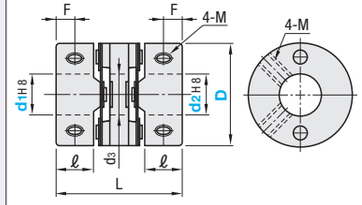
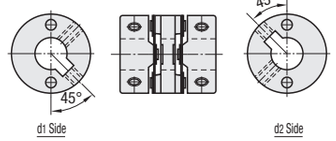
Disc Couplings
High Torque, Set Screw

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

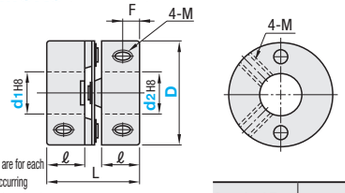
Double Disc Type
MCKL (Standard Bore)



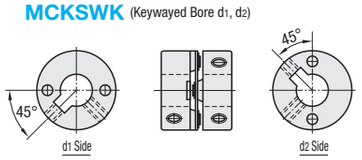
MCKLLK (Keywayed Bore d_1)
MCKLRK (Keywayed Bore d_2)
MCKLWK (Keywayed Bore d_1, d_2)



Single Disc Type
MCKS (Standard Bore)



MCKSRK (Keywayed Bore d_2)
MCKSWK (Keywayed Bore d_1, d_2)



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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 P.1061

Standard Bore	Keywayed Bore			Material		Surface Treatment	Accessory
	d_1 (One Side)	d_2 (One Side)	d_1, d_2 (Both Sides)	Main Body	Disc	Main Body	
MCKL	MCKLLK	MCKLRK	MCKLWK	Aluminum Diecast	Carbon Fiber	Electroless Nickel Plating	Set Screw
MCKS	-	MCKSRK	MCKSWK				

Part Number Type	D	d_1, d_2 Selection ($d_1 \leq d_2$) Keywayed Bore Type is selectable for diameter 6 or larger (D=13 is not available)	d_3	L	ℓ	F	Set Screw M	Set Screw Tightening Torque (N · m)	Unit Price MCKL	Unit Price MCKLLK MCKLRK	Unit Price 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 6	5.5	19	5.5	2.5				-	-
	16	4 5 6 6.35 7 8	6.8	23.2	7	3	M3	0.7			
	20	4 5 6 6.35 7 8 10	8.1	26	7.5	3.7					
	25	5 6 6.35 7 8 9.53 10 11 12	10.4	30.2	9	4	M4	1.7			
	32	6 6.35 7 8 9.53 10 11 12 14 15 16	15	41	12.4	6					
	40	8 9.53 10 11 12 14 15 16 18 20	19.5	47	15.5	7.8	M5	4			
	50	14 15 16 18 20 22 24 25	25	53	18	9	M6	7			

Part Number Type	D	d_1, d_2 Selection ($d_1 \leq d_2$) Keywayed Bore Type is selectable for diameter 6 or larger (D=13 is not available)	L	ℓ	F	Set Screw M	Set Screw Tightening Torque (N · m)	Unit Price MCKS	Unit Price MCKSRK	Unit Price MCKSWK
Single Disc Type MCKS MCKSRK MCKSWK	10	2 3 4	10.5	4.2	2	M2	0.3		-	-
	13	3 4 5 6	13.5	5.5	3				-	-
	16	4 5 6 6.35 7 8	16.5	7	3	M3	0.7			
	20	4 5 6 6.35 7 8 10	18.4	7.5	4					
	25	5 6 6.35 7 8 9.53 10 11 12	21.6	9	4	M4	1.7			
	32	6 6.35 7 8 9.53 10 11 12 14 15 16	29	12.4	6					
	40	8 9.53 10 11 12 14 15 16 18 20	35	15.5	7.8	M5	4			
	50	14 15 16 18 20 22 24 25	41	18	9	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	4.6×10^{-8}	±0.2	3
	13	0.35			80	24000	8.0×10^{-8}		5
	16	0.6			130	23000	2.4×10^{-7}	±0.3	9
	20	1.0			220	22000	7.2×10^{-7}		14
	25	2.2			440	19000	2.2×10^{-6}	±0.4	27
	32	3.8			960	15000	6.0×10^{-6}		60
	40	6.8		0.3	1900	10000	1.7×10^{-5}	±0.5	104
	50	11.0			2250	8000	4.6×10^{-5}		210

Ordering Example

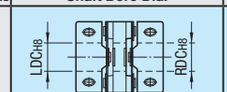
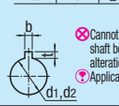
Part Number	-	Shaft Bore Dia. d_1	-	Shaft Bore Dia. d_2
MCKL20	-	5	-	10
MCKLWK25	-	10	-	12

