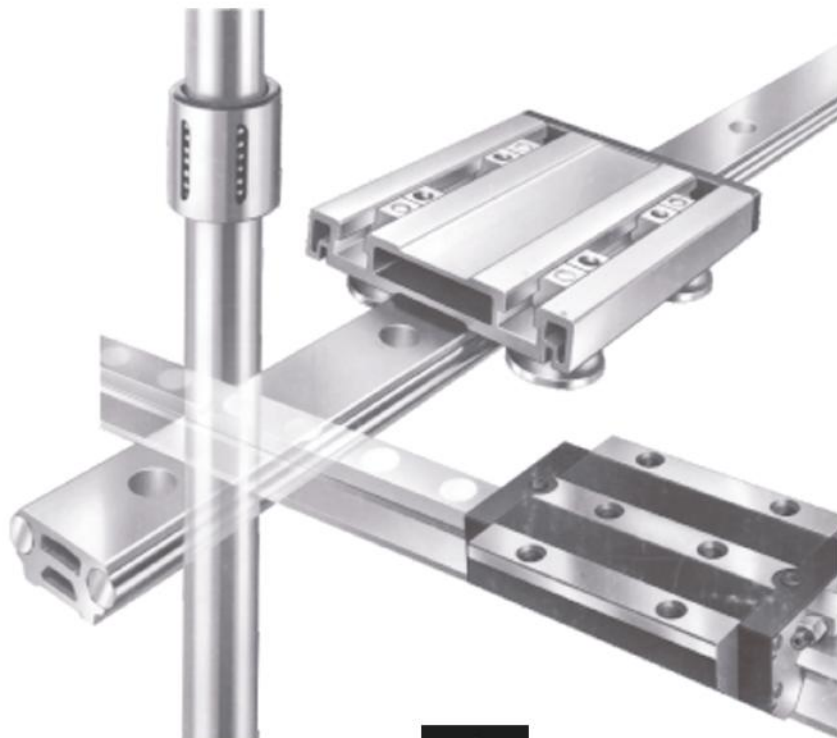


# 20. LINEAR ROLLING

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Multi-axis motion systems	p. 602



**Rexroth**  
Bosch Group

**IKO**



**NSKRHP**



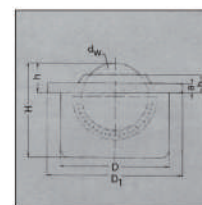
>>> **Ball transfers**



**0530 ball transfers with rolled metal carter**

At www.rodavigo.net Family: Star Bosch Rexroth Assembly and Linear Technology  
Product: Star Bosch Rexroth Balls Transfers

Code	Dimensions						Load capacity			Exterior Finish
	dw	D	D1	h	H	a	b	C	Weight	
	mm						N	Kg		
557053010810 <sup>1(2)</sup>	8	12,6 +/-0,055	17	4,8 +/-0,15	11,2	1,8	3,2	100	0,007	Galvanized surface
557053011210 <sup>1(2)</sup>	12	18,0 +/-0,055	23	7,4 +/-0,15	15,5	2,0	4,3	250	0,018	
557053011510 <sup>1)</sup>	15	24,0 +/-0,065	31	9,5 +/-0,20	21,5	2,5	6,1	500	0,038	
557053012210 <sup>2)</sup>	22	36,0 +/-0,080	45	9,8 +/-0,20	29,5	2,9	5,7	1300	0,132	
557053013010 <sup>2)</sup>	30	45,0 +/-0,080	55	13,9 +/-0,30	37,5	3,7	7,9	2500	0,265	
557053014510 <sup>2)</sup>	45	62,0 +/-0,095	75	19 +/-0,40	53,7	4,7	10,3	6000	0,720	All galvanized and stainless steel balls.
557053020810 <sup>1(2)</sup>	8	12,6 +/-0,055	17	4,8 +/-0,15	11,2	1,8	3,2	70	0,007	
557053021210 <sup>1(2)</sup>	12	18,0 +/-0,055	23	7,4 +/-0,15	15,5	2,0	4,3	180	0,018	
557053021510 <sup>1)</sup>	15	24,0 +/-0,065	31	9,5 +/-0,20	21,5	2,5	6,1	370	0,038	
557053022210 <sup>2)</sup>	22	36,0 +/-0,080	45	9,8 +/-0,20	29,5	2,9	5,7	970	0,132	
557053023010 <sup>2)</sup>	30	45,0 +/-0,080	55	13,9 +/-0,30	37,5	3,7	7,9	1900	0,265	All stainless steel
557053024510 <sup>2)</sup>	45	62,0 +/-0,095	75	19 +/-0,40	53,7	4,7	10,3	4500	0,720	
557053060800 <sup>1(2)</sup>	8	12,6 +/-0,055	17	4,8 +/-0,15	11,2	1,8	3,2	70	0,007	
557053061200 <sup>1(2)</sup>	12	18,0 +/-0,055	23	7,4 +/-0,15	15,5	2,0	4,3	180	0,018	
557053061500 <sup>1)</sup>	15	24,0 +/-0,065	31	9,5 +/-0,20	21,5	2,5	6,1	370	0,038	
557053062200 <sup>2)</sup>	22	36,0 +/-0,080	45	9,8 +/-0,20	29,5	2,9	5,7	970	0,132	All stainless steel
557053063000 <sup>2)</sup>	30	45,0 +/-0,080	55	13,9 +/-0,30	37,5	3,7	7,9	1900	0,265	

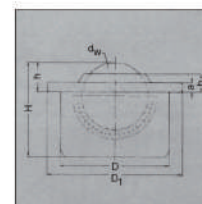


1) Only available without felt retainer.

2) Available with drain holes in the base (additional cost)

**0531 ball transfers with plastic load ball**

Code	Dimensions						Load capacity			Exterior Finish
	dw	D	D1	h	H	a	b	C	Weight	
	mm						N	Kg		
55705310810 <sup>1(2)</sup>	8	12,6 +/-0,055	17	4,8 +/-0,15	11,2	1,8	3,2	10	0,005	Galvanized surface
55705311210 <sup>1(2)</sup>	12	18,0 +/-0,055	23	7,4 +/-0,15	15,5	2,0	4,3	35	0,012	
557053111510 <sup>1)</sup>	15	24,0 +/-0,065	31	9,5 +/-0,20	21,5	2,5	6,1	70	0,024	
557053112210 <sup>3)</sup>	22	36,0 +/-0,080	45	9,8 +/-0,20	29,5	2,9	5,7	100	0,093	
557053113010 <sup>3)</sup>	30	45,0 +/-0,080	55	13,9 +/-0,30	37,5	3,7	7,9	150	0,168	
557053120810 <sup>1(2)</sup>	8	12,6 +/-0,055	17	4,8 +/-0,15	11,2	1,8	3,2	10	0,005	All galvanized and stainless steel balls.
557053121510 <sup>1(2)</sup>	12	18,0 +/-0,055	23	7,4 +/-0,15	15,5	2,0	4,3	35	0,012	
557053121210 <sup>1)</sup>	15	24,0 +/-0,065	31	9,5 +/-0,20	21,5	2,5	6,1	70	0,024	
557053122210 <sup>3)</sup>	22	36,0 +/-0,080	45	9,8 +/-0,20	29,5	2,9	5,7	100	0,093	
557053123010 <sup>3)</sup>	30	45,0 +/-0,080	55	13,9 +/-0,30	37,5	3,7	7,9	150	0,168	
557053160800 <sup>1(2)</sup>	8	12,6 +/-0,055	17	4,8 +/-0,15	11,2	1,8	3,2	10	0,005	All stainless steel
557053161200 <sup>1(2)</sup>	12	18,0 +/-0,055	23	7,4 +/-0,15	15,5	2,0	4,3	35	0,012	
557053161500 <sup>1)</sup>	15	24,0 +/-0,065	31	9,5 +/-0,20	21,5	2,5	6,1	70	0,024	
557053162200 <sup>3)</sup>	22	36,0 +/-0,080	45	9,8 +/-0,20	29,5	2,9	5,7	100	0,093	
557053163000 <sup>3)</sup>	30	45,0 +/-0,080	55	13,9 +/-0,30	37,5	3,7	7,9	150	0,168	



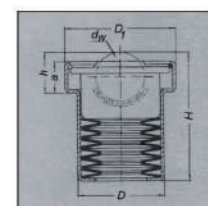
1) Without felt retainer.

2) Load capacity for the operating temperature of 20°C.

3) Dry felt retainer.

**0532 ball transfers with preloaded spring**

Code	Dimensions						Preload	Final load	Preload tol. and final load %	Weight	Exterior Finish
	dw	D	D1	h	H	a	C				
	mm						N	N	Kg		
557053212210	22	38,8	50 +/-0,100	18,6	58,1	13,6	730	860	+25/-7,5	0,30	Galvanized surface
557053213010	30	48,2	62 +/-0,125	24,4	70,0	17,0	1350	1600	+15/-7,5	0,60	
557053214510	45	66,4	85 +/-0,150	35,6	100,5	24,2	2280	2770	+15/-7,5	1,60	All galvanized and stainless steel balls..
557053222210	22	38,8	50 +/-0,100	18,6	58,1	13,6	730	860	+25/-7,5	0,30	
557053223010	30	48,2	62 +/-0,125	24,4	70,0	17,0	1350	1600	+15/-7,5	0,60	
557053224510	45	66,4	85 +/-0,150	35,6	100,5	24,2	2280	2770	+15/-7,5	1,60	
557053212310	22	38,8	50 +/-0,100	18,6	58,1	13,6	170	250	+15/-7,5	0,28	



2) With coil spring. 3) For the final load values of this column, the ball recoils completely.



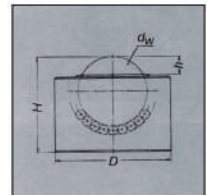
## >>> Ball transfers

At [www.rodavigo.net](http://www.rodavigo.net)

Family: Star Bosch Rexroth Assembly and Linear Technology  
Product: Star Bosch Rexroth Balls Transfers

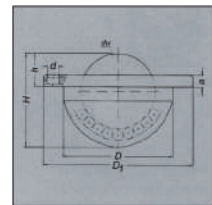
Ball transfers with solid steel carter - no border - 0533 - ...

Code	Dimensions				Load capacity		Exterior Finish
	dw	D	h	H	C	Weight	
	mm				N	Kg	
557053371200	12	20 +/-0,065	3	16,5+/-0,2	250	0,028	Burnished



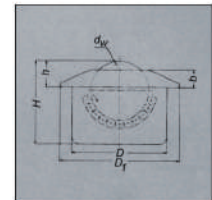
0534 ball transfers without carter - ...

Code	Dimensions							Load capacity		Exterior Finish
	dw	D-0,2	D <sub>1</sub>	h	H	a	d	C	Weight	
	mm							N	Kg	
557053412210	22	33-0,2	45	9,8	27,7	3,6	3,5	1200	0,1	Galvanized surface
557053422210	22	33-0,2	45	9,8	27,7	3,6	3,5	900	0,1	All galvanized and stainless steel balls.



0535 ball transfers with rolled steel reinforced carter - ...

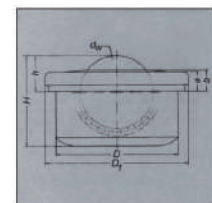
Code	Dimensions						Load capacity		Exterior Finish
	dw	D	D <sub>1</sub>	h	H	b	C	Weight	
	mm						N	Kg	
557053511510	15	24 +/-0,065	31	9,5 +/-0,2	21,5	5,5	500	0,045	Galvanized surface
557053512210	22	36 +/-0,080	45	9,8 +/-0,2	29,5	6,0	1300	0,150	
557053513010	30	45 +/-0,080	55	13,8 +/-0,3	37,5	8,0	2500	0,300	
557053514510	45	62 +/-0,095	75	19,0 +/-0,4	53,7	10,0	6000	0,820	
557053514710	45	62 +/-0,095	75	19,0 +/-0,4	53,7	10,0	8000	0,820	
557053521510	15	24 +/-0,065	31	9,5 +/-0,2	21,5	5,5	370	0,045	All galvanized and stainless steel balls.
557053522210	22	36 +/-0,080	45	9,8 +/-0,2	29,5	6,0	970	0,150	
557053523010	30	45 +/-0,080	55	13,8 +/-0,3	37,5	8,0	1900	0,300	
557053524510	45	62 +/-0,095	75	19,0 +/-0,4	53,7	10,0	4500	0,820	
557053514710	45	62 +/-0,095	75	19,0 +/-0,4	53,7	10,0	6000	0,820	
557053533110	30	45 +/-0,080	55	13,8 +/-0,3	37,5	8,0	1900	0,300	



For extreme point load applications

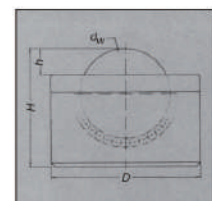
0533 ball transfers with solid steel carter and flange - ... (KUM)

Code	Dimensions							Load capacity		Exterior Finish
	dw	D	D <sub>1</sub>	h	H	a	b	C	Weight	
	mm							N	Kg	
557053306000	60	100 +/-0,110	117	29,5 +/-0,2	77,5	13	14,5	13000	3,5	Burnished
557053316010	60	100 +/-0,110	117	29,5 +/-0,2	77,5	13	14,5	13000	3,5	Galvanized surface
557053326010	60	100 +/-0,110	117	29,5 +/-0,2	77,5	13	14,5	9700	3,5	All galvanized and stainless steel balls.



0533 ball transfers with solid steel carter without flange - ... (EV 3844 A)

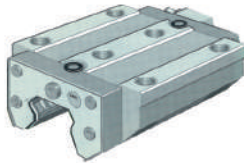
Code	Dimensions				Load capacity		Exterior Finish
	dw	D	h	H	C	Weight	
	mm				N	Kg	
557053307600	76	130 +/-0,080	23	103	20000	8,6	Burnished
557053309000	90	145 +/-0,080	25	115	25000	11,0	



## &gt;&gt;&gt; Linear blocks



Roller recirculation systems: RUE..D and RUE..D L Series

 At www.rodavigo.net Family: Linear rolling  
 Product: INA linear material

**RWU..D linear block**

&gt; The RWU..D linear block has a rectified and tempered steel support body, with four recirculation channels.

Linear block <sup>1)</sup>		Guideway	System		Protective cap <sup>2)</sup>	Cover strip	Measurements				Mounting dimensions					
Code	Weight	Code	Reference	Reference	Weight		L <sup>3)</sup>	H	A	C <sup>4)</sup>	A <sub>1</sub>	A <sub>2</sub>	a	C <sub>1</sub>	C <sub>2</sub>	
	Kg		Lubrication with grease	Lubrication with oil	Kg / m											
019RWU25DG2	0,7	019TSX25DG2	RUE25DFE	RUE25DOE	3,3	KA11	ADB13	1980	36	70	91	23,5	57	23	65,6	45
019RWU25DLG2	0,9	019TSX25DG2	RUE25DLFE	RUE25DLOE	3,3	KA11	ADB13	1980	36	70	108	23,5	57	23	82,2	45
019RWU35DG2	2,0	019TSX35DG2	RUE35DFE	RUE35DOE	5,9	KA15	ADB18	2960	48	100	120	33	82	34	91,4	62
019RWU35DLG2	2,7	019TSX35DG2	RUE35DLFE	RUE35DLOE	5,9	KA15	ADB18	2960	48	100	143	33	82	34	114,4	62
019RWU45DG2	3,3	019TSX45DG2	RUE45DFE	RUE45DOE	9,4	KA20	ADB23	2940	60	120	141	37,5	100	45	107,5	80
019RWU45DLG2	4,4	019TSX45DG2	RUE45DLFE	RUE45DLOE	9,4	KA20	ADB23	2940	60	120	175	37,5	100	45	141,7	80
019RWU55DG2	5,6	019TSX55DG2	RUE55DFE	RUE55DOE	13,3	KA24	ADB27	2520	70	140	170	43,5	116	53	130,8	95
019RWU55DLG2	7,5	019TSX55DG2	RUE55DLFE	RUE55DLOE	13,3	KA24	ADB27	2520	70	140	210	43,5	116	53	170,5	95
019RWU65DG2	9,8	019TSX65DG2	RUE65DFE	RUE65DOE	21,5	KA26	ADB29	2520	90	170	186	53,5	142	63	141,2	110
019RWU65DLG2	14,4	019TSX65DG2	RUE65DLFE	RUE65DLOE	21,5	KA26	ADB29	2520	90	170	252,8	53,5	142	63	207,6	110

RUE..D FE they have an oiler DIN 71412-A M8 x 1

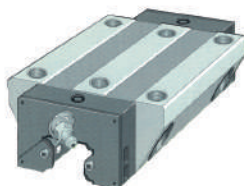
RUE..D OE They have a connection with a fitting similar to DIN 3871-A, for connection pipes with an external diameter of 4 mm.

RUE..DU: Roller recirculation system with guideway screwable from below, on request.

1) FE suffix, grease lubrication. Suffix OE, oil lubrication.

2) The KA..TN protection caps are part of the supply.

## Ball Recirculation Systems: KWSE Series


**KWSE linear block**

&gt; The KWSE steel linear block is treated and rectified, and has six raceways. The balls circulate back through closed plastic channels.

Linear block		Guideway	System		Protective cap	Cover strip	Measurements				Mounting dimensions					
Code	Weight	Code	Reference	Weight			L <sup>1)</sup>	H	A	C <sup>2)</sup>	A <sub>1</sub>	A <sub>2</sub>	a	a <sub>3</sub>	C <sub>1</sub>	C <sub>2</sub>
	Kg			Kg / m												
019KWSE20G3V	0,43	019TKSD20G3	KUSE20	2,3	KA10TN	ADB13	1980	30	63	71	21,5	53	20	5	52	40
019KWSE25G3V	0,6	019TKSD25G3	KUSE25	3,1	KA11TN	ADB13	1980	36	70	81,5	23,5	57	23	6,5	60,5	45
019KWSE30G3V	1,2	019TKSD30G3	KUSE30	4,4	KA15TN	ADB18	2000	42	90	91,2	31	72	28	9	67,2	52
019KWSE35G3V	1,5	019TKSD35G3	KUSE35	6,5	KA15TN	ADB18	2960	48	100	106,7	33	82	34	9	77,7	62
019KWSE45G3V	3,15	019TKSD45G3	KUSE45	11,3	KA20TN	ADB23	2940	60	120	136,5	37,5	100	45	10	102,3	80
019KWSE55G3V	4,9	019TKSD55G3	KUSE55	15,7	KA24TN	ADB27	2520	70	140	158	43,5	116	53	12	117,7	95

1) Maximum length L for single-section guideways; longer guideways are supplied in various sections, conveniently marked.

2) Minimum cover length, to seal the lubrication connections.

3) C5 and C6 depend on the length L of the guideway.

4) Lubrication hole position in the attached construction.

5) Maximum diameter of the lubrication hole in the attached construction.

6) For fixing from above: maximum thread depth H6 + 3mm.

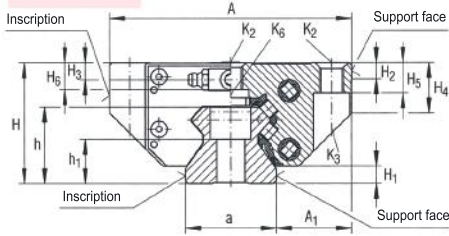
7) Secure the screws, to eliminate possible loss of preload due to bad fixation.



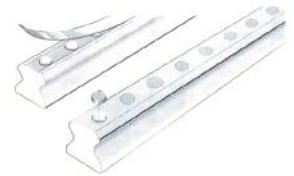
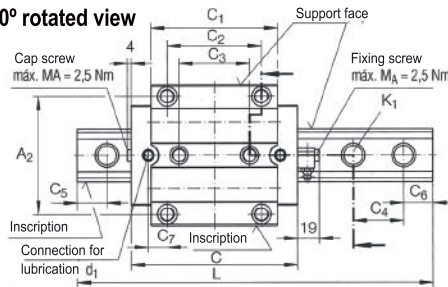
At [www.rodavigo.net](http://www.rodavigo.net) Family: Linear rolling  
Product: INA linear material

## >>> Linear blocks

### Serie RUE..D



### 90° rotated view



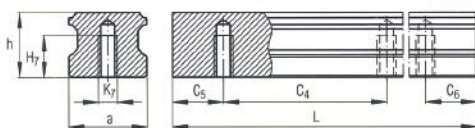
C <sub>3</sub>	C <sub>4</sub>	C <sub>5</sub> <sup>5)</sup>		C <sub>6</sub> <sup>5)</sup>		C <sub>7</sub> <sup>6)</sup>	d <sub>1</sub> <sup>7)</sup>	H <sub>1</sub>	H <sub>2</sub>	H <sub>3</sub>	H <sub>4</sub>	H <sub>5</sub>	H <sub>6</sub> <sup>8)</sup>	H <sub>7</sub>	h	h <sub>1</sub>
		Min	Max.	Min	Max.											
40	30	20	23	20	23	14,5	3	5	7,5	7,5	17,5	10	86,5	22,3	12,3	
40	30	20	23	20	23	23	3	5	7,5	7,5	17,5	10	86,5	22,3	12,3	
52	40	20	31	20	31	14,3	6	6,5	8	6,6	20	12	11,1	30	19	
52	40	20	31	20	31	25,8	6	6,5	8	6,6	20	12	11,1	30	19	
60	52,5	20	41	20	41	16,2	6	8,5	8	8,5	26	15	13,5	38	22	
60	52,5	20	41	20	41	33,3	6	8,5	8	8,5	26	15	13,5	38	22	
70	60	20	47	20	47	21,2	6	11	12	10	31	18	15,5	45	28	
70	60	20	47	20	47	41	6	11	12	10	31	18	15,5	45	28	
82	75	20	61	20	61	15,8	6	11	15	10,2	39,2	23	23	53,8	30,3	
82	75	20	61	20	61	49	6	11	15	10,2	39,2	23	23	53,8	30,3	

### TSX..D guideway

> The TSX..D guideways are made of steel. The raceways and support surfaces are tempered (640 to 840 HV) and rectified. The non-inscribed side of the guideway is the support face.

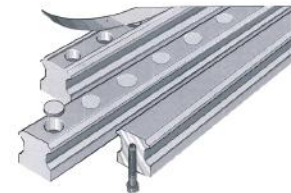
- 3) Maximum length L for single-section guideways; longer guideways are supplied in various sections, conveniently marked.
- 4) Minimum length of cover, to seal the lubrication connections.
- 5) C<sub>5</sub> and C<sub>6</sub> depend on the length L of the guideway.
- 6) Position of the lubrication hole in the attached construction.
- 7) Maximum diameter of the lubrication hole, in the attached construction.
- 8) Maximum screw depth: H<sub>6</sub> + 3mm, RUE 25 D and RUE 25 DL: H<sub>6</sub> + 2mm.
- 9) Secure the screws, to eliminate possible loss of preload due to bad fixation.

### TKSD..U guideway with fixing from below. U suffix



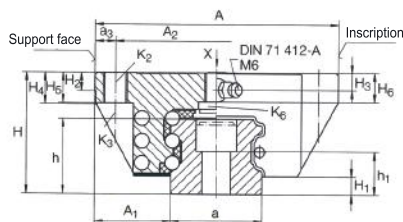
### TKSD guideway

> The TKSD guideways are made of steel. The raceways and support surfaces are tempered (640 to 840 HV) and rectified. Both sides of the guideway are equivalent support faces.

