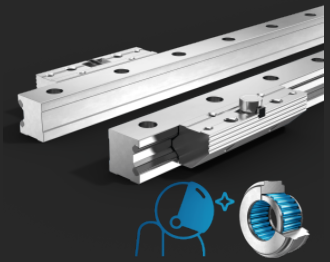


Linear Guides Type FDI-R

Pair of single rails and Pair of Roller Shoes

Vacuum suitable



Aluminum roller guides of type FDI are special guides for use in high vacuum. The full needed bearings are equipped with vacuum-compatible lubricant.

Description

Franke FDI linear guides are equipped with vacuum-compatible needle bearings and are made almost entirely of lightweight aluminum. Special design, material and lubricants prevent outgassing in a vacuum. Rail elements can be manufactured in a length of 500 mm to 4000 mm and, on request, can also be linked endlessly.

Characteristics

| | |
|---------|---------------------|
| Rollers | Needle bearing |
| Raceway | Non corrosive steel |

Properties

| | |
|---------------------|-----------|
| Resilience | ● ● |
| Dynamics | ● |
| Corrosion resistant | ● ● ● ● ● |
| Non magnetic | ● |
| Lubricant free | ● |
| Price | ● ● |

Technical data

Stroke length

One piece from 500 mm to 4000 mm, longer strokes on request

Material

Roller shoes,
Rail body: aluminum, not anodised
Raceways: non-corrosive steel
Rollers: non-corrosive bearing steel, full needed

Operation range

Ultra High vacuum 10^{-7} to 10^{-12} mbar

Operating temperature

-20 °C to +80 °C

Maximum speed

1 m/s

Maximum acceleration

5 m/s^2

Mounting position

Any

Lubricant

Lifetime-lubricated with high-vacuum suitable grease, maintenance-free

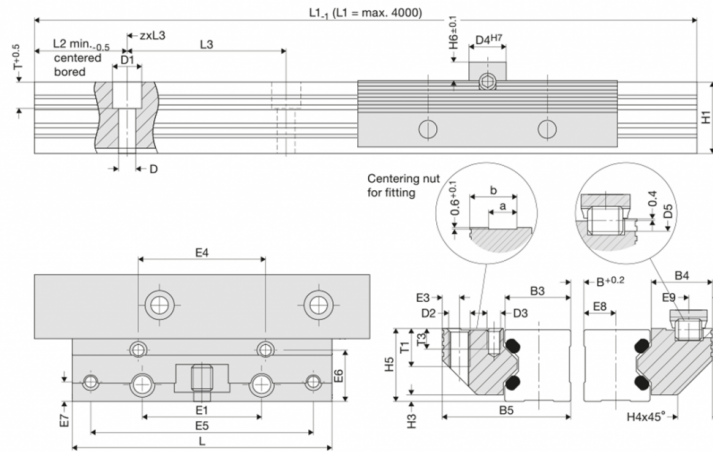
Linear Guides Type FDI-R

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Data tables



FDI-R

| Size | Dimensions mm | | | | | | | | | | | | | | |
|------|------------------|------|------|-------|------|-----|------|----|------|----|----|----|-----|----|-----|
| | L | B5 | H5 | B3 | B4 | D3 | D | D1 | D2 | D4 | D5 | E1 | E3 | E4 | E5 |
| 12 | 64 | 24,4 | 15,0 | 12,00 | 11,9 | M 3 | 3,4 | 6 | M 4 | 8 | 3 | 25 | 3,4 | 29 | 57 |
| 15 | 78 | 30,9 | 19,0 | 15,25 | 15,2 | M 4 | 4,5 | 8 | M 5 | 10 | 4 | 30 | 4,4 | 34 | 68 |
| 20 | 92 | 40,9 | 23,0 | 20,00 | 20,4 | M 5 | 5,5 | 10 | M 6 | 10 | 4 | 40 | 4,9 | 42 | 80 |
| 25 | 98 | 48,4 | 27,5 | 25,00 | 22,9 | M 5 | 6,6 | 11 | M 8 | 14 | 6 | 45 | 6,4 | 48 | 84 |
| 35 | 135 | 68,9 | 37,5 | 35,00 | 32,9 | M 6 | 9,0 | 15 | M 10 | 14 | 6 | 62 | 8,9 | 67 | 117 |
| 45 | 165 | 82,4 | 46,5 | 45,00 | 36,4 | M 8 | 11,0 | 18 | M 12 | 14 | 6 | 80 | 9,9 | 83 | 146 |

