

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

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

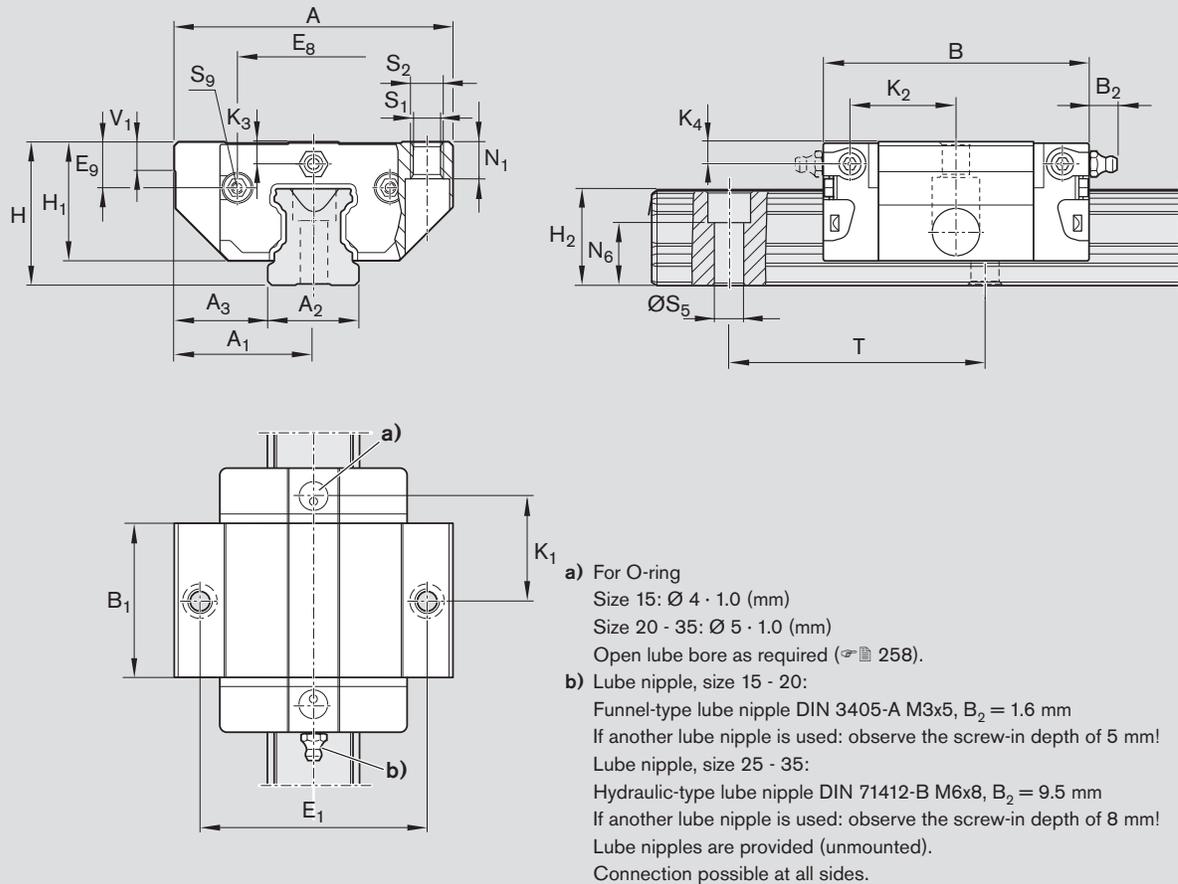
DS = double-lipped seal

Key to table

Gray numbers

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

Ball Runner Blocks FKS



| 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 $\varnothing \text{ 8}$.

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.