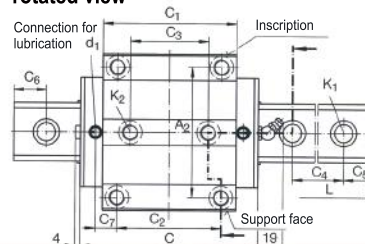


C <sub>3</sub>	C <sub>4</sub>	C <sub>5</sub> <sup>3)</sup>		C <sub>6</sub> <sup>3)</sup>		C <sub>7</sub> <sup>4)</sup>	d <sub>1</sub> <sup>7)</sup>	H <sub>1</sub>	H <sub>2</sub>	H <sub>3</sub>	H <sub>4</sub>	H <sub>5</sub>	H <sub>6</sub> <sup>8)</sup>	H <sub>7</sub>	h	h <sub>1</sub>
		Min.	Max.	Min.	Max.											
35	60	20	53	20	53	9,8	3	4,6	5	5,8	10,4	10	7,2	10	18	10,3
40	60	20	53	20	53	12,8	3	5,2	5	6	9,5	10	9,5	12	21,7	12,9
44	80	20	71	20	71	12,6	4,5	5,5	6	6,5	11,9	12	10	15	25	14
52	80	20	71	20	71	11,7	4,5	6,6	6,5	7,2	13	13	12	15	29,7	18,7
60	105	20	94	20	94	15,65	6	8,6	9	8,5	15,5	15	15	20	37,2	22,2
70	120	20	107	20	107	19,2	6	10,8	12	10	18,6	8	17	22	44	27

### Serie KUSE



### 90° rotated view

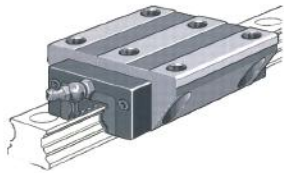




## >>> Linear blocks

Systems with recirculation of four rows of balls. KWVE, KWVE..L, KWVE..N series.

At www.rodavigo.net Family: Linear rolling  
Product: INA linear material



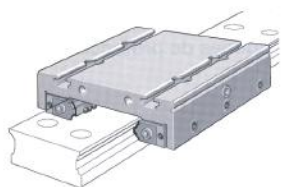
### KWVE linear block

> The KWVE linear block is made of steel, is treated and rectified, and has four raceways. The balls circulate back through closed plastic channels.

Linear block	Guideway	System	Protective cap <sup>2)</sup>	Measurements					Mounting dimensions						
Code	Weight	Code	Reference	Weight	L <sup>1)</sup>	H	A	C	A <sub>1</sub>	A <sub>2</sub>	a	a <sub>3</sub>	C <sub>1</sub>	C <sub>2</sub>	
	Kg			Kg / m							-0,005 -0,03				
019TKVD15G4	0,25	019KWVE15G4V	KUVE15	1,5	KA08TNA	1200	24	47	55,6	16	38	15	4,5	39,8	30
019TKVD20G4	0,58	019KWVE20G4V	KUVE20	2,2	KA10TNA	1980	30	63	69,8	21,5	53	20	5	50,4	40
019TKVD20G4	0,8	019KWVE20LG4V	KUVE20L	2,2	KA10TNA	1980	30	63	87,3	21,5	53	20	5	67,9	40
019TKVD20G4	0,47	019KWVE20NG4V	KUVE20N	2,2	KA10TNA	1980	27	63	69,8	21,5	53	20	5	50,4	40
019TKVD25G4	0,71	019KWVE25G4V	KUVE25	2,7	KA11TNA	1980	36	70	81,7	23,5	57	23	6,5	60,7	45
019TKVD25G4	1	019KWVE25LG4V	KUVE25L	2,7	KA11TNA	1980	36	70	107,5	23,5	57	23	6,5	56,5	45
019TKVD25G4	0,57	019KWVE25NG4V	KUVE25N	2,7	KA11TNA	1980	31	70	81,7	23,5	57	23	6,5	60,7	45
019TKVD30G4	1,4	019KWVE30G4V	KUVE30	4,3	KA15TNA	2000	42	90	97,6	31	72	28	9	72	52
019TKVD30G4	1,83	019KWVE30LG4V	KUVE30L	4,3	KA15TNA	2000	42	90	122,6	31	72	28	9	97	52
019TKVD30G4	1,12	019KWVE30NG4V	KUVE30N	4,3	KA15TNA	2000	38	90	97,6	31	72	28	9	72	52
019TKVD35G4	2,02	019KWVE35G4V	KUVE35	5,7	KA15TNA	2960	48	100	110,4	33	82	34	9	80	62
019TKVD35G4	2,71	019KWVE35LG4V	KUVE35L	5,7	KA15TNA	2960	48	100	140,2	33	82	34	9	109,8	62
019TKVD35G4	1,62	019KWVE35NG4V	KUVE35N	5,7	KA15TNA	2960	44	100	110,4	33	82	34	9	80	62
019TKVD45G4	3,75	019KWVE45G4V	KUVE45	9,2	KA20TNA	2940	60	120	139	37,5	100	45	10	102,5	80
019TKVD45G4	4,7	019KWVE45LG4V	KUVE45L	9,2	KA20TNA	2940	60	120	167,6	37,5	100	45	10	131,1	80
019TKVD45G4	3	019KWVE45NG4V	KUVE45N	9,2	KA20TNA	2940	52	120	139	37,5	100	45	10	102,5	80

- 1) Maximum length L for single-section guideways; longer guideways are supplied in various sections, conveniently marked.
- 2) C5 and C6 depend on the length L of the guideway.
- 3) For fixing from above: maximum threading depth H6 + 2.5mm.
- 4) Secure the screws, to eliminate possible loss of preload due to bad fixation.
- 5) Conical head oiler according to DIN 71412 M6, except JUVE 20: CIN 71 412 M5 and KUVE 15: oiler for pressure mounting.

### Linear blocks of execution protected against corrosion.



### KWVK..AL linear block

> The KWVK..AL linear block has an anodized aluminum body and has two KUVS recirculating ball linear blocks as standard. On request, it is also possible to obtain longer linear blocks with four recirculating ball linear blocks.

Linear block	Guideway	Protective cap <sup>2)</sup>	Measurements					Mounting dimensions										
Code	Weight	Code	Weight	L <sup>2)</sup>	H	A	C	h	a	A <sub>1</sub>	A <sub>2</sub>	A <sub>3</sub>	A <sub>4</sub>	A <sub>5</sub>	A <sub>6</sub>	A <sub>7</sub>	A <sub>8</sub>	
	Kg		Kg / m															
019KWVK32AL	0,17	019TKVD32	2,3	KA8TN	2000	26	62	50	10	31,8	15,1	10,7	40,6	18	6,9	51,6	-	-
019KWVK42AL	0,45	019TKVD42	5,54	KA8TN	2000	35	87	75	18	42	22,5	16	55	24	9	75	31	25
019KWVK69AL	1,1	019TKVD69	12,42	KA11TN	2000	47	130	100	24	69	30,5	21	88	40	14,5	114	42,5	45

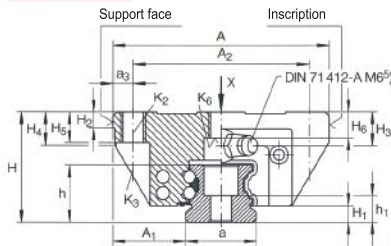
- 1) The payload capacity is influenced by the connections between the guide elements and the attached construction.
- 2) Maximum length L for single-section guideways; longer guideways are supplied in various sections, conveniently marked.
- 3) C5 and C6 depend on the length L of the guideway.
- 4) Secure the screws, to eliminate possible loss of preload due to bad fixation.



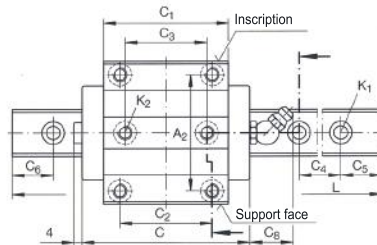
At [www.rodavigo.net](http://www.rodavigo.net) Family: Linear rolling  
Product: INA linear material

## >>> Linear blocks

### Serie KUVE



### 90° rotated view

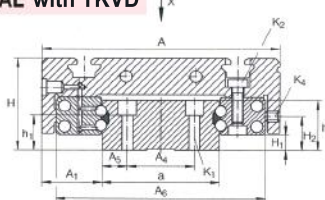


C <sub>3</sub>	C <sub>4</sub>	C <sub>5</sub> <sup>3)</sup>		C <sub>6</sub> <sup>3)</sup>		C <sub>1</sub>	H <sub>1</sub>	H <sub>2</sub>	H <sub>3</sub>	H <sub>4</sub>	H <sub>5</sub>	H <sub>6</sub> <sup>4)</sup>	h	h <sub>1</sub>
		Min.	Max.	Min.	Max.									
26	60	20	53	20	53	1,5	4,3	4,5	4	7,6	7,6	5,8	151	8,2
35	60	20	53	20	53	19	4,6	5	8	11,6	10	7,5	17	9,1
35	60	20	53	20	53	19	4,6	5	8	11,6	10	7,5	17	9,1
35	60	20	53	20	53	19	4,6	5	5	8,6	8	6	17	9,1
40	60	20	53	20	53	19	5,2	5	11	10,9	10	10	18,7	8,7
40	60	20	53	20	53	19	5,2	5	11	10,9	10	10	18,7	8,7
40	60	20	53	20	53	19	5,2	5	6	9,3	10	8	18,7	8,7
44	80	20	71	20	71	19	6	6	11,25	13,8	12	12	23,5	11,5
44	80	20	71	20	71	19	6	6	11,25	13,8	12	12	23,5	11,5
44	80	20	71	20	71	19	6	6	7,25	9,8	12	9	23,5	11,5
52	80	20	71	20	71	19	6,8	6,5	12,3	14,3	13	12	27	15
52	80	20	71	20	71	19	6,8	6,5	12,3	14,3	13	12	27	15
52	80	20	71	20	71	19	6,8	6,5	8,3	10,3	13	11,7	27	15
60	105	20	94	20	94	-	9,8	9	16,5	19,8	15	15	34,2	16,2
60	105	20	94	20	94	-	9,8	9	16,5	19,8	15	15	34,2	16,2
60	105	20	94	20	94	-	9,8	9	9,5	17,2	15	11	34,2	16,2

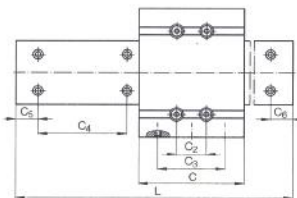
### TKVD guideway

> The TKVD guideways are made of steel. The raceways and support surfaces are tempered (670 to 840 HV) and rectified. Both sides of the guideway are equivalent support faces.

### KWVK..AL with TKVD



### 90° rotated view



### TKVD guide rails

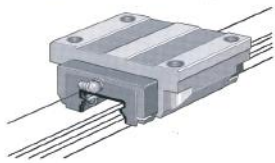
> The TKVD guide rails exist in two versions:  
>> with raceways on both sides, TKVD 32, TKVD 42 and TKVD 69, and  
>> with raceways on one side, TKVD 14 and TKVD 19. The guideways are made of tempered steel (670 - 840 HV). The raceways are rectified. The non-inscribed side of the guideway is the support face. The other side can also be used as a support face.

C <sub>2</sub>	C <sub>3</sub>	C <sub>4</sub>	C <sub>5</sub> <sup>3)</sup>		C <sub>6</sub> <sup>3)</sup>		d	H <sub>1</sub>	H <sub>2</sub>	h <sub>1</sub>	h <sub>2</sub>	Load capacities		Moments		
			Min.	Max.	Min.	Max.						C	C <sub>0</sub>	M <sub>0x</sub>	M <sub>0y</sub>	M <sub>0z</sub>
15	25	40	5	35	5	35	4,2	0,5	6	3,1	7,5	5,7	10,6	203	51	51
20	40	60	5	55	5	55	4,2	5,5	12	11,1	8	13,5	26	648	211	211
35	55	60	7	53	7	53	4,2	7,5	17	15,1	11	26	46,5	1872	412	492



## >>> Linear blocks

Ball recirculation systems: KUE series

 At www.rodavigo.net Family: Linear rolling  
 Product: INA linear material


### KWE linear block

&gt; The KWE linear block is made of steel and has a treated and rectified support body, with two raceways. The balls circulate in closed channels with a plastic return body.

Linear block		Guideway		System	Measurements				Mounting dimensions						
Code	Weight	Code	Reference	Weight	L <sup>1)</sup>	H	A	C	A <sub>1</sub>	A <sub>2</sub>	a	a <sub>1</sub>	C <sub>1</sub>	C <sub>2</sub>	C <sub>4</sub>
	Kg			Kg / m							-0,004 -0,05				
019KWE15G4V	0,17	019TKD15G4	KUE15	1,5	1200	24	47	54,5	16	38	15	4,5	38,6	30	60
019KWE20G4V	0,45	019TKD20G4	KUE20	2,2	1980	30	63	70,5	21,5	53	20	5	49,3	40	60
019KWE25G4V	0,65	019TKD25G4	KUE25	2,8	1980	36	70	80,7	23,5	57	23	6,5	56,5	45	60
019KWE30G4V	1,2	019TKD30G4	KUE30	4,2	2000	42	90	93	31	72	28	9	65,7	52	80
019KWE35G4V	1,7	019TKD35G4	KUE35	5,6	2960	48	100	106,4	33	82	34	9	75,5	62	80

- 1) Maximum length L for single-section guideways; longer guideways are supplied in various sections, conveniently marked.
- 2) C5 and C6 depend on the length L of the guideway.
- 3) Conical head oiler according to DIN 71412 M6, except KUVE 20: CIN 71 412 M5 and KUVE 15: oiler for pressure mounting.
- 4) A greaser for pressure mounting and a closing plug are supplied separate with each linear block.
- 5) Secure the screws, to eliminate possible loss of preload due to bad fixation.

### Ball recirculation systems: KUE..H Series

Linear block		Guideway		System	Measurements				Mounting dimensions						
Code	Weight	Code	Reference	Weight	L <sup>1)</sup>	H	A	C	A <sub>1</sub>	A <sub>2</sub>	a	a <sub>1</sub>	C <sub>1</sub>	C <sub>2</sub>	C <sub>4</sub>
	Kg			Kg / m							-0,004 -0,05				
019KWE15HG4V	0,17	019TKD15G4	KUE15H	1,5	1200	28	34	54,5	9,5	26	15	4	38,6	26	60
019KWE20HG4V	0,35	019TKD20G4	KUE20H	2,2	1980	30	44	70,5	12	32	20	6	49,3	36	60
019KWE25HG4V	0,55	019TKD25G4	KUE25H	2,8	1980	40	48	80,7	12,5	35	23	6,5	56,5	35	60
019KWE30HG4V	0,9	019TKD30G4	KUE30H	4,2	2000	45	60	93	16	40	28	10	65,7	40	80
019KWE35HG4V	1,46	019TKD35G4	KUE35H	5,6	2960	55	70	106,4	18	50	34	10	75,5	50	80

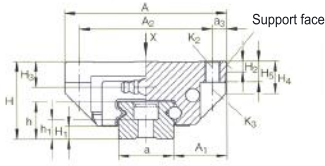
- 1) Maximum length L for single-section guideways; longer guideways are supplied in various sections, conveniently marked.
- C5 and C6 depend on the length L of the guideway; for the calculation see page 60.
- 3) Maximum screwing depth.
- 4) Conical head greaser according to DIN 71412 M6, except KUE 15H: oiler for pressure mounting.
- 5) A greaser for pressure mounting and a closing plug are supplied separate with each linear block.
- 6) Secure the screws, to eliminate possible loss of preload due to bad fixation.



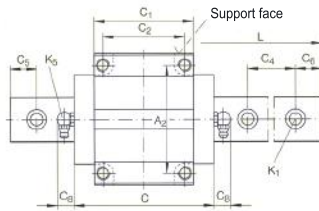
At [www.rodavigo.net](http://www.rodavigo.net) Family: Linear rolling  
Product: INA linear material

## >>> Linear blocks

### Serie KUE



### 90° rotated view



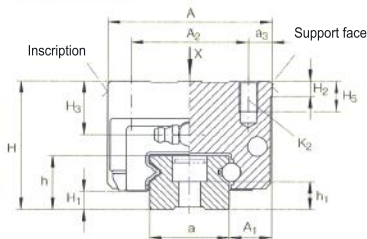
### TKD guideway

> The guideways are made of steel. The raceways and support surfaces are tempered (670 to 840 HV) and rectified. Both sides of the guideway serve as support faces.

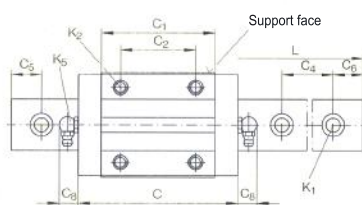
$C_5^{21}$	$C_6^{21}$	$C_8$	$H_1$	$H_2$	$H_3$	$H_4$	$H_5$	$h$	$h_1$	Accessory Protective cap
Min. Max.	Min. Max.									
20 53	20 53	1,5	4,8	4,5	4	7,5	7	15	7,7	KA08TN
20 53	20 53	14	5	5	6,5	11,6	10	16,5	8,3	KA10TN
20 53	20 53	14	6,5	5	10	11,5	10	18	8,7	KA11TN
20 71	20 71	14	7	6	13	14,6	10	21,5	10	KA15TN
20 71	20 71	14	8	6,5	16	20,1	13	23	11,5	KA15TN

$C_3^{21}$	$C_6^{21}$	$C_8$	$H_1$	$H_2$	$H_3$	$H_4^{21}$	$h$	$h_1$	Accessory Protective cap
Min. Max.	Min. Max.								
20 53	20 53	1,5	4,8	4,5	8	5	15	7,7	KA08TN
20 53	20 53	14	5	5	6,5	6,25	16,5	8,3	KA10TN
20 53	20 53	14	6,5	5	14	8	18	8,7	KA11TN
20 71	20 71	14	7	6	16	10	21,5	10	KA15TN
20 71	20 71	14	8	6,5	23	12	23	11,5	KA15TN

### Serie KUE..H



### 90° rotated view





**>>> Linear shafts**

At www.rodavigo.net Family: Linear rolling  
Product: INA linear material

**Solid metric shafts. W series**

Code	Shaft diameter		Weight Kg/m	Length L <sub>max</sub>	Tolerances			Roundness		Tempered layer depth Rht <sup>3)</sup> min. mm	Axial threads					
	d <sub>sw</sub>				Normal h6	Specials j5 f7		t1	t2 <sup>2)</sup>		K <sub>t</sub>					
					(μm)	(μm)	(μm)	(μm)	(μm)							
019W5H6	5		0,15	3600	0-8	-	-	4	5	0,4						
019W6H6	6		0,22	4000	0-8	-	-	4	5	0,4						
019W8H6	8		0,39	4000	0-9	-	-	4	6	0,4	M3					
019W10H6	10		0,61	4000	0-9	-	-	4	6	0,4	M3	M4				
019W12H6	12		0,89	6000	0-11	+5-3	-16-34	5	8	0,6		M4	M5			
019W14H6	14		1,21	6000	0-11	+5-3	-16-34	5	8	0,6		M4	M5	M6		
019W15H6	15		1,37	6000	0-11	-	-16-34	5	8	0,6			M5	M6	M8	
019W16H6	16		1,57	6000	0-11	+5-3	-16-34	5	8	0,6			M5	M6	M8	
019W18H6	18		1,98	6000	0-11	-	-16-34	5	8	0,6				M6	M8	M10
019W20H6	20		2,45	6000	0-13	+5-4	-20-41	6	9	0,9						
						-		6		0,9			M6	M8	M10	
019W24H6	24		3,55	6000	0-13	-	-20-41	6	9	0,9				M8	M10	M12
019W25H6	25		3,83	6000	0-13	+5-4	-20-41	6	9	0,9						
														M8	M10	M12
019W30H6	30		5,51	6000	0-13	+5-4	-20-41	6	9	0,9						
																M10
019W32H6	32		6,3	6000	0-16	-	-25-50	7	11	1,5				M10	M12	M16
019W40H6	40		9,8	6000	0-16	+6-5	-	7	11	1,5				M10	M12	M16
																M10
019W50H6	50		15,3	6000	0-16	+6-5	-	7	11	1,5						M12
																M16
019W60H6	60		22,1	6000	0-19	-	-	8	13	2,2						M16
019W80H6	80		39,2	6000	0-19	-	-	8	13	2,2						M16

1) For Tempered Steel Shafts Only  
2) Measurement of diameter differences  
3) According to DIN 6773, part 3.

**Metric hollow shafts. WH series**

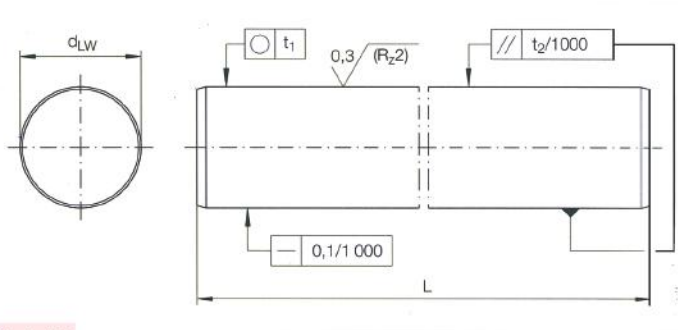
Code	Shaft diameter		Weight Kg/m	Length L <sub>max</sub>	Inside diameter d <sup>1)</sup>	Tolerances			Roundness		Tempered layer depth Rht <sup>3)</sup> min. mm
	d <sub>sw</sub>					h6	t1	t2 <sup>2)</sup>	Parallelism		
						(μm)	(μm)	(μm)			
019WH20H7	20		1,25	6000	14	0-21	6	9	0,9		
019WH25H7	25		2,35	6000	15,6	0-21	6	9	0,9		
019WH30H7	30		3,5	6000	18,2	0-21	6	9	0,9		
019WH40H7	40		4,99	6000	28,1	0-25	7	11	1,5		
019WH50H7	50		9,97	6000	29,7	0-25	7	11	1,5		
019WH60H7	60		14,2	6000	36	0-30	8	13	2,2		
019WH80H7	80		19,5	6000	56,9	0-30	8	13	2,2		

1) Tolerance of wall thickness: +/- 4%.  
2) Measurement of diameter differences.  
3) According to DIN 6773, part 3.



At [www.rodavigo.net](http://www.rodavigo.net) Family: Linear rolling  
Product: INA linear material

## Linear shafts



### Serie W

Radial threads

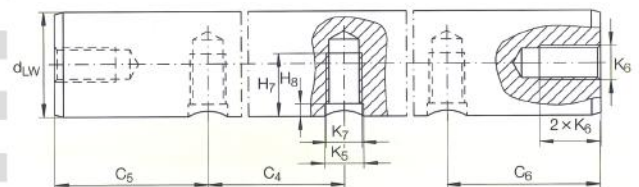
Measurements

$C_4$	$C_{5Min}$	$C_6^{1)}$ Characteristics	$H_7$	$H_8$	$K_5$	$K_7$
		03	04-05			

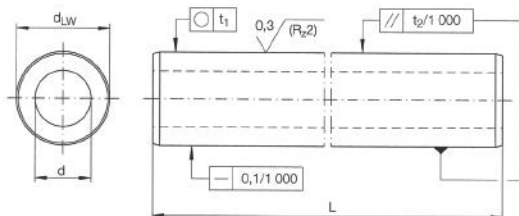
75	120	10		8	2	5	M4
75	100	150	10	9	2,5	6	M5
75	100	150	15	11	3	7	M6
			$3 \times K_6 + K_7$				
		150	15	11	3	7	M6
75	120	200	15	15	3	9	M8
		150	15	11	3	7	M6
100	150	200	20	17	3,5	11	M10
150	200	300	20	19	4	11	M10
100		150	20	21	4	13	M12
			20	19	4	11	M10
M20		200	300	21	4	13	M12
M20	100			25	4	15	M14
M20	M24						
M20	M24						



### Recommended threaded holes for W shaft



1) Measurements C5 and C6 depend on the length of the shaft. For executions according to characteristics 04 and 05, the axial threads must be taken into account.

