

Connecting shafts KSK

Key features and type code

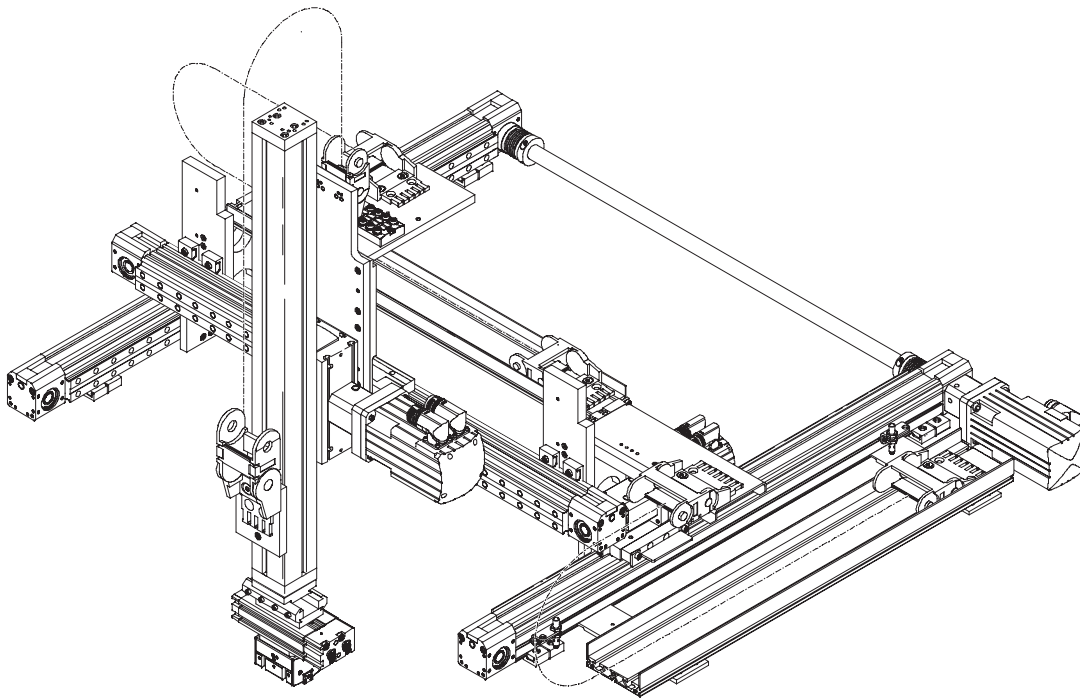
At a glance

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

Size
25, 40 and 63 mm



General technical data				
Size		25	40	63
Basic moment of inertia if L1 = 0 mm	[kg cm ²]	0.31	1.47	13.10
Additional moment of inertia per 1 m L1	[kg cm ² /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

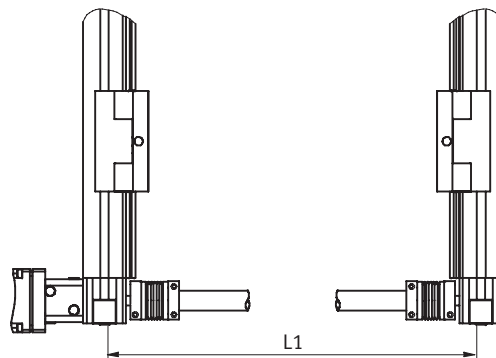
Operating and environmental conditions				
Size		25	40	63
Ambient temperature	[°C]	-10 ... +40		
Corrosion resistance class CRC ¹⁾		2		
Materials	Hubs	Wrought aluminium alloy		
Coupling	Bellows	High-alloy steel		
Materials	Connecting tube	High-alloy steel		

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).

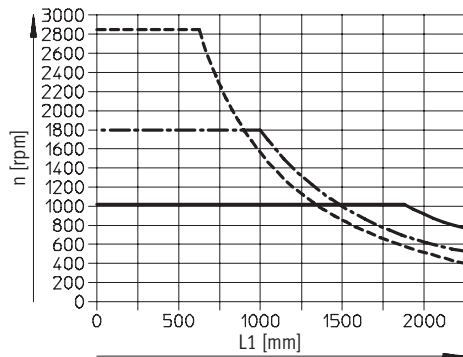


Size		25	40	63
L1 _{min.}	[mm]	200	250	350
L1 _{max.}	[mm]	2 000	2 000	2 000

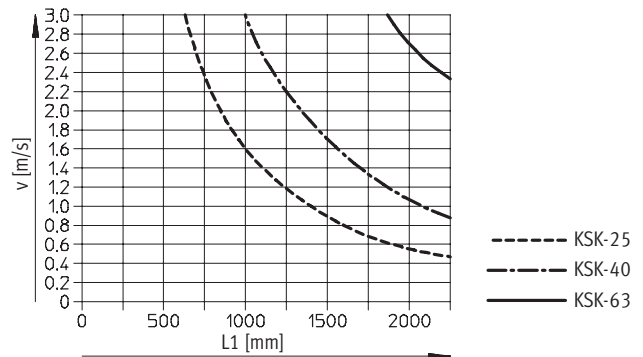
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Technical data

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

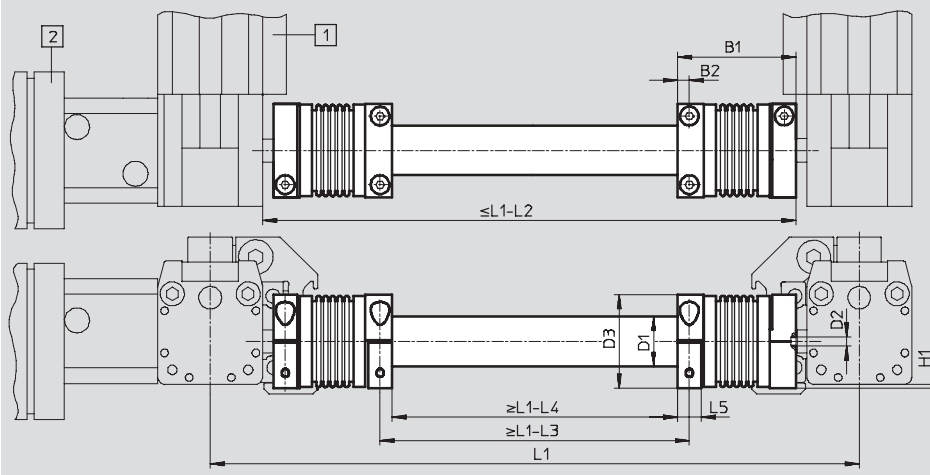


Max. axis velocity [v] as a function of the centre-to-centre distance L1



Dimensions and ordering data

Download CAD data → www.festo.com/en/engineering



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	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