FDI-R

| Size | Dimensions mm | | | | | | | | | | | | | |
|------|------------------|-----|------|-----|------|-----|------|----|-----|------|-----|------|------|--|
| | E6 | E7 | E8 | E9 | H1 | H3 | H4 | H6 | L3 | T | T3 | a | b | |
| 12 | 9,7 | 3,4 | 5,5 | 4,9 | 14,7 | 1,4 | 5,5 | 4 | 40 | 5,5 | 6,0 | 4,5 | 9,5 | |
| 15 | 12,4 | 4,9 | 7,0 | 5,9 | 18,7 | 2,0 | 8,0 | 5 | 60 | 6,0 | 7,5 | 5,0 | 12,5 | |
| 20 | 16,9 | 5,9 | 9,5 | 5,9 | 22,6 | 2,0 | 11,0 | 5 | 60 | 8,0 | 8,0 | 7,5 | 16,0 | |
| 25 | 19,4 | 7,4 | 12,0 | 8,9 | 27,0 | 2,5 | 13,0 | 7 | 60 | 10,0 | 5,0 | 10,5 | 17,5 | |
| 35 | 28,4 | 8,9 | 17,0 | 8,9 | 37,0 | 3,5 | 20,0 | 7 | 80 | 11,5 | 8,5 | 12,5 | 26,0 | |
| 45 | 30,9 | 9,9 | 22,0 | 8,9 | 46,0 | 4,0 | 22,0 | 7 | 105 | 14,5 | 9,5 | 15,5 | 31,0 | |

Linear Guides Type FDI-R

Pair of single rails and

Pair of Roller Shoes

Vacuum suitable

Innovation in Motion



Basic load ratings, weight, length

| Size | Load ratings N | | Moment capacities pair of roller shoes Nm | | | | Weight kg | | Order no. | Delivery time* |
|------|-------------------|----------------|--|-----------------|------------------------------------|----------------------------------|--------------|--------|-----------|----------------|
| | C | C ₀ | M _{0cx} | M _{cx} | M _{0cy} /M _{0cz} | M _{cy} /M _{cz} | PRS | Rail/m | | |
| 12 | 550 | 600 | 0,3 (B+30,3) | 0,3 (B+30,3) | 8,5 | 8 | 0,07 | 0,40 | 84495NV | 3 weeks |
| 15 | 1350 | 1500 | 0,7 (B+36,5) | 0,7 (B+36,5) | 26 | 23 | 0,12 | 0,80 | 84395NV | 3 weeks |
| 20 | 2150 | 2500 | 1,2 (B+47,0) | 1,1 (B+47,0) | 51,5 | 44 | 0,23 | 1,20 | 84442NV | 3 weeks |
| 25 | 2900 | 4150 | 2,1 (B+58,4) | 1,4 (B+58,4) | 92 | 64 | 0,35 | 1,80 | 84367NV | 3 weeks |
| 35 | 5000 | 7250 | 3,6 (B+85,0) | 2,5 (B+85,0) | 226 | 156 | 1,00 | 3,10 | 84368NV | 3 weeks |
| 45 | 8500 | 10200 | 5,1 (B+109,0) | 4,2 (B+109,0) | 387 | 322 | 1,80 | 5,00 | 84369NV | 3 weeks |

* Prices and delivery times are ex works Germany and are subject to change without notice. In other countries, prices and delivery times may vary due to different taxes, duties, charges and fees.
For actual sales prices and delivery conditions in your country, please contact our local representative.

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DIN EN ISO 9001 QM
DIN EN ISO 14001 QM

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