4) KN GU	Stroke ³⁾	5) GO	L2	Stroke ³⁾	5) GO	L2	Stroke ³⁾	5) GO	L2	Stroke ^{3) 5)}	n4xL4	GO	
mm	-	-	kg	mm	kg	mm	mm	kg	mm	mm	kg	mm	mm	kg	kg	
2080	20	17	x	54,3	280⁶⁾	1765	2x100	12,4	310	1725	3x80	14,8	410	1635	4x82,5	18,2
2140	50	17	x	55,8		1828				1785				1695		
2200	20	18		57,3		1885				1845				1755		
2260	50	18		58,8		1945				1905				1815		
2320	20	19	x	60,4		2005				1965				1875		
2380	50	19	x	61,9		2065				2025				1935		
2440	20	20		63,4		2125				2085				1995		
2500	50	20		65,0		2185				2145				2055		
2560	20	21	x	66,5		2245				2205				2115		
2620	50	21	x	68,0		2305				2265				2175		
2680	20	22		69,6		2365				2325				2235		
2740	50	22		71,1		2425				2385				2295		
2800	20	23	x	72,6		2485				2445				2355		
2860	50	23	x	74,2		2545				2505				2415		
2920	20	24		75,7		2605				2565				2475		
2980	50	24		77,2		2665				2625				2535		

2) Suitable as top axis for central cross table mounting

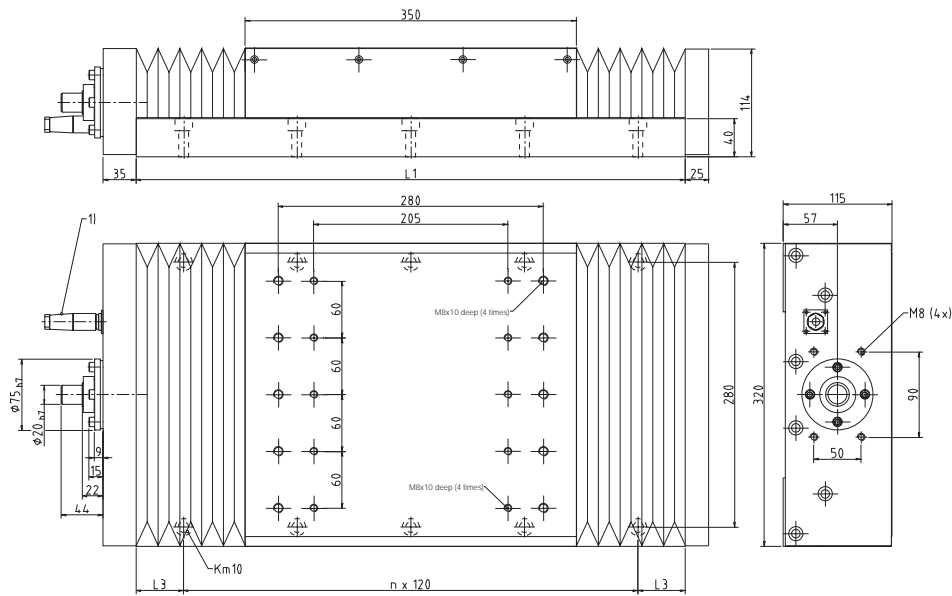
3) Maximum stroke between end stops

4) GU = Stationary mass of bottom part

5) GO = Mobile mass of table top

6) With profile rails this dimension can also be 235 mm.

