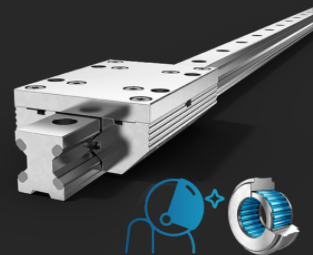


# Linear guide type FDI-K

## Double rail and cassette

### Suitable for vacuum



Aluminum roller guides of type FDI are special guides suitable 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 200 mm to 4000 mm and, on request, can also be linked endlessly.

## Characteristics

<b>Rollers</b>	Needle bearing
<b>Raceway</b>	Non corrosive steel

## Properties

<b>Resilience</b>	● ●
<b>Dynamics</b>	●
<b>Corrosion resistant</b>	● ● ● ● ●
<b>Non magnetic</b>	●
<b>Lubricant free</b>	●
<b>Price</b>	● ●

## Technical data

### Stroke length

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

### Material

Cassette plate, 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 °

### Maximum speed

1 m/s

### Maximum acceleration

5 m/s<sup>2</sup>

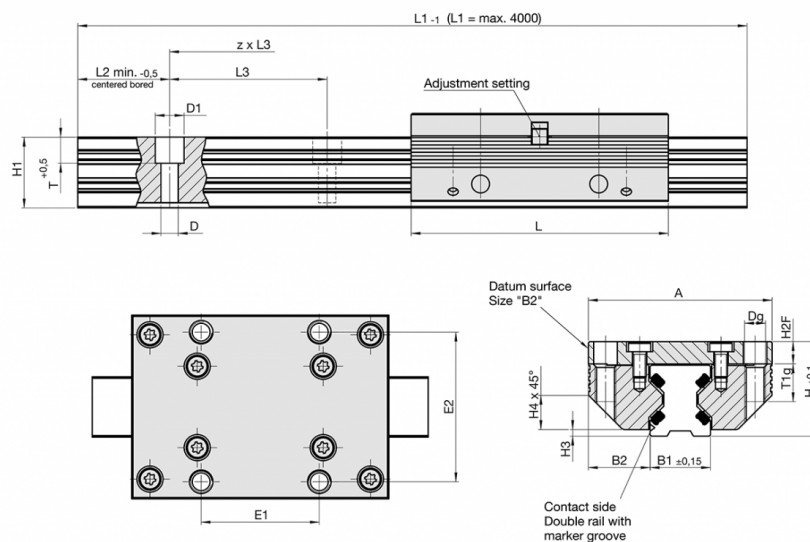
### Mounting position

Any

### Lubricant

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

## Data tables



### FDI-K

Size	Dimensions mm								
	A	L	H	B1	B2	D	D1	Dg	E1
12	37	64	19	12,00	12,50	3,4	6	M 4	25
15	47	78	24	15,50	15,75	4,5	8	M 5	30
20	63	92	30	21,00	21,00	5,5	10	M 6	40
25	70	98	36	23,00	23,50	6,6	11	M 8	45
35	100	135	48	32,00	34,00	9,0	15	M 10	62
45	120	165	60	45,00	37,50	11,0	18	M 12	80

### FDI-K

Size	Dimensions mm								
	E2	H1	H2F	H3	H4	L2	L3	T	T1g
12	30	14,7	4,0	1,4	5,5	10	40	5,5	8
15	38	18,7	5,0	2,0	8,0	10	60	6,0	10
20	53	22,6	7,0	2,0	11,0	10	60	8,0	12
25	57	27,0	8,5	2,5	13,0	10	60	10,0	16
35	82	37,0	10,5	3,5	20,0	12	80	11,5	20
45	100	46,0	13,5	4,0	22,0	16	105	14,5	24

# Linear guide type FDI-K

## Double rail and cassette

### Suitable for vacuum

Innovation in Motion



#### Basic load ratings, weight, length

Size	Load ratings N		Moment capacities cassette Nm				Weight kg		Order no.	Delivery time*	
	C	C <sub>0</sub>	M <sub>0cx</sub>	M <sub>cx</sub>	M <sub>0cy</sub> /M <sub>0cz</sub>	M <sub>cy</sub> /M <sub>cz</sub>	Cassette	Rail/m			
12	550	600	5,5	5,0	8,5	8,0	0,09	0,40	84494NV	3 weeks	
15	1350	1500	17,0	15,0	26,0	23,0	0,17	0,80	84396NV	3 weeks	
20	2150	2500	36,0	30,0	51,5	44,0	0,35	1,30	84441NV	3 weeks	
25	2900	4150	66,0	46,0	92,0	64,0	0,50	1,60	84363NV	3 weeks	
35	5000	7250	171,0	118,0	226,0	125,0	1,40	2,60	84364NV	3 weeks	
45	8500	10200	325,0	271,0	387,0	322,0	2,50	4,50	84365NV	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.

#### Contact

Franke GmbH  
Obere Bahnstraße 64  
73431 Aalen - Germany

Tel. +49 7361 920-0  
Fax +49 7361 920-120  
info@franke-gmbh.de

DIN EN ISO 9001 QM  
DIN EN ISO 14001 QM

Created: 20.02.2025