

# Disc Couplings For Servo Motors

## Ultra High Torque Clamping (Double Disc)

Note that, for some of the types shown here, order might be unable to be received by the MISUMI Indonesia offices.

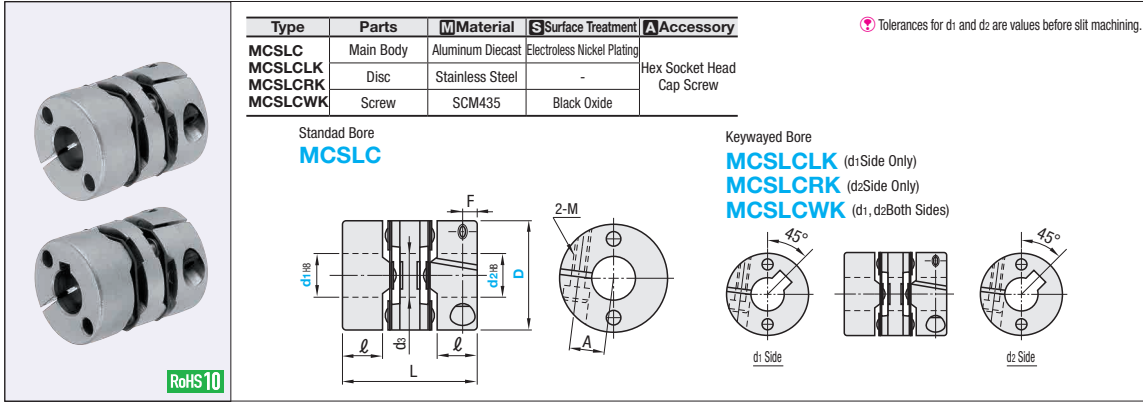
# MISUMI C-VALUE Disc Couplings For Servo Motors

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

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

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

Similar products page P.1063



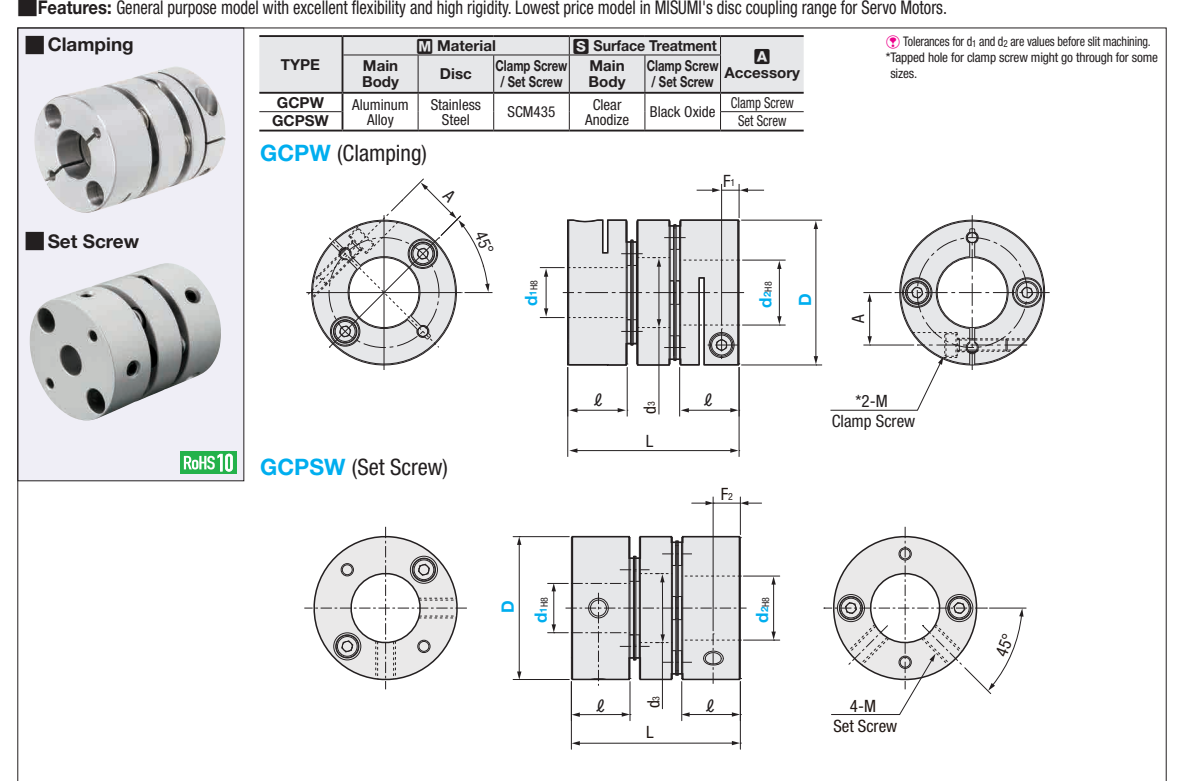
**Type**   **Parts**   **Material**   **Surface Treatment**   **Accessory**