LTA 320.L1.SX/TN/TL32xx-BL Rail guide tables with ball screw drive, with and without bellows



1) Plug connection for limit and reference switches (optional)

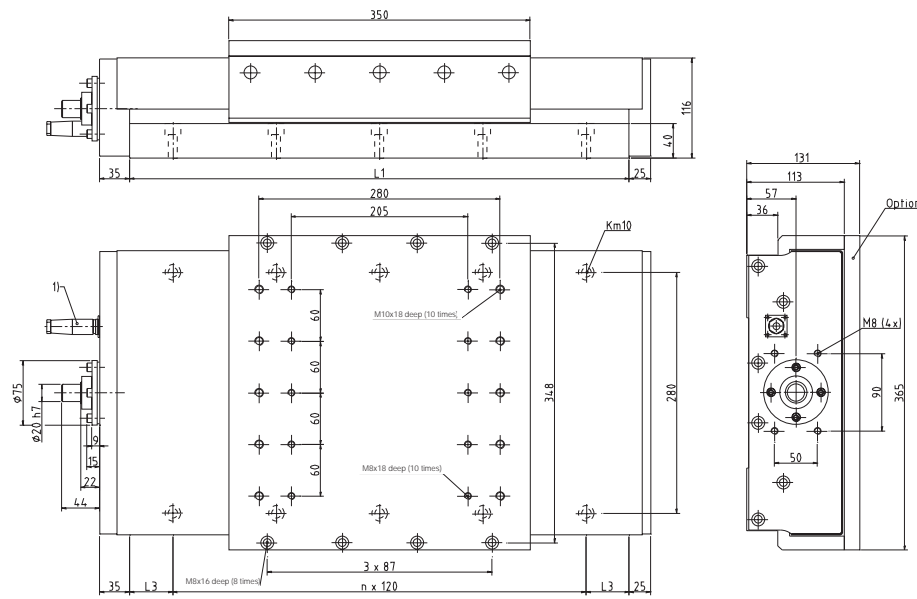
Direction of travel: - <----> +

Length		Stroke ²⁾	Screw data			Weight ³⁾		
L1	L3		n	S1	S2	nmax	GA	GO
mm		mm		1/min			kg	
580	50	4	195	220	1560	43,7	13,3	
700	50	5	300	340	1560	48,6		
820	50	6	405	460	1560	53,6		
940	50	7	510	580	1560	58,6		
1060	50	8	610	700	1560	63,6		
1180	50	9	720	820	1560	68,5		
1300	50	10	820	940	1560	73,5		
1420	50	11	930	1060	1560	78,5		
1540	50	12	1030	1180	1560	83,4		
1660	50	13	1135	1300	1560	88,4		
1780	50	14	1235	1420	1560	93,4		
1900	50	15	1345	1540	1450	98,4		
2020	50	16	1445	1660	1250	103,3		
2140	50	17	1555	1780	1100	108,3		
2260	50	18	1655	1900	970	113,3		
2380	50	19	1760	2020	860	118,2		
2500	50	20	1860	2140	770	123,2		
2620	50	21	1970	2260	700	128,2		
2740	50	22	2070	2380	630	133,2		
2860	50	23	2180	2500	570	138,1		
2980	50	24	2280	2620	520	143,1		

2) Maximum stroke between end stops:
S1 with bellows (standard version)
S2 without bellows (special version)

3) GA = Total weight of table
GO = Weight of mobile mass of table top

LTA 320.L1.SX/TN/TL32xx-SC Rail guide tables with ball screw drive, with steel cover



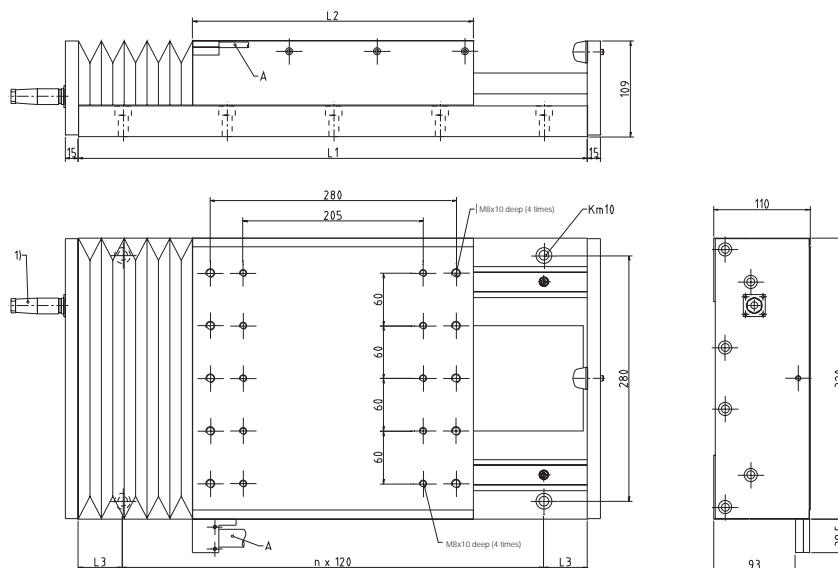
1) Plug connection for limit and reference switches (optional)