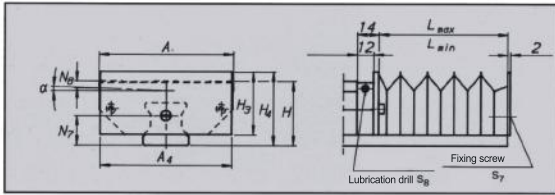


## >>> Bellows for linear guides

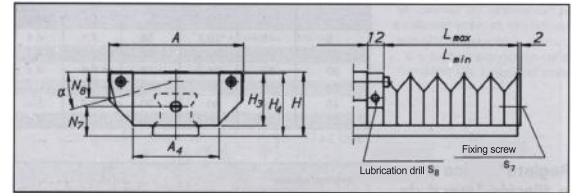


Ball linear blocks on rails. Accordion Bellows

At www.rodavigo.net Family: Linear rolling  
Product: INA linear material



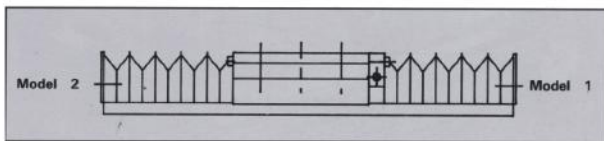
Size 15



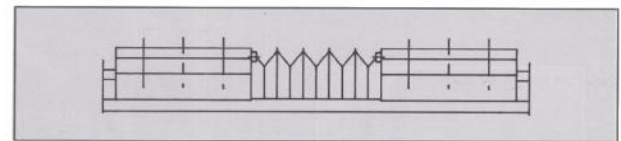
Size 25 a 55

Reference Size Dimensions

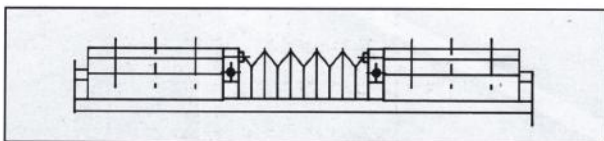
Reference Size	A	H	A4	H3	H4	N7	S7	N8	S8	$\alpha$	U	W	
	mm										degrees		
F15	15	47	24	45	26,5	31,5	11	M4	3	$\varnothing 3$	2	1,18	19,9
F25	25	70	36	45	28,5	35	15	M4	13	M6	15	1,32	12,9
F30	30	90	42	55	34	41	18	M4	17	M6	15	1,25	15,4
F35	35	100	48	64	39	47	22	M4	19	M6	15	1,18	19,9
F45	45	120	60	83	49	59	30	M4	23	M6	15	1,13	26,9
F55	55	140	70	96	56	69	30	M4	26	M6	15	1,12	29,9



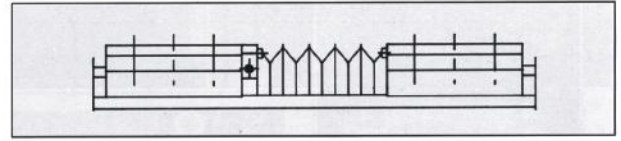
Model 1-2



Model 4



Model 3



Model 5

## >>> Bellows under drawing

Bellows under drawing

We also have the possibility of supplying bellows under drawing.

The bellows we sell are designed to meet the strict requirements of the machinery manufacturers.

We have a wide range of materials, PVC, Polyurethane, glass fibers, kevlar, etc. .. depending on the aggression that the oil, drill, hot chip, etc. will withstand.

Our technicians will advise you to give you the fastest and most effective solution to your needs.





### Mounting elements

- Maintenance-free digital servo drive with integrated brake and built-in feedback
- Flange and coupling, or timing belt transmission, for motor mounting
- Switches
- Box with opposite connector for switches
- Aluminum profile cable holder

The compact modules are precise and assembly-ready guidance systems with high performance characteristics and compact dimensions.

Excellent value for money plus a short delivery time.

- Economical maintenance thanks to possible centralized lubrication (grease lubrication) on both sides of the ball linear blocks on rails as well as the ball screw
- Simple motor mounting by centering and threaded holes
- Precise alignment and secure fixing of the mounting elements thanks to the pin holes and threads, plus one or two tables
- Protection of the mounting elements through a rigid aluminum cover, and thanks to the two grooved PU bands reinforced with integrated steel cables
- Adjustable switches over the entire stroke; actuation of switches without actuation cam
- Optimum function, high load capacity and great rigidity thanks to two ball linear blocks on integrated rails without set
- Especially low construction thanks to the central position of the ball screw
- High positioning and repeatability precision thanks to ball screw with nut system without set
- High travel speeds with great precision, and on long strokes, thanks to the ball screws with large diameters and large pitches, as well as the double floating bearing Drive regulators and controls
- Compact and precise aluminum profile (main body) with two ball linear blocks on integrated rails
- Precision ball screw according to tolerance class T7 with nut system without set
- Aluminum crossbar with fixed angular contact bearing, preloaded and with two rows of balls
- Aluminum crossbar with double floating bearing
- One or two aluminum tables with integrated linear blocks

Size	Quantity of tables	Balls screw $d_0 \times P$	Dynamic load capacity C (N)			Dynamic moments		Moments inertia		Maximum length $L_{max}$ (mm)	Moving mass $m_b$ (kg)
			Guide	Balls screw	Fixed bearing	$M_t$ (Nm)	$M_l$ (Nm)	$I_y$ (cm <sup>4</sup> )	$I_z$ (cm <sup>4</sup> )		
CKK 12-90	1	12 x 2 12 x 5 12 x 10	4620	2240 3800 2500	6900	125	16	14,32	124,4	750	0,36
	2 ( $l_m = 65$ mm)	12 x 2 12 x 5 12 x 10	7500	2240 3800 2500	6900	200	240	14,32	124,4	750	0,59
CKK 15-110	1	16 x 5 16 x 10 16 x 16	15600	12300 9600 6300	13400	515	80	37,74	318,7	1500	0,52
	2 ( $l_m = 85$ mm)	16 x 5 16 x 10 16 x 16	25340	12300 9600 6300	13400	835	1075	37,74	318,7	1500	0,86
CKK 20-145	1	20 x 5 20 x 20 20 x 40 25 x 10	37600	14300 9100 14000 15700	17000	1650	255	114,10	986,4	1800	1,21
	2 ( $l_m = 100$ mm)	20 x 5 20 x 20 20 x 40 25 x 10	61080	14300 9100 14000 15700	17000	2685	3050	114,10	986,4	1800	2,06
CKK 25-200	1	32 x 5 32 x 10 32 x 20 32 x 32	55000	21500 31700 19700 19500	26000	3570	540	612,00	3008,0	2200 (w / support spindle 5500) *	3,18
	2 ( $l_m = 175$ mm)	32 x 5 32 x 10 32 x 20 32 x 32	89340	21500 31700 19700 19500	26000	5800	7810	612,00	3008,0	2200 (w / support spindle 5500) *	5,20

Size	Quantity of tables	Maximum allowable forces (N)			Maximum allowable moments (Nm)		
		$F_{z1max}$	$F_{z2max}$	$F_{ymax}$	$M_{tmax}$	$M_{Lmax}$	
CKK 12-90	1	4 620	4 620	2 490	125	16	
	2	7 500	7 500	4 050	200	240	
CKK 15-110	1	12 000	6 000	3 480	198	31	
	2	19 490	9 740	5 650	322	414	
CKK 20-145	1	29 000	14 500	8 410	638	100	
	2	47 110	23 550	13 660	1 030	1 180	
CKK 25-200	1	42 200	21 100	12 230	1 372	209	
	2	68 550	34 270	19 880	2 228	2 999	



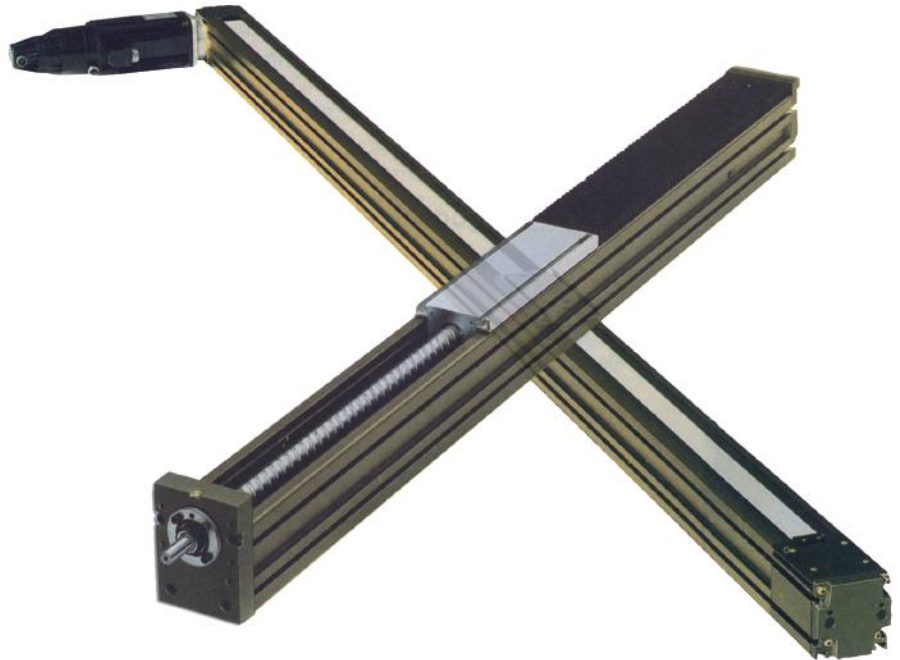


## >>> Linear modules

At [www.rodavigo.net](http://www.rodavigo.net)

Family: Linear rolling  
Product: Other types of linear rolling

Linear module with ball screw conditioning



### Conditioning data

Screw diameter: 32 mm  
Screw pitch: 32 mm

### Number of revolutions and maximum speeds for Lengths L (mm)

L(mm)	$n_{max}(min^{-1})$	$v_{max}(m/min)$
Hasta 1200	2500	80,0
1500	2000	64,0
2000	1100	35,2
2500	700	24,5
3000	500	16,0

## Linear module with timing belt conditioning

### Performance values for horizontal service

	i = 6				i = 3			
	120	84	36	12	30	21	15	6
Mass (Kg)	395	310	192	135	453	352	285	184
Acceleration ramp (m / s)	617	388	240	169	1133	880	713	460
Acceleration ramp space (mm)	6,3	8,0	13,0	18,5	11	14	17,5	27,2
Acceleration (m / s <sup>2</sup> )	2,5	2,5	2,5	2,5	5	5	5	5
Speed (m / s) <sup>1)</sup>	0,08	0,08	0,08	0,08	0,1	0,1	0,1	0,1
Positioning repeatability +/- (mm)	600	600	600	600	250	250	250	250
Admissible axial force (N) for v = 0								

1) To v > 3 m / s limit the time of its use.

### Conditioning data

#### 1. without motor (i = 1)

Drive wheel diameter: 92.2 mm  
Feed constant: 289.6 mm / turn  
Max. driving force of the belt: 1740 N  
Belt type: AT 10.50 mm width armed with steel cables.  
Belt elongation: 0.00516 mm / mm belt x N

#### 2. with conditioning

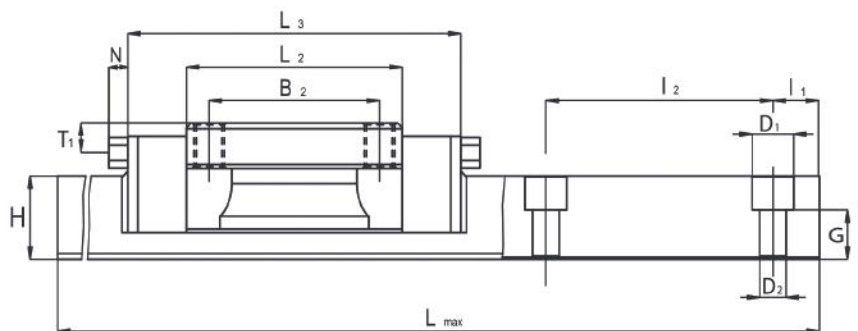
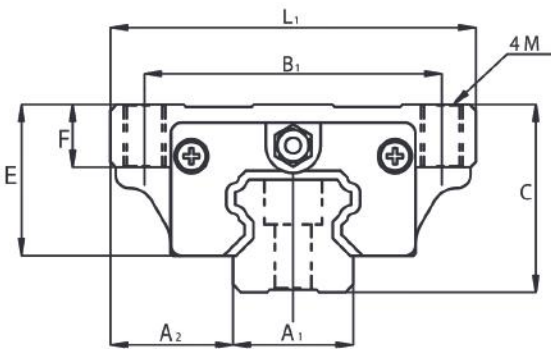
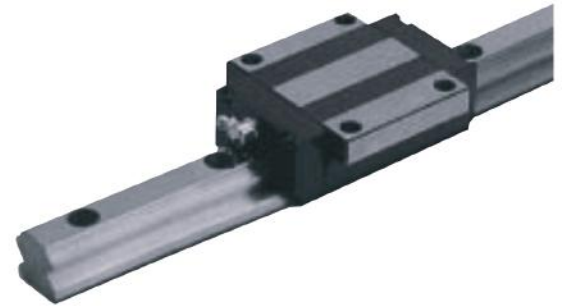
	i=6	i=3
Drive wheel diameter (mm)	92,2	92,2
Feed constant (mm / turn)	48,3	96,6
Constant turning moment during cycle (Nm)	6,6	6,6
Maximum speed (m / s)	2,5 until 5	
Maximum load capacity (Kg)	120	30
Number of encoder pulses	1250	1250



**>>> Ball linear blocks**

Ball linear blocks. SNA series

At www.rodavigo.net Family: Linear rolling  
Product: Linear rolling



Dimensions

Code	A <sub>1</sub>	A <sub>2</sub>	B <sub>1</sub>	B <sub>2</sub>	M	C	E	F	H	I <sub>1</sub>	I <sub>2</sub>	L <sub>1</sub>	L <sub>2</sub>	L <sub>3</sub>	Oil hole	T <sub>1</sub>	N	D <sub>1</sub>	D <sub>2</sub>	G	L <sub>max</sub>
	mm																				
113SNA15P0N	15	16	38	30	M5 x 8	24	19,4	8	14	20	60	47	40	66	Ø3	4,3	5	7,5	4,5	4000	8,7
113SNA20P0N	20	21,5	53	40	M6 x 9	30	25	9	18	20	60	63	48,8	77,8	M6 x 1	5	6,5	9,5	6	4000	9,5
113SNA25P1N	23	23,5	57	45	M8 x 12	36	29	12	22	20	60	70	57	88	M6 x 1	5	6,5	11	7	4000	13
113SNA30P0N	28	31	72	52	M10 x 12	42	33	12	26	20	80	90	72	109	M6 x 1	7	6,5	14	9	4000	14
113SNA35P0N	34	33	82	62	M10 x 13	48	38,5	13	29	20	80	100	80	119	M6 x 1	8	6,5	14	9	4000	17
113SNA45P0N	45	37,5	100	80	M12 x 15	60	46	15	38	22,5	105	120	105	148,2	M8 x 1	10	13	20	14	4000	21
113SNA55P0N	53	43,5	116	95	M14 x 20	70	55	20	44	30	120	140	121	170	M8 x 1	11	13	23	16	4000	24

Mechanical characteristics

Weight

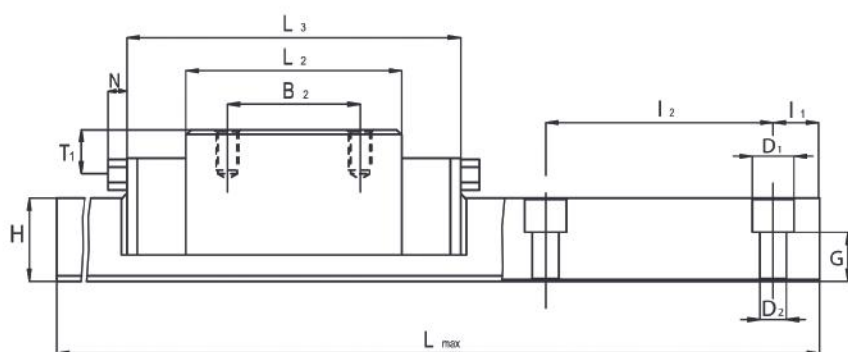
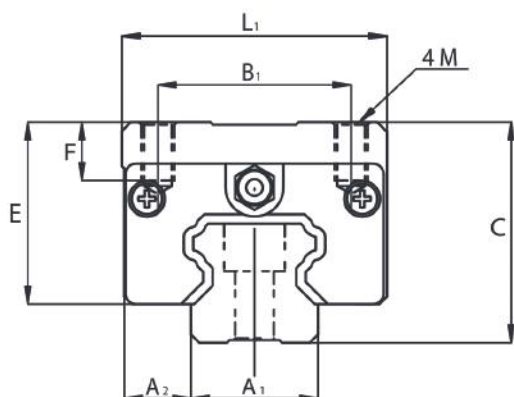
Code	C <sub>0</sub>	C	M <sub>ox</sub>	M <sub>oy</sub>	M <sub>oz</sub>	Linear block N	Rail N/m
	kN						
113SNA15P0N	12,7	6,85	70	50	50	1,9	14
113SNA20P0N	25,6	14,5	220	180	180	4	26
113SNA25P1N	40	21,4	360	320	310	5,7	36
113SNA30P0N	54,9	29,8	600	500	490	11	52
113SNA35P0N	70,1	39,6	960	750	730	16	72
113SNA45P0N	121	67,4	2160	1700	1680	27	123
113SNA55P0N	171	99,4	3670	2930	2880	50	169

All types of linear guides and linear blocks are available in the anti-corrosive version, on special request.

## >>> Ball linear blocks

At [www.rodavigo.net](http://www.rodavigo.net) Family: Linear rolling  
Product: Linear rolling

Ball linear blocks. SNC series



Dimensions

Code	A <sub>1</sub>	A <sub>2</sub>	B <sub>1</sub>	B <sub>2</sub>	M	C	E	F	H	I <sub>1</sub>	I <sub>2</sub>	L <sub>1</sub>	L <sub>2</sub>	L <sub>3</sub>	Oil hole	T <sub>1</sub>	N	D <sub>1</sub>	D <sub>2</sub>	G	L <sub>max</sub>
	mm																				
113SNC15P0N	15	9,5	26	26	M4 x 6,4	28	23,4	6,4	14	20	60	34	40	66	Ø3	8,3	5	7,5	4,5	4000	8,7
113SNC20P0N	20	12	32	36	M5 x 8	30	25	8	18	20	60	44	48,8	77,8	M6 x 1	7	6,5	9,5	6	4000	9,5
113SNC25P0N	23	12,5	35	35	M6 x 9,6	40	33	9,6	22	20	60	48	57	88	M6 x 1	11,8	6,5	11	7	4000	13
113SNC30P0N	28	16	40	40	M8 x 12,8	45	36	12,8	26	20	80	60	72	109	M6 x 1	10	6,5	14	9	4000	14
113SNC35P0N	34	18	50	50	M8 x 12,8	55	45,5	12,8	29	20	80	70	80	119	M6 x 1	15	6,5	14	9	4000	17
113SNC45P0N	45	20,5	60	60	M10 x 16	70	56	16	38	22,5	105	86	105	148,2	M8 x 1	18	13	20	14	4000	21
113SNC55P0N	53	23,5	75	75	M12 x 19	80	65	19	44	30	120	100	121	170	M8 x 1	20	13	23	16	4000	24

Mechanical characteristics

Weight

Code	C <sub>o</sub>	C	M <sub>ox</sub>	M <sub>oy</sub>	M <sub>oz</sub>	Linear block	Rail
	kN	kN	Nxm	Nxm	Nxm	N	N/m
113SNC15P0N	12,7	6,85	70	50	50	2,1	14
113SNC20P0N	25,6	14,5	220	180	180	3,1	26
113SNC25P0N	40	21,4	360	320	310	4,5	36
113SNC30P0N	54,9	29,8	600	500	490	9,1	52
113SNC35P0N	70,1	39,6	960	750	730	15	72
113SNC45P0N	121	67,4	2160	1700	1680	23	123
113SNC55P0N	171	99,4	3670	2930	2880	39	169

All types of linear guides and linear blocks are available in the anti-corrosive version on special request.

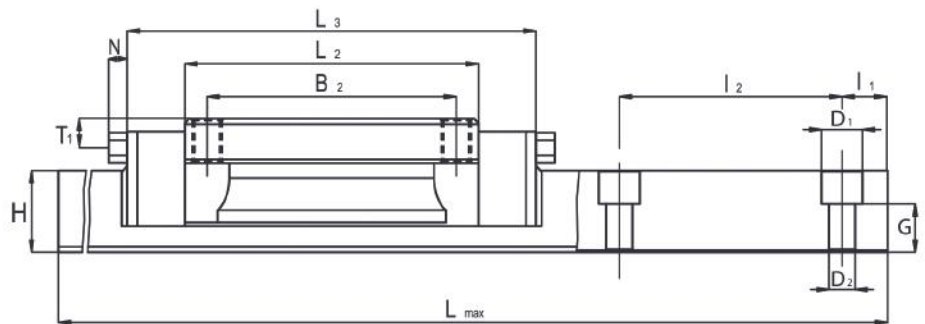
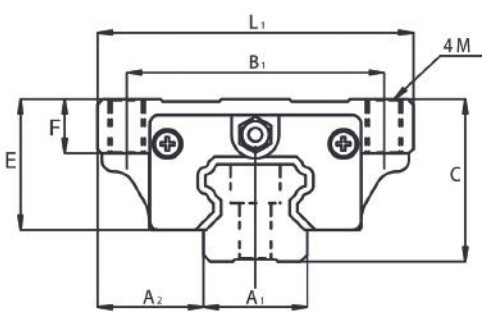




**>>> Ball linear blocks**

Ball linear blocks. SLA series

At www.rodavigo.net Family: Linear rolling  
Product: Linear rolling



Dimensions

Code	A <sub>1</sub>	A <sub>2</sub>	B <sub>1</sub>	B <sub>2</sub>	M	C	E	F	H	I <sub>1</sub>	I <sub>2</sub>	L <sub>1</sub>	L <sub>2</sub>	L <sub>3</sub>	Oil hole	T <sub>1</sub>	N	D <sub>1</sub>	D <sub>2</sub>	G	L <sub>max</sub>
113SLA20P0N	20	21,5	53	40	M 6x9	30	25	9	18	20	60	63	63,4	92,4	M6x1	5	6,5	9,5	6	9,5	4000
113SLA25P0N	23	23,5	57	45	M 8x12	36	29	12	22	20	60	70	79,1	110,1	M6x1	5	6,5	11	7	13	4000
113SLA30P0N	28	31	72	52	M10x12	42	33	12	26	20	80	90	94,3	131,3	M6x1	7	6,5	14	9	14	4000
113SLA35P0N	34	33	82	62	M10x13	48	38,5	13	29	20	80	100	105,8	144,8	M6x1	8	6,5	14	9	17	4000

Mechanical characteristics

Weight

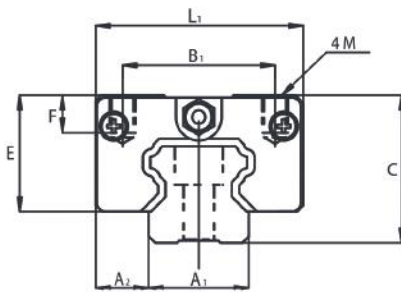
Code	C <sub>0</sub>	C	M <sub>ox</sub>	M <sub>oy</sub>	M <sub>oz</sub>	Linear block	Rail
	kN	kN	Nxm	Nxm	Nxm	N	N/m
113SLA20P0N	33,3	19	286	234	234	0,47	26
113SLA25P0N	56	29,9	504	448	434	7,2	36
113SLA30P0N	71,9	39	785	650	650	14	52
113SLA35P0N	92,7	52,3	1250	950	950	20	72

All types of linear guides and linear blocks are available in the anti-corrosive version on special request.

