

# Connecting shafts KSK

Key features and type code



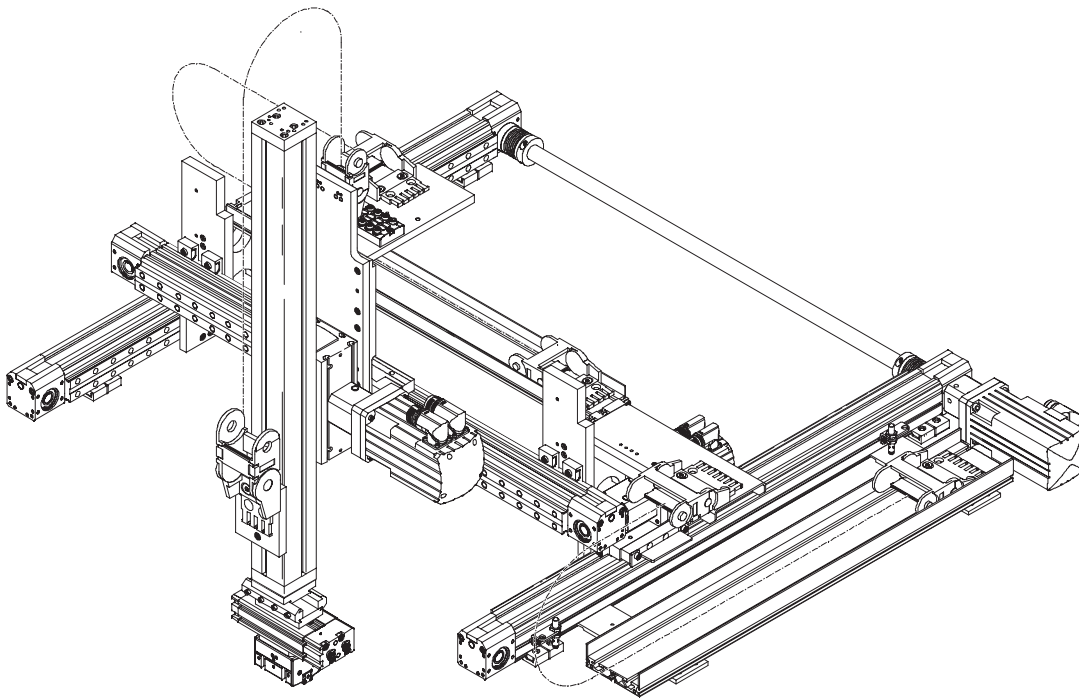
## At a glance

Electrical axes DGE-... are often combined to form multi-axis systems. It is particularly important when realising

gantry systems with a long gantry axis and heavy loads that the two basic axes be driven synchronously. For

these systems, two axes with toothed belt drive are generally coupled with a shared motor and synchronised using

a connecting shaft. Connecting shafts are available for sizes 25, 40 and 63.



## Type code

KSK — 25 — 800

Type	
KSK	Connecting shaft

Size	
25	for toothed belt axis DGE-25-...-ZR-KF
40	for toothed belt axis DGE-40-...-ZR-KF
63	for toothed belt axis DGE-63-...-ZR-KF

Centre-to-centre distance between the axes

# Connecting shafts KSK

Technical data



## Connecting shaft KSK

Ø - Size  
25, 40 and 63 mm



General technical data			
Size	25	40	63
Basic moment of inertia [kg cm <sup>2</sup> ] if L1 = 0 mm	0.31	1.47	13.10
Additional moment of inertia per 1 m L1 [kg cm <sup>2</sup> /m]	0.34	0.80	3.35
Max. permissible axial offset [mm]	±2		
Basic weight [kg] if L1 = 0 mm	0.22	0.36	1.8
Additional weight per 1 m L1 [kg/m]	0.32	0.48	0.8

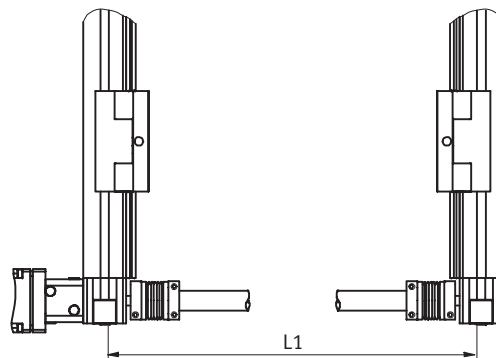
Operating and environmental conditions			
Size	25	40	63
Ambient temperature [°C]	-10 ... +40		
Corrosion resistance class CRC <sup>1)</sup>	2		
Materials Hubs	Wrought aluminium alloy		
Coupling Bellows	High-alloy steel		
Materials Connecting tube	High-alloy steel		

1) Corrosion resistance class 2 according to Festo standard 940 070  
Components requiring moderate corrosion resistance. Externally visible parts with primarily decorative surface requirements which are in direct contact with a surrounding industrial atmosphere or media such as cooling or lubricating agents.

