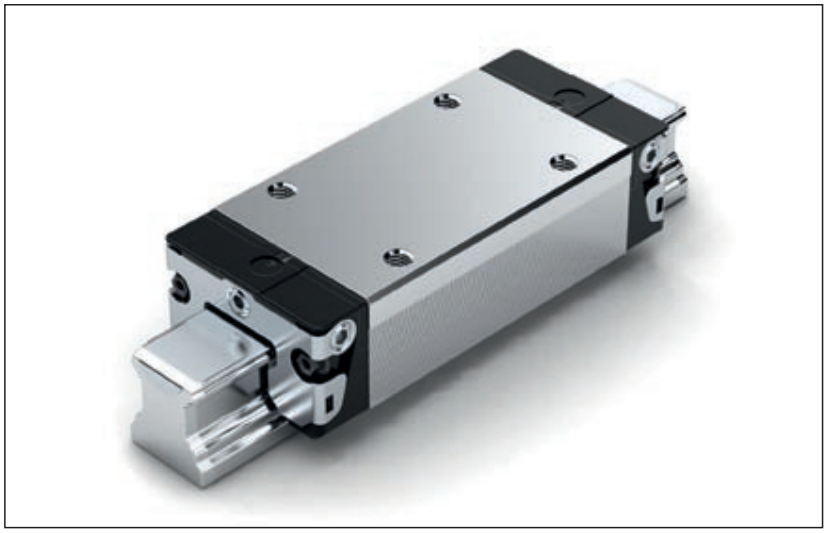
Standard Ball Runner Blocks made of steel

SLS – Slimline, long, standard height

R1623 … 2.



Dynamic characteristics
Travel speed: $v_{max} = 5$ m/s
Acceleration: $a_{max} = 500$ m/s^2
(If $F_{comb} > 2.8 \cdot F_{pr}$: $a_{max} = 50$ m/s^2)

Note on lubrication
– Pre-lubricated

Further Ball Runner Blocks SLS
– Heavy Duty Ball Runner Blocks made of steel, size 55 and 65 ☞ 66
– High Precision Ball Runner Blocks made of steel ☞ 72
– Corrosion-resistant Ball Runner Blocks
  Resist NR ☞ 100
  Resist CR ☞ 108

Note
Can be used on all Ball Guide Rails SNS.

Options and part numbers

Size	Ball runner block with size	Preload class			Accuracy class			Seal for ball runner block					
								without ball chain			with ball chain		
		C0	C1	C2	N	H	P	SS	LS[1)]	DS	SS	LS[1)]	DS
15	R1623 1	9			4	3	–	20	21	–	22	23	–
			1		4	3	2	20	21	–	22	23	–
				2	–	3	2	20	–	–	22	–	–
20	R1623 8	9			4	3	–	20	21	–	22	23	–
			1		4	3	2	20	21	2Z	22	23	2Y
				2	–	3	2	20	–	2Z	22	–	2Y
25	R1623 2	9			4	3	–	20	21	–	22	23	–
			1		4	3	2	20	21	2Z	22	23	2Y
				2	–	3	2	20	–	2Z	22	–	2Y
30	R1623 7	9			4	3	–	20	21	–	22	23	–
			1		4	3	2	20	21	2Z	22	23	2Y
				2	–	3	2	20	–	2Z	22	–	2Y
35	R1623 3	9			4	3	–	20	21	–	22	23	–
			1		4	3	2	20	21	2Z	22	23	2Y
				2	–	3	2	20	–	2Z	22	–	2Y
45	R1623 4	9			4	3	–	20	–	–	22	–	–
			1		4	3	2	20	–	2Z	22	–	2Y
				2	–	3	2	20	–	2Z	22	–	2Y
e.g.	R1623 7		1			3		20					