Direction of travel: - <----> +

Length			Screw data		Weight ³⁾	
L1	L3	n	Stroke ²⁾ S	SX/TN/TL nmax	GA	GO
mm		-	mm	1/min	kg	
580	50	4	195	1560	54,1	21,8
700	50	5	300	1560	59,5	
820	50	6	405	1560	64,9	
940	50	7	510	1560	70,3	
1060	50	8	610	1560	75,7	
1180	50	9	720	1560	81,0	
1300	50	10	820	1560	86,4	
1420	50	11	930	1560	91,8	
1540	50	12	1030	1560	97,2	
1660	50	13	1135	1560	102,6	
1780	50	14	1235	1560	108,0	
1900	50	15	1345	1450	113,4	
2020	50	16	1445	1250	118,8	
2140	50	17	1555	1100	124,2	
2260	50	18	1655	970	129,5	
2380	50	19	1760	860	134,9	
2500	50	20	1860	770	140,3	
2620	50	21	1970	700	145,7	
2740	50	22	2070	630	151,1	
2860	50	23	2180	570	156,5	
2980	50	24	2280	520	161,9	

²⁾ Maximum stroke between end stops

³⁾ GA = Total weight of table
GO = Weight of mobile mass of table top



1) Plug connection for limit and reference switches

A Cable output for motor and measuring system. Flat ribbon cable 20 x 6.3 mm

Direction of travel: - <----> +

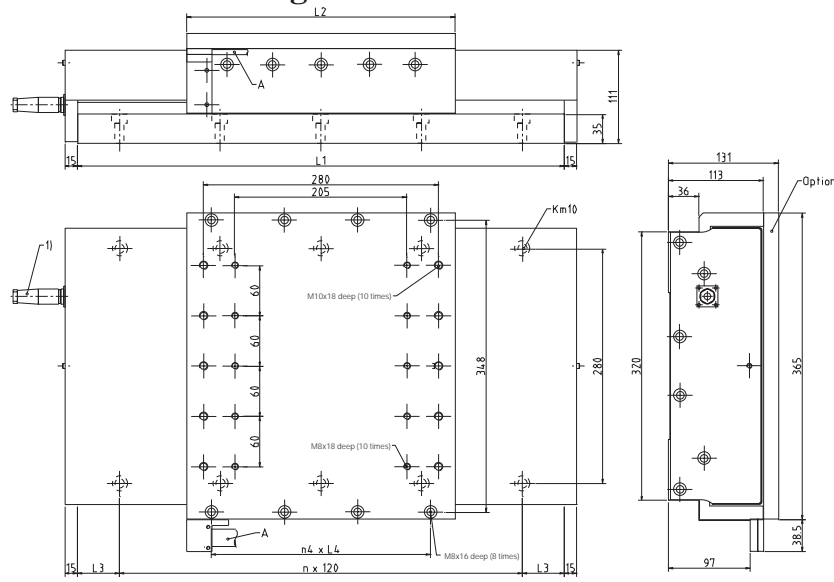
Length			3) GU	AC1000 Stroke ²⁾			4) GO	AC1500 Stroke ²⁾			4) GO	AC2000 Stroke ²⁾			4) GO
L1	L3	n		L2	S1	S2		L2	S1	S2		L2	S1	S2	
mm		-	kg	mm			kg	mm			kg	mm			kg
580	50	4	31,3	280	260	265	14,5	320	225	225	17,9	410	135	135	22,7
700	50	5	37,2		360	385			325	345			250	255	
820	50	6	43,2		465	505			435	465			350	375	
940	50	7	49,1		570	625			535	585			455	495	
1060	50	8	55,0		675	745			640	705			560	615	
1180	50	9	60,9		775	865			740	825			665	735	
1300	50	10	66,8		885	985			850	945			765	855	
1420	50	11	72,8		985	1105			950	1065			875	975	
1540	50	12	78,7		1090	1225			1060	1185			975	1095	
1660	50	13	84,6		1195	1345			1160	1305			1080	1215	
1780	50	14	90,5		1300	1465			1265	1425			1185	1335	
1900	50	15	96,5		1400	1585			1370	1545			1290	1455	
2020	50	16	102,4		1510	1705			1475	1665			1390	1575	
2140	50	17	108,3		1610	1825			1575	1785			1500	1695	
2260	50	18	114,2		1720	1945			1685	1905			1600	1815	
2380	50	19	120,1		1820	2065			1785	2025			1710	1935	
2500	50	20	126,1		1925	2185			1890	2145			1810	2055	
2620	50	21	132,0		2025	2305			1995	2265			1915	2175	
2740	50	22	137,9		2135	2425			2100	2385			2015	2295	
2860	50	23	143,8		2235	2545			2200	2505			2125	2415	
2980	50	24	149,7		2345	2665			2310	2625			2225	2535	

