

# Disc Couplings For Servo Motors

## Ultra High Torque Clamping (Single Disc)

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

Type	Parts	Material	Surface Treatment	Accessory
MCSSC MCSSCWK	Main Body	Aluminum Diecast	Electroless Nickel Plating	Hex Socket Head Cap Screw
	Disc	Stainless Steel	-	
	Screw	SCM435	Black Oxide	

⚠ Tolerances for d1 and d2 are values before slit machining.  
⚠ For keyway dimension, refer to the following.

Part Number	d1, d2 Selection (d1≤d2)				L	ℓ	A	F	Clamp Screw		Unit Price	
	Type	D	Keywayed Bore Type is selectable for diameter 6 or larger						M	Tightening Torque (N·m)	MCSSC	MCSSCWK
Clamping MCSSC MCSSCWK	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 d1, d2 is \*4, \*5, use with load torque 50% or less than shown in the table to prevent slipping.

### Characteristic Values

Part Number	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)	
MCSSC MCSSCWK	16	0.9	1	-	650	6000	2.2x10 <sup>-7</sup>	5~10	8	
	20	1.3			950	5500	7.0x10 <sup>-7</sup>		±0.1	13
	25	2.8			1300	5000	2.2x10 <sup>-6</sup>		±0.2	24
	32	5			1400	4000	5.6x10 <sup>-6</sup>			53
	40	9			3300	3800	1.5x10 <sup>-5</sup>			90
50	16	4000	3500	3.9x10 <sup>-5</sup>	±0.3	180				

⚠ Single Disc Type cannot tolerate lateral misalignment.

⚠ 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

MCSSC40 - 10 - 15

MCSSCWK32 - 8 - 10

Alterations

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

MCSSC40 - LDC9.5 - RDC10.5

MCSSCWK40 - 8 - 10 - KRH4

Alterations	Shaft Bore Dia.	Keyway Width		Keyway
		KLH, KRH4	Reference Dia. Tolerance	
Spec.	0.1mm Increment	D LDC, RDC	Reference Dia. Tolerance	
	ORDERING CODE	ORDERING CODE	ORDERING CODE	
	LDC7.8	20 4~8	8 2 ±0.0125 1.0	LK, RK
	RDC9.3	25 5~10	10 4 ±0.0150 1.8	6~8 2
		32 6~14	12 5 ±0.0150 2.3	8~10 3
		40 8~18	12 5 ±0.0150 2.3	10~12 4
		50 14~24	22 8 ±0.0180 3.3	12~17 5
				17~22 6
				22~24 8

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

⚠ Keyway machining is available for Ø6 ~ ⚠ For keyway dimensions, refer to the right table.

Keyway Dimension

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

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 (Single Disc)

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

Similar products page P.1065

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

TYPE	Material		Surface Treatment		Accessory
	Main Body	Disc	Main Body	Disc	
GCPSS	Aluminum Alloy	Stainless Steel	Clear Anodize	Black Oxide	Clamp Screw Set Screw
GCPSS	Aluminum Alloy	Stainless Steel	SCM435		

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

Part Number	d1, d2 Selection (d1≤d2)				L	ℓ	F1	F2	A	Clamp Screw		Set Screw		Unit Price	
	Type	D	Keywayed Bore Type is selectable for diameter 6 or larger							M	Tightening Torque (N·m)	M	Tightening Torque (N·m)	GCPSS	GCPSS
Clamping GCPSS	20	4 5 6 6.35 8			23.05	11	3.5	5.5	6.4	M2.5	1.0	M3	0.7		
	26	5 6 6.35 8 10 11			25.45	11.9	3.5	5.5	9						
	29	5 6 6.35 8 10 11 12 14			25.7	11.9	3.5	5.5	10.5	M2.5	1.0	M4	1.7		
	33	6 8 10 11 12 14 15 16			28.5	13	4	6.5	12	M3	1.5	M4	1.7		
	39	8 10 11 12 14 15 16 18			35	16	4.75	8	14	M4	3.5	M5	4.0		

### Characteristic Values

Part Number	Allowable Torque (N·m)	Allowable angle (°)	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)	
GCPSS	20	1	700	10000	8.8x10 <sup>-7</sup>	±0.10	2	16	17
	26	2	1000		2.5x10 <sup>-6</sup>	±0.10		24	26
	29	3	1350		4.1x10 <sup>-6</sup>	±0.15		31	35
	33	5	2000		7.7x10 <sup>-6</sup>	±0.20		44	49
	39	8	4250		1.9x10 <sup>-5</sup>	±0.25		82	88

⚠ Single Disc Type cannot tolerate lateral misalignment.

⚠ 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	d1, d2												
	D	4	5	6	6.35	8	10	11	12	14	15	16	18
GCPSS	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

GCPSS20 - 6 - 8