Slider NSD/NSDA

Constructed as the NSW/NSA-slider with mounting holes parallel to the direction of preferred loading. It is available for sizes 28 and 43, with three or five rollers, depending on load case and load direction set with the corresponding configuration.

Standard sliders are supplied with rollers with 2Z steel disc seals. For dusty environment and splash-proof applications, 2RS rubber seal rollers are available.

All NSDA-sliders, which are made for rail type K, have rollers with circular cross profile. The main load direction should always be on the largest number of the slider-wheels and those wheels should always run on the V-shaped raceway of the K-Rail. So for a typical slider with 3 wheels, the two outer wheels should carry the majority of the load and run in the V-shape and the third (middle) wheel should run on the flat raceway in the K-Rail.

All NSD/NSDA sliders have wipers assembled and the wipers for K-Rails are adapted to work on the two different raceway shapes.

Dimensions in mm.

Material: DIN 11SMnPb28. Zinc-plated according to ISO 2081.
Max. Radial Load Capacity (N): 15,000 (per slider)
Temperature range (°C): -20 to +120

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General Data

Designation	Size	Max. Speed (m/s)	Max. Acceleration (m/s)	Roller type	Number of rollers
NSD28-3A-2RS	28	3	10	CPA28	3
NSD28-3A-2Z	28	3	10	CPA28	3
NSD28-3B-2RS	28	3	10	CPA28	3
NSD28-3B-2Z	28	3	10	CPA28	3
NSD28-5A-2RS	28	3	10	CPA28	5
NSD28-5A-2Z	28	3	10	CPA28	5
NSD28-5B-2RS	28	3	10	CPA28	5
NSD28-5B-2Z	28	3	10	CPA28	5
NSD43-3A-2RS	43	7	15	CPA43	3
NSD43-3A-2Z	43	7	15	CPA43	3
NSD43-3B-2RS	43	7	15	CPA43	3
NSD43-3B-2Z	43	7	15	CPA43	3
NSD43-5A-2RS	43	7	15	CPA43	5
NSD43-5A-2Z	43	7	15	CPA43	5
NSD43-5B-2RS	43	7	15	CPA43	5
NSD43-5B-2Z	43	7	15	CPA43	5
NSDA43-3A-2RS	43	7	15	CRPA43	3
NSDA43-3A-2Z	43	7	15	CRPA43	3
NSDA43-3B-2RS	43	7	15	CRPA43	3
NSDA43-3B-2Z	43	7	15	CRPA43	3
NSDA43-5A-2RS	43	7	15	CRPA43	5
NSDA43-5A-2Z	43	7	15	CRPA43	5
NSDA43-5B-2RS	43	7	15	CRPA43	5
NSDA43-5B-2Z	43	7	15	CRPA43	5

Designation	Number of Fixing Holes
NSD28-3A-2RS	2
NSD28-3A-2Z	2
NSD28-3B-2RS	2
NSD28-3B-2Z	2
NSD28-5A-2RS	4
NSD28-5A-2Z	4
NSD28-5B-2RS	4
NSD28-5B-2Z	4
NSD43-3A-2RS	2
NSD43-3A-2Z	2
NSD43-3B-2RS	2
NSD43-3B-2Z	2
NSD43-5A-2RS	4
NSD43-5A-2Z	4

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General Data

Designation	Number of Fixing Holes
NSD43-5B-2RS	4
NSD43-5B-2Z	4
NSDA43-3A-2RS	2
NSDA43-3A-2Z	2
NSDA43-3B-2RS	2
NSDA43-3B-2Z	2
NSDA43-5A-2RS	4
NSDA43-5A-2Z	4
NSDA43-5B-2RS	4
NSDA43-5B-2Z	4

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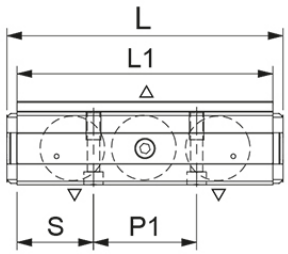
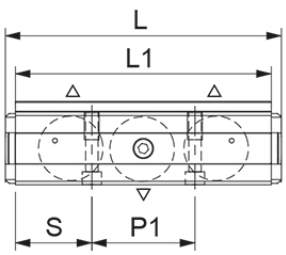
Dimensions