1) Only with accuracy classes N and H

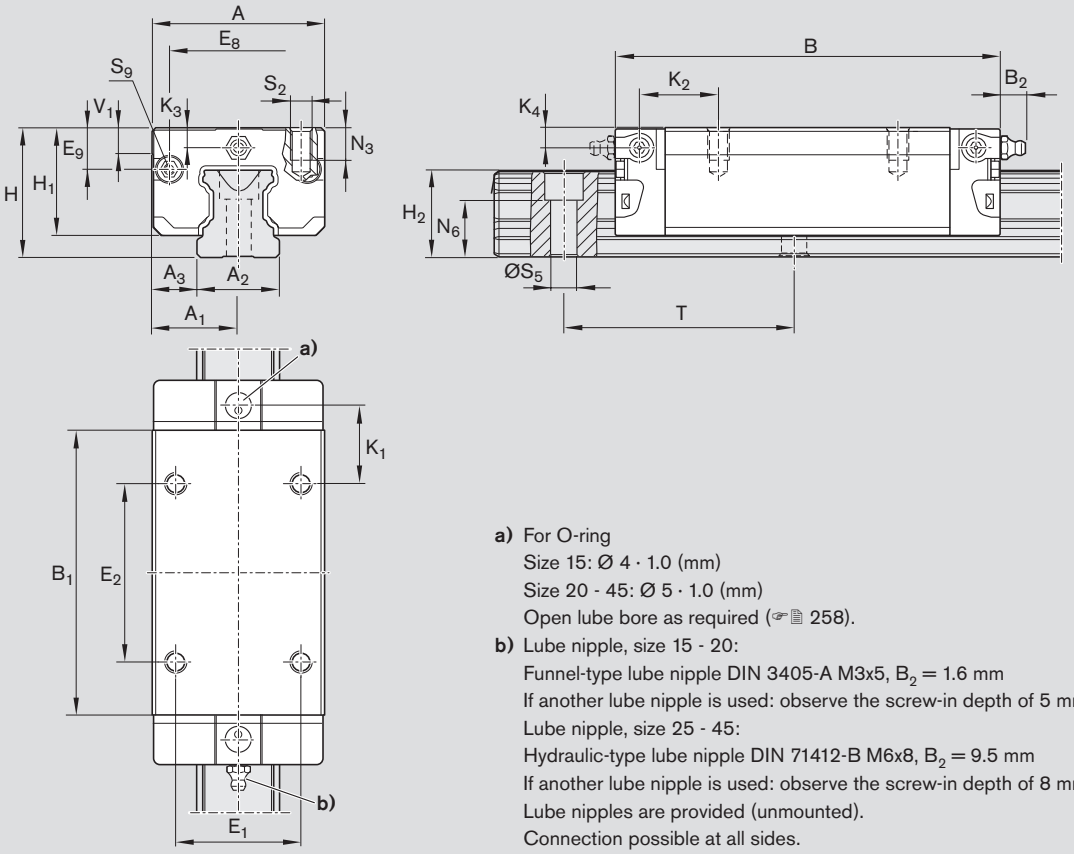
Ordering example
Options:
– Ball Runner Block SLS
– Size 30
– Preload class C1
– Accuracy class H
– With standard seal, without ball chain
Part number: R1623 713 20

Preload classes
C0 = without preload
C1 = preload 2% C
C2 = preload 8% C

Seals
SS = standard seal
LS = low-friction seal
DS = double-lipped seal

Key to table
Gray numbers
= version/combination not preferred (longer delivery times in some cases)

Ball Runner Blocks SLS



a) For O-ring
Size 15: Ø 4 · 1.0 (mm)
Size 20 - 45: Ø 5 · 1.0 (mm)
Open lube bore as required (☞ 258).

b) Lube nipple, size 15 - 20:
Funnel-type lube nipple DIN 3405-A M3x5, B_2 = 1.6 mm
If another lube nipple is used: observe the screw-in depth of 5 mm!
Lube nipple, size 25 - 45:
Hydraulic-type lube nipple DIN 71412-B M6x8, B_2 = 9.5 mm
If another lube nipple is used: observe the screw-in depth of 8 mm!
Lube nipples are provided (unmounted).
Connection possible at all sides.

Size	Dimensions (mm)																	
	A	A_1	A_2	A_3	B	B_1	E_1	E_2	E_8	E_9	H	H_1	H_2 [1]	H_2 [2]	K_1	K_2	K_3	K_4
15	34	17	15	9.5	72.6	53.6	26	26	24.55	6.70	24	19.90	16.30	16.20	17.20	18.80	3.20	3.20
20	44	22	20	12.0	91.0	65.6	32	50	32.50	7.30	30	25.35	20.75	20.55	14.80	14.80	3.35	3.35
25	48	24	23	12.5	107.9	79.5	35	50	38.30	11.50	36	29.90	24.45	24.25	20.80	21.95	5.50	5.50
30	60	30	28	16.0	119.7	89.4	40	60	48.40	14.60	42	35.35	28.55	28.35	21.00	22.70	6.05	6.05
35	70	35	34	18.0	139.0	105.5	50	72	58.00	17.35	48	40.40	32.15	31.85	23.75	25.25	6.90	6.90
45	86	43	45	20.5	174.1	133.5	60	80	69.80	20.90	60	50.30	40.15	39.85	35.50	37.50	8.20	8.20

Size	Dimensions (mm)							Weight (kg)	Load capacities [3] (N)		Load moments [3] (Nm)			
	N_3	$N_6^{\pm 0.5}$	S_2	S_5	S_9	T	V_1		C	C_0	M_t	M_{t0}	M_L	M_{L0}
15	6.0	10.3	M4	4.4	M2.5x3.5	60	5.0	0.20	10 000	20 200	96	190	75	150
20	7.5	13.2	M5	6.0	M3x5	60	6.0	0.45	24 400	35 200	310	450	225	330
25	9.0	15.2	M6	7.0	M3x5	60	7.5	0.65	30 400	45 500	430	650	345	510
30	12.0	17.0	M8	9.0	M3x5	80	7.0	1.10	40 000	57 800	690	1 000	495	715
35	13.0	20.5	M8	9.0	M3x5	80	8.0	1.70	55 600	81 000	1 200	1 740	830	1 215
45	18.0	23.5	M10	14.0	M4x7	105	10.0	3.20	90 400	128 500	2 440	3 470	1 700	2 425

1) Dimension H_2 with cover strip
2) Dimension H_2 without cover strip
3) Load capacities and moments for Ball Runner Block **without** ball chain. Load capacities and moments for Ball Runner Block **with** ball chain ☞ 8. Determination of the dynamic load capacities and moments is based on a travel life of 100,000 m per ISO 14728-1. Often only 50,000 m are actually stipulated. For comparison: Multiply values **C**, $\mathbf{M_t}$ and $\mathbf{M_L}$ from the table by 1.26.