

Disc Couplings

High Rigidity (O.D. 40) / Keyless Clamping, Keywayed Bore For Servo Motors



The stainless discs of this product have sharp edges that may cause injuries. Use of thick protective gloves is recommended.

Features: Compact and highly rigid couplings for servo motors selectable in keyless clamping and keywayed bore.

For Servo Motors

Both Sides Keyless Clamping

CPSWS
CPAWS (Double Disc)

CPSHS
CPAHS (Single Disc)

Both Sides Keywayed Bore **CPSWSK** (Double Disc)

*The keyways on the right and left sides are 90° offset.

One Side Keyless Clamping, One Side Keywayed Bore **CPSWSMK** (Double Disc)

⊕ 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.

⊕ Shipped after center-aligned and assembled.

⊕ For the selection criteria and alignment procedures, see **P:1061**

⊕ Keyless clamping flange has two screw holes for removal. For installation and removal of Keyless Clamping Type couplings, see **P:1079**

Type		Disc Type		Main Body		Disc	Accessory
Both Sides Keyless Clamping	Both Sides Keywayed Bore	Both Sides Keyless Clamping, One Side Keywayed Bore	Disc Type	Material	Surface Treatment	Material	
CPSWS	CPSWSK	CPSWSMK	Double	S45C	-	SUS301CSP	Locking Screw
CPSHS	-	-	Single	-	-	-	Set Screw
CPAWS	-	-	Double	Aluminum	Clear Anodize	-	-
CPAHS	-	-	Single	-	-	-	-

Part Number		Locking Screw (Keyless Clamping)					Unit Price				
Type	D	d1, d2 Selection	d1, d2	D1	P.C.D.	Size	Tightening Torque (N·m)	Both Sides Keyless Clamping		Both Sides Keywayed Bore	One Side Keyless Clamping, One Side Keywayed Bore
								CPSWS	CPAWS	CPSWSK	CPSWSMK
Double Disc Type Both Sides Keyless Clamping Both Sides Keywayed Bore One Side Keyless Clamping, One Side Keywayed Bore	40	10 12 14 15 16	10,12	32	23	M4x18	3.5				
			14,15	38	27						
			16	39	28						

Part Number		Locking Screw (Keyless Clamping)					Unit Price		
Type	D	d1, d2 Selection	d1, d2	D1	P.C.D.	Size	Tightening Torque (N·m)	Both Sides Keyless Clamping	
								CPSHS	CPAHS
Single Disc Type Both Sides Keyless Clamping	40	10 12 14 15 16	10,12	32	23	M4x18	3.5		
			14,15	38	27				
			16	39	28				

Double Disc Type

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 ²)	Allowable Axial Misalignment (mm)	Component Factor	Mass (g)
CPSWS	8	1	0.2	6300	10000	7.43x10 ⁻⁵	±0.5	1.5	329
CPAWS	6					2.65x10 ⁻⁵			117
CPSWSK	8					7.73x10 ⁻⁵			332
CPSWSMK	8					7.58x10 ⁻⁵			331

Single Disc Type

Part Number	Allowable Torque (N·m)	Angular Misalignment (°)	Static Torsional Spring Constant (N·m/rad)	Max. Rotational Speed (r/min)	Moment of Inertia (kg·m ²)	Allowable Axial Misalignment (mm)	Component Factor	Mass (g)
CPSHS	8	1	15000	10000	5.48x10 ⁻⁵	±0.25	1.5	246
CPAHS	6				1.96x10 ⁻⁵			88

⊕ Static torsional spring constant, inertia moment, and mass values are for cases of maximum shaft diameter.

⊗ Single Disc Type cannot tolerate lateral misalignment.

Ordering Example

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

CPSWSK40 - 10 - 16

Keyway Dimension

Shaft Bore Dia. d1, d2	b		t		Key Nominal Dim. b x h	Set Screw Size	Tightening Torque (N·m)
	Reference Dia.	Tolerance	Reference Dia.	Tolerance			
10	3	±0.0125	1.4	+0.1 0	3x3	M2	0.3
12	4	±0.0150	1.8		4x4	M3	0.7
14, 15, 16	5	±0.0150	2.3	5x5	M4	1.7	