Configuration A

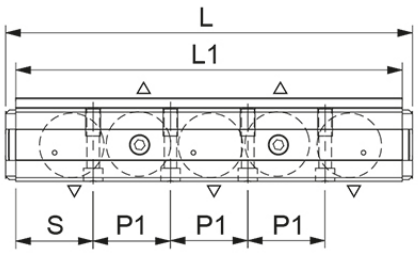
Configuration B

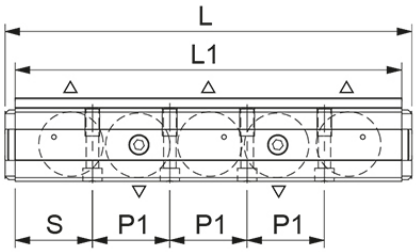
NSD/NSDA...3



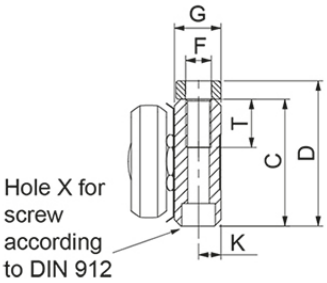


NSD/NSDA...5

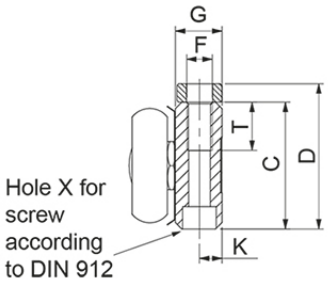




NSD-slider with prismatic rollers
for use in T- and U-rails



NSDA-slider with crowned rollers
for use in K-rails, size 43



Designation	L1	L	C	D	G	F	K	P1	S
NSD28-3A-2RS	97	108	24.9	30.45	9.7	M6	4.7	36	30.5
NSD28-3A-2Z	97	108	24.9	30.45	9.7	M6	4.7	36	30.5
NSD28-3B-2RS	97	108	24.9	30.45	9.7	M6	4.7	36	30.5
NSD28-3B-2Z	97	108	24.9	30.45	9.7	M6	4.7	36	30.5
NSD28-5A-2RS	142	153	24.9	30.45	9.7	M6	4.7	27	30.5
NSD28-5A-2Z	142	153	24.9	30.45	9.7	M6	4.7	27	30.5
NSD28-5B-2RS	142	153	24.9	30.45	9.7	M6	4.7	27	30.5
NSD28-5B-2Z	142	153	24.9	30.45	9.7	M6	4.7	27	30.5
NSD43-3A-2RS	139	150	39.5	45.25	14.5	M8	7	56	41.5

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Dimensions

Designation	L1	L	C	D	G	F	K	P1	S
NSD43-3A-2Z	139	150	39.5	45.25	14.5	M8	7	56	41.5
NSD43-3B-2RS	139	150	39.5	45.25	14.5	M8	7	56	41.5
NSD43-3B-2Z	139	150	39.5	45.25	14.5	M8	7	56	41.5
NSD43-5A-2RS	210	221	39.5	45.25	14.5	M8	7	42	42
NSD43-5A-2Z	210	221	39.5	45.25	14.5	M8	7	42	42
NSD43-5B-2RS	210	221	39.5	45.25	14.5	M8	7	42	42
NSD43-5B-2Z	210	221	39.5	45.25	14.5	M8	7	42	42
NSDA43-3A-2RS	139	150	39.5	45.25	14.5	M8	7	56	41.5
NSDA43-3A-2Z	139	150	39.5	45.25	14.5	M8	7	56	41.5
NSDA43-3B-2RS	139	150	39.5	45.25	14.5	M8	7	56	41.5
NSDA43-3B-2Z	139	150	39.5	45.25	14.5	M8	7	56	41.5
NSDA43-5A-2RS	210	221	39.5	45.25	14.5	M8	7	42	42
NSDA43-5A-2Z	210	221	39.5	45.25	14.5	M8	7	42	42
NSDA43-5B-2RS	210	221	39.5	45.25	14.5	M8	7	42	42
NSDA43-5B-2Z	210	221	39.5	45.25	14.5	M8	7	42	42