2) Maximum stroke between end stops:
S1 with bellows (standard version)
S2 without bellows (special version)

3) GU = Stationary mass of bottom part
4) GO = Mobile mass of table top

LTA 320.L1.ACxxx-SC

Rail guide tables with linear motor drive, with steel cover



1) Plug connection for limit and reference switches
 A Cable output for motor and measuring system. Flat ribbon cable 20 x 6.3 mm

Direction of travel: - <----> +

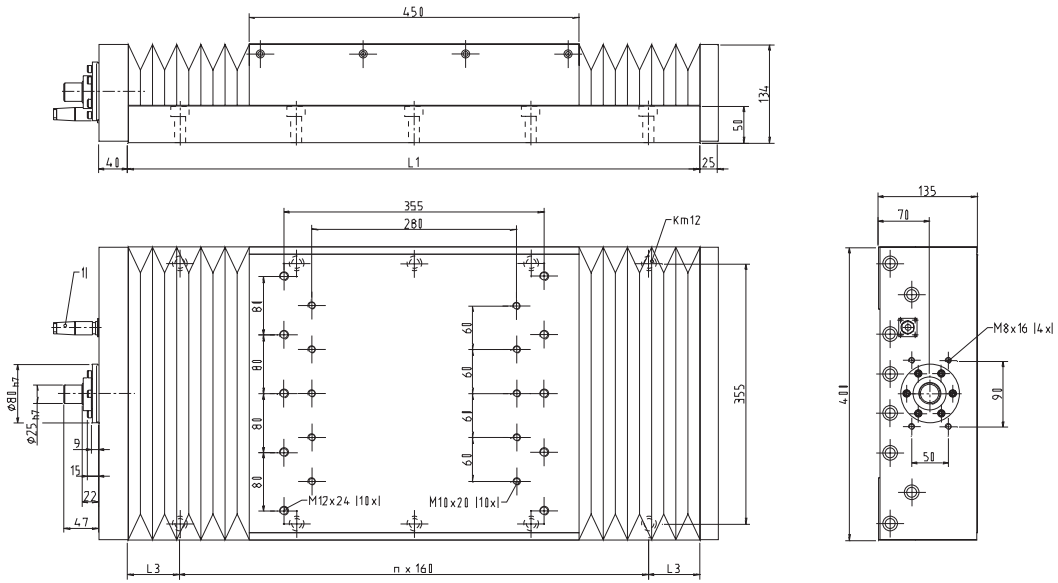
Length				AC1000				AC1500				AC2000			
L1	L3	n	3) GU	L2	Stroke ²⁾ S	n4xL4	4) GO	L2	Stroke ²⁾ S	n4xL4	4) GO	L2	Stroke ²⁾ S	n4xL4	4) GO
mm	-	-	kg	mm	mm	mm	kg	mm	mm	mm	kg	mm	mm	mm	kg
580	50	4	33,5	280	265	3x75	21,3	320	225	3x87	25,6	410	135	4x88	32,7
700	50	5	39,8		385				345					255	
820	50	6	46,1		505				465					375	
940	50	7	52,5		625				585					495	
1060	50	8	58,8		745				705					615	
1180	50	9	65,2		865				825					735	
1300	50	10	71,5		985				945					855	
1420	50	11	77,8		1105				1065					975	
1540	50	12	84,2		1225				1185					1095	
1660	50	13	90,5		1345				1305					1215	
1780	50	14	96,8		1465				1425					1335	
1900	50	15	103,2		1585				1545					1455	
2020	50	16	109,5		1705				1665					1575	
2140	50	17	115,9		1825				1785					1695	
2260	50	18	122,2		1945				1905					1815	
2380	50	19	128,5		2065				2025					1935	
2500	50	20	134,9		2185				2145					2055	
2620	50	21	141,2		2305				2265					2175	
2740	50	22	147,5		2425				2385					2295	
2860	50	23	153,9		2545				2505					2415	
2980	50	24	160,2		2665				2625					2535	

