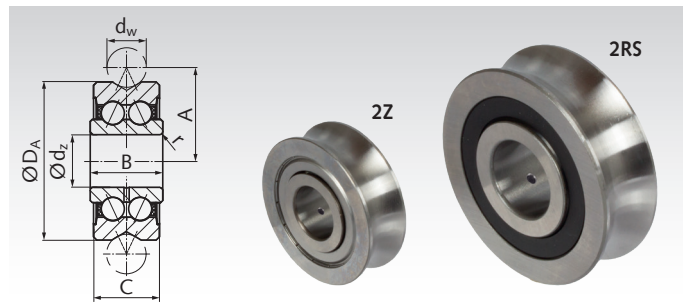


Profiled Track Rollers LFR

- Standard rollers in high quality with very strong outer ring and special groove design for 2-point contact. Pressure angle 30°.
- Integrated double-row angular contact ball bearings for common axial and high radial load.
- Usable on hardened and ground linear shaft steel with shaft support or on special linear guides.
- On choice: With friction-free metal shields 2Z or with contacting rubber seals 2RS.

Accuracy class PN DIN 620. Radial clearance approaching class CN. Temperature range: -30°C to +90°C (for short time up to +110°C).



From size d_w 16 with lubrication hole at the inner ring.

Ordering Details: e.g.: Product No. 647 801 01, Profiled Track Roller LFR50/5-4-2Z

Profiled Track Rollers LFR...-2Z with Shields

Material: Roller bearing steel 100Cr6.

Product No.	Type	d_w mm	d_z mm	D_A mm	A mm	B mm	C mm	r mm	C_w kN	C_{w0} kN	F_{rz} kN	F_{0rz} kN	Weight g
647 801 01	LFR50/5-4-2Z	4	5	16	9,0	8	7	0,2	1,2	0,86	1,3	1,78	9
647 801 02	LFR50/5-6-2Z	6	5	17	10,5	8	7	0,2	1,27	0,82	1,3	1,78	10
647 801 03	LFR50/8-6-2Z	6	8	24	14,0	11	11	0,3	3,67	2,28	1,3	4,56	20
647 801 04	LFR5201-10-2Z	10	12	35	20,65	15,9	15,9	0,3	8,5	5,1	5,1	10,2	66
647 801 05	LFR5301-10-2Z	10	12	42	24,0	19	19	0,6	13,0	7,7	7,5	14,2	135
647 801 06	LFR5302-10-2Z	10	15	47	26,65	19	19	1,0	16,2	9,2	6,2	18,4	170
647 801 07	LFR5201-12-2Z	12	12	35	21,75	15,9	15,9	0,3	8,4	5,0	5,1	10,0	66
647 801 08	LFR5204-16-2Z	16	20	52	31,5	22,6	20,6	0,6	16,8	9,5	12,1	16,6	195
647 801 09	LFR5206-20-2Z	20	25	72	41,0	25,8	23,8	0,6	29,5	16,6	20,7	33,2	435
647 801 10	LFR5206-25-2Z	25	25	72	43,5	25,8	23,8	0,6	29,2	16,4	23,1	32,8	425
647 801 11	LFR5207-30-2Z	30	30	80	51,0	29	27	1,0	38,0	20,8	21,4	36,2	600
647 801 12	LFR5208-40-2Z	40	40	98	62,5	38	36	1,0	54,8	29,0	55,0	58,0	1100

Profiled Track Rollers LFR...-2RS with contacting Seals

Material: Roller bearing steel 100Cr6.
Stainless steel X105CrMo17.



Product No. Steel	Product No. Stainless Steel	Type	d_w mm	d_z mm	D_A mm	A mm	B mm	C mm	r mm	C_w kN	C_{w0} kN	F_{rz} kN	F_{0rz} kN	Weight g
647 802 01	647 806 01	LFR50/5-4-2RS	4	5	16	9,0	8	7	0,2	1,2	0,86	1,3	1,78	9
647 802 02	647 806 02	LFR50/5-6-2RS	6	5	17	10,5	8	7	0,2	1,27	0,82	1,3	1,78	10
647 802 03	647 806 03	LFR50/8-6-2RS	6	8	24	14,0	11	11	0,3	3,67	2,28	1,3	4,56	20
647 802 04	647 806 04	LFR5201-10-2RS	10	12	35	20,65	15,9	15,9	0,3	8,5	5,1	5,1	10,2	66
647 802 05	647 806 05	LFR5301-10-2RS	10	12	42	24,0	19	19	0,6	13,0	7,7	7,5	14,2	135
647 802 06	647 806 06	LFR5302-10-2RS	10	15	47	26,65	19	19	1,0	16,2	9,2	6,2	18,4	170
647 802 07	647 806 07	LFR5201-12-2RS	12	12	35	21,75	15,9	15,9	0,3	8,4	5,0	5,1	10,0	66
647 802 08	647 806 08	LFR5204-16-2RS	16	20	52	31,5	22,6	20,6	0,6	16,8	9,5	12,1	16,6	195
647 802 09	647 806 09	LFR5206-20-2RS	20	25	72	41,0	25,8	23,8	0,6	29,5	16,6	20,7	33,2	435
647 802 10	647 806 10	LFR5206-25-2RS	25	25	72	43,5	25,8	23,8	0,6	29,2	16,4	23,1	32,8	425
647 802 11	-	LFR5207-30-2RS	30	30	80	51,0	29	27	1,0	38,0	20,8	21,4	36,2	600
647 802 12	-	LFR5208-40-2RS	40	40	98	62,5	38	36	1,0	54,8	29,0	55,0	58,0	1100

