

Standard Ball Runner Blocks made of steel

FKS – Flanged, short, standard height

R1665 ... 2.

Dynamic characteristics

Travel speed: $v_{max} = 5 \text{ m/s}$




Acceleration: $a_{max} = 500 \text{ m/s}^2$

(If $F_{comb} > 2.8 \cdot F_{pr}$: $a_{max} = 50 \text{ m/s}^2$)

Note on lubrication

- Pre-lubricated

Further Ball Runner Blocks FKS

- Super Ball Runner Blocks made of steel  88
- 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					
		C0	C1	N	H	without ball chain			with ball chain		
						SS	LS	DS	SS	LS	DS
15	R1665 1	9		4	3	20	21	–	22	23	–
			1	4	3	20	21	–	22	23	–
20	R1665 8	9		4	3	20	21	–	22	23	–
			1	4	3	20	21	2Z	22	23	2Y
25	R1665 2	9		4	3	20	21	–	22	23	–
			1	4	3	20	21	2Z	22	23	2Y
30	R1665 7	9		4	3	20	21	–	22	23	–
			1	4	3	20	21	2Z	22	23	2Y
35	R1665 3	9		4	3	20	21	–	22	23	–
			1	4	3	20	21	2Z	22	23	2Y
e.g.	R1665 7		1		3	20					

Ordering example

Options:

- Ball Runner Block FKS
- Size 30
- Preload class C1
- Accuracy class H
- With standard seal, without ball chain

Part number: R1665 713 20

Preload classes

C0 = without preload

C1 = preload 2% C

Seals

SS = standard seal

LS = low-friction seal

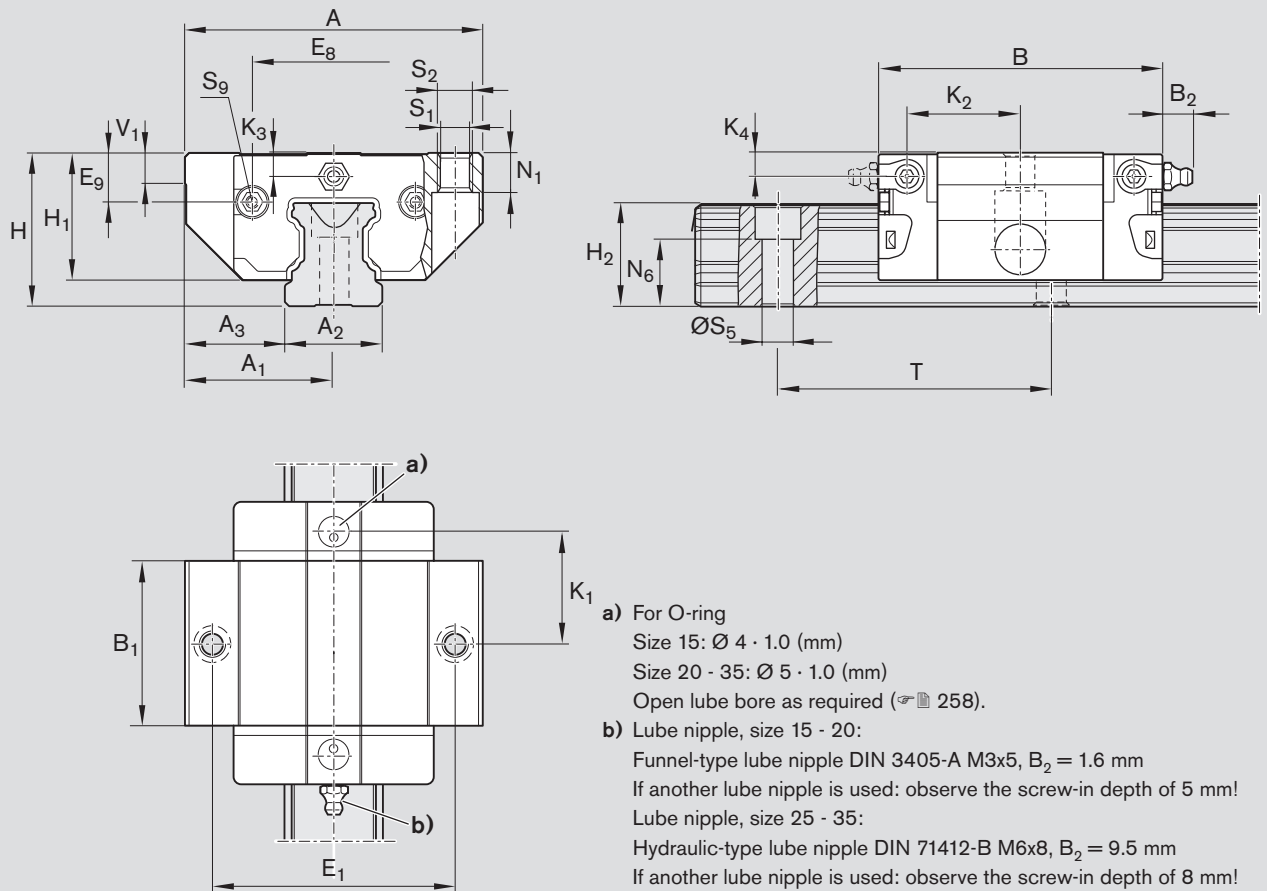
DS = double-lipped seal

Key to table

Gray numbers

= version/combination not preferred
(longer delivery times in some cases)

Ball Runner Blocks FKS



- a) For O-ring
 Size 15: $\varnothing 4 \cdot 1.0$ (mm)
 Size 20 - 35: $\varnothing 5 \cdot 1.0$ (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 - 35:
 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 ₈	E ₉	H	H ₁	H ₂ ¹⁾	H ₂ ²⁾	K ₁	K ₂	K ₃	K ₄
15	47	23.5	15	16.0	44.7	25.7	38	24.55	6.70	24	19.90	16.30	16.20	16.25	17.85	3.20	3.20
20	63	31.5	20	21.5	57.3	31.9	53	32.50	7.30	30	25.35	20.75	20.55	22.95	22.95	3.35	3.35
25	70	35.0	23	23.5	67.0	38.6	57	38.30	11.50	36	29.90	24.45	24.25	25.35	26.50	5.50	5.50
30	90	45.0	28	31.0	75.3	45.0	72	48.40	14.60	42	35.35	28.55	28.35	28.80	30.50	6.05	6.05
35	100	50.0	34	33.0	84.9	51.4	82	58.00	17.35	48	40.40	32.15	31.85	32.70	34.20	6.90	6.90

Size	Dimensions (mm)										Weight (kg)	Load capacities ³⁾ (N)		Load moments ³⁾ (Nm)			
	N ₁	N ₆ ^{±0.5}	S ₁	S ₂	S ₅	S ₉	T	V ₁	C	C ₀		M _t	M _{t0}	M _L	M _{L0}		
15	5.2	10.3	4.3	M5	4.4	M2.5x3.5	60	5.0	0.15	5 400	8 100	52	80	19	28		
20	7.7	13.2	5.3	M6	6.0	M3x5	60	6.0	0.30	12 400	13 600	150	170	52	58		
25	9.3	15.2	6.7	M8	7.0	M3x5	60	7.5	0.50	15 900	18 200	230	260	82	94		
30	11.0	17.0	8.5	M10	9.0	M3x5	80	7.0	0.80	22 100	24 800	380	430	133	150		
35	12.0	20.5	8.5	M10	9.0	M3x5	80	8.0	1.20	29 300	32 400	640	700	200	220		

1) Dimension H₂ with cover strip
 2) Dimension H₂ 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**, **M_t** and **M_L** from the table by 1.26.