²⁾ Maximum stroke between end stops

⁴⁾ GU = Stationary mass of bottom part

⁵⁾ GO = Mobile mass of table top

LTA 400.L1.SX/TN/TL40xx-BL Rail guide tables with ball screw drive, with and without bellows



1) Plug connection for limit and reference switches (optional)

Direction of travel: - <----> +

Length			Stroke ²⁾		Screw data	Weight ³⁾	
L1	L3	n	S1	S2	SX/TN/TL nmax	GA	GO
mm		-	mm		1/min	kg	
620	70	3	145	160	1250	77,1	25,2
780	70	4	290	320	1250	87,8	
940	70	5	430	480	1250	98,5	
1100	70	6	570	640	1250	109,2	
1260	70	7	710	800	1250	119,9	
1420	70	8	860	960	1250	130,7	
1580	70	9	1000	1120	1250	141,4	
1740	70	10	1140	1280	1250	152,1	
1900	70	11	1280	1440	1250	162,8	
2060	70	12	1425	1600	1250	173,5	
2220	70	13	1565	1760	1250	184,3	
2380	70	14	1705	1920	1180	195,0	
2540	70	15	1845	2080	1020	205,7	
2700	70	16	1990	2240	890	216,4	
2860	70	17	2135	2400	780	227,1	
3020	70	18	2275	2560	690	237,9	
3180	70	19	2415	2720	620	248,6	
3340	70	20	2560	2880	550	259,3	

2) Maximum stroke between end stops:
S1 with bellows (standard version)
S2 without bellows (special version)

