

**Connecting Shafts KSK**



# Connecting shafts KSK

Key features and type code

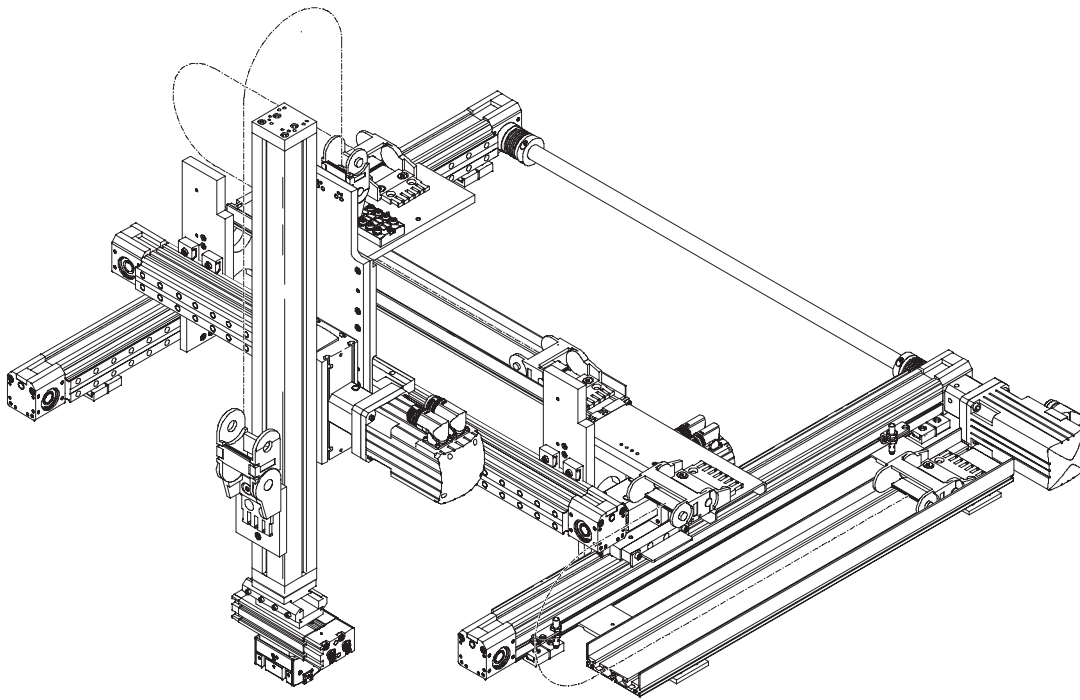
## At a glance

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
<b>Type</b>						
KSK	Connecting shaft					
<b>Size</b>						
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					
<b>Centre-to-centre distance between the axes</b>						

# Connecting shafts KSK

Technical data



## Connecting shaft KSK

Size  
25, 40 and 63 mm



General technical data				
Size		25	40	63
Basic moment of inertia if L1 = 0 mm	[kg cm <sup>2</sup> ]	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 if L1 = 0 mm	[kg]	0.22	0.36	1.8
Additional weight per 1 m L1	[kg/m]	0.32	0.48	0.8

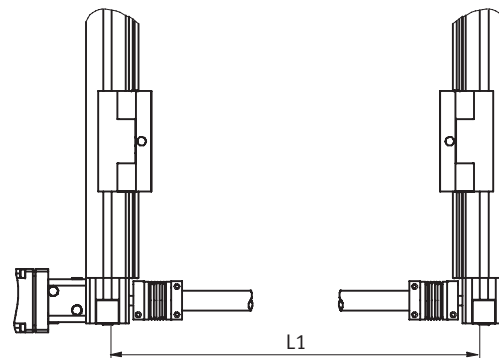
Operating and environmental conditions				
Size		25	40	63
Ambient temperature	[°C]	-10 ... +40		
Corrosion resistance class CRC <sup>1)</sup>		2		
Materials	Hubs	Wrought aluminium alloy		
	Bellows	High-alloy steel		
Materials	Connecting tube	High-alloy steel		

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).

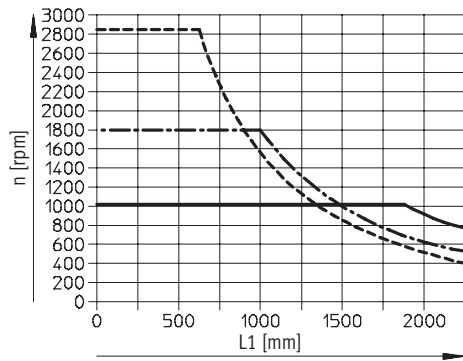


Size		25	40	63
L1 <sub>min.</sub>	[mm]	200	250	350
L1 <sub>max.</sub>	[mm]	2 000	2 000	2 000

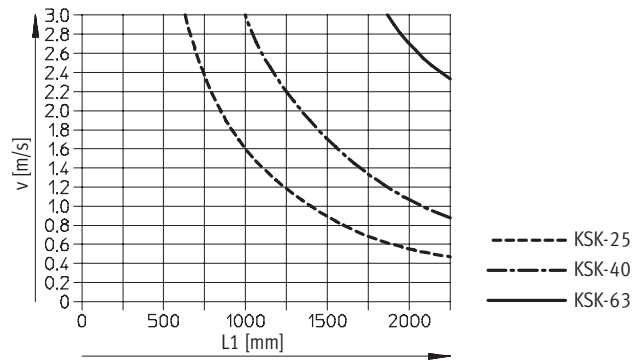
# Connecting shafts KSK

Technical data

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

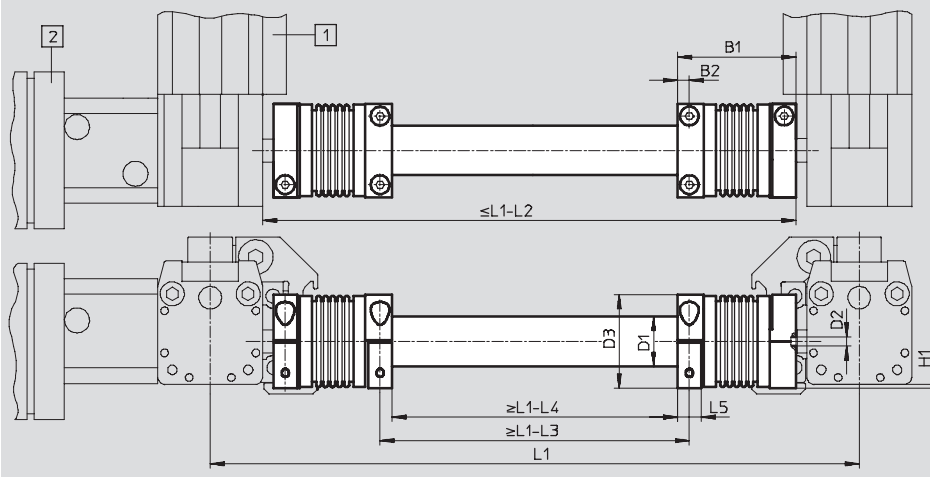


Max. axis velocity [v] as a function of the centre-to-centre distance L1



Dimensions and ordering data

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



Size [mm]	B1	B2	D1 ∅	D2 ∅	D3 ∅	H1	L1	L2	L3	L4	L5	Part No.	Type
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	196 587	KSK-25-...
40	59	6.5	26.52	15	49	2.5		71.4	164.4	194.6	13.1	196 588	KSK-40-...
63	94	10.8	41.6	25	81	6		114.6	261.4	305.6	21.6	196 589	KSK-63-...

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



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