

# Disc Couplings For Servo Motors

## Ultra High Torque Clamping (Double Disc)

Points of comparison between similar products | Max. Rotational Speed: 3,500~6,000rpm

Type	Parts	Material	Surface Treatment	Accessory
MCSLC	Main Body	Aluminum Diecast	Electroless Nickel Plating	Hex Socket Head Cap Screw
MCSLCLK	Disc	Stainless Steel	-	
MCSLCRK	Screw	EN 1.7220 Equiv.	Black Oxide	

⚠ Tolerances for d1 and d2 are values before slit machining.

Standard Bore  
**MCSLC**

Keywayed Bore  
**MCSLCLK** (d1 Side Only)  
**MCSLCRK** (d2 Side Only)  
**MCSLCWK** (d1, d2 Both Sides)

Part Number	Type	D	d1, d2 Selection (d1 ≤ d2)						d3	L	l	A	F	Clamp Screw		Unit Price		
			⚠ Keywayed Bore Type is selectable for diameter 6 or larger											M	Tightening Torque (N·m)	MCSLC	MCSLCLK	MCSLCRK
Clamping <b>MCSLC</b> <b>MCSLCLK</b> <b>MCSLCRK</b> <b>MCSLCWK</b>	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																		

⚠ When d1, d2 is \*, use with load torque 50% or less than shown in the table to prevent slipping.

### Characteristic Values

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·m <sup>2</sup> )	Allowable Axial Misalignment (mm)	Compensation Factor	Mass (g)
<b>MCSLC</b> <b>MCSLCLK</b> <b>MCSLCRK</b> <b>MCSLCWK</b>	16	0.9	2	0.15	450	6000	2.7x10 <sup>-7</sup>	±0.2	5~10	10	
	20	1.3									
	25	2.8	0.2	1100	4000	6.6x10 <sup>-6</sup>	±0.4	62			
	32	5									
	40	9									
50	16									220	

⚠ 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.1061-1062.

Ordering Example

Part Number - Shaft Bore Dia. d1 - Shaft Bore Dia. d2

**MCSLC40 - 10 - 15**

**MCSLCWK40 - 10 - 12**

Alterations

Part Number - Shaft Bore Dia. d1 (LDC) - Shaft Bore Dia. d2 (RDC)

**MCSLC40 - LDC9.5 - RDC10.5**

**MCSLCWK40 - 8 - 10 - KRH4**

⚠ Express service is not available.

Alterations	Shaft Bore Dia.	Keyway Width	
		KLH4	KRH4
Spec.	0.1mm Increment ORDERING CODE LDC7.8 RDC9.3	D	LDC, RDC
		16	4~6
Code	LDC (Left Shaft)   RDC (Right Shaft)	KLH (Left Shaft)	KRH (Right Shaft)
		20	4~8
		25	5~10
		32	8~14
		40	8~18
		50	14~24

Keyway Dimension

Shaft Bore Dia. d1, d2	b		t		Key Nominal Dim. b x h
	Reference Dia.	Tolerance	Reference Dia.	Tolerance	
6~7.9	2	±0.0125	1.0	+0.1	2x2
8~10	3	±0.0125	1.4	0	3x3
10.1~12	4	±0.0150	1.8	0	4x4
12.1~17	5	±0.0150	2.3	0	5x5
17.1~22	6	±0.0150	2.8	0	6x6
22.1~24	8	±0.0180	3.3	+0.2	8x7

# Disc Couplings For Servo Motors

## Ultra High Torque Clamping/Set Screw (Double Disc)

Points of comparison between similar products | Max. Rotational Speed: 10,000rpm

Similar products page P.1063

Features: General purpose model with excellent flexibility and high rigidity. Lowest price model in MISUMI's disc coupling range for Servo Motors.

TYPE	Main Body	Disc	Clamp Screw / Set Screw	Main Body	Clamp Screw / Set Screw	Accessory
GCPW	Aluminum Alloy	Stainless Steel	EN 1.7220 Equiv.	Clear Anodize	Black Oxide	Clamp Screw
GCPSW	Aluminum Alloy	Stainless Steel	EN 1.7220 Equiv.	Clear Anodize	Black Oxide	Clamp Screw

⚠ Tolerances for d1 and d2 are values before slit machining.  
⚠ Tapped hole for clamp screw might go through for some sizes.

Clamping

Set Screw

Part Number	Type	D	d1, d2 Selection (d1 ≤ d2)						d3	L	l	F1	F2	A	Clamp Screw		Set Screw		Unit Price	
			M	Tightening Torque (N·m)	M	Tightening Torque (N·m)	GCPW	GCPSW												
Clamping <b>GCPW</b> Set Screw <b>GCPSW</b>	20	4	5	6	6.35	8	8.5	28.8	11	3.5	5.5	6.4	M2.5	1.0	M3	0.7				
	26	5	6	6.35	8	10	11	11.5	34.1	11.9	3.5	5.5	9							
	29	5	6	6.35	8	10	11	12	14	14.5	34.3	11.9	3.5	5.5	10.5					
	33	6	8	10	11	12	14	15	16	16.5	40	13	4	6.5	12	M3	1.5			
	39	8	10	11	12	14	15	16	18	19	49.4	16	4.75	8	14	M4	3.5	M5	4.0	

### Characteristic Values

Part Number	Type	D	Allowable Torque (N·m)	Allowable angle (°)	Allowable Lateral Misalignment (mm)	Static Torsional Rigidity (N·m/rad)	Max. Velocity (r/min)	Moment of Inertia (kg·m <sup>2</sup> )	Allowable Axial Misalignment (mm)	Compensation Factor	Mass (g)	
<b>GCPW</b> <b>GCPSW</b>	20	1	2	0.1	0.15	550	10000	1.1x10 <sup>-6</sup>	±0.20	2	19	19
	26	2									3.3x10 <sup>-6</sup>	31
	29	3	0.15	1200	5.5x10 <sup>-6</sup>	±0.30	43	44				
	33	5	0.2	1500	1.1x10 <sup>-5</sup>	±0.40	60	65				
	39	8	0.25	3350	2.7x10 <sup>-5</sup>	±0.50	113	118				

⚠ Static torsional spring constant, inertia moment, and mass values are for cases of maximum shaft diameter.  
⚠ For the selection criteria and alignment procedures, see P.1061, 1062.

Shaft Slip Torque (N·m) ⚠ When slip torque is less than the allowable torque, use within slip torque.

Part Number	Type	d1, d2												
		D	4	5	6	6.35	8	10	11	12	14	15	16	18
<b>GCPW</b> <b>GCPSW</b>	20	1.0	1.0	1.0	1.0	1.0	-	-	-	-	-	-	-	-
	26	-	1.0	1.5	2.0	2.0	2.0	2.0	-	-	-	-	-	-
	29	-	1.0	1.5	2.0	2.5	2.5	3.0	3.0	3.0	-	-	-	-
	33	-	-	-	2.5	-	2.5	3.5	3.5	4.0	5.0	5.0	5.0	-
	39	-	-	-	-	-	5.5	8.0	8.0	8.0	8.0	8.0	8.0	8.0

Ordering Example

Part Number - Shaft Bore Dia. d1 - Shaft Bore Dia. d2

**GCPW29 - 10 - 14**