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	4.0×10^{-8}	±0.1	2
	13	0.35			100	24000	7.0×10^{-8}		4
	16	0.6			160	23000	2.0×10^{-7}		7
	20	1.0			290	22000	6.0×10^{-7}		11
	25	2.2			550	19000	1.8×10^{-6}		22
	32	3.8			1200	15000	5.2×10^{-6}	±0.2	50
	40	6.8			2200	10000	1.3×10^{-5}		85
	50	11.0		0.1	2600	8000	3.6×10^{-5}		170

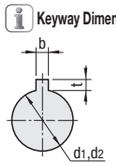
Alterations

Part Number	-	Shaft Bore Dia. d_1 (LDC)	-	Shaft Bore Dia. d_2 (RDC)	-	(KLH, KRH)
MCKL20	-	LDC6.5	-	RDC9		
MCKLWK32	-	8	-	10	-	KRH4

Alterations	Shaft Bore Dia.	Keyway Width
Spec.	 0.1mm Increment. Ordering Code: LDC7.8, RDC9.3. D: LDC, RDC: 10: 2~4; 13: 3~6; 16: 4~8; 20: 4~10; 25: 5~12; 32: 6~16; 40: 8~20; 50: 14~25	Keyway Width (b) is changed as the table below. Ordering Code: KLH4 KRH4.  Cannot be combined with shaft bore change (LDC, RDC) alterations. Applicable to Keyawed Bore only.
Code	LDC (Left Shaft) RDC (Right Shaft)	KLH (Left Shaft) KRH (Right Shaft)

Shaft Bore Dia. d_1, d_2	KLH, KRH(b) Reference Dia.	KLH, KRH(b) Tolerance	t Reference Dia.	t Tolerance
8	2	±0.0125	1.0	+0.1 0
10	4	±0.0150	1.8	
12	5		2.3	
22	8	±0.0180	3.3	$^{+0.2}_{0}$

Keyway Dimension

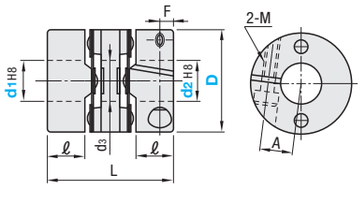


Shaft Bore Dia. d_1, d_2	b Reference Dia.	b Tolerance	t Reference Dia.	t Tolerance	Key Nominal Dim. bxh
6~7.9	2	±0.0125	1.0	+0.1 0	2x2
8~10	3		1.4		3x3
10.1~12	4	±0.0150	1.8		4x4
12.1~17	5		2.3		5x5
17.1~22	6		2.8		6x6
22.1~25	8	±0.0180	3.3	$^{+0.2}_{0}$	8x7

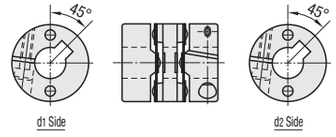
Disc Couplings
High Torque, Clamping

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

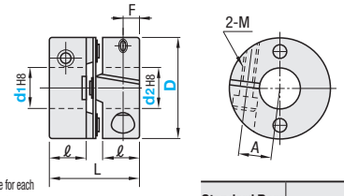
Double Disc Type
MCKLC (Standard Bore)



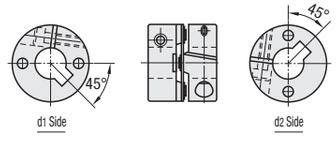
MCKLCLK (Keywayed Bore d_1)
MCKLCRK (Keywayed Bore d_2)
MCKLCWK (Keywayed Bore d_1, d_2)



Single Disc Type
MCKSC (Standard Bore)



MCKSCWK (Keywayed Bore d_1, d_2)



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Tolerances for d_1 and d_2 are values before slit machining.

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 P.1061

Standard Bore	Keywayed Bore			Material		Surface Treatment	Accessory
	d_1 (One Side)	d_2 (One Side)	d_1, d_2 (Both Sides)	Main Body	Disc	Main Body	
MCKLC	MCKLCLK	MCKLCRK	MCKLCWK	Aluminum Diecast	Carbon Fiber	Electroless Nickel Plating	Hex Socket Head Cap Screw
MCKSC	-	-	MCKSCWK				

Part Number Type	D	d_1, d_2 Selection ($d_1 \leq d_2$) Keywayed Bore Type is selectable for diameter 6 or larger	d_3	L	ℓ	A	F	Clamp Screw M	Clamp Screw Tightening Torque (N · m)	Unit Price MCKLC	Unit Price MCKLCLK MCKLCRK	Unit Price MCKLCWK
Double Disc Type MCKLC MCKLCLK MCKLCRK MCKLCWK	13	*3 4 5	5.5	19	5.5	4.1	2.5	M2	0.42		-	-
	16	*4 5 6	6.8	23.2	7	5	3	M2.5	1			
	20	*4 5 6 6.35 7 8	8.1	26	7.5	6.5	3.7					
	25	*5 6 6.35 7 8 9.53 10	10.4	30.2	9	8.5	4	M3	1.7			
	32	8 9.53 10 11 12 14	15	41	12.4	10	6	M4	2.5			
	40	8 9.53 10 11 12 14 15 16 18	19.5	47	15.5	13.1	7.8	M5	7			
	50	14 15 16 18 20 22 24	25	53	18	16.7	9	M6	12			