Designation	T	X
NSD28-3A-2RS	15	M5
NSD28-3A-2Z	15	M5
NSD28-3B-2RS	15	M5
NSD28-3B-2Z	15	M5
NSD28-5A-2RS	15	M5
NSD28-5A-2Z	15	M5
NSD28-5B-2RS	15	M5
NSD28-5B-2Z	15	M5
NSD43-3A-2RS	15	M6
NSD43-3A-2Z	15	M6
NSD43-3B-2RS	15	M6
NSD43-3B-2Z	15	M6
NSD43-5A-2RS	15	M6
NSD43-5A-2Z	15	M6
NSD43-5B-2RS	15	M6
NSD43-5B-2Z	15	M6
NSDA43-3A-2RS	15	M6
NSDA43-3A-2Z	15	M6
NSDA43-3B-2RS	15	M6
NSDA43-3B-2Z	15	M6
NSDA43-5A-2RS	15	M6
NSDA43-5A-2Z	15	M6
NSDA43-5B-2RS	15	M6
NSDA43-5B-2Z	15	M6

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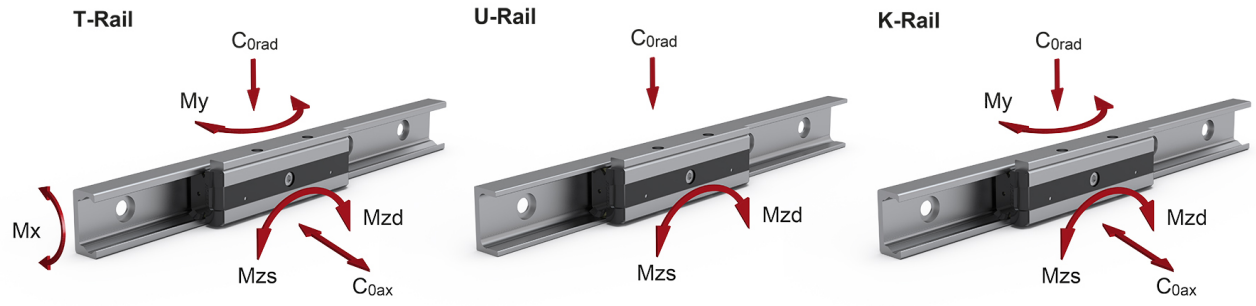
Load & Weight



The load capacities in the following tables each apply for one slider. When using the slider in U-rails (floating bearing rails) the values are C_{0ax} = 0, M_x = 0 and M_y = 0. When using the sliders in K-rails (compensation rails) the value is: M_x = 0.

Designation	C (N)	C0rad (N)	C0ax (N)	Mx (Nm)	My (Nm)
NSD28-3A-2RS	4260	2170	640	6.2	16
NSD28-3A-2Z	4260	2170	640	6.2	16
NSD28-3B-2RS	4260	2170	640	6.2	16
NSD28-3B-2Z	4260	2170	640	6.2	16
NSD28-5A-2RS	5065	2580	900	11.5	29
NSD28-5A-2Z	5065	2580	900	11.5	29
NSD28-5B-2RS	5065	2580	900	11.5	29
NSD28-5B-2Z	5065	2580	900	11.5	29
NSD43-3A-2RS	12280	5500	1570	23.6	60
NSD43-3A-2Z	12280	5500	1570	23.6	60
NSD43-3B-2RS	12280	5500	1570	23.6	60
NSD43-3B-2Z	12280	5500	1570	23.6	60
NSD43-5A-2RS	14675	9540	2215	43.6	108.6
NSD43-5A-2Z	14675	9540	2215	43.6	108.6
NSD43-5B-2RS	14675	9540	2215	43.6	108.6
NSD43-5B-2Z	14675	9540	2215	43.6	108.6
NSDA43-3A-2RS	12280	5100	1320	0	50.4
NSDA43-3A-2Z	12280	5100	1320	0	50.4
NSDA43-3B-2RS	12280	5100	1320	0	50.4
NSDA43-3B-2Z	12280	5100	1320	0	50.4
NSDA43-5A-2RS	14675	6065	1570	0	108.7
NSDA43-5A-2Z	14675	6065	1570	0	108.7
NSDA43-5B-2RS	14675	6065	1570	0	108.7
NSDA43-5B-2Z	14675	6065	1570	0	108.7

