Disc Couplings
High Rigidity (O.D. 65), Keyless Clamping

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

For Servo Motors

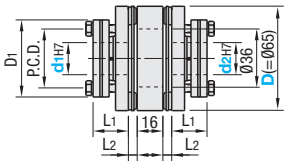
Features: The Keyless Clamping Type covers high torque of up to 80N・m.

For Servo Motors

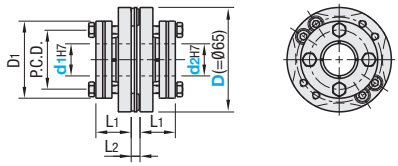
RoHS10

Both Sides Keyless Clamping

CPSWN (Double Disc)
CPAWN

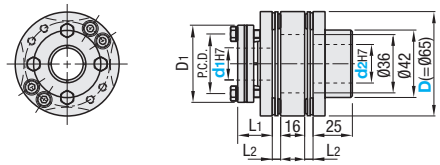


CPSHN (Single Disc)
CPAHN

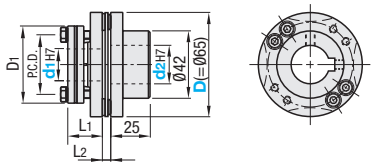


One Side Keyless Clamping, One Side Keywayed Bore

CPSWMK (Double Disc)



CPSHMK (Single Disc)



- The coupling with Ø35mm bore diameter conforms to servo motor shaft tolerance of Ø35$^{-0.001}_{-0.017}$.
- Tolerances for d1 and d2 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.
- 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 the couplings with Ø20 or larger bores, the locking screw holes have integrated removal screw holes.
  Use M6 screws into the 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	One Side Keyless Clamping, One Side Keywayed Bore		M Material	S Surface Treatment	M Material	
CPSWN	CPSWMK	Double	S45C	-	SUS301CSP	Locking Screw Set Screw
CPSHN	CPSHMK	Single				
CPAWN	-	Double	Aluminum	Clear Anodize		
CPAHN	-	Single				

Part Number Type	D	d1, d2 (Keyawayed bores are available up to Ø25)	d1,d2	L1	L2	D1	P.C.D.	Locking Screw (Keyless Clamping) Size	Locking Screw (Keyless Clamping) Tightening Torque (N・m)	Unit Price Both Sides Keyless Clamping CPSWN	Unit Price Both Sides Keyless Clamping CPAWN	Unit Price One Side Keyless Clamping, One Side Keyawayed Bore CPSWMK
Double Disc Type Both Sides Keyless Clamping CPSWN (S45C) CPAWN (Aluminum) One Side Keyless Clamping, One Side Keyawayed Bore CPSWMK	65	15 16 *17 18 *19 20 22 24 25 30 35 For CPAWN, * is not available.	15	26.5	5.5 (S45C) 5.0 (Aluminum)	41	29	M5x25	6			
			16				30					
			17				32					
			18, 19			44	35					
			20, 22	22		48	37	M5x22				
			24, 25			53	42					
			30			58	45					
			35			63	51					

Part Number Type	D	d1, d2 (Keyawayed bores are available up to Ø25)	d1,d2	L1	L2	D1	P.C.D.	Locking Screw (Keyless Clamping) Size	Locking Screw (Keyless Clamping) Tightening Torque (N・m)	Unit Price Both Sides Keyless Clamping CPSHN	Unit Price Both Sides Keyless Clamping CPAHN	Unit Price One Side Keyless Clamping, One Side Keyawayed Bore CPSHMK
Single Disc Type Both Sides Keyless Clamping CPSHN (S45C) CPAHN (Aluminum) One Side Keyless Clamping, One Side Keyawayed Bore CPSHMK	65	15 16 *17 18 *19 20 22 24 25 30 35 For CPAHN, * is not available.	15	26.5	5.5 (S45C) 5.0 (Aluminum)	41	29	M5x25	6			
			16				30					
			17				32					
			18, 19			44	35					
			20, 22	22		48	37	M5x22				
			24, 25			53	42					
			30			58	45					
			35			63	51					

Double Disc Type

Part Number Type	D	d1,d2	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)	Compensation Factor coefficient	Mass (g)
CPSWN	65	15~19	60	0.6	0.2	58000	8000	6.53x10^{-4}	±0.6	1.5	984
		20~35	80								
CPAWN		15, 16, 18	20			47000		2.33x10^{-4}			351
		20~35	40								
CPSWMK		15~35	60			58000		5.70x10^{-4}			934

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

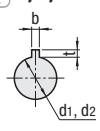
Single Disc Type

Part Number Type	D	d1,d2	Allowable Torque (N・m)	Angular Misalignment (°)	Static Torsional Spring Constant (N・m/rad)	Max. Rotational Speed (r/min)	Moment of Inertia (kg・m²)	Allowable Axial Misalignment (mm)	Compensation Factor coefficient	Mass (g)
CPSHN	65	15~19	60	0.6	120000	8000	4.53x10^{-4}	±0.3	1.5	695
		20~35	80							
CPAHN		15, 16, 18	20		98000		1.61x10^{-4}			248
		20~35	40							
CPSHMK		15~35	60		120000		3.70x10^{-4}			645

Single Disc Type cannot tolerate lateral misalignment.

Ordering Example: Part Number - Shaft Bore Dia. d1 - Shaft Bore Dia. d2
CPSWN65 - 35 - 20

Keyway Dimension



Shaft Bore Dia. d1, d2	b