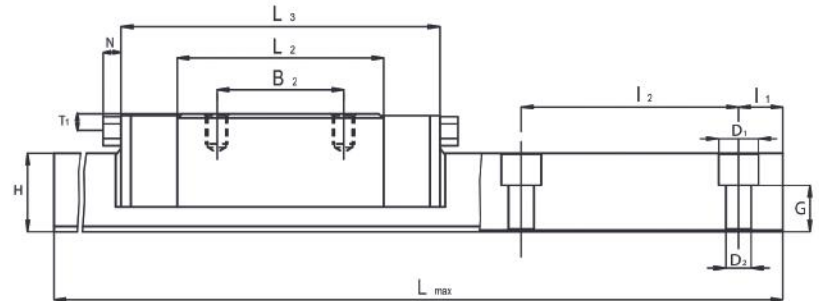
## >>> Ball linear blocks

At [www.rodavigo.net](http://www.rodavigo.net) Family: Linear rolling  
Product: Linear rolling

Ball linear blocks. RNC series



Dimensions



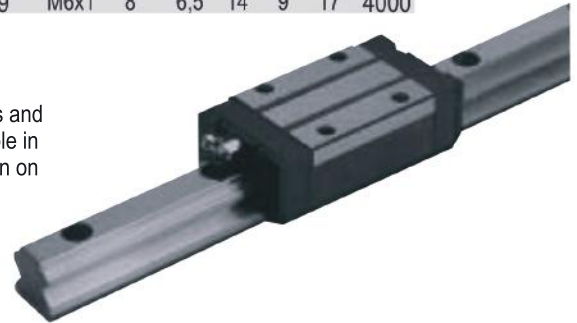
Code	A <sub>1</sub>	A <sub>2</sub>	B <sub>1</sub>	B <sub>2</sub>	M	C	E	F	H	I <sub>1</sub>	I <sub>2</sub>	L <sub>1</sub>	L <sub>2</sub>	L <sub>3</sub>	Oil hole	T <sub>1</sub>	N	D <sub>1</sub>	D <sub>2</sub>	G	L <sub>max</sub>
	mm																				
113RNC25P0N	23	12,5	35	35	M6x8,4	33	26	8,4	22	20	60	48	57	88	M6x1	4,8	6,5	11	7	13	4000
113RNC30P0N	28	16	40	40	M8x11,2	42	33	11,2	26	20	80	60	72	109	M6x1	7	6,5	14	9	14	4000
113RNC35P0N	34	18	50	50	M8x11,2	48	38,5	11,2	29	20	80	70	80	119	M6x1	8	6,5	14	9	17	4000

Mechanical characteristics

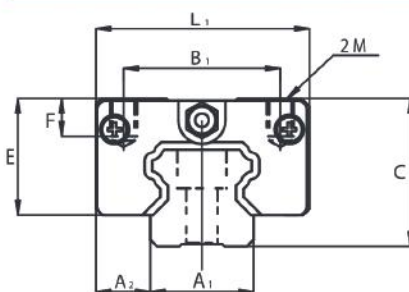
Weight

Code	C <sub>0</sub>	C	M <sub>ox</sub>	M <sub>oy</sub>	M <sub>oz</sub>	Linear Rail block	Rail block
	kN	kN	Nxm	Nxm	Nxm	N	N/m
113RNC25P0N	40	21,4	360	320	310	3,8	36
113RNC30P0N	54,9	29,8	600	500	490	8,1	52
113RNC35P0N	70,1	39,6	960	750	730	12	72

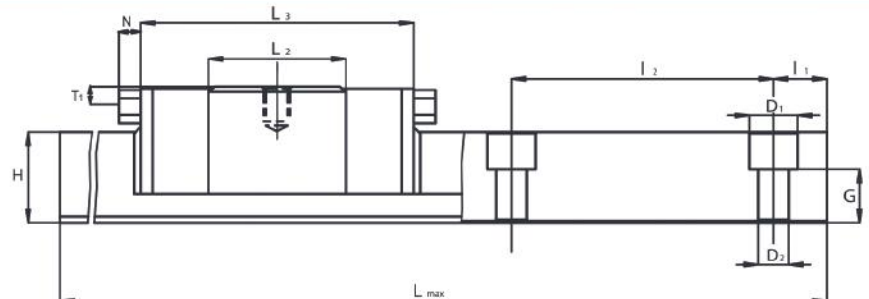
All types of linear guides and linear blocks are available in the anti-corrosive version on special request.



Ball linear blocks. RSC series



Dimensions



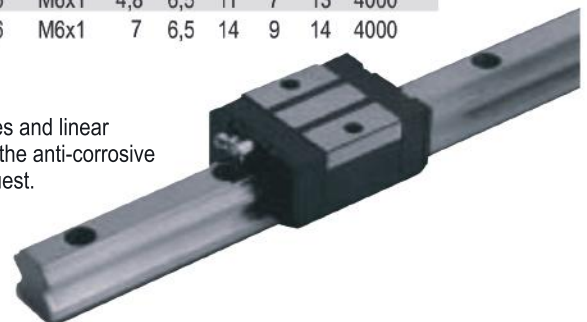
Code	A <sub>1</sub>	A <sub>2</sub>	B <sub>1</sub>	M	C	E	F	H	I <sub>1</sub>	I <sub>2</sub>	L <sub>1</sub>	L <sub>2</sub>	L <sub>3</sub>	Oil hole	T <sub>1</sub>	N	D <sub>1</sub>	D <sub>2</sub>	G	L <sub>max</sub>
	mm																			
113RSC25P0N	23	12,5	35	M6x8,4	33	26	8,4	22	20	60	48	31,5	31,5	M6x1	4,8	6,5	11	7	13	4000
113RSC30P0N	28	16	40	M8x11,2	42	33	11,2	26	20	80	60	38,6	38,6	M6x1	7	6,5	14	9	14	4000

Mechanical characteristics

Weight

Code	C <sub>0</sub>	C	M <sub>ox</sub>	M <sub>oy</sub>	M <sub>oz</sub>	Linear Rail block	Rail block
	kN	kN	Nxm	Nxm	Nxm	N	N/m
113RSC25P0N	22,3	11,9	200	175	172	2,1	36
113RSC30P0N	29,4	15,95	320	270	270	4,8	52

All types of linear guides and linear blocks are available in the anti-corrosive version on special request.





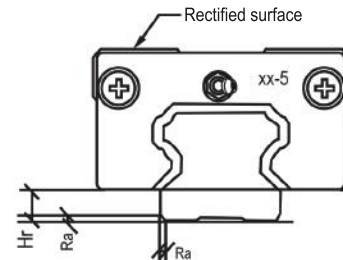
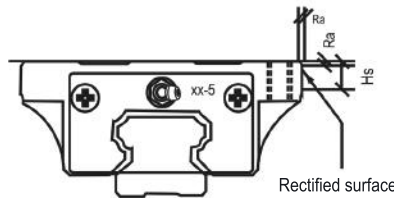
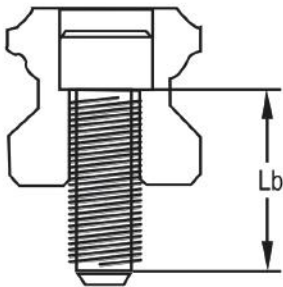
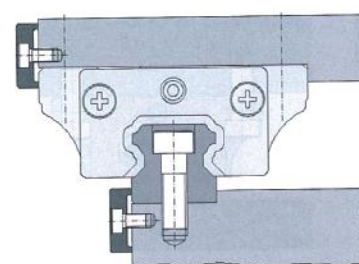
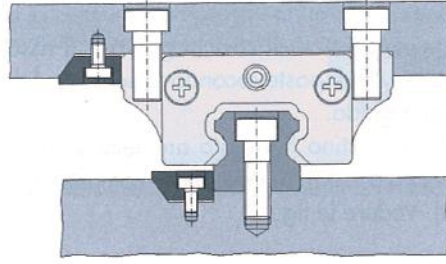
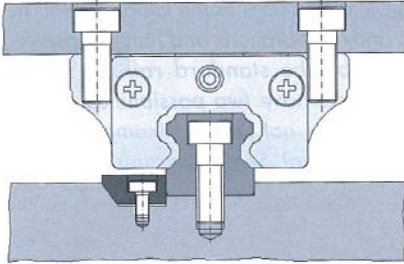
>>> **Linear rails**

Instructions for assembly

At www.rodavigo.net Family: Linear rolling  
Product: Linear rolling

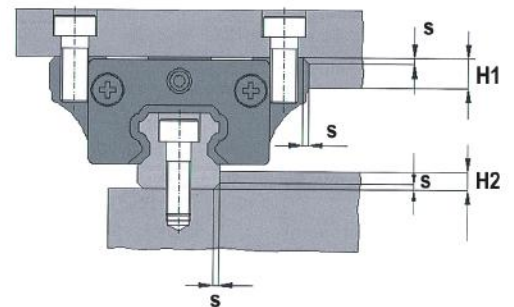
Conical wrench

Stirrups



Lateral support surfaces

Code	Mounting suggestions				Dimensions		
	Maximum distance	Maximum height of the rail baton	Maximum height of the linear block baton	Suggested rail length	s mm	H1 mm	H2 mm
113R15N	0,8	4	5	M4 x 16	0,8	5	4
113R20N	0,8	4,5	6	M5 x 20	0,8	6	4,5
113R25N	1,2	6	7	M6 x 25	1,2	7	6
113R30N	1,2	8	8	M8 x 30	1,2	8	8
113R35N	1,2	8,5	9	M8 x 30	1,2	9	8,5
113R45N	1,6	12	11	M12 x 40	1,6	11	12
113R55N	1,6	13	12	M14 x 45	1,6	12	13



Unit of measurement: mm.



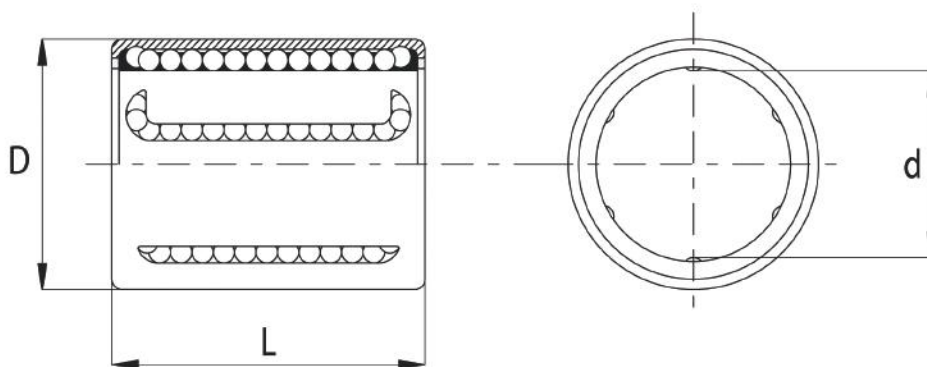
## >>> Linear ball bushing

rodas

At [www.rodavigo.net](http://www.rodavigo.net) Family: Linear rolling  
Product: Linear rolling

KH Series linear ball bushing

### KH series



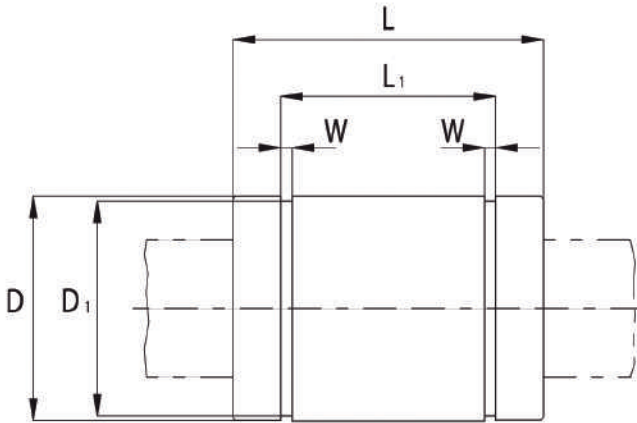
Code	Weight [N]	d [mm]	D [mm]	L [mm]	Load capacity [N]	
					C	C <sub>0</sub>
113KH0622B	0.07	6	12	22	400	239
113KH0824B	0.12	8	15	24	435	280
113KH1026B	0.14	10	17	26	500	370
113KH1228B	0.18	12	19	28	620	510
113KH1428B	0.20	14	21	28	620	520
113KH1630B	0.27	16	24	30	800	620
113KH2030B	0.33	20	28	30	950	790
113KH2540B	0.66	25	35	40	1990	1670
113KH3050B	0.95	30	40	50	2800	2700
113KH4060B	1.84	40	52	60	4400	4450
113KH5070B	2.5	50	62	70	5500	6300

**>>> Linear ball bushing**

KB Series linear ball bushing

At www.rodavigo.net Family: Linear rolling  
Product: Linear rolling

**KB series**



Code	No. of rows of balls	Weight [N]	d [mm]	d Tolerance [ $\mu\text{m}$ ]	D [mm]	D Tolerance [ $\mu\text{m}$ ]	L [mm]	L Tolerance [mm]
113KB0522	4	0.12	5	+8 $\div$ 0	12	0 $\div$ -8	22	0 $\div$ -0.2
113KB0825	4	0.20	8	+8 $\div$ 0	16	0 $\div$ -8	25	0 $\div$ -0.2
113KB1029	4	0.34	10	+8 $\div$ 0	19	0 $\div$ -8	29	0 $\div$ -0.2
113KB1232	4	0.41	12	+8 $\div$ 0	22	0 $\div$ -9	32	0 $\div$ -0.2
113KB1636	5	0.57	16	+9 $\div$ -1	26	0 $\div$ -9	36	0 $\div$ -0.2
113KB2045	5	0.91	20	+9 $\div$ -1	32	0 $\div$ -11	45	0 $\div$ -0.2
113KB2558	6	2.15	25	+11 $\div$ -1	40	0 $\div$ -11	58	0 $\div$ -0.3
113KB3068	6	3.25	30	+11 $\div$ -1	47	0 $\div$ -11	68	0 $\div$ -0.3
113KB4080	6	7.05	40	+13 $\div$ -2	62	0 $\div$ -13	80	0 $\div$ -0.3
113KB50100	6	11.3	50	+13 $\div$ -2	75	0 $\div$ -13	100	0 $\div$ -0.3
113KB60125	6	22.2	60	+13 $\div$ -2	90	0 $\div$ -15	125	0 $\div$ -0.4

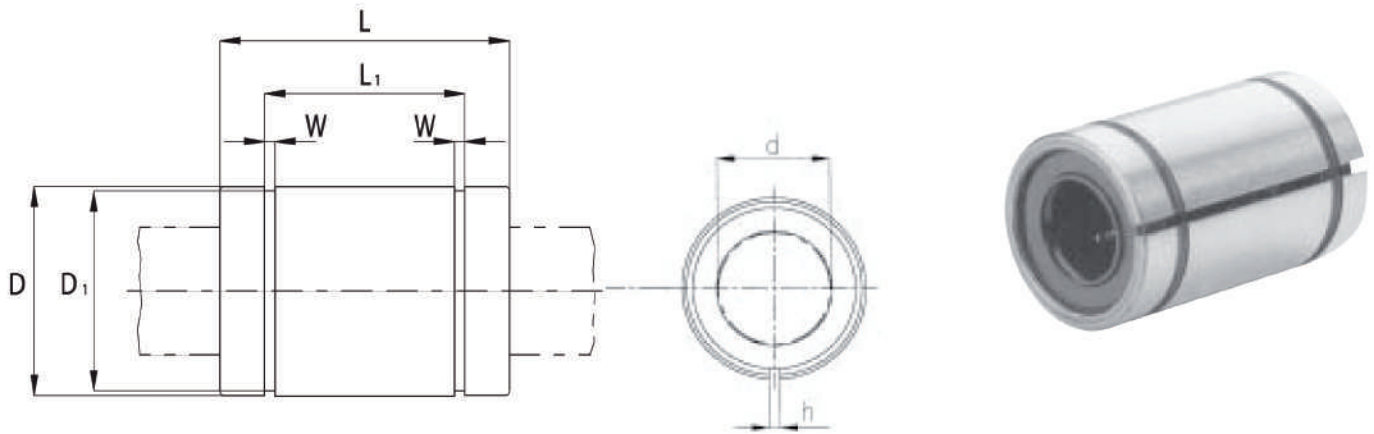
Code	L1 [mm]	L1 Tolerance [mm]	W [mm]	D1 [mm]	maximum eccentricity [ $\mu\text{m}$ ]	Radial clearance tolerance [ $\mu\text{m}$ ]	Load capacity [N]	
							C	C <sub>0</sub>
113KB0522	14.5	0 $\div$ -0.2	1.1	11.5	12	-5	210	270
113KB0825	16.5	0 $\div$ -0.2	1.1	15.2	12	-5	270	410
113KB1029	22	0 $\div$ -0.2	1.3	18	12	-5	370	470
113KB1232	22.9	0 $\div$ -0.2	1.3	21	12	-7	520	790
113KB1636	24.9	0 $\div$ -0.2	1.3	24.9	12	-7	590	910
113KB2045	31.5	0 $\div$ -0.2	1.6	30.3	15	-9	880	1400
113KB2558	44.1	0 $\div$ -0.3	1.85	37.5	15	-9	1000	1600
113KB3068	52.1	0 $\div$ -0.3	1.85	44.5	15	-9	1600	2800
113KB4080	60.6	0 $\div$ -0.3	2.15	59	17	-13	2200	4000
113KB50100	77.6	0 $\div$ -0.3	2.65	72	17	-13	3900	8100
113KB60125	101.7	0 $\div$ -0.4	3.15	86.5	20	-16	4800	10200

## >>> Linear ball bushing

KBS Series linear ball bushing

At [www.rodavigo.net](http://www.rodavigo.net) Family: Linear rolling  
Product: Linear rolling

### KBS series



Code	No. of rows of balls	Weight [N]	d [mm]	d Tolerance [ $\mu\text{m}$ ]	D [mm]	d Tolerance [ $\mu\text{m}$ ]	L [mm]	L Tolerance [mm]
113KBS0522	4	0.12	5	+8 $\div$ 0	12	0 $\div$ -8	22	0 $\div$ -0.2
113KBS0825	4	0.20	8	+8 $\div$ 0	16	0 $\div$ -8	25	0 $\div$ -0.2
113KBS1029	4	0.34	10	+8 $\div$ 0	19	0 $\div$ -8	29	0 $\div$ -0.2
113KBS1232	4	0.41	12	+8 $\div$ 0	22	0 $\div$ -9	32	0 $\div$ -0.2
113KBS1636	5	0.57	16	+9 $\div$ -1	26	0 $\div$ -9	36	0 $\div$ -0.2
113KBS2045	5	0.91	20	+9 $\div$ -1	32	0 $\div$ -11	45	0 $\div$ -0.2
113KBS2558	6	2.15	25	+11 $\div$ -1	40	0 $\div$ -11	58	0 $\div$ -0.3
113KBS3068	6	3.25	30	+11 $\div$ -1	47	0 $\div$ -11	68	0 $\div$ -0.3
113KBS4080	6	7.05	40	+13 $\div$ -2	62	0 $\div$ -13	80	0 $\div$ -0.3
113KBS50100	6	11.3	50	+13 $\div$ -2	75	0 $\div$ -13	100	0 $\div$ -0.3
113KBS60125	6	22.2	60	+13 $\div$ -2	90	0 $\div$ -15	125	0 $\div$ -0.4

Code	L1 [mm]	L1 Tolerance [mm]	W [mm]	h [mm]	D1 [mm]	maximum eccentricity [ $\mu\text{m}$ ]	Radial clearance tolerance [ $\mu\text{m}$ ]	Load capacity [N]	
								C	C <sub>0</sub>
113KBS0522	14.5	0 $\div$ -0.2	1.1	1	11.5	12	-5	210	270
113KBS0825	16.5	0 $\div$ -0.2	1.1	1	15.2	12	-5	270	410
113KBS1029	22	0 $\div$ -0.2	1.3	1	18	12	-5	370	550
113KBS1232	22.9	0 $\div$ -0.2	1.3	1.5	21	12	-7	520	790
113KBS1636	24.9	0 $\div$ -0.2	1.3	1.5	24.9	12	-7	590	910
113KBS2045	31.5	0 $\div$ -0.2	1.6	2	30.3	15	-9	880	1400
113KBS2558	44.1	0 $\div$ -0.3	1.85	2	37.5	15	-9	1000	1600
113KBS3068	52.1	0 $\div$ -0.3	1.85	2	44.5	15	-9	1600	2800
113KBS4080	60.6	0 $\div$ -0.3	2.15	3	59	17	-13	2200	4000
113KBS50100	77.6	0 $\div$ -0.3	2.65	3	72	17	-13	3900	8100
113KBS60125	101.7	0 $\div$ -0.4	3.15	3	86.5	20	-16	4800	10200