Part Number Type	D	d_1, d_2 Selection ($d_1 \leq d_2$) Keywayed Bore Type is selectable for diameter 6 or larger	L	ℓ	A	F	Clamp Screw M	Clamp Screw Tightening Torque (N · m)	Unit Price MCKSC	Unit Price MCKSCWK
Single Disc Type MCKSC MCKSCWK	13	*3 4 5	13.5	5.5	4.1	2.5	M2	0.42		-
	16	*4 5 6	16.5	7	5	3	M2.5	1		
	20	*4 5 6 6.35 7 8	18.4	7.5	6.5	3.7				
	25	*5 6 6.35 7 8 9.53 10	21.6	9	8.5	4	M3	1.7		
	32	8 9.53 10 11 12 14	29	12.4	10	6	M4	2.5		
	40	8 9.53 10 11 12 14 15 16 18	35	15.5	13.1	7.8	M5	7		
	50	14 15 16 18 20 22 24	41	18	16.7	9	M6	12		

When d_1 is *3, *4, *5, use with the load torque 50% or less than that shown in the table to prevent slipping.

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)
MCKLC MCKLCLK MCKLCRK MCKLCWK	13	0.35	2.5	0.2	80	12000	8.0×10^{-8}	±0.2	5
	16	0.6			130	9000	2.4×10^{-7}	±0.3	9
	20	0.9			220	7600	7.2×10^{-7}		14
	25	2.2			440	6000	2.2×10^{-6}	±0.4	27
	32	3.8			960	4800	6.0×10^{-6}		60
	40	6.8		0.3	1900	4000	1.7×10^{-5}	±0.5	104
	50	11.0			2250	3500	4.6×10^{-5}		210

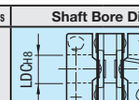
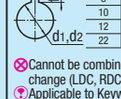
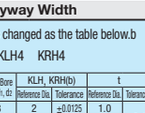
Single Disc Type

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)
MCKSC MCKSCWK	13	0.35	1	0.05	100	12000	7.0×10^{-8}	±0.1	4
	16	0.6			160	9000	2.0×10^{-7}		7
	20	0.9			290	7600	6.0×10^{-7}		11
	25	2.2			550	6000	1.8×10^{-6}	±0.2	22
	32	3.8			1200	4800	5.2×10^{-6}		50
	40	6.8		0.1	2200	4000	1.3×10^{-5}		85
	50	11.0			2600	3500	3.6×10^{-5}		170

Part Number	-	Shaft Bore Dia. d_1	-	Shaft Bore Dia. d_2
MCKLC16	-	5	-	6
MCKLCWK40	-	12	-	15

Alterations

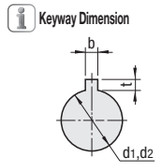
Part Number	-	Shaft Bore Dia. d_1 (LDC)	-	Shaft Bore Dia. d_2 (RDC)	-	(KLH, KRH, LK, RK)
MCKLC20	-	LDC6.2	-	RDC6.9		
MCKLCWK32	-	10	-	10	-	KLH4 - KRH4

Alterations	Shaft Bore Dia.	Keyway Width	Keyway Machining
Spec.	 0.1mm Increment. Ordering Code: LDC7.8, RDC9.3. D: LDC, RDC: 13: 3~5; 16: 4~6; 20: 4~8; 25: 5~10; 32: 8~14; 40: 8~18; 50: 14~24	Keyway Width (b) is changed as the table below.b Ordering Code: KLH4 KRH4.  Cannot be combined with shaft bore change (LDC, RDC) alterations. Applicable to Keyawed Bore only.	 Ordering Code: LK3, RK4. Keyway machining is available for Ø6 ~.
Code	LDC (Left Shaft) RDC (Right Shaft)	KLH (Left Shaft) KRH (Right Shaft)	LK (Left Shaft) RK (Right Shaft)

Shaft Bore Dia. d_1, d_2	KLH, KRH(b) Reference Dia.	KLH, KRH(b) Tolerance	t Reference Dia.	t Tolerance
8	2	±0.0125	1.0	+0.1 0
10	4	±0.0150	1.8	
12	5		2.3	
22	8	±0.0180	3.3	$^{+0.2}_{0}$

Shaft Bore Dia. d_1, d_2	LK, RK
6~8	2
8~10	3
10~12	4
12~17	5
17~22	6
22~24	8

Keyway Dimension



Shaft Bore Dia. d_1, d_2	b Reference Dia.	b Tolerance	t Reference Dia.	t Tolerance	Key Nominal Dim. bxh
6~7.9	2	±0.0125	1.0	+0.1 0	2x2
8~10	3		1.4		3x3
10.1~12	4	±0.0150	1.8		4x4
12.1~17	5		2.3		5x5
17.1~22	6		2.8		6x6
22.1~24	8	±0.0180	3.3	$^{+0.2}_{0}$	8x7