C_w = effective dynamical bearing load rate, taking account of the deformation of the outer ring.

C_{w0} = effective statical bearing load rate, taking account of the deformation of the outer ring.

F_{rz} = max. dynamical radial load, regarding the breaking strength of the outer ring.

F_{0rz} = max. statical radial load, regarding the breaking strength of the outer ring.

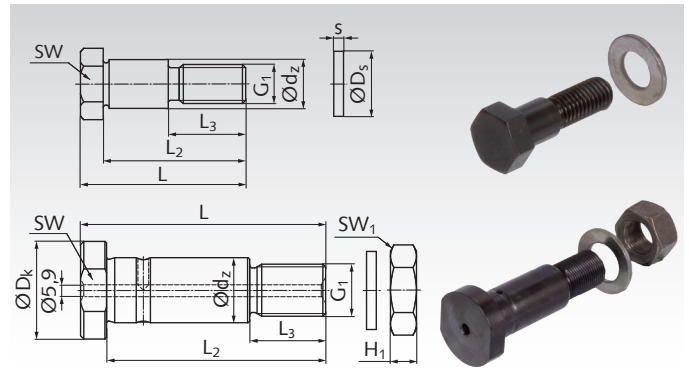
Assignment of Profiled Track Rollers and Bolts, related to Linear Shaft Diameter d_w and Bolt Diameter d_z

d_w mm	d_z mm	D_A mm	Track Roller with Shields		Track Roller with Seals		Zentric Bolt		Eccentric Bolt	
			Product No.	Type	Product No.	Type	Product No.	Type	Artikel-Nr.	Type
4	5	16	647 801 01	LFR50/5-4-2Z	647 802 01	LFR50/5-4-2RS	647 803 01	LFZ5	647 804 01	LFE5
6	5	17	647 801 02	LFR50/5-6-2Z	647 802 02	LFR50/5-6-2RS	647 803 01	LFZ5	647 804 01	LFE5
6	8	24	647 801 03	LFR50/8-6-2Z	647 802 03	LFR50/8-6-2RS	647 803 03	LFZ8	647 804 03	LFE8
10	12	35	647 801 04	LFR5201-10-2Z	647 802 04	LFR5201-10-2RS	647 803 04	LFZ12	647 804 04	LFE12
10	12	42	647 801 05	LFR5301-10-2Z	647 802 05	LFR5301-10-2RS	647 803 05	LFZ12/M12	647 804 05	LFE12/M12
10	15	47	647 801 06	LFR5302-10-2Z	647 802 06	LFR5302-10-2RS	647 803 06	LFZ15	647 804 06	LFE15
12	12	35	647 801 07	LFR5201-12-2Z	647 802 07	LFR5201-12-2RS	647 803 07	LFZ12x45A1	647 804 07	LFE12x45A1
16	20	52	647 801 08	LFR5204-16-2Z	647 802 08	LFR5204-16-2RS	647 803 08	LFZ20x67A1	647 804 08	LFE20x67A1
20	25	72	647 801 09	LFR5206-20-2Z	647 802 09	LFR5206-20-2RS	647 803 09	LFZ25x82A1	647 804 09	LFE25x82A1
25	25	72	647 801 10	LFR5206-25-2Z	647 802 10	LFR5206-25-2RS	647 803 09	LFZ25x82A1	647 804 09	LFE25x82A1
30	30	80	647 801 11	LFR5207-30-2Z	647 802 11	LFR5207-30-2RS	647 803 11	LFZ30x95A1	647 804 11	LFE30x95A1
40	40	98	647 801 12	LFR5208-40-2Z	647 802 12	LFR5208-40-2RS	647 803 12	LFZ40x107A1	647 804 12	LFE40x107A1

Centric Bolts LFZ for Profil Track Rollers

Material: Heat-treated steel, black oxide finish.

- Centric bolt for mounting profil track rollers on fixed position.
- Normally, a carriage has four rollers: On one side two rollers with centric bolts on fixed position. On the other side two rollers on eccentric bolts, so that they can get adjusted clearance-free.
- The assignment of the bolt to the profil track roller is made by the linear shaft diameter d_w and the bolt diameter d_z .
- Included in scope of delivery, there is a distance washer for release mount of the track roller, for turn without binding (from LFZ8).