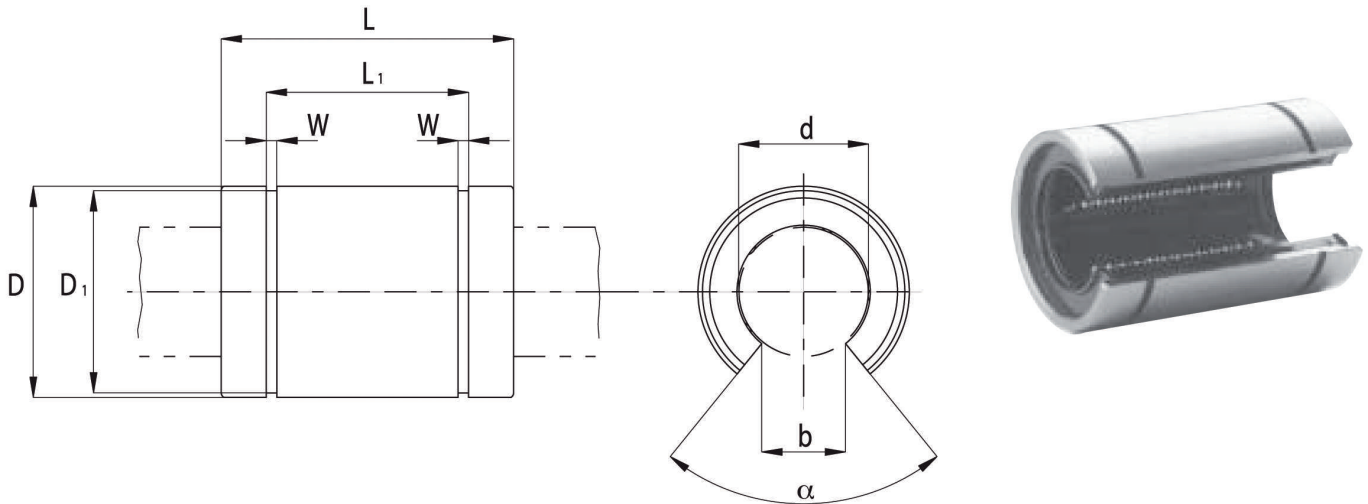


**>>> Linear ball bushing**

KBO Series linear ball bushing

At www.rodavigo.net Family: Linear rolling  
Product: Linear rolling

**KBO series**



Code	No. of rows of balls	Weight [N]	d [mm]	d Tolerance [ $\mu\text{m}$ ]	D [mm]	d Tolerance [ $\mu\text{m}$ ]	L [mm]	L Tolerance [mm]
113KBO1029	3	0.23	10	0 $\div$ +8	19	0 $\div$ -9	29	0 $\div$ -0.2
113KBO1232	3	0.32	12	0 $\div$ +8	22	0 $\div$ -9	32	0 $\div$ -0.2
113KBO1636	5	0.57	16	+9 $\div$ -1	26	0 $\div$ -9	36	0 $\div$ -0.2
113KBO2045	5	0.91	20	+9 $\div$ -1	32	0 $\div$ -11	45	0 $\div$ -0.2
113KBO2558	6	2.15	25	+11 $\div$ -1	40	0 $\div$ -11	58	0 $\div$ -0.3
113KBO3068	6	3.25	30	+11 $\div$ -1	47	0 $\div$ -11	68	0 $\div$ -0.3
113KBO4080	6	7.05	40	+13 $\div$ -2	62	0 $\div$ -13	80	0 $\div$ -0.3
113KBO50100	6	11.3	50	+13 $\div$ -2	75	0 $\div$ -13	100	0 $\div$ -0.3
113KBO60125	6	22.2	60	+13 $\div$ -2	90	0 $\div$ -15	125	0 $\div$ -0.4

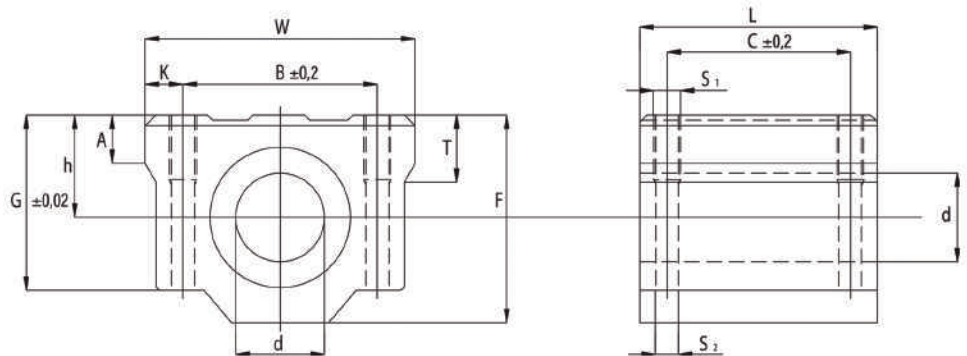
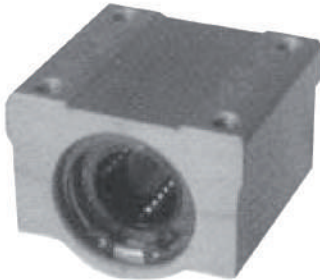
Code	L1 [mm]	L1 Tolerance [mm]	W [mm]	b [mm]	$\alpha$	D1 [mm]	maximum eccentricity [ $\mu\text{m}$ ]	Radial clearance tolerance [ $\mu\text{m}$ ]	Load capacity [N]	
									C	C0
113KBO1029	22	0 $\div$ -0.2	1.3	6.8	80°	18	12	-	380	560
113KBO1232	22.9	0 $\div$ -0.2	1.3	7.5	78°	21	12	-	520	790
113KBO1636	24.9	0 $\div$ -0.2	1.3	10	78°	24.9	12	-7	590	910
113KBO2045	31.5	0 $\div$ -0.2	1.6	10	60°	30.3	15	-9	880	1400
113KBO2558	44.1	0 $\div$ -0.3	1.85	12.5	60°	37.5	15	-9	1000	1600
113KBO3068	52.1	0 $\div$ -0.3	1.85	12.5	50°	44.5	15	-9	1600	2800
113KBO4080	60.6	0 $\div$ -0.3	2.15	16.8	50°	59	17	-13	2200	4000
113KBO50100	77.6	0 $\div$ -0.3	2.65	21	50°	72	17	-13	3900	8100
113KBO60125	101.7	0 $\div$ -0.4	3.15	27.2	54°	86.5	20	-16	4800	10200

## >>> Linear bearing

SC and SCV Series support for linear shaft

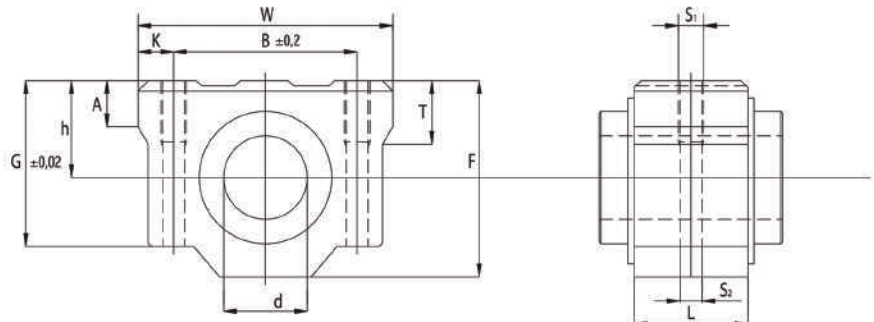
At [www.rodavigo.net](http://www.rodavigo.net) Family: Linear rolling  
Product: Linear rolling

### SC series



Code	Weight [N]	d [mm]	W [mm]	F [mm]	L [mm]	h [mm]	G [mm]	T [mm]	A [mm]	B [mm]	C [mm]	K [mm]	S1 [mm]	S2 [mm]	Load capacity [N]	
															C	C <sub>0</sub>
113SC05	0.14	5	22	14	18	7	11	-	3	16	12	3	M 3	-	170	210
113SC06	0.34	6	30	18	25	9	15	6	5	20	15	5	M 4	3.4	210	270
113SC08	0.56	8	34	22	30	11	18	6	5	24	18	5	M 4	3.4	280	400
113SC10	0.90	10	40	26	35	13	21	8	6	28	21	6	M 5	4.3	380	560
113SC12	1.12	12	44	29	36	15	25	8	5.5	30.5	26	5.75	M 5	4.3	420	610
113SC13	1.23	13	44	30	39	15	24.5	8	5.5	33	26	5.5	M 5	4.3	520	800
113SC16	1.89	16	50	38.5	44	19	32.5	9	7	36	34	7	M 5	4.3	790	1200
113SC20	2.37	20	54	42	50	21	35	11	7	40	40	7	M 6	5.2	900	1400
113SC25	5.55	25	76	51.5	67	26	42	12	11	54	50	11	M 8	6.8	1000	1600
113SC30	6.85	30	78	59.5	72	30	49	15	10	58	58	10	M 8	6.8	1600	2800
113SC35	11.0	35	90	68	80	34	54	18	10	70	60	10	M 8	6.8	1700	3200
113SC40	16.0	40	102	78	90	40	62	20	11	80	60	11	M10	8.6	2200	4100
113SC50	33.5	50	122	102	110	52	80	25	11	100	80	11	M10	8.6	3900	8100
113SC60	42.7	60	132	114	122	58	94	30	21	108	90	12	M12	10.7	4800	10200

### SCV series



Code	Weight [N]	d [mm]	W [mm]	F [mm]	L [mm]	h [mm]	G [mm]	T [mm]	B [mm]	A [mm]	K [mm]	S1 [mm]	S2 [mm]	Load capacity [N]	
														C	C <sub>0</sub>
113SCV08	0.63	8	34	22	15.4	11	18	6	24	5	5	M 4	3.4	280	400
113SCV10	0.92	10	40	26	19.5	13	21	8	28	6	6	M 5	4.3	380	560
113SCV12	1.02	12	42	28	20.5	15	25	8	30.5	5.5	5.75	M 5	4.3	420	610
113SCV13	1.2	13	44	30	20.5	15	24.5	8	33	5.5	5.5	M 5	4.3	520	800
113SCV16	2.0	16	50	38.5	23.5	19	32.5	9	36	7	7	M 5	4.3	790	1200
113SCV20	2.55	20	54	42	27.4	21	35	11	40	7	7	M 6	5.2	900	1400
113SCV25	6.0	25	76	51.5	37.4	26	42	12	54	11	11	M 8	6.8	1000	1600
113SCV30	7.35	30	78	59.5	40.9	30	49	15	58	10	10	M 8	6.8	1600	2800
113SCV35	11.0	35	90	68	45.4	34	54	18	70	10	10	M 8	6.8	1700	3200
113SCV40	15.9	40	102	78	56.4	40	62	20	80	11	11	M10	8.6	2200	4100
113SCV50	33.4	50	122	102	68.9	52	80	25	100	11	11	M10	8.6	3900	8100

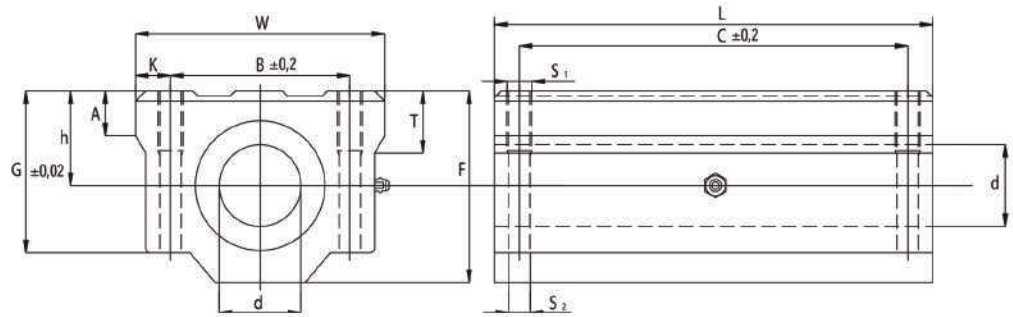


>>> **Linear bearing**

SCW and SBR Series support for linear shaft

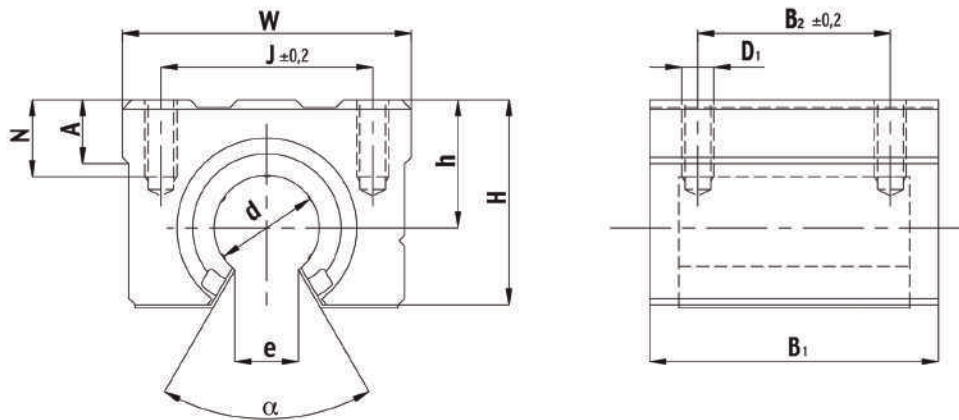
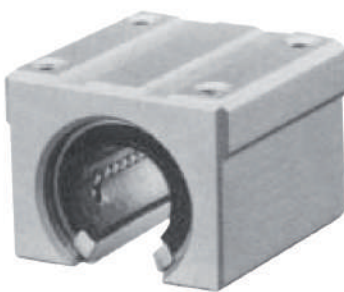
At www.rodavigo.net Family: Linear rolling  
Product: Linear rolling

**SCW series**



Code	Weight [N]	d [mm]	W [mm]	F [mm]	L [mm]	h [mm]	G [mm]	A [mm]	T [mm]	B [mm]	C [mm]	K [mm]	S1 [mm]	S2 [mm]	Load capacity [N]	
															C	C <sub>0</sub>
113SCW05	0.27	5	22	14	33	7	11	3	-	16	-	3	M 3	-	270	420
113SCW06	0.63	6	30	18	48	9	15	5	6	20	-	5	M 4	3.4	330	540
113SCW08	1.02	8	34	22	58	11	18	6	8	24	42	5	M 4	3.4	440	800
113SCW10	1.06	10	40	26	68	13	21	8	12	28	46	6	M 5	4.3	600	1120
113SCW12	2.05	12	42	28	70	15	25	8	12	30.5	50	5.75	M 5	4.3	670	1200
113SCW13	2.40	13	44	30	75	15	24.5	8	12	33	50	5.5	M 5	4.3	830	1600
113SCW16	4.0	16	50	38.5	85	19	32.5	9	12	36	60	7	M 5	4.3	1250	2400
113SCW20	5.7	20	54	42	96	21	35	11	12	40	70	7	M 6	5.2	1440	2800
113SCW25	12.0	25	76	51.5	130	26	42	12	18	54	100	11	M 8	6.8	1640	3200
113SCW30	14.8	30	78	59.5	140	30	49	15	18	58	110	10	M 8	6.8	2500	5600
113SCW35	22.0	35	90	68	155	34	54	18	18	70	120	10	M 8	6.8	2700	6400
113SCW40	32.0	40	102	78	175	40	62	20	25	80	140	11	M10	8.6	3500	8200
113SCW50	67.0	50	122	102	215	52	80	25	25	100	160	11	M10	8.6	6200	16200
113SCW60	85.6	60	132	114	240	58	94	30	25	108	180	12	M12	10.7	7700	20400

**SBR series**



Code	Weight [N]	d [mm]	A [mm]	B1 [mm]	B2 [mm]	D1 [mm]	e [mm]	α	h [mm]	H [mm]	J [mm]	N [mm]	W [mm]	Load capacity [N]	
														C	C <sub>0</sub>
113SBR16	1.5	16	9	45	30	M 5	10	80°	20	33	32	12	45	590	910
113SBR20	2.0	20	11	50	35	M 6	10	60°	23	39	35	12	48	880	1400
113SBR25	4.5	25	14	65	40	M 6	11.5	50°	27	47	40	12	60	1000	1600
113SBR30	6.3	30	15	70	50	M 8	14	50°	33	56	50	18	70	1600	2800
113SBR35	9.2	35	18	80	55	M 8	16	50°	37	63	55	18	80	1700	3200
113SBR40	13.3	40	20	90	65	M10	19	50°	42	72	65	20	90	2200	4100
113SBR50	30	50	25	110	80	M10	23	50°	53	91	94	20	120	3900	8100

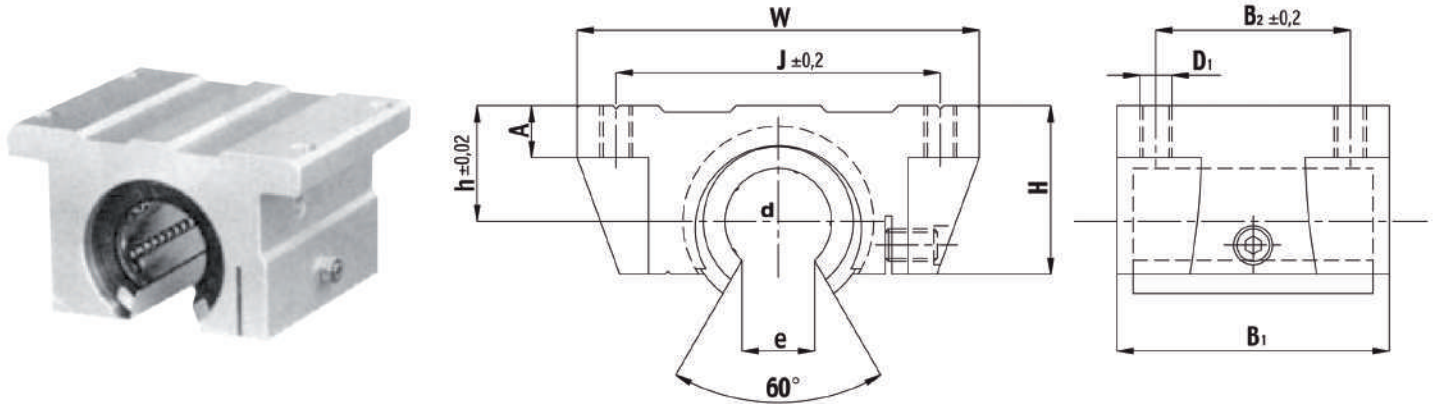


## >>> Linear bearing

TBR Series Support for Linear Shaft

At [www.rodavigo.net](http://www.rodavigo.net) Family: Linear rolling  
Product: Linear rolling

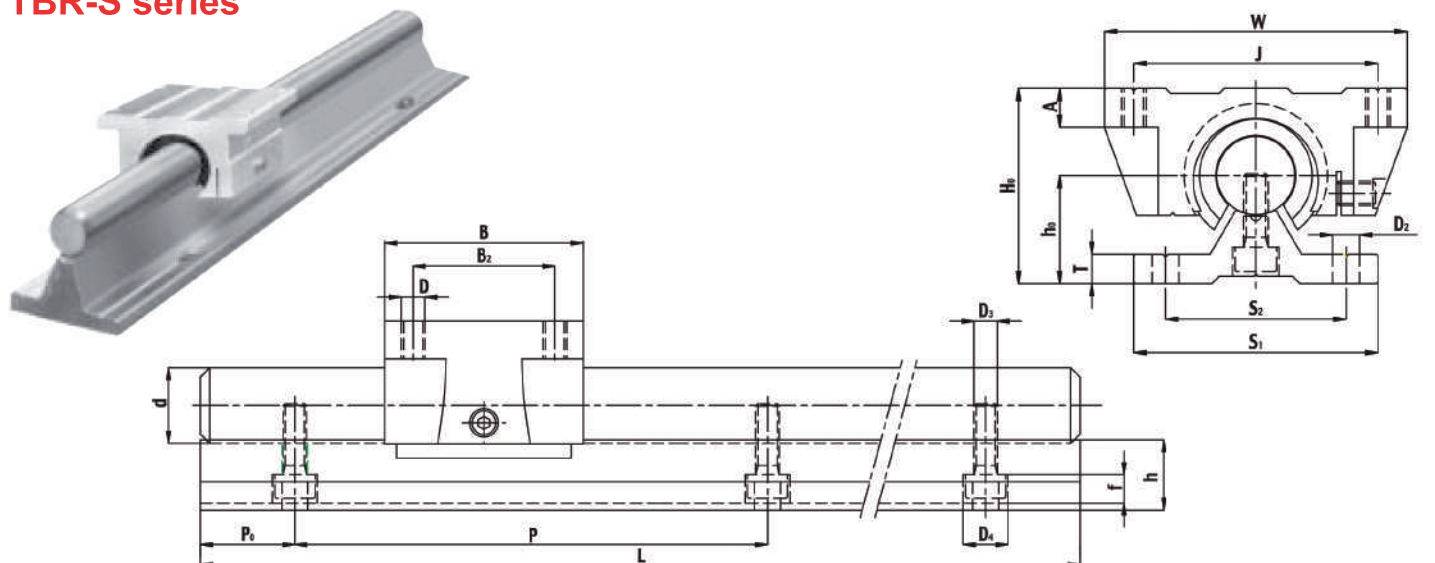
### TBR series



Code	Weight [N]	d [mm]	A [mm]	B1 [mm]	B2 [mm]	D1 [mm]	e [mm]	h [mm]	H [mm]	J [mm]	W [mm]	Load capacity [N]	
												C	C <sub>0</sub>
113TBR16	1.8	16	8	42	30	M5	10	17.9	27	50	62	392	490
113TBR20	3.0	20	10	51	37	M6	10	21	31.4	54	68	784	1176
113TBR25	6.0	25	12	65	50	M8	11.5	28	41	65	82	1568	2352
113TBR30	9.0	30	12	75	60	M8	14	33.5	48	75	91	1764	2940

TBR-S Series Rail for Support

### TBR-S series



Code	Support Units	d [mm]	A [mm]	B1 [mm]	B2 [mm]	D1 [mm]	D2 [mm]	D3 [mm]	D4 [mm]	f [mm]	h0 [mm]	h1 [mm]	H [mm]	H0 [mm]	J [mm]	S1 [mm]	S2 [mm]	T [mm]	W [mm]	P0 [mm]
113TBR16S	TBR16UU	16	8	42	30	M5	5.5	5.5	9.5	5.4	22.1	15	26	40	50	50	37	6	62	50
113TBR20S	TBR20UU	20	10	51	37	M6	5.5	5.5	9.5	5.4	29	19.4	31	50	54	55	40	8	68	50
113TBR25S	TBR25UU	25	12	65	50	M8	6.6	6.6	11	6.5	32	20.1	41	60	65	65	45	10	82	50
113TBR30S	TBR30UU	30	12	75	60	M8	6.6	6.6	11	6.5	36.5	22.5	48	70	75	75	55	12	91	50

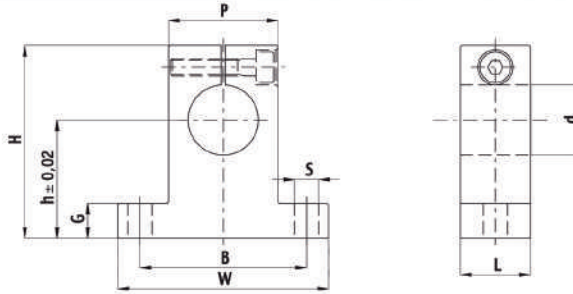


>>> **Linear bearing**

SK Series Support for Linear Shaft

At www.rodavigo.net Family: Linear rolling  
Product: Linear rolling

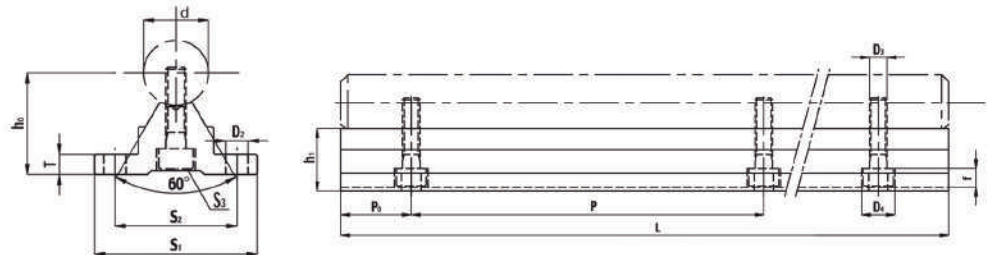
**SK series**



Code	Weight [N]	d [mm]	h [mm]	W [mm]	B [mm]	P [mm]	S [mm]	G [mm]	H [mm]	L [mm]	Mounting screws
113SK08	0.24	8	20	42	32	18	5.5	6	32.8	14	M 5
113SK10	0.24	10	20	42	32	18	5.5	6	32.8	14	M 5
113SK12	0.3	12	23	42	32	20	5.5	6	37.5	14	M 5
113SK13	0.3	13	23	42	32	20	5.5	6	37.5	14	M 5
113SK16	0.4	16	27	48	38	25	5.5	8	44	16	M 5
113SK20	0.7	20	31	60	45	30	6.6	10	51	20	M 6
113SK25	1.3	25	35	70	56	38	6.6	12	60	24	M 6
113SK30	1.8	30	42	84	64	44	9	12	70	28	M 8
113SK35	2.7	35	50	98	74	50	11	15	85	32	M 10
113SK40	4.2	40	60	114	90	60	11	15	96	36	M 10
113SK50	7.5	50	70	126	100	74	14	18	120	40	M 12
113SK60	11	60	80	148	120	90	14	18	136	45	M 12