Designation	Mzd (Nm)	Mzs (Nm)	Weight (kg)
NSD28-3A-2RS	27.2	27.2	0.23
NSD28-3A-2Z	27.2	27.2	0.23
NSD28-3B-2RS	27.2	27.2	0.23
NSD28-3B-2Z	27.2	27.2	0.23
NSD28-5A-2RS	81.7	81.7	0.35
NSD28-5A-2Z	81.7	81.7	0.35

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Load & Weight

Designation	Mzd (Nm)	Mzs (Nm)	Weight (kg)
NSD28-5B-2RS	81.7	81.7	0.35
NSD28-5B-2Z	81.7	81.7	0.35
NSD43-3A-2RS	104.5	104.5	0.8
NSD43-3A-2Z	104.5	104.5	0.8
NSD43-3B-2RS	104.5	104.5	0.8
NSD43-3B-2Z	104.5	104.5	0.8
NSD43-5A-2RS	313.5	313.5	1.24
NSD43-5A-2Z	313.5	313.5	1.24
NSD43-5B-2RS	313.5	313.5	1.24
NSD43-5B-2Z	313.5	313.5	1.24
NSDA43-3A-2RS	96.9	96.9	0.8
NSDA43-3A-2Z	96.9	96.9	0.8
NSDA43-3B-2RS	96.9	96.9	0.8
NSDA43-3B-2Z	96.9	96.9	0.8
NSDA43-5A-2RS	290.7	290.7	1.24
NSDA43-5A-2Z	290.7	290.7	1.24
NSDA43-5B-2RS	290.7	290.7	1.24
NSDA43-5B-2Z	290.7	290.7	1.24

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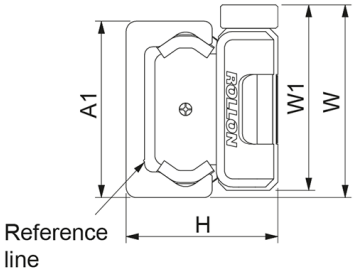
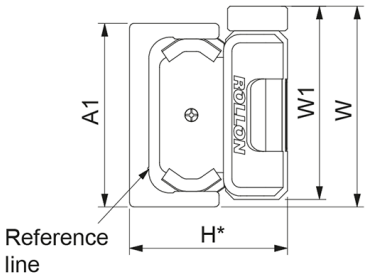
Rail/Slider Combination

T-rail with NSD slider

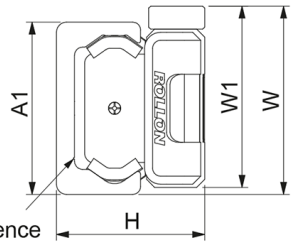


U-rail with NSD slider



* Nom. value

K-rail with NSDA slider



The K-rail enables the slider to twist around its longitudinal axis.