MCSLCL	Main Body	Aluminum Diecast	Electroless Nickel Plating	Hex Socket Head Cap Screw
MCSLCLK	Disc	Stainless Steel	-	
MCSLCLK	Screw	SCM435	Black Oxide	

Standard Bore **MCSLCL**

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

Tolerances for d1 and d2 are values before slit machining.



**TYPE**   **Main Body**   **Disc**   **Clamp Screw / Set Screw**   **Surface Treatment**   **Accessory**

GCPW	Aluminum Alloy	Stainless Steel	SCM435	Clear Anodize	Black Oxide	Clamp Screw
GCPSW						Set Screw

**Clamping**

**Set Screw**

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

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)	MCSLCL	MCSLCLK	MCSLCLK
Clamping	MCSLCL	16	*4	5	6			6.8	23.2	7	5	3	M2.5	1				
	MCSLCLK	20	*4	5	6	6.35	7	8	8.1	26	7.5	6.5	3.7					
	MCSLCLK	25	*5	6	6.35	7	8	9.53	10	10.4	30.2	9	8.5	4	M3	1.7		
	MCSLCLK	32				8	9.53	10	11	12	14	15	16	18	M4	2.5		
	MCSLCLK	40				8	9.53	10	11	12	14	15	16	18	M5	7		
		50				14	15	16	18	20	22	24	M6	12				

\*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)
MCSLCL MCSLCLK MCSLCLK MCSLCLK		16	0.9	2	0.15	450	6000	2.7x10 <sup>-7</sup>	±0.2	5~10	10
		20	1.3			700	5500	8.0x10 <sup>-7</sup>			16
		25	2.8	950	5000	2.5x10 <sup>-6</sup>	±0.3	30			
		32	5	1100	4000	6.6x10 <sup>-6</sup>	±0.4	62			
		40	9	2800	3800	1.9x10 <sup>-5</sup>	±0.5	110			
	50	16	3400	3500	5.0x10 <sup>-5</sup>	±0.6	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

MCSLCL40 - 10 - 15

MCSLCLK40 - 10 - 12

Alterations

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

MCSLCL40 - LDC9.5 - RDC10.5

MCSLCLK40 - 8 - 10 - KRH4

\*Express service is not available.

Alterations	Shaft Bore Dia.	Keyway Width	
		KLH4	KRH4
Spec.	0.1mm Increment	D	LDC, RDC
		ORDERING CODE	4-6
LDC7.8	20	4-6	
		5-10	
RDC9.3	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		2x2
8~10	3		1.4		3x3
10.1~12	4		1.8	+0.1	4x4
12.1~17	5	±0.0150	2.3	0	5x5
17.1~22	6		2.8		6x6
22.1~24	8	±0.0180	3.3	+0.2	8x7

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	GCPW	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			
	GCPW	26	5	6	6.35	8	10	11	11.5	34.1	11.9	3.5	5.5	9						
	Set Screw	29	5	6	6.35	8	10	11	12	14	14.5	34.3	11.9	3.5	5.5	10.5				
	GCPSW	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

### 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)
GCPW GCPSW		20	1	2	0.1	550	10000	1.1x10 <sup>-6</sup>	±0.20	2	19
		26	2		0.15	700		3.3x10 <sup>-6</sup>	±0.20		31
		29	3	0.15	1200	5.5x10 <sup>-6</sup>		±0.30	43		
		33	5	0.2	1500	1.1x10 <sup>-5</sup>		±0.40	60		
		39	8	0.25	3350	2.7x10 <sup>-5</sup>		±0.50	113		

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	
GCPW GCPSW		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	8.0

Ordering Example

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

GCPW29 - 10 - 14