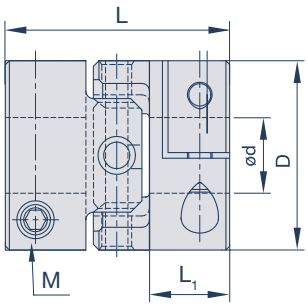
Crossflex ZCC | Aluminium compact

Compact clamping hub version



Specifications

Size	D mm	L mm	L_1 mm	M	T_A Nm	max. rpm min^{-1}	T_{KN} Nm	C_T Nm/rad	g g	Misalignment angular °	Misalignment radial mm
ZCC15	15	22,4	8	M2,6	1	6.000	0,25	200	9	3	0,3
ZCC20	20	23,6	8	M2,6	1	5.000	0,5	300	19	3	0,5
ZCC25	25	30,6	10,5	M3	1,7	5.000	1	700	34	3	0,5
ZCC32	32	39	13,5	M4	3,5	4.500	2	950	72	3	0,5
ZCC40	40	45,6	16	M5	8	3.500	5	1.200	140	3	0,5

M= Screw size, T_A= Tightening torque, T_{KN}= Nominal torque, C_T= Torsional stiffness, g= Mass

Bore diameters

Size	d (mm)									
	3	4	5	6	8	10	11	12	14	15
ZCC15	•	•	•							
ZCC20		•	•	•	•					
ZCC25			•	•	•	•				
ZCC32				•	•	•	•	•	•	
ZCC40					•	•	•	•	•	•

Ordering example:
ZCC15 ø3 ø3
Crossflex Size 15, Bore 3 and 3

Various technical parameters play a decisive role in the selection of the Crossflex. Parameters such as maximum speeds, occurring shaft misalignments and drive torque should be taken into account. The required coupling size can be roughly calculated using the following formula:

$$T_{KN} > T_A \times K_1 \times K_2 \times K_3 \times K_4$$

The nominal torque T_{KN} of the selected coupling size should be greater than the drive torque T_A in Nm (this results from the manufacturer‘s specification of the drive motor) multiplied by the operating factors of the application.

K_1: Impfact factor

	Constant movement	Light impacts	Medium impacts	Heavy impacts
Factor K_1	1,0	1,25	1,75	2,25

K_2: occurring radial displacement

	Radial 0 mm	Radial 0,1 mm	Radial 0,2 mm
Faktor K_2	1,0	1,1	1,2

K_3: occurring angular displacement

	Angular 0°	Angular 0,5 °	Angular 1°
Factor K_3	1,0	1,06	1,12

K_4: Speed

	1.500 min^{-1}	2.000 min^{-1}	2.500 min^{-1}	3.000 min^{-1}	4.000 min^{-1}	5.000 min^{-1}
Factor K_4	1,0	1,06	1,12	2,0	2,7	3,3

Please note the maximum permissible bore diameter and the corresponding misalignment capacity for the selected coupling size. These can be found in the table for the corresponding coupling size.
The Crossflex offers angular misalignment of up to 7°, depending on the version. For applications focussing on synchronisation, we recommend maintaining an angular misalignment of 1.5° or less. Please note that the Crossflex does not compensate for any axial misalignment.

General technical specifications

Material
Hubs: High-strength aluminium EN AW-2024-AlCu4Mg1 additionally anodised to protect against corrosion
Centre section: Stainless steel
Pins: Nickel-plated steel
Clamping screws: EN ISO 4762/DIN 912 12.9

Temperature range
-40°C bis +100°C

„briefly and concisely ... explained“

OUR PICTOGRAMS

- High temperature resistance
- Vibration damping
- Axially pluggable
- High radial misalignment
- Backlash-free
- Torsionally rigid
- High angular misalignment
- High speeds
- Electrically insulating
- Corrosion resistant