## Distance (centre-to-centre distance L1) between the axes

A connecting shaft consists of a connecting tube with two couplings attached to its ends. The connecting shaft transmits the required torque, and thus avoids misalignment between the axes. It also ensures

slip-free transmission, resulting in identical travel at both axes. The centre-to-centre distance between the two axes must be entered under distance (see table).



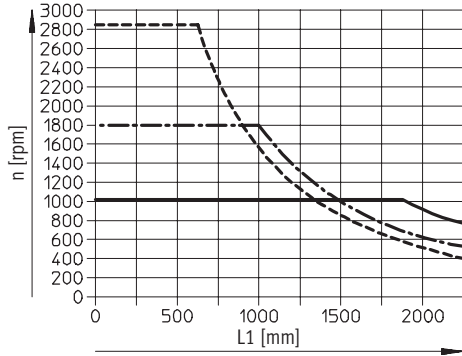
Size	25	40	63
L1 <sub>min.</sub> [mm]	200	250	350
L1 <sub>max.</sub> [mm]	2 000	2 000	2 000

# Connecting shafts KSK

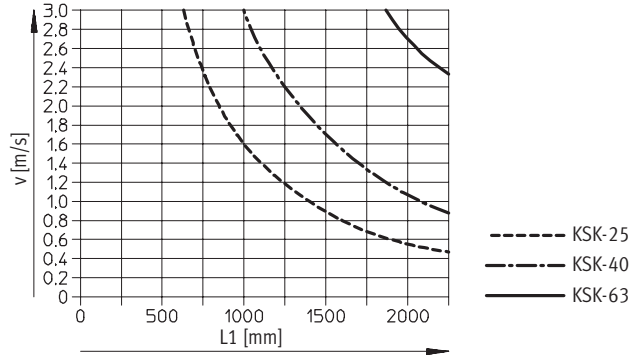
Technical data



Max. rpm [n] as a function of the centre-to-centre distance L1

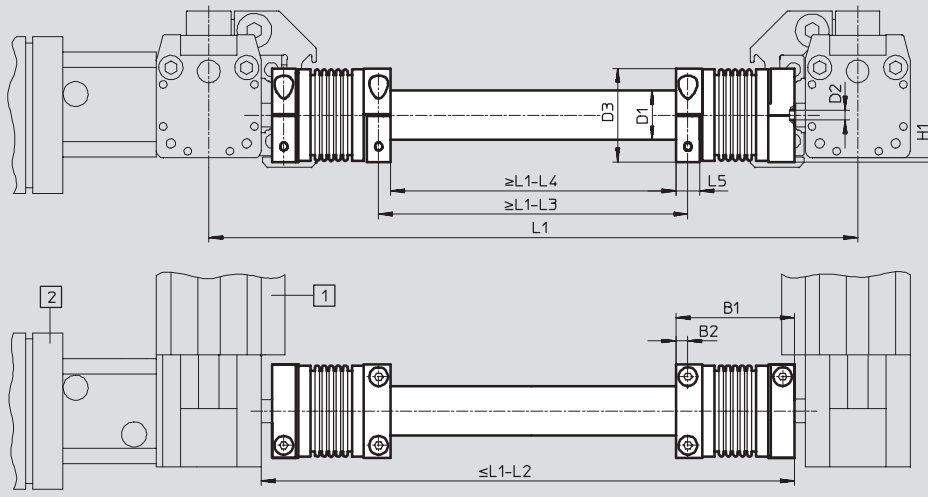


Max. axis velocity [v] as a function of the centre-to-centre distance L1



Dimensions and ordering data

Download CAD data → [www.festo.com/en/engineering](http://www.festo.com/en/engineering)



Size	B1	B2	D1	D2	D3	H1	L1	L2	L3	L4	L5	Part No.	Type
[mm]			∅	∅	∅								
25	50	5.1	21.27	8	40	1.6	Required centre-to-centre distance between the axes	51.4	133.6	156.4	10.2	<b>196 587</b>	<b>KSK-25...</b>
40	59	6.5	26.52	15	49	2.5		71.4	164.4	194.6	13.1	<b>196 588</b>	<b>KSK-40...</b>
63	94	10.8	41.6	25	81	6		114.6	261.4	305.6	21.6	<b>196 589</b>	<b>KSK-63...</b>

- - Note

Specify the centre-to-centre distance L1 in the type code when ordering.

Ordering example:  
Two toothed belt axes DGE-40-ZR are to be linked using a connecting shaft and a centre-to-centre distance L1 = 1 000 mm

The following connecting shaft must be ordered:  
Type: KSK-40-1000  
Part No.: 196 588