Ordering Details: e.g.: Product No. 647 803 01, Centric Bolt LFZ5

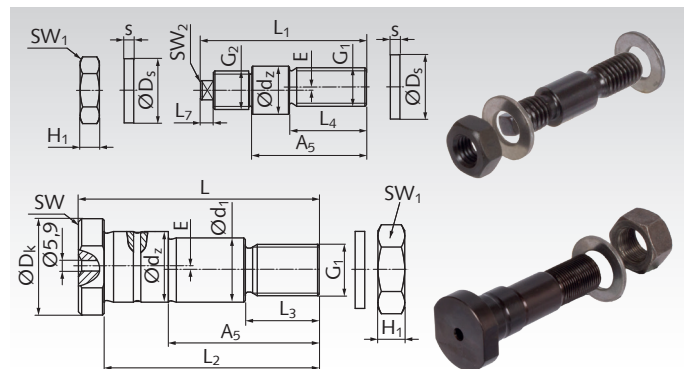
Product No.	Type	d_w mm	d_z mm	L mm	L_2 mm	L_3 mm	D_K mm	G_1 mm	H_1 mm	S mm	D_S mm	SW mm	SW_1 mm	Weight g
647 803 01	LFZ5	4/6	5	19,5	16	9,5	10	M4	-	-	-	3*	-	6
647 803 03	LFZ8	6	8	28,3	24,3	15	-	M8	-	1	14	12	-	14
647 803 04	LFZ12	10	12	43	36	22	-	M10	-	1,8	21	17	-	34
647 803 05	LFZ12/M12	10	12	50,8	43,8	24	-	M12	-	1,8	19	17	-	50
647 803 06	LFZ15	10	15	50,8	43,8	26	-	M12	-	1,8	21	19	-	60
647 803 07	LFZ12x45A1	12	12	50	45	16	20	M10x1,5	8	2	21	17	17	40
647 803 08	LFZ20x67A1	16	20	75	67	23	30	M16x1,5	13	3	30	27	24	200
647 803 09	LFZ25x82A1	20/25	25	92	82	30	40	M20x1,5	16	3	37	36	30	400
647 803 11	LFZ30x95A1	30	30	107	95	32	45	M24x1,5	19	4	44	41	36	620
647 803 12	LFZ40x107A1	40	40	117	107	42	55	M30x1,5	24	4	56	46	46	1100

* Allen screw.

Eccentric Bolts LFE for Profil Track Rollers

Material: Heat-treated steel, black oxide finish.

- Eccentric bolt for mounting profil track rollers on adjustable position, to install the rollers clearance-free.
- Normally, a carriage has four rollers: On one side two rollers with centric bolts on fixed position. On the other side two rollers on eccentric bolts, so that they can get adjusted clearance-free.
- The assignment of the bolt to the profil track roller is made by the linear shaft diameter d_w and the bolt diameter d_z .
- Included in scope of delivery, there is a distance washer for release mount of the track roller, for turn without binding (from LFZ8).



Ordering Details: e.g.: Product No. 647 804 01, Eccentric Bolt LFE5

Product No.	Type	d_w mm	d_z mm	L mm	L_1 mm	L_2 mm	L_3 mm	L_4 mm	L_7 mm	A_5 mm	d_1 mm	D_K mm	G_1 mm	G_2 mm	H_1 mm	S mm	D_S mm	E mm	SW mm	SW_1 mm	SW_2 mm	Weight g
647 804 01	LFE5	4/6	5	-	20,5	-	-	9	-	15	-	-	M4	M4	2,9	-	-	0,5	-	7	2	6
647 804 03	LFE8	6	8	-	33,2	-	-	13,7	3,5	22	-	-	M8	M8x0,75	4	1	14	1	-	13	5	14
647 804 04	LFE12	10	12	-	50	-	-	19,5	5	33,5	-	-	M10	M10	8,4	1,8	21	1	-	17	6	34
647 804 05	LFE12/M12	10	12	-	57	-	-	24	5	41	-	-	M12	M12	6,5	1,8	19	1	-	17	6	50
647 804 06	LFE15	10	15	-	57	-	-	24	5	41	-	-	M12	M12	6,5	1,8	21	1	-	19	6	60
647 804 07	LFE12x45A1	12	12	50	-	45	16	-	-	30	10	20	M10x1,5	-	8	2	21	0,75	17	17	-	40
647 804 08	LFE20x67A1	16	20	75	-	67	23	-	-	45	17	30	M16x1,5	-	13	3	30	1	27	24	-	200
647 804 09	LFE25x82A1	20/25	25	92	-	82	30	-	-	57	22	40	M20x1,5	-	16	3	37	1	36	30	-	400
647 804 11	LFZ30x95A1	30	30	107	-	95	32	-	-	67	27	45	M24x1,5	-	19	4	44	1	41	36	-	620
647 804 12	LFE40x107A1	40	40	117	-	107	42	-	-	72	36	55	M30x1,5	-	24	4	56	1	46	46	-	1100