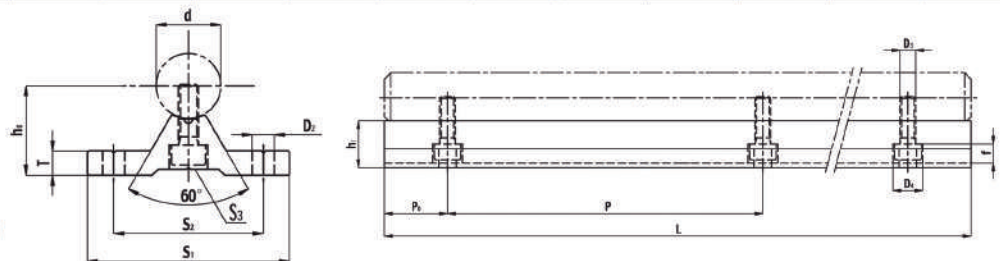
SBR-L and TBR-L Series guideways

**SBR-L series**



Code	Weight [N]	d [mm]	D2 [mm]	D3 [mm]	D4 [mm]	f [mm]	h <sub>0</sub> [mm]	h <sub>1</sub> [mm]	S <sub>1</sub> [mm]	S <sub>2</sub> [mm]	T [mm]	P <sub>0</sub> [mm]	S <sub>3</sub>
113SBR16L	10	16	5.5	5.5	9.5	5.4	25	17.8	40	30	5	50	M 5
113SBR20L	12	20	5.5	5.5	9.5	5.4	27	17.7	45	30	5	50	M 6
113SBR25L	15	25	6.6	6.6	11	6.5	33	21	55	35	6	50	M 6
113SBR30L	19	30	6.6	6.6	11	6.5	37	22.8	60	40	7	50	M 8
113SBR35L	24.5	35	9	9	14	8.6	43	26.5	65	45	8	50	M 8
113SBR40L	32.5	40	9	9	14	8.6	48	29.4	75	55	9	50	M 8
113SBR50L	52.6	50	11	11	7.5	10.8	62	38.8	95	70	11	50	M 10

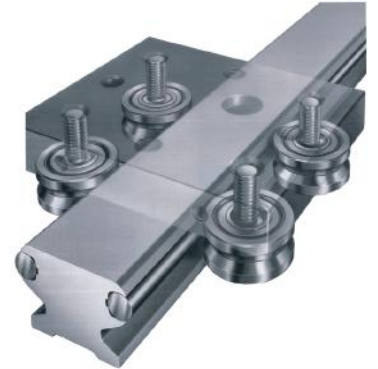
**TBR-L series**



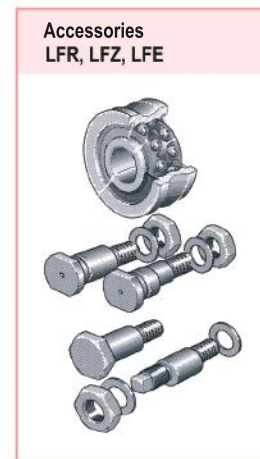
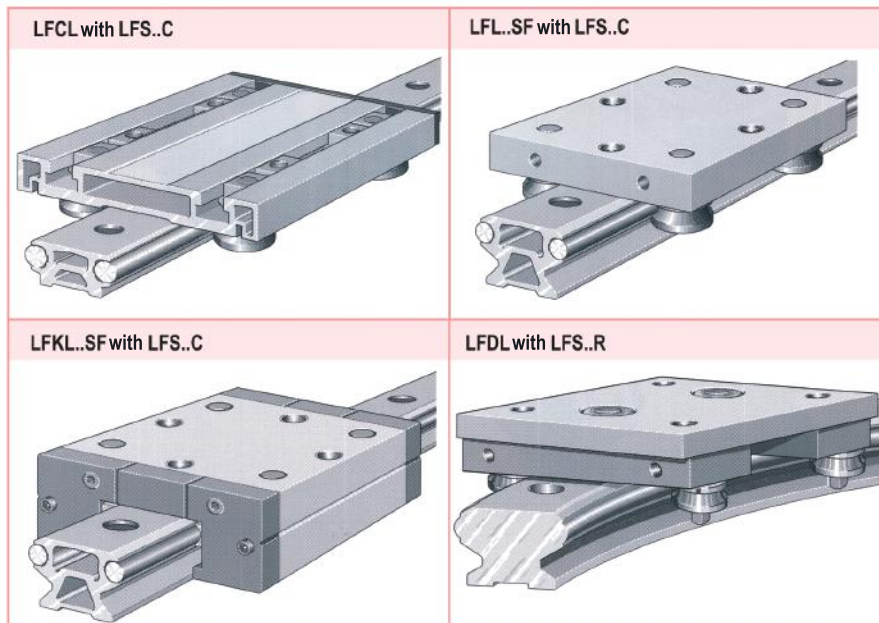
Code	Weight [N]	d [mm]	D2 [mm]	D3 [mm]	D4 [mm]	f [mm]	h <sub>0</sub> [mm]	h <sub>1</sub> [mm]	S <sub>1</sub> [mm]	S <sub>2</sub> [mm]	T [mm]	P <sub>0</sub> [mm]	S <sub>3</sub>
113TBR16L	11	16	5.5	5.5	9.5	5.4	22.1	15	50	37	6	50	M 5
113TBR20L	18	20	5.5	5.5	9.5	5.4	29	19.4	55	40	8	50	M 6
113TBR25L	20.5	25	6.6	6.6	11	6.5	32	20.1	65	45	10	50	M 6
113TBR30L	28	30	6.6	6.6	11	6.5	36.5	22.5	75	55	12	50	M 8



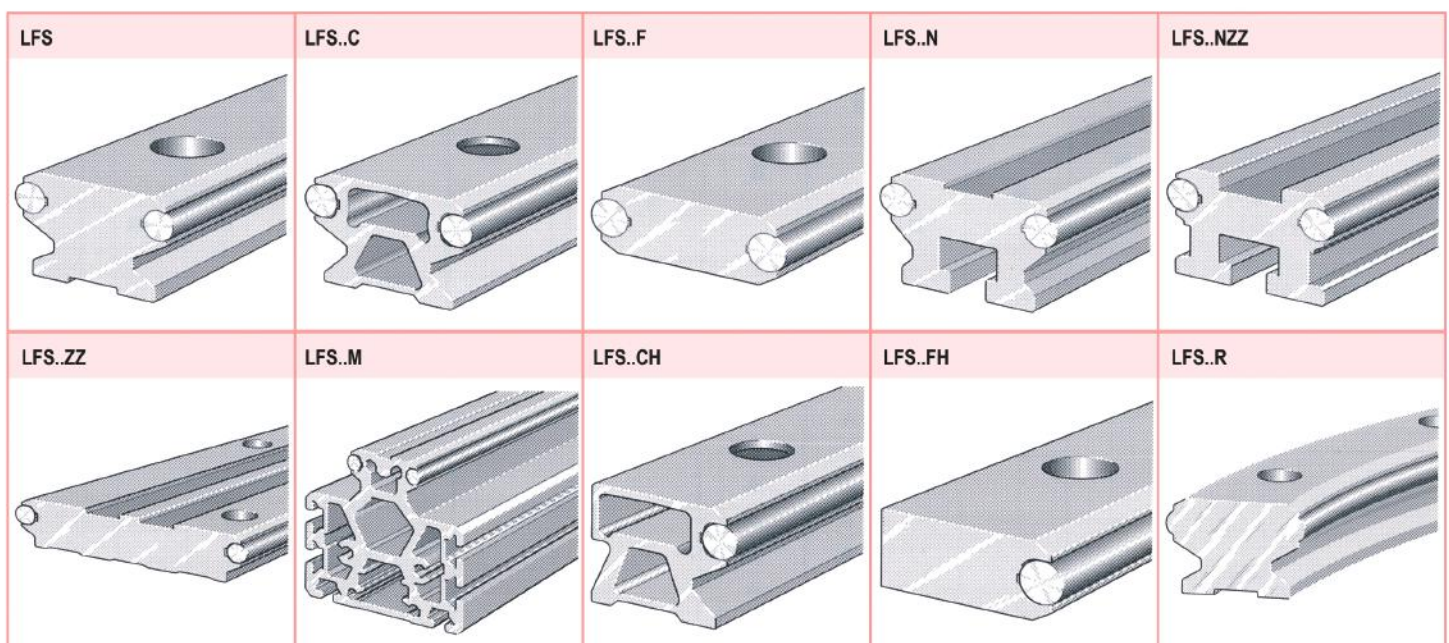
## >>> Linear set



Linear blocks with guideways



Guideways

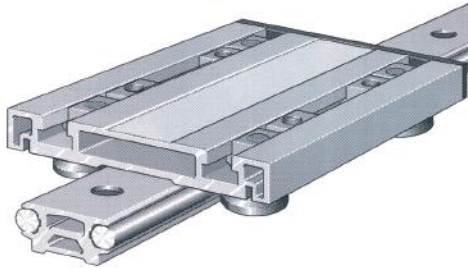




## >>> Linear sets

At www.rodavigo.net Family: Linear rolling  
Product: INA linear material

Linear guides with guide rollers and linear block with hollow plate: LFCL Series; guideways: LFS..C, CE and N series

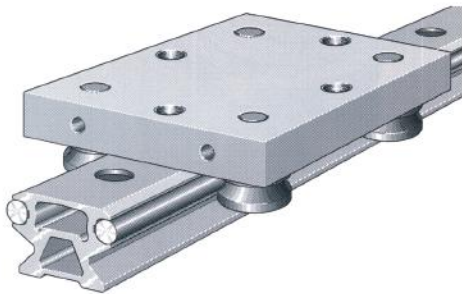


Car	Guide roller	Guide rail	Measurements								
			Linear block			Guideway					
Code	Weight	Code	Code	Weight	H	A	C	h	a	L <sup>1)</sup>	A <sub>1</sub>
<b>kg/m</b>											
019LFCL25	0,44	019LFR508KDD	019LFS25	1,1	32	80	110	15	25	2000	47
019LFCL25	0,44	019LFR508KDD	019LFS25N	1	32	80	110	15	25	2000	47
019LFCL42	1	019LFR5201KDD	019LFS42C <sup>1)</sup>	2,2	39	116	150	20	42	8000	73
019LFCL42	1	019LFR5201KDD	019LFS42CE <sup>1)</sup>	2,2	39	116	150	20	42	8000	73
019LFCL86 <sup>7)</sup>	2,2	019LFR5301KDD	019LFS586C <sup>1)</sup>	4,4	59	190	235	34	86	8000	124

Corrosion resistant versions: LFCL..VA, LFS..VA; guideway without holes: LFS..OL

- 1) The shape of the hollow plate depends on the construction size.
- 2) Maximum length L of the guideway of a single section; longer rails are supplied in various sections, conveniently marked.
- 3) C<sub>s</sub> and C<sub>e</sub> depend on the guideway length.
- 4) For DIN 912-8.8 screws and for maximum load, DIN 433 washers are necessary.
- 5) Recommended bolt distance.
- 6) For DIN 931 / 933-8.8 screws, the supply includes special washers.
- 7) Additional T-slot in the center of the linear block.
- 8) The load capacity table is not valid for LFCL..VA and LFS..VA.

Linear guides with guide rollers and standard linear block: LFL..SF Series; guideways: LFS..E, C, CE, F, FE, N and NZZ Series



Car	Guide roller	Guide rail	Measurements							
			Linear block			Guideway				
Code	Weight	Code	Code	Weight	H	A	C	h	a	
<b>kg</b>										
019LFL20SF	0,16	019LFR505KDD	019LFS20	0,6	22	55	50	12,2	20	
019LFL32SF	0,4	019LFR508KDD	019LFS32	1,6	35,5	80	90	20	32	
019LFL32SF	0,4	019LFR508KDD	019LFS32E	1,6	35,5	80	90	20	32	
019LFL32SF	0,4	019LFR508KDD	019LFS32C	1,1	35,5	80	90	20	32	
019LFL32SF	0,4	019LFR508KDD	019LFS32CE	1,1	35,5	80	90	20	32	
019LFL32SF	0,4	019LFR508KDD	019LFS32F	1	25,5	80	90	10	32	
019LFL32SF	0,4	019LFR508KDD	019LFS32N	1,4	35,5	80	90	20	32	
019LFL52SF	1	019LFR5201KDD	019LFS52	4,4	54,3	120	100	34	52	
019LFL52SF	1	019LFR5201KDD	019LFS52E	4,4	54,3	120	100	34	52	
019LFL52SF	1	019LFR5201KDD	019LFS52C	3	54,3	120	100	34	52	
019LFL52SF	1	019LFR5201KDD	019LFS52CE	3	54,3	120	100	34	52	
019LFL52SF	1	019LFR5201KDD	019LFS52F	3	38,2	120	100	18	52	
019LFL52SF	1	019LFR5201KDD	019LFS52NZZ	3,9	54,3	120	100	34	52	
019LFL52ESF	1,9	019LFR5301KDD	019LFS52E	4,4	60,4	135	150	34	52	
019LFL52ESF	1,9	019LFR5301KDD	019LFS52CE	3	60,4	135	150	34	52	
019LFL52ESF	1,9	019LFR5301KDD	019LFS52FE	3	44,2	135	150	18	52	

Corrosion resistant versions: LFCL..VA, LFS..VA; guideway without holes: LFS..OL

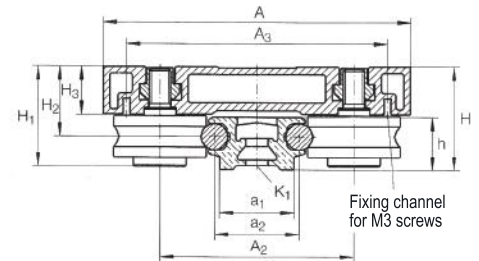
- 1) Maximum length L of the guideway of a single section; longer rails are supplied in various sections, conveniently marked.
- 2) C<sub>s</sub> and C<sub>e</sub> depend on the guideway length.
- 3) For DIN 912-8.8 screws and for maximum load, DIN 433 washers are necessary.
- 4) Tightening torque for guide roller bolts. They are supplied from the factory with the moment M<sup>8</sup>;
- 5) Recommended bolt distance.
- 6) For DIN 931 / 933-8.8 screws, the supply includes special washers.
- 7) The load capacity table is not valid for LFCL..VA and LFS..VA.
- 8) Fixing holes, from below for AB LFL20;
- 9) Recast depth for screws according to DIN 7984.

At [www.rodavigo.net](http://www.rodavigo.net) Family: Linear rolling  
Product: INA linear material

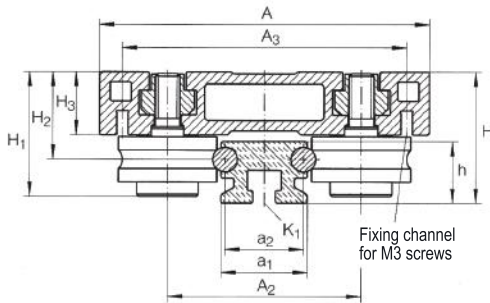
## >>> Linear set

### Mounting dimensions

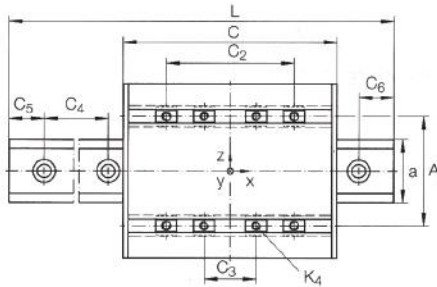
A <sub>2</sub>	A <sub>3</sub>	a <sub>1</sub>	a <sub>2</sub>	C <sub>2</sub>	C <sub>3</sub>	C <sub>4</sub>	C <sub>5</sub> <sup>3)</sup>	C <sub>6</sub> <sup>3)</sup>	H <sub>1</sub>	H <sub>2</sub>	H <sub>3</sub>	K <sub>1</sub> <sup>3)</sup>	K <sub>4</sub>	Maximum depth threading for K <sub>4</sub>			
Min Max		Min Max		Min Max		Min Max		Min Max		Min Max		Min Max					
47	69	21	19	52	13	26	62,5	10	54	10	54	30,5	21,5	15,4	M5	M6	10
47	69	21	19	52	13	26	62,5	-	-	-	-	30,5	21,5	15,4	M5 <sup>6)</sup>	M6	10
73	98,5	28	32	85	15	55	125 <sup>5)</sup>	12	113	12	113	38,1	26,4	18	M8	M8	12
73	89,5	28	32	85	15	55	62,5	12	51	12	51	38,1	26,4	18	M8	M8	12
124	151,5	71	76	155	18	119	250	17	235	17	235	48,4	33,9	23,4	M12	M10	14



LFCL with LFS, LFS..C



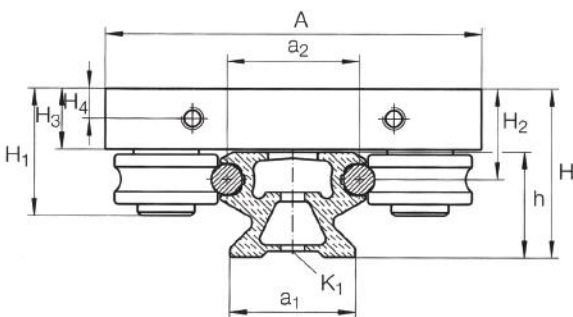
LFCL with LFS..N (View rotated 90°)



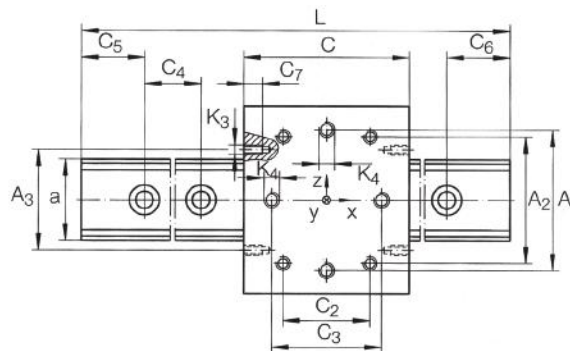
LFCL with LFS, LFS..C, LFS..N (View rotated 90°)

### Mounting dimensions

L <sup>1)</sup>	A <sub>1</sub>	A <sub>2</sub>	A <sub>3</sub>	a <sub>1</sub>	a <sub>2</sub>	C <sub>2</sub>	C <sub>3</sub>	C <sub>4</sub>	C <sub>5</sub> <sup>2)</sup>	C <sub>6</sub> <sup>2)</sup>	C <sub>7</sub>	H <sub>1</sub>	H <sub>2</sub>	H <sub>3</sub>	H <sub>4</sub>	K <sub>1</sub> <sup>3)</sup>	K <sub>3</sub>	K <sub>4</sub>	M <sub>A</sub> <sup>4)</sup>	Resistant to the corrosion		
±0,2		Min Max		Min Max		Min Max		Min Max		Min Max		Min Max		Min Max		Min Max		Min Max		Standard Nm	Nm	
2000	40	34	- <sup>8)</sup>	17	16	24	38	62,5	9	54	9	54	7	20,5	20,5	9	7	M4	M3 <sup>8)</sup>	M5	2,5	2,5
6000	59	54	56	24	26	60	70	125	11	116	11	116	7	32	20,5	14	7	M6	M6	M8	15	12
6000	59	54	56	24	26	60	70	62,5	11	52	11	52	7	32	20,5	14	7	M6	M6	M8	15	12
6000	59	54	56	24	26	60	70	125	11	116	11	116	7	32	20,5	14	7	M6	M6	M8	15	12
6000	59	54	56	24	26	60	70	62,5	11	52	11	52	7	32	20,5	14	7	M6	M6	M8	15	12
4000	59	54	56	-	26	60	70	125	11	116	11	116	7	32	20,5	14	7	M6 <sup>9)</sup>	M6	M8	15	12
6000	59	54	56	24	26	60	70	125 <sup>5)</sup>	-	-	-	-	7	32	20,5	14	7	M6 <sup>8)</sup>	M6	M8	15	12
8000	90	83	65	40	42	60	70	250	17	235	17	235	12	53,5	29,5	19,5	9,75	M10	M6	M10	40	23
8000	90	83	65	40	42	60	70	125	17	110	17	110	12	53,5	29,5	19,5	9,75	M10	M6	M10	40	23
8000	90	83	65	40	42	60	70	250	17	235	17	235	12	53,5	29,5	19,5	9,75	M10	M6	M10	40	23
8000	90	83	65	40	42	60	70	125	17	110	17	110	12	53,5	29,5	19,5	9,75	M10	M6	M10	40	23
4000	90	83	65	-	42	60	70	250	17	235	17	235	12	53,5	29,5	19,5	9,75	M10 <sup>9)</sup>	M6	M10	40	23
8000	90	83	65	46,5	42	60	70	250 <sup>5)</sup>	-	-	-	-	12	53,5	29,5	19,5	9,75	M10 <sup>9)</sup>	M6	M10	40	23
8000	105	90	65	40	42	105	110	125	17	110	17	110	12	59	35,2	24	12	M10	M6	M10	40	23
8000	105	90	65	40	42	105	110	125	17	110	17	110	12	53,8	35,3	24	12	M10	M6	M10	40	23
4000	105	90	65	40	42	105	110	125	17	110	17	110	12	53,8	35,3	24	12	M10	M6	M10	40	23



LFL..SF with LFS, LFS..C, LFS..CE



LFL..SF with LFS, LFS..C, LFS..CE, LFS..F, LFS..FE,  
LFS..N, LFS..NZZ  
(View rotated 90°)

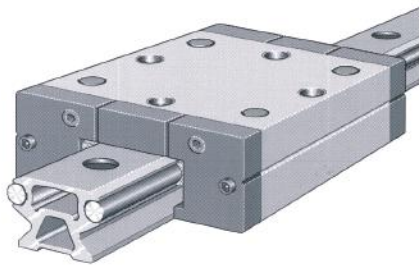




**>>> Linear sets**

At www.rodavigo.net Family: Linear rolling  
Product: INA linear material

Linear guides with guide rollers and compact linear block: LFKL..SF series; guideways: Series: LFS, LFS..C, EE, C, CE, F, N

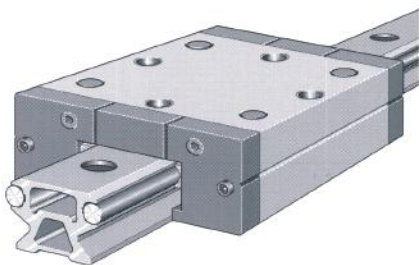


Linear block Code	Weight kg	Guide roller Code	Guideway Code	Measurements						
				Linear block			Guideway			
				Weight kg/m	H	A	C	h	a	L <sup>1)</sup>
019LFKL20SF <sup>5)</sup>	0,2	019LFR505KDD	019LFS20	0,6	22	56	69	12,2	20	2000
019LFKL25SF <sup>5)</sup>	0,3	019LFR505KDD	019LFS25	1,1	25	65	85	15	25	2000
019LFKL25SF <sup>5)</sup>	0,3	019LFR505KDD	019LFS25N	1	25	65	85	15	25	2000
019LFKL32SF	0,7	019LFR508KDD	019LFS32	1,6	35,5	86	112	20	32	6000
019LFKL32SF	0,7	019LFR508KDD	019LFS32E	1,6	35,5	86	112	20	32	6000
019LFKL32SF	0,7	019LFR508KDD	019LFS32C	1,1	35,5	86	112	20	32	6000
019LFKL32SF	0,7	019LFR508KDD	019LFS32CE	1,1	35,5	86	112	20	32	6000
019LFKL32SF	0,7	019LFR508KDD	019LFS32F	1	25,5	86	112	10	32	4000
019LFKL32SF	0,7	019LFR508KDD	019LFS32N	1,4	35,5	86	112	20	32	6000

Corrosion resistant versions: LFKL..VA, LFS..VA; guideway without holes: LFS..OL

- 1) Maximum length L of the guideway of a single section; longer rails are supplied in various sections, conveniently marked.
- 2) C5 and C6 depend on the guideway length.
- 3) For DIN 912-8.8 screws and for maximum load, DIN 433 washers are necessary.  
For LFS..F and LFS..FE guideways: recast depth for screws according to DIN 7984
- 4) Tightening torque for guide roller bolts.
- 5) Without oiler. Regreasing is possible through the pin holes.
- 6) Recommended bolt distance.
- 7) For DIN 931 / 933-8.8 screws, the supply includes special washers.
- 8) The load capacity table is not valid for LFCL..VA and LFS..VA.