3) GA = Total weight of table
GO = Weight of mobile mass of table top

Ordering details

Type designation

LTA 320.1900.TN3210-BL-P5

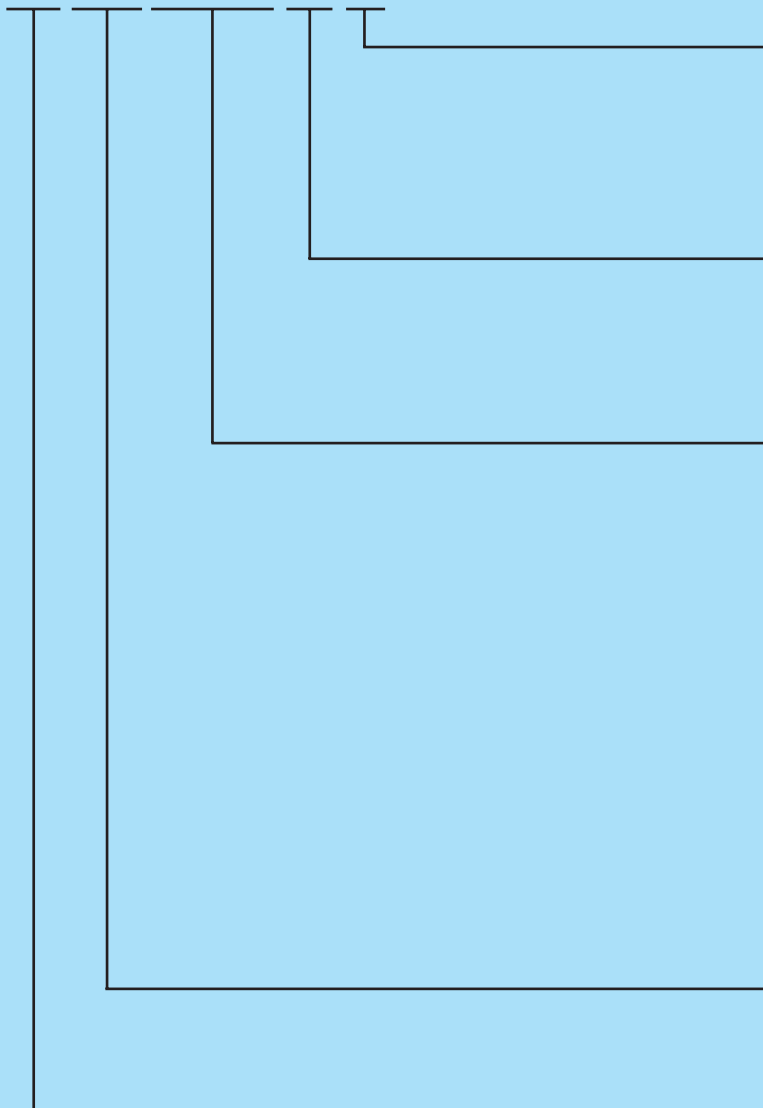


Table precision:

See page 8 for further information.

P10

P5

P2

P1

Covers:

See page 8 for further information.

BL with bellows

- without cover

SC with steel cover

Drive:

Ball screw:

See page 6 for further information.

SH no preload

SX no preload

TN preloaded

TL preloaded

12 to 40 screw diameter

04 to 40 screw lead

Linear motor drive:

See page 7 for further information.

FS Motor type

AC Motor type

100 to 2000 Motor size

Toothed belt drive

See page 7 for further information.

AT Toothed belt drive

Length of table:

See dimension specifications

150 to 2980 L1 Length of bottom part

Width of table:

See dimension specifications

110 to 400 Width of bottom part

For linear motor slides, the following additional details are required:

- Moving mass
- Possibly applied additional forces
- Maximum and minimum speeds; maximum acceleration
- Percentage duty cycle (description of operating cycle)
- Requirements of measuring system

such as signal period and accuracy

- Required positioning resolution
- Information on triggering

Please fill in the specification sheet on page 35 and return it to us.