Designation	A1	H (Slider+T-rail)	H (Slider+U-rail)	H (Slider+K-rail)	W1
NSD28-3A-2RS	28 (+0.25/-0.10)	23.9 (±0.15)	23.9*	n/a	24.9 (0/-0.2)
NSD28-3A-2Z	28 (+0.25/-0.10)	23.9 (±0.15)	23.9*	n/a	24.9 (0/-0.2)
NSD28-3B-2RS	28 (+0.25/-0.10)	23.9 (±0.15)	23.9*	n/a	24.9 (0/-0.2)
NSD28-3B-2Z	28 (+0.25/-0.10)	23.9 (±0.15)	23.9*	n/a	24.9 (0/-0.2)
NSD28-5A-2RS	28 (+0.25/-0.10)	23.9 (±0.15)	23.9*	n/a	24.9 (0/-0.2)
NSD28-5A-2Z	28 (+0.25/-0.10)	23.9 (±0.15)	23.9*	n/a	24.9 (0/-0.2)
NSD28-5B-2RS	28 (+0.25/-0.10)	23.9 (±0.15)	23.9*	n/a	24.9 (0/-0.2)
NSD28-5B-2Z	28 (+0.25/-0.10)	23.9 (±0.15)	23.9*	n/a	24.9 (0/-0.2)
NSD43-3A-2RS	43 (+0.35/-0.10)	37 (±0.15)	37*	n/a	39.5 (0/-0.2)
NSD43-3A-2Z	43 (+0.35/-0.10)	37 (±0.15)	37*	n/a	39.5 (0/-0.2)
NSD43-3B-2RS	43 (+0.35/-0.10)	37 (±0.15)	37*	n/a	39.5 (0/-0.2)
NSD43-3B-2Z	43 (+0.35/-0.10)	37 (±0.15)	37*	n/a	39.5 (0/-0.2)
NSD43-5A-2RS	43 (+0.35/-0.10)	37 (±0.15)	37*	n/a	39.5 (0/-0.2)
NSD43-5A-2Z	43 (+0.35/-0.10)	37 (±0.15)	37*	n/a	39.5 (0/-0.2)
NSD43-5B-2RS	43 (+0.35/-0.10)	37 (±0.15)	37*	n/a	39.5 (0/-0.2)
NSD43-5B-2Z	43 (+0.35/-0.10)	37 (±0.15)	37*	n/a	39.5 (0/-0.2)
NSDA43-3A-2RS	43 (+0.35/-0.10)	n/a	n/a	37 (±0.15)	39.5 (0/-0.2)
NSDA43-3A-2Z	43 (+0.35/-0.10)	n/a	n/a	37 (±0.15)	39.5 (0/-0.2)
NSDA43-3B-2RS	43 (+0.35/-0.10)	n/a	n/a	37 (±0.15)	39.5 (0/-0.2)
NSDA43-3B-2Z	43 (+0.35/-0.10)	n/a	n/a	37 (±0.15)	39.5 (0/-0.2)
NSDA43-5A-2RS	43 (+0.35/-0.10)	n/a	n/a	37 (±0.15)	39.5 (0/-0.2)
NSDA43-5A-2Z	43 (+0.35/-0.10)	n/a	n/a	37 (±0.15)	39.5 (0/-0.2)
NSDA43-5B-2RS	43 (+0.35/-0.10)	n/a	n/a	37 (±0.15)	39.5 (0/-0.2)
NSDA43-5B-2Z	43 (+0.35/-0.10)	n/a	n/a	37 (±0.15)	39.5 (0/-0.2)

Designation	W
NSD28-3A-2RS	32 (+0.1/-0.3)
NSD28-3A-2Z	32 (+0.1/-0.3)
NSD28-3B-2RS	32 (+0.1/-0.3)
NSD28-3B-2Z	32 (+0.1/-0.3)
NSD28-5A-2RS	32 (+0.1/-0.3)

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Rail/Slider Combination

Designation	W
NSD28-5A-2Z	32 (+0.1/-0.3)
NSD28-5B-2RS	32 (+0.1/-0.3)
NSD28-5B-2Z	32 (+0.1/-0.3)
NSD43-3A-2RS	47 (+0.2/-0.4)
NSD43-3A-2Z	47 (+0.2/-0.4)
NSD43-3B-2RS	47 (+0.2/-0.4)
NSD43-3B-2Z	47 (+0.2/-0.4)
NSD43-5A-2RS	47 (+0.2/-0.4)
NSD43-5A-2Z	47 (+0.2/-0.4)
NSD43-5B-2RS	47 (+0.2/-0.4)
NSD43-5B-2Z	47 (+0.2/-0.4)
NSDA43-3A-2RS	41.25 (+0.2/-0.4)
NSDA43-3A-2Z	41.25 (+0.2/-0.4)
NSDA43-3B-2RS	41.25 (+0.2/-0.4)
NSDA43-3B-2Z	41.25 (+0.2/-0.4)
NSDA43-5A-2RS	41.25 (+0.2/-0.4)
NSDA43-5A-2Z	41.25 (+0.2/-0.4)
NSDA43-5B-2RS	41.25 (+0.2/-0.4)
NSDA43-5B-2Z	41.25 (+0.2/-0.4)

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