

# Disc Couplings

## High Torque, Set Screw

**Features:** Couplings with carbon fiber discs have higher torque ratings than the polyimide discs, and are more lateral/angular misalignment tolerant than stainless steel.

RoHS 10

**Double Disc Type**  
**MCKL** (Standard Bore)

**Single Disc Type**  
**MCKS** (Standard Bore)

**MCKLLK** (Keywaged Bore d1)  
**MCKLRK** (Keywaged Bore d2)  
**MCKLWK** (Keywaged Bore d1, d2)

**MCKSRK** (Keywaged Bore d2)  
**MCKSWK** (Keywaged Bore d1, d2)

⚠ The lateral, angular, and axial misalignment values shown are for each occurring individually. When multiple misalignments are occurring simultaneously, the allowable maximum value of each will be reduced to 1/2.

⚠ For the selection criteria and alignment procedures, see [P1061](#)

Standard Bore	Keywaged Bore			Material		Surface Treatment		Accessory
	d1 (One Side)	d2 (One Side)	d1, d2 (Both Sides)	Main Body	Disc	Main Body		
MCKL	MCKLLK	MCKLRK	MCKLWK	Aluminum	Carbon Fiber	Electroless	Set Screw	
MCKS	-	MCKSRK	MCKSWK	Diecast		Nickel Plating		

Part Number	Type	D	d1, d2 Selection (d1≠d2)				d3	L	ℓ	F	Set Screw		Unit Price				
			⚠ Keywaged Bore Type is selectable for diameter 6 or larger (D=13 is not available)								M	Tightening Torque (N·m)	MCKL	MCKLLK MCKLRK	MCKLWK		
Double Disc Type	MCKL MCKLLK MCKLRK MCKLWK	10	2	3	4	4.1	15	4.2	2	M2	0.3	-	-	-			
		13	3	4	5	5.5	19	5.5	2.5								
		16	4	5	6	6.35	7	7	3	M3	0.7	-	-	-			
		20	4	5	6	6.35	7	8	10								
		25	5	6	6.35	7	8	9.53	10	11	12	M4	1.7	-	-	-	
		32	6	6.35	7	8	9.53	10	11	12	14			15	16		
		40	8	9.53	10	11	12	14	15	16	18	20	M5	4	-	-	-
		50	14	15	16	18	20	22	24	25							
													M6	7	-	-	-

Part Number	Type	D	d1, d2 Selection (d1≠d2)				L	ℓ	F	Set Screw		Unit Price					
			⚠ Keywaged Bore Type is selectable for diameter 6 or larger (D=13 is not available)							M	Tightening Torque (N·m)	MCKS	MCKSRK	MCKSWK			
Single Disc Type	MCKS MCKSRK MCKSWK	10	2	3	4	10.5	4.2	2	M2	0.3	-	-	-				
		13	3	4	5	13.5	5.5	3									
		16	4	5	6	16.5	7	3	M3	0.7	-	-	-				
		20	4	5	6	18.4	7.5	4									
		25	5	6	6.35	7	8	9.53	10	11	12	M4	1.7	-	-	-	
		32	6	6.35	7	8	9.53	10	11	12	14			15	16		
		40	8	9.53	10	11	12	14	15	16	18	20	M5	4	-	-	-
		50	14	15	16	18	20	22	24	25							
													M6	7	-	-	-

**Double Disc Type**

Part Number	Type	D	Allowable Torque (N·m)	Angular Misalignment (°)	Lateral Misalignment (mm)	Static Torsional Spring Constant (N·m/rad)	Max. Rotational Speed (r/min)	Moment of Inertia (kg·m²)	Allowable Axial Misalignment (mm)	Mass (g)
MCKL MCKLLK MCKLRK MCKLWK		10	0.25	2.5	0.2	31	32000	4.6x10 <sup>-8</sup>	±0.2	3
		13	0.35			80	24000	8.0x10 <sup>-8</sup>	5	
		16	0.6			130	23000	2.4x10 <sup>-7</sup>	9	
		20	1.0			220	22000	7.2x10 <sup>-7</sup>	14	
		25	2.2			440	19000	2.2x10 <sup>-6</sup>	27	
		32	3.8			960	15000	6.0x10 <sup>-6</sup>	±0.4	60
		40	6.8			1900	10000	1.7x10 <sup>-5</sup>	104	
		50	11.0			2250	8000	4.6x10 <sup>-5</sup>	±0.5	210

**Single Disc Type**

Part Number	Type	D	Allowable Torque (N·m)	Angular Misalignment (°)	Lateral Misalignment (mm)	Static Torsional Spring Constant (N·m/rad)	Max. Rotational Speed (r/min)	Moment of Inertia (kg·m²)	Allowable Axial Misalignment (mm)	Mass (g)	
MCKS MCKSRK MCKSWK		10	0.25	1	0.05	40	32000	4.0x10 <sup>-8</sup>	±0.1	2	
		13	0.35			100	24000	7.0x10 <sup>-8</sup>		4	
		16	0.6			160	23000	2.0x10 <sup>-7</sup>		7	
		20	1.0			290	22000	6.0x10 <sup>-7</sup>		11	
		25	2.2			550	19000	1.8x10 <sup>-6</sup>		22	
		32	3.8			1200	15000	5.2x10 <sup>-6</sup>		±0.2	50
		40	6.8			2200	10000	1.3x10 <sup>-5</sup>		85	
		50	11.0			2600	8000	3.6x10 <sup>-5</sup>		170	

**Ordering Example**

Part Number	-	Shaft Bore Dia. d1	-	Shaft Bore Dia. d2
MCKL20	-	5	-	10
MCKLWK25	-	10	-	12

**Alterations**

Part Number	-	Shaft Bore Dia. d1 (LDC)	-	Shaft Bore Dia. d2 (RDC)	-	(KLH, KRH)
MCKL20	-	LDC6.5	-	RDC9	-	
MCKLWK32	-	8	-	10	-	KRH4

**Keyway Dimension**

Shaft Bore Dia. d1, d2	b	t	Key Nominal Dim. b/t
6~7.9	2	1.0	2x2
8~10	3	1.4	3x3
10.1~12	4	1.8	4x4
12.1~17	5	2.3	5x5
17.1~22	6	2.8	6x6
22.1~25	8	3.3	8x7

**Alterations**

Spec.	Shaft Bore Dia.		Keyway Width	
	LDC (Left Shaft)	RDC (Right Shaft)	KLH (Left Shaft)	KRH (Right Shaft)
0.1mm Increment	10	2~4	2	2
	13	3~6	3	3
	16	4~8	4	4
	20	4~10	5	5
	25	5~12	6	6
	32	6~16	8	8
RDC9.3	40	8~20	10	10
	50	14~25	14	14

Keyway Width (b) is changed as the table below.

Ordering Code	KLH	KRH
8	2	2
10	4	4
12	5	5
22	8	8

⚠ Cannot be combined with shaft bore change (LDC, RDC) alterations.  
⚠ Applicable to Keywaged Bore only.