Possible application schemes

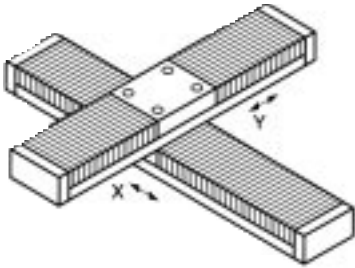


Fig. 1: Cross table X + Y

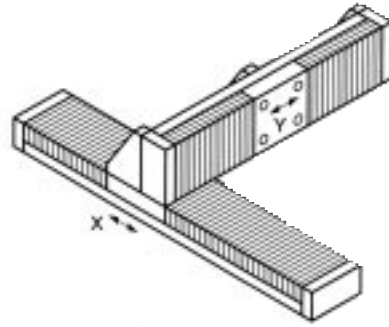


Fig. 2: Gantry X + Y

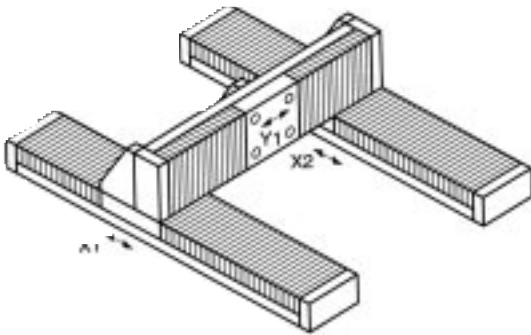


Fig. 3: Gantry X1/X2 + Y

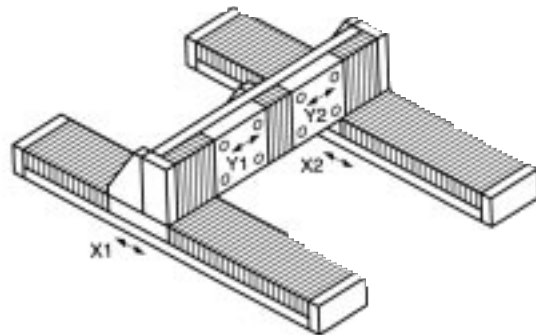


Fig. 4: Gantry X1/X2 + Y1 + Y2

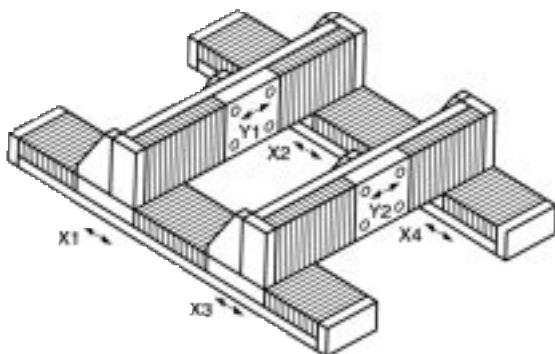


Fig. 5: Gantry X1/X2 + X3/X4 + Y1 + Y2

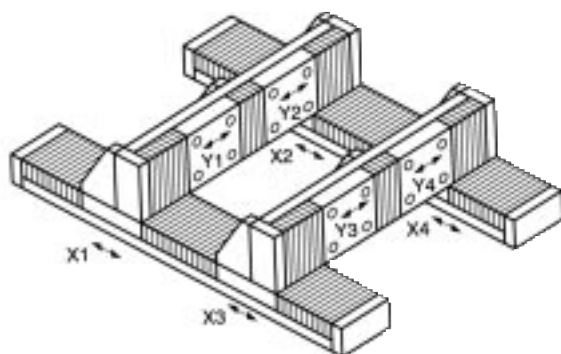


Fig. 6: Gantry X1/X2 + X3/X4 + Y1 + Y2 + Y3 + Y4

Specification sheet for the selection of rail guide tables

1. Customer / customer address:

.....

2. Application:

X	Y	Z
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3. Number of axes in system:

4. Effective stroke / operating stroke [mm]:

5. Loads: additional moving mass [kg]:
 additional force [N]:
 direction of force [$\pm X$, $\pm Y$, $\pm Z$]:

6. Speed: maximum [m/s]:
 minimum [m/s]:

7. Acceleration: maximum [m/s^2]:

8. Mode of operation: duty cycle (ED) [%]:
 length of one operating cycle [s]:
 interval between two operating cycles [s]:
 operating hours per year [h]:

9. Specification life: operating hours [h]:

10. Precision: straightness T [$\mu m/S$]:
 positioning tolerance (absolute positioning accuracy) [μm]:
 positioning variance P_s (repeating accuracy) [μm]:
 positioning resolution [μm]:

11. Control: Components: only servo control

 complete control unit

 Positioning: linear path control

 continuous path control

Interfaces:

.....

Options:

.....

12. Environmental conditions: (contamination, interference fields, place of operation)

13. Accessories: (such as energy chain, cabling etc.)

.....

.....

14. For multi-axial systems: arrangement of axes in accordance with drawings (see page 34)

15. Remarks:

.....

.....

.....

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