Linear guides with guide rollers and compact linear block: LFKL..SF series; guideways: Series: LFS..E, EE, C, CE, CEE, F, FE, NZZ



Linear block Code	Weight kg	Guide roller Code	Guideway Code	Measurements						
				Linear block			Guideway			
				Weight kg/m	H	A	C	h	a	L <sup>1)</sup>
019LFKL52SF	1,5	019LFR5201KDD	019LFS52	4,4	54,3	130	136	34	52	8000
019LFKL52SF	1,5	019LFR5201KDD	019LFS52E	4,4	54,3	130	136	34	52	8000
019LFKL52SF	1,5	019LFR5201KDD	019LFS52C	3	54,3	130	136	34	52	8000
019LFKL52SF	1,5	019LFR5201KDD	019LFS52CE	3	54,3	130	136	34	52	8000
019LFKL52SF	1,5	019LFR5201KDD	019LFS52F	3	38,2	130	136	52	18	4000
019LFKL52SF	1,5	019LFR5201KDD	019LFS52NZZ	3,9	54,3	130	136	34	52	8000
019LFKL52ESF	2,9	019LFR5301KDD	019LFS52E	4,4	60,4	145	186	34	52	8000
019LFKL52ESF	2,9	019LFR5301KDD	019LFS52CE	3	60,4	145	186	34	52	8000
019LFKL52ESF	2,9	019LFR5301KDD	019LFS52FE	3	44,2	145	186	18	52	4000
019LFKL52EE	3,3	019LFR5302KDD	019LFS52EE	4,3	60,4	155	205	34	52	8000
019LFKL52EESF	3,9	019LFR5302KDD	019LFS52CEE	4,3	60,4	155	205	34	52	8000

Corrosion resistant versions: LFCL..VA, LFS..VA; guideway without holes: LFS..OL

- 1) The shape of the hollow plate depends on the construction size.
- 2) Maximum length L of the guideway of a single section; longer rails are supplied in various sections, conveniently marked.
- 3) C5 and C6 depend on the guideway length.
- 4) For DIN 912-8.8 screws and for maximum load, DIN 433 washers are necessary.
- 5) Recommended bolt distance.
- 6) For DIN 931 / 933-8.8 screws, the supply includes special washers.
- 7) Additional T-slot in the center of the linear block.
- 8) The load capacity table is not valid for LFCL..VA and LFS..VA.

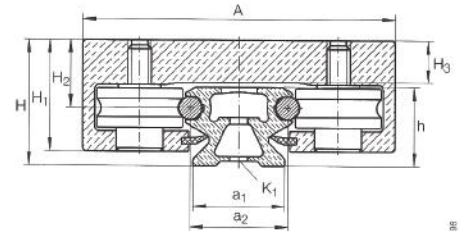


At [www.rodavigo.net](http://www.rodavigo.net) Family: Linear rolling  
Product: INA linear material

## >>> Linear set

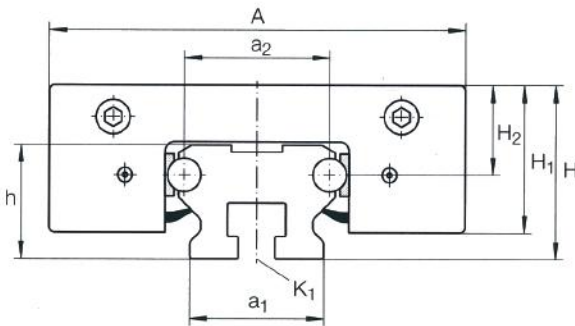
### Mounting dimensions

A <sub>1</sub>	A <sub>2</sub>	a <sub>1</sub>	a <sub>2</sub>	C <sub>1</sub>	C <sub>2</sub>	C <sub>3</sub>	C <sub>4</sub>	C <sub>5</sub> <sup>2)</sup>	C <sub>6</sub> <sup>3)</sup>	H <sub>1</sub>	H <sub>2</sub>	H <sub>3</sub>	K <sub>1</sub> <sup>3)</sup>	K <sub>2</sub>	M <sub>A</sub> <sup>4)</sup>	Resistate a the corrosion	
Min. Max.									Min. Max.								
39	34	17	16	24	49	62,5	9	54	9	54	20,5	13	8,7	M4	M5	2,5	2,5
50	40	21	19	45	60	62,5	10	54	10	54	23,5	14,4	9	M5	M5	2,5	2,5
50	40	21	19	45	60	62,5 <sup>5)</sup>	-	-	-	-	23,5	14,4	9	M5 <sup>7)</sup>	M5	2,5	2,5
59	54	24	26	60	70	125	11	116	11	116	32	20,5	14	M6	M8	15	12
59	54	24	26	60	70	62,5	11	52	11	52	32	20,5	14	M6	M8	15	12
59	54	24	26	60	70	125	11	116	11	116	32	20,5	14	M6	M8	15	12
59	54	24	26	60	70	62,5	11	52	11	52	32	20,5	14	M6	M8	15	12
59	54	-	26	60	70	125	11	116	11	116	32	20,5	14	M6 <sup>8)</sup>	M8	15	12
59	54	24	26	60	70	125 <sup>6)</sup>	-	-	-	-	32	20,5	14	M6 <sup>7)</sup>	M8	15	12



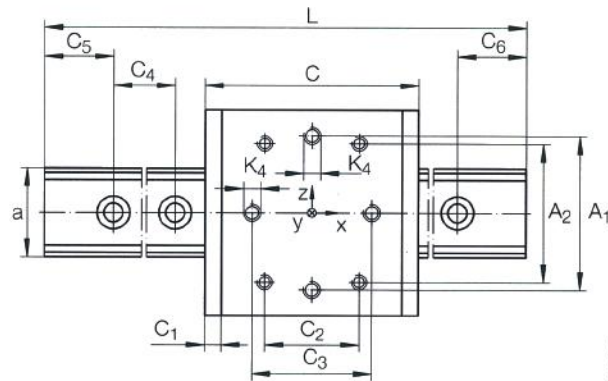
LFKL..SF with LFS, LFS..C

121 198



LFKL..SF with LFS..N

121 199

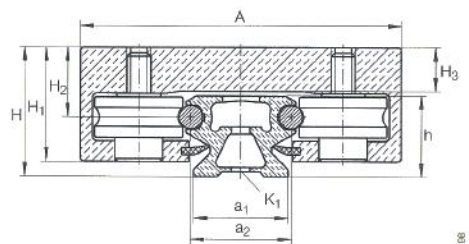


LFKL..SF with LFS, LFS..C, LFS..N, LFS..NZZ  
(View rotated 90°)

121 200

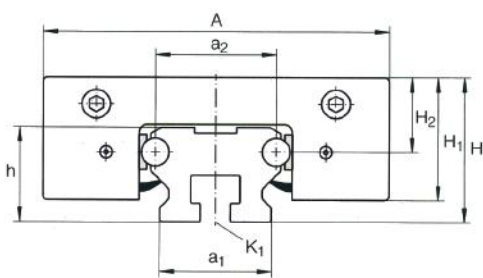
### Mounting dimensions

A <sub>1</sub>	A <sub>2</sub>	a <sub>1</sub>	a <sub>2</sub>	C <sub>1</sub>	C <sub>2</sub>	C <sub>3</sub>	C <sub>4</sub>	C <sub>5</sub> <sup>2)</sup>	C <sub>6</sub> <sup>3)</sup>	H <sub>1</sub>	H <sub>2</sub>	H <sub>3</sub>	K <sub>1</sub> <sup>3)</sup>	K <sub>2</sub>	M <sub>A</sub> <sup>4)</sup>	Resistant to the corrosion		
Min. Max.									Min. Max.									
90	83	40	42	10	60	70	250	17	235	17	110	46,1	29,2	19,4	M10	M10	40	23
90	83	40	42	10	60	70	125	17	110	17	110	46,1	29,2	19,4	M10	M10	40	23
90	83	40	42	10	60	70	250	17	235	17	110	46,1	29,2	19,4	M10	M10	40	23
90	83	40	42	10	60	70	125	17	110	17	110	46,1	29,2	19,4	M10	M10	40	23
90	83	-	42	10	60	70	250	17	235	17	110	46,1	29,2	19,4	M10	M10	40	23
90	83	46,5	42	10	60	70	250 <sup>3)</sup>	-	-	-	-	46,1	29,2	19,4	M10 <sup>6)</sup>	M10	40	23
105	90	40	42	10	105	110	125	17	110	17	110	53,8	35,3	24	M10	M10	40	23
105	90	40	42	10	105	110	125	17	110	17	110	53,8	35,3	24	M10	M10	40	23
105	90	-	42	10	105	110	125	17	110	17	110	53,8	35,3	24	M10	M10	40	23
115	95,3	40	42	10	120	140	62,5	17	49	17	49	55	35,3	24	M12	M12	70	39
115	95,2	40	42	10	120	140	62,5	17	49	17	49	55	35,3	24	M12	M12	70	39



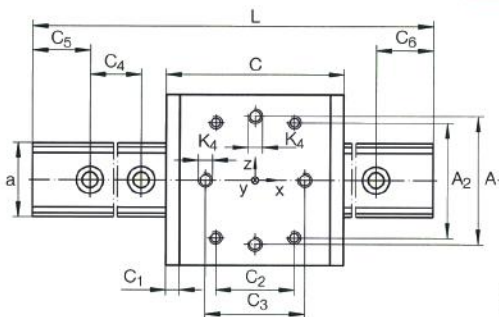
LFKL..SF with LFS, LFS..C

121 198



LFKL..SF with LFS..N

121 199



LFKL..SF with LFS, LFS..C, LFS..N, LFS..NZZ  
(View rotated 90°)

121 200

## &gt;&gt;&gt; Linear sets

 At www.rodavigo.net Family: Linear rolling  
 Product: INA linear material

Linear guides with guide rollers and turning linear block: LFDL Series; guideways: LFS..R series



Linear block <sup>5)</sup>		Guide roller	Guideway	Measurements						
Code	Weight	Code	Code	Weight	Linear block			Guideway		
	kg			kg/m	H	A	C	h	a	β
019LFDL32	1,5	019LFR508KDD	019LFS32R10090	0,5	44,2	80	100	20	32	90°
019LFDL32	1,5	019LFR508KDD	019LFS32R100180	1	44,2	80	100	20	32	180°
019LFDL32	1,5	019LFR508KDD	019LFS32R100360	2	44,2	80	100	20	32	360°
019LFDL32	1,5	019LFR508KDD	019LFS32R30090	1,7	44,2	80	100	20	32	90°
019LFDL32	1,5	019LFR508KDD	019LFS32R300180	3,4	44,2	80	100	20	32	180°
019LFDL32	1,5	019LFR508KDD	019LFS32R300360	6,8	44,2	80	100	20	32	360°
019LFDL32	1,5	019LFR508KDD	019LFS32R50090	2,9	44,2	80	100	20	32	90°
019LFDL32	1,5	019LFR508KDD	019LFS32R500180	5,8	44,2	80	100	20	32	180°
019LFDL32	1,5	019LFR508KDD	019LFS32R500360	11,6	44,2	80	100	20	32	360°
019LFDL52	2,5	019LFR5201KDD	019LFS52R15090	2	66,1	120	150	34	52	90°
019LFDL52	2,5	019LFR5201KDD	019LFS52R150180	4	66,1	120	150	34	52	180°
019LFDL52	2,5	019LFR5201KDD	019LFS52R150360	8	66,1	120	150	34	52	360°
019LFDL52	2,5	019LFR5201KDD	019LFS52R30090	4,5	66,1	120	150	34	52	90°
019LFDL52	2,5	019LFR5201KDD	019LFS52R300180	9	66,1	120	150	34	52	180°
019LFDL52	2,5	019LFR5201KDD	019LFS52R300360	18	66,1	120	150	34	52	360°
019LFDL52	2,5	019LFR5201KDD	019LFS52R50090	7,8	66,1	120	150	34	52	90°
019LFDL52	2,5	019LFR5201KDD	019LFS52R500180	15,6	66,1	120	150	34	52	180°
019LFDL52	2,5	019LFR5201KDD	019LFS52R500360	31,2	66,1	120	150	34	52	360°

Corrosion resistant versions: LFCL..VA, LFS..VA; guideway without holes: LFS..OL

1) Executions protected against corrosion, only on request.

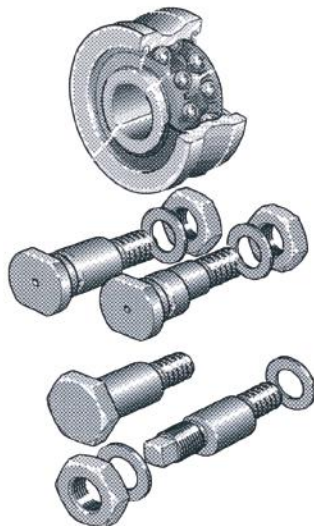
2) For DIN 912-8.8 screws

3) Number of holes in the circular sector r.

 4) Tightening moments for LFZ and LFE bolts; LFZ concentric bolts are tight already with M<sub>ts</sub> when supplying them.

5) Price and supply possibilities, on request.

Profiled guide rollers: LFR series and Bolts: LFZ ... A1 and LFE..A1 series



Linear block		Bolt	Measurements						
Code	Weight	Reference	Weight	A <sub>r</sub>	B	C	D	d	d <sub>w</sub>
	kg		kg/m						
019LFR505KDD	0,01	LFZ5 LFE5-0,5	0,01	9	8	7	16	5	4
019LFR505KDD	0,01	LFZ5 LFE5-0,5	0,01	10,5	8	7	17	5	6
019LFR508KDD	0,02	LFZ8 LFE8-1	0,02	14	-	11	24	8	6
019LFR5201KDD	0,08	LFZ12 LFE12-1	0,04	20,65	-	15,9	35	12	10
019LFR5301KDD	0,1	LFZ12/M12 LFE12/M12	0,06	24	-	19	42	12	10
019LFR5302KDD	0,17	LFZ15 LFE15-1	0,06	26,65	-	19	47	15	10
019LFR520112KDD <sup>4)</sup>	0,08	LFZ12*45 A1 LFE12*45 A1	0,04	21,75	-	15,9	35	12	12
019LFR520416KDD	0,23	LFZ20*67 A1 LFE20*67 A1	0,2	31,5	22,6	20,6	52	20	16
019LFR520620KDD	0,25	LFZ25*82 A1 LFE25*82 A1	0,4	41	25,8	23,8	72	25	20
019LFR520625KDD	0,25	LFZ25*82 A1 LFE25*82 A1	0,4	43,5	25,8	23,8	72	25	25
019LFR520730KDD	0,66	LFZ30*95 A1 LFE30*95 A1	0,62	51	29	27	80	30	30
019LFR520840KDD	1,36	LFZ40*107 A1 LFE40*107 A1	1,1	62,5	38	36	98	40	40
019LFR530850KDD	1,4	LFZ40*115 A1 LFE40*115 A1	1,2	72,5	46	44	110	40	50

1) Washers are not required.

2) Inner hexagon, outer diameter as head: 10mm.

 3) Referred to 10<sup>m</sup>.

 4) For LFR 5301 NPP VA: C<sub>w</sub> = 11700

 C<sub>0w</sub> = 7200

 F<sub>w</sub> = 7700

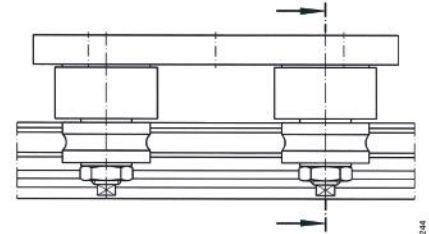


At [www.rodavigo.net](http://www.rodavigo.net) Family: Linear rolling  
Product: INA linear material

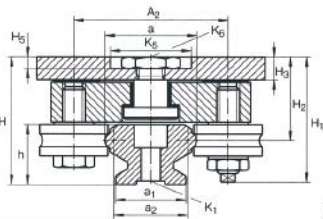
## >>> Linear set

### Mounting dimensions

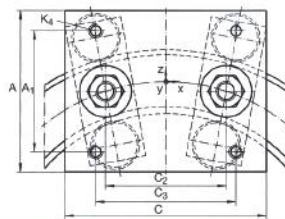
A <sub>1</sub>	A <sub>2</sub>	a <sub>1</sub>	a <sub>2</sub>	C <sub>2</sub>	C <sub>3</sub>	H <sub>1</sub>	H <sub>2</sub>	H <sub>3</sub>	H <sub>4</sub>	K <sub>1</sub> <sup>2)</sup>	K <sub>2</sub>	K <sub>3</sub>	K <sub>4</sub>	X <sup>3)</sup>	r <sub>1</sub>	α	α/2	M <sub>A</sub> <sup>4)</sup>
±0.2																		
60	54	24	26	60	70	43	29,2	9	5	M6	30	M8	M10	3	84	30	15	15
60	54	24	26	60	70	43	29,2	9	5	M6	30	M8	M10	6	84	30	15	15
60	54	24	26	60	70	43	29,2	9	5	M6	30	M8	M10	12	84	30	-	15
60	54	24	26	60	70	43	29,2	9	5	M6	30	M8	M10	4	284	22,5	11,25	15
60	54	24	26	60	70	43	29,2	9	5	M6	30	M8	M10	8	284	22,5	11,25	15
60	54	24	26	60	70	43	29,2	9	5	M6	30	M8	M10	12	284	22,5	-	15
60	54	24	26	60	70	43	29,2	9	5	M6	30	M8	M10	5	484	18	9	15
60	54	24	26	60	70	43	29,2	9	5	M6	30	M8	M10	10	484	18	9	15
60	54	24	26	60	70	43	29,2	9	5	M6	30	M8	M10	12	484	18	-	15
90	83	40	42	76	90	65,3	41	11	6	M10	34	M10	M12	3	124	30	15	40
90	83	40	42	76	90	65,3	41	11	6	M10	34	M10	M12	6	124	30	15	40
90	83	40	42	76	90	65,3	41	11	6	M10	34	M10	M12	12	124	30	-	40
90	83	40	42	76	90	65,3	41	11	6	M10	34	M10	M12	4	274	22,5	11,25	40
90	83	40	42	76	90	65,3	41	11	6	M10	34	M10	M12	8	274	22,5	11,25	40
90	83	40	42	76	90	65,3	41	11	6	M10	34	M10	M12	12	274	22,5	-	40
90	83	40	42	76	90	65,3	41	11	6	M10	34	M10	M12	5	474	18	9	40
90	83	40	42	76	90	65,3	41	11	6	M10	34	M10	M12	10	474	18	9	40
90	83	40	42	76	90	65,3	41	11	6	M10	34	M10	M12	12	474	18	-	40



LFDL with LFS..R



LFDL with LFS..R

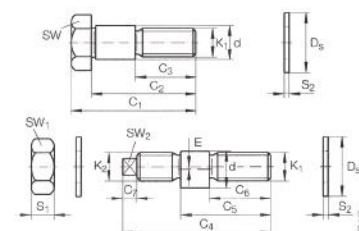
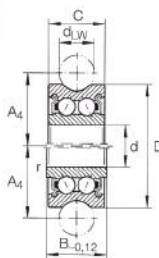


LFDL with LFS..R (View rotated 90°)

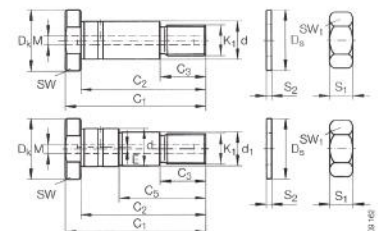
### Guide roller load capacity

d <sub>116</sub>	r	C <sub>1</sub>	C <sub>2</sub>	C <sub>3</sub>	C <sub>4</sub>	C <sub>5</sub>	C <sub>6</sub>	C <sub>7</sub>	D <sub>5</sub>	D <sub>x</sub>	K <sub>1</sub>	K <sub>2</sub>	S <sub>1</sub>	S <sub>2</sub>	SW	SW <sub>1</sub>	SW <sub>2</sub>	E	M	C <sub>N</sub> <sup>3)</sup>	C <sub>N</sub> <sup>3)</sup> din.	C <sub>N</sub> <sup>3)</sup> est.	F <sub>N</sub> <sup>adm</sup>	F <sub>N</sub> <sup>bradm</sup>
-	0,2	19,5	16	9,5	20,5	15	9	-	- <sup>1)</sup>	-	M4	M4	2,9	- <sup>1)</sup>	3 <sup>2)</sup>	7	2	0,5	-	1200	860	1300	1780	
-	0,2	19,5	16	9,5	20,5	15	9	-	- <sup>1)</sup>	-	M4	M4	2,9	- <sup>1)</sup>	3 <sup>2)</sup>	7	2	0,5	-	1270	890	1300	1780	
-	0,3	28,3	24,3	14	33,2	22	13,7	3,5	14	-	M8	M8*0,75	4	1	13	13	5	1	-	3670	2280	1300	4560	
-	0,6	43	36	22	50	33,5	19,5	5	21	-	M10	M10	8	1,8	17	17	6	1	-	8500	5100	5100	10200	
-	0,6	50,8	43,8	24	57	41	24	5	19	-	M12	M12	6,5	1,8	17	17	6	1	-	13000	7700	7500	14200	
-	1	50,8	43,8	26	57	41	24	5	21	-	M12	M12	6,5	1,8	19	19	6	1	-	16200	9200	6200	18400	
10	0,6	50	45	16	-	30	-	-	21	20	M10*1,5	-	8	2	17	17	-	0,75	5,9	8400	5000	5100	10000	
17	1	75	67	23	-	45	-	-	30	30	M16*1,5	-	13	3	27	24	-	1	5,9	16800	9500	12100	16600	
22	1	92	82	30	-	57	-	-	37	40	M20*1,5	-	16	3	36	30	-	1	5,9	29500	16600	20700	33200	
22	1	92	82	30	-	57	-	-	37	40	M20*1,5	-	16	3	36	30	-	1	5,9	29200	16400	23100	32800	
27	1	107	95	32	-	67	-	-	44	45	M24*1,5	-	19	4	41	36	-	1	5,9	38000	20800	21400	36200	
36	1,1	117	107	42	-	72	-	-	56	55	M30*1,5	-	24	4	46	46	-	1	5,9	54800	29000	55000	58000	
36	1,1	125	115	42	-	72	-	-	56	55	M30*1,5	-	24	4	46	46	-	1	5,9	53000	39500	69000	79000	

LFR



LFZ, LFE



LFZ..A1, LFE..A1





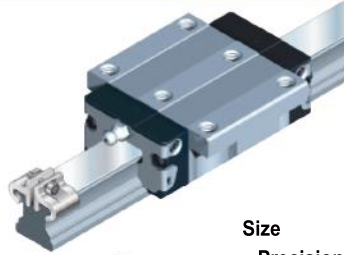
>>> **Steel linear blocks**

**Rexroth**  
Bosch Group

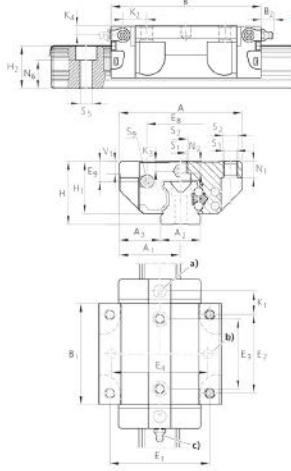
**FNS R 1651 linear block**

At www.rodavigo.net

Family: Star Bosch Rexroth Assembly and Linear Technology  
Product: Star Bosch Rexroth ball linear blocks on rails



Ta.	A	A <sub>1</sub>	A <sub>2</sub>	A <sub>3</sub>	B	B <sub>1</sub>	H	H <sub>1</sub>	H <sub>2</sub> <sup>1)</sup>	H <sub>2</sub> <sup>2)</sup>	V <sub>1</sub>	E <sub>1</sub>	E <sub>2</sub>	E <sub>3</sub>	E <sub>8</sub>	E <sub>9</sub>	K <sub>1</sub>	K <sub>2</sub>	K <sub>3</sub>	K <sub>4</sub>
15	47	23,5	15	16,0	58,2	39,2	24	19,90	16,30	16,20	5,0	38	30	26	24,55	6,70	8,00	9,6	3,20	3,20
20	63	31,5	20	21,5	75,0	49,6	30	25,35	20,75	20,55	6,0	53	40	35	32,50	7,30	11,80	11,8	3,35	3,35
25	70	35,0	23	23,5	86,2	57,8	36	29,90	24,45	24,25	7,5	57	45	40	38,30	11,50	12,45	13,6	5,50	5,50
30	90	45,0	28	31,0	97,7	67,4	42	35,35	28,55	28,35	7,0	72	52	44	48,40	14,60	14,00	15,7	6,05	6,05
35	100	50,0	34	33,0	110,5	77,0	48	40,40	32,15	31,85	8,0	82	62	52	58,00	17,35	14,50	16,0	6,90	6,90
45	120	60	45	37,5	137,6	97,0	60	50,30	40,15	39,85	10,0	100	80	60	69,80	20,90	17,30	19,3	8,20	8,20

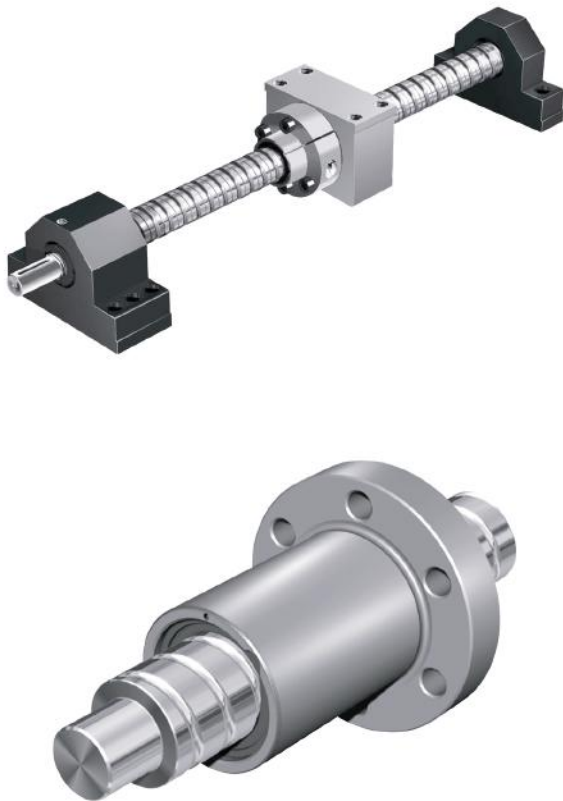


Size	Precision class	Preload class codes			Size	Precision class	Preload class codes		
		C0	C1	C2			C1	C2	C3
15	N	561165119420	561165111420	561165112420	15	XP	561165111820	561165112820	561165113820
	H	561165119320	561165111320	561165112320		SP	561165111120	561165112120	561165113120
	P	561165111220	561165112220	561165113220		UP	561165111920	561165112920	561165113920
20	N	561165189420	561165181420	561165182420	20	XP	561165181820	561165182820	561165183820
	H	561165189320	561165181320	561165182320		SP	561165181120	561165182120	561165183120
	P	561165181220	561165182220	561165183220		UP	561165181920	561165182920	561165183920
25	N	561165129420	561165121420	561165122420	25	XP	561165121820	561165122820	561165123820
	H	561165129320	561165121320	561165122320		SP	561165121120	561165122120	561165123120
	P	561165121220	561165122220	561165123220		UP	561165121920	561165122920	561165123920
30	N	561165179420	561165171420	561165172420	30	XP	561165171820	561165172820	561165173820
	H	561165179320	561165171320	561165172320		SP	561165171120	561165172120	561165173120
	P	561165171220	561165172220	561165173220		UP	561165171920	561165172920	561165173920
35	N	561165139420	561165131420	561165132420	35	XP	561165131820	561165132820	561165133820
	H	561165139320	561165131320	561165132320		SP	561165131120	561165132120	561165133120
	P	561165131220	561165132220	561165133220		UP	561165131920	561165132920	561165133920
45*	N	561165149420	561165141420	561165142420	45*	XP	561165141820	561165142820	561165143820
	H	561165149320	561165141320	561165142320		SP	561165141120	561165142120	561165143120
	P	561165141220	561165142220	561165143220		UP	561165141920	561165142920	561165143920

**Precision ball screws**

At www.rodavigo.net

Family: Star Bosch Rexroth Assembly and Linear Technology  
Product: Star Bosch Rexroth precision screws



Category	Size	Code	Load capacities		Speed <sup>1)</sup>
			dyn. C (N)	stat. C <sub>0</sub> (N)	
	<b>d<sub>1</sub> x P x D<sub>v</sub> - i</b>				<b>V<sub>max</sub> (m/min)</b>
A	8 x 2,5R x 1,588 - 3	560153223003	2200	2800	15
A	12 x 5R x 2 - 3	560153246023	3800	5800	30
B	12 x 10R x 2 - 2	560153249013	2500	3600	60
A	16 x 5R x 3 - 4	560151201023	12300	16100	30
C	16 x 5L x 3 - 4	560155201003	12300	16100	30
A	16 x 10R x 3 - 3	560151204013	9600	12300	60
B	16 x 16R x 3 - 2	560151206013	6300	7600	96
A <sup>2)</sup>	20 x 5R x 3 - 4	560151211013	14300	21500	30
B	20 x 5L x 3 - 4	560155211013	14300	21500	30
A	20 x 10R x 3 - 4	560151214013	14100	21300	60
A	20 x 20R x 3,5 - 2	560151217013	9100	12100	120
B	20 x 20L x 3,5 - 2	560155217013	9100	12100	120
A <sup>2)</sup>	25 x 5R x 3 - 4	560151221013	15900	27200	30
B	25 x 5L x 3 - 4	560155221013	15900	27200	30
A <sup>2)</sup>	25 x 10R x 3 - 4	560151224013	15700	27000	60
A	25 x 25R x 3,5 - 2	560151228013	10100	15100	150
B	25 x 25L x 3,5 - 2	560155228013	10100	15100	150
A <sup>2)</sup>	32 x 5R x 3,5 - 4	560151231013	21600	40000	23
A <sup>2)</sup>	32 x 10R x 3,969 - 5	560151234013	31700	58300	47
A <sup>2)</sup>	32 x 20R x 3,969 - 2	560151237013	13500	21800	94
A	32 x 32R x 3,969 - 2	560151239013	13400	22000	150
A	40 x 5R x 3,5 - 5	560151241013	29100	64100	19
A <sup>2)</sup>	40 x 10R x 6 - 4	560151244013	50000	86400	38
A <sup>2)</sup>	40 x 20R x 6 - 3	560151247013	37900	62800	75
B	40 x 40R x 6 - 2	560151249013	25500	40300	150
B	50 x 5R x 3,5 - 5	560151251013	32000	81300	15
A	50 x 10R x 6 - 6	560151254013	79700	166500	30
C	50 x 16R x 6 - 6	560151256013	79400	166000	48
B	50 x 20R x 6,5 - 3	560151257013	47900	87900	60
B	50 x 40R x 6,5 - 2	560151259013	32100	55800	120
A	63 x 10R x 6 - 6	560151264013	88800	214300	24
B	63 x 20R x 6,5 - 3	560151267013	53200	112100	48
C	63 x 40R x 6,5 - 2	560151269013	36900	74300	95
B	80 x 10R x 6,5 - 6	560151274013	108400	291700	19
B	80 x 20R x 12,7 - 6 <sup>3)</sup>	560151277023	262700	534200	30

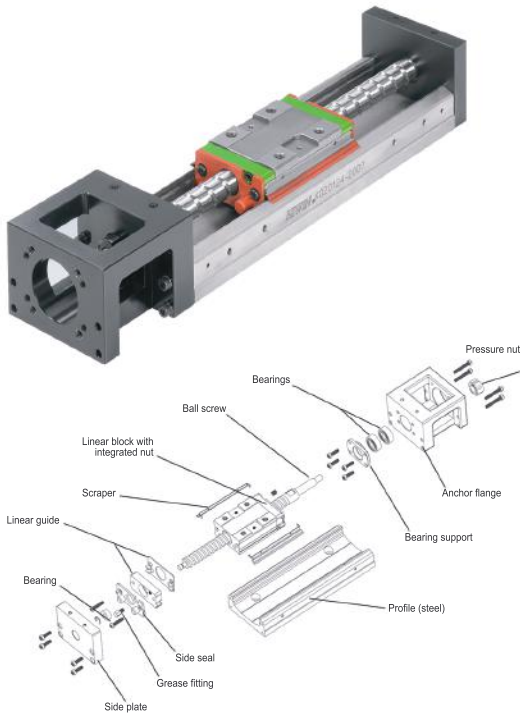


## >>> Screws

At [www.rodavigo.net](http://www.rodavigo.net) Family: Linear rolling  
Product: Other types of linear rolling

Rectified screw - Linear guide

### Linear module - KK model



### Order code

**KK 60 10 - 400 A 2 C - FO**

**KK model**

**Nominal width:**

40, 50, 60, 86, 100

**Ball screw. Pitch: (mm)**

**KK40** : 01

**KK50** : 02

**KK60** : 05, 10

**KK86** : 10, 20

**KK100** : 20

Example: KK5010FM00A1-F0

**Ref: Motor Coupling Flange**

**N° of linear blocks: 1 or 2**

**Protection:**

O = no protection

C = aluminum protector

B = with bellows

**Linear block type**

A: Standard

S: Short

**Standard length:**

**KK40** : 100, 150, 200

**KK50** : 150, 200, 250, 300

**KK60** : 150, 200, 300, 400, 500, 600

**KK86** : 340, 440, 540, 640, 740, 940

**KK100** : 980, 1080, 1180, 1280, 1380

### Characteristics

- Ease of design, installation and maintenance
- Compact and light
- High accuracy

High stiffness

- Wide variety of accessories

- Optimized design

The structure has been designed to be as light and rigid as possible.

Load Capacity KK Linear Tables

		KK4001	KK5002	KK6005	KK6010	KK8610	KK8620	KK10020
		P	P	P	P	P	P	P
<b>Screw diameter</b>		8	8	12	12	15	15	20
<b>Pitch</b>		1	2	5	10	10	20	20
<b>Dynamic Load (N)</b>		735	2136	3744	2410	7144	4645	7046
<b>Static Load (N)</b>		1538	3489	6243	3743	12642	7655	12544
<b>Dynamic Load (N)</b>	Standard Linear Block A	3920	8007	13230	13230	31458	31458	39200
	Short Linear Block S	-	-	7173	7173	-	-	-
<b>Static Load (N)</b>	Standard Linear Block A	6468	12916	21462	21462	50764	50764	63406
	Short Linear Block S	-	-	11574	11574	-	-	-
<b>Static Moment Mx (Nm)</b>	Standard Linear Block A1	33	116	152	152	622	622	960
	Standard Linear Block A2	182	278	348	348	3050	3050	4763
	Short Linear Block S1	-	-	72	72	-	-	-
	Short Linear Block S2	-	-	205	205	-	-	-
<b>Static Moment My (Nm)</b>	Standard Linear Block A1	33	116	152	152	622	622	960
	Standard Linear Block A2	182	278	348	348	3050	3050	4763
	Short Linear Block S1	-	-	72	72	-	-	-
	Short Linear Block S2	-	-	205	205	-	-	-
<b>Static Moment Mo (Nm)</b>	Standard Linear Block A1	81	222	419	419	1507	1507	2205
	Standard Linear Block A2	162	444	838	838	3014	3014	4410
	Short Linear Block S1	-	-	241	241	-	-	-
	Short Linear Block S2	-	-	482	482	-	-	-
<b>Repeatability (mm)</b>		±0,003	±0,003	±0,003	±0,003	±0,003	±0,003	±0,005
<b>Accuracy (mm)</b>		0,020	0,020	0,020	0,020	0,025	0,025 <sup>1</sup>	0,032 <sup>2</sup>
<b>Maximum speed mm / sec.</b>		190	270	550 <sup>3</sup>	1100 <sup>1</sup>	740	1480	1120 <sup>5</sup>





>>> Multi-axis motion systems



CMS series

Axis systems

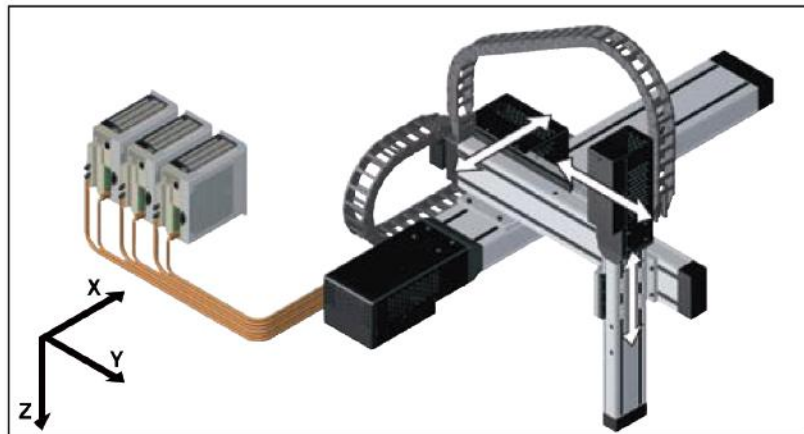
## Systems with 3 X-Y-Z axes

### Model type:

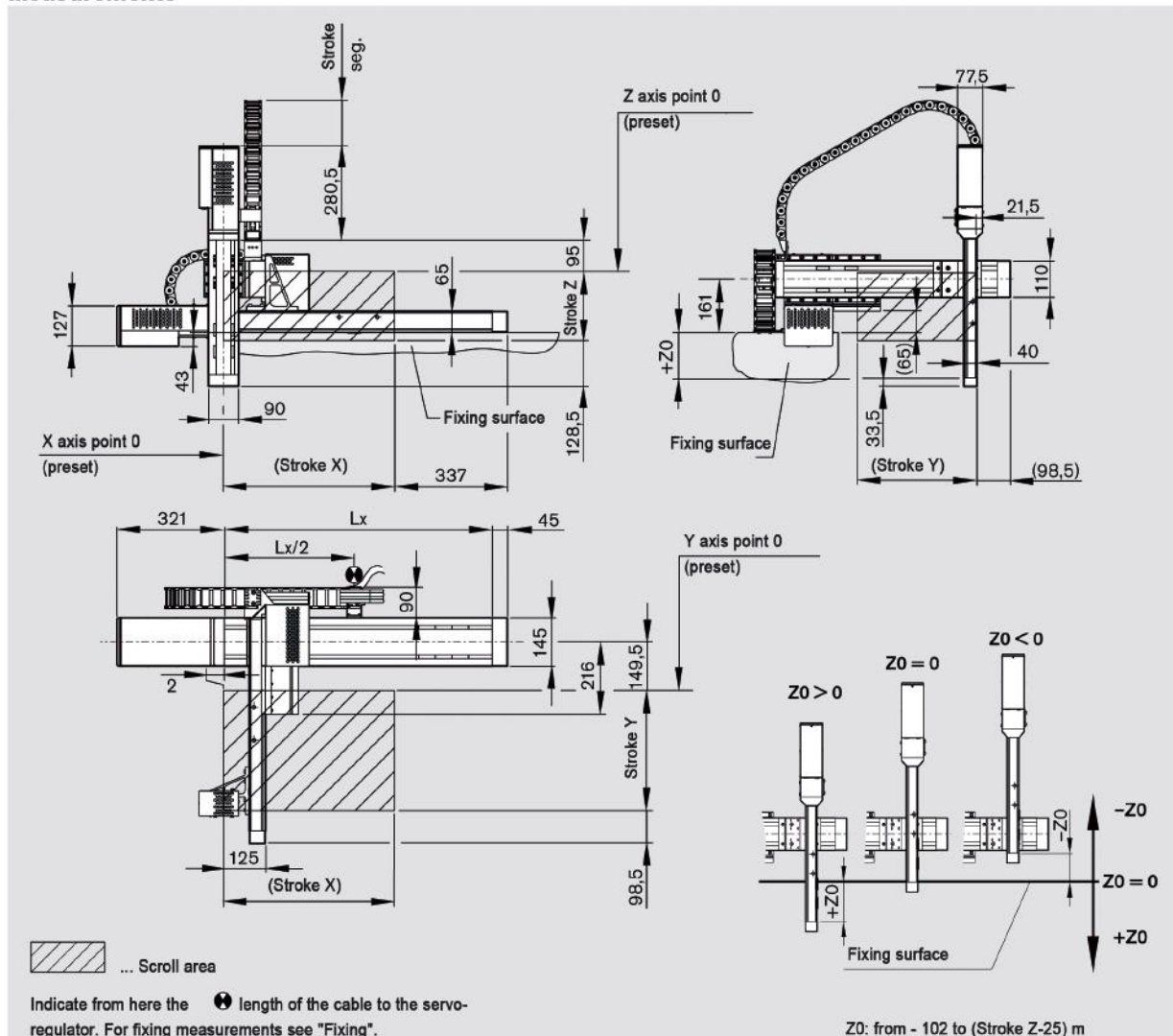
- X axis: Table displacement
- Y axis: Table displacement
- Z axis: Table displacement

### Lubrication:

- of the X axis through the bracket (on both sides) and the main body.
- of the Y axis through the bracket (on both sides) and the main body.
- the Z axis through the table and the main body.  
(see also "Mechanical components")



### Measurements



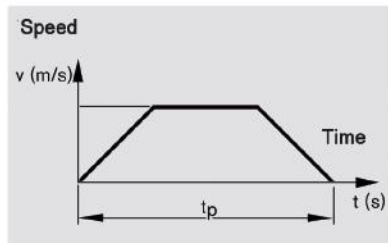
## >>> Multi-axis motion systems

### Technical data

Model type	Axis	Profile measurement mm	Spindle do x P	Maximum stroke mm	Acceleration a m/s <sup>2</sup>	Speed
						v m/s
R0357 530 00-CT30	X	145	20 x 20	1000	10	1,0 <sup>1)</sup>
	Y	110	16 x 16	500	15	0,53
	Z	90	12 x 10	300	5	0,5

1) For stroke X> at 800mm: speed = 0.8 m / s

### Maximum load and positioning times $t_p$



$t_p$  Axis positioning time

For more information see "Notes for technical data"

### Model type R0357 530 00-CT30

Axis Y Stroke (mm)	100	150	200	300	400	500
Axis Z Stroke (mm)	Maximum load <sup>2)</sup> (kg)					
50	12	12	12	10	8	6
100	12	12	12	10	8	6
150	12	12	12	10	8	6
200	12	12	12	10	8	6
250	10	10	10	10	8	6
300	10	10	10	10	8	6

2) The maximum load only depends on the Y and Z strokes.

Axis X Stroke		Axis Y Stroke		Axis Z Stroke	
mm	$t_p$ s	mm	$t_p$ s	mm	$t_p$ s
-	-	-	-	50	0,28
-	-	100	0,30	100	0,38
150	0,33	150	0,40	150	0,48
200	0,38	200	0,49	200	0,58
300	0,48	300	0,68	300	0,78
400	0,58	400	0,87	-	-
500	0,68	500	1,05	-	-
600	0,78	-	-	-	-
700	0,88	-	-	-	-
800	0,98	-	-	-	-
900	1,18	-	-	-	-
1000	1,46	-	-	-	-

### Weight calculation

(without servo regulator and without load)

Model type	Weight (kg)
R0357 530 00-CT30	$0,0182 \cdot \text{Stroke X} + 0,0096 \cdot \text{Stroke Y} + 0,0055 \cdot \text{Stroke Z} + 34,5$

Stroke (mm)

### Order data

R0357 530 00 - CT30	- X - Y - Z - Z0 - LK - ... - 01
Model type	
Axis X stroke (mm)	
Axis Y stroke (mm)	
Axis Z stroke (mm)	
Axis Z displacement (mm)	
Cable length from linear axis to servo regulator (m)	
Interface	10 ... SERCOS      12 ... CANopen
Servo regulator	11 ... Profibus DP      13 ... DeviceNet
	14 ... IndraMotion regulator
Documentation	

### Order example

- CMS R0357 530 00 - CT30 with:
- 700mm axis X stroke
  - 300mm axis T stroke
  - 100mm axis Z stroke
  - Axis Z displacement (Z0) = 50 mm
  - Cable length to the 2 m servo regulator
  - Servo regulator interface: Profibus DP

### Order description:

R0357 530 00 - CT30 - 700 - 300 - 100 - 50 - 2 - 11 - 01



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In your factory, in your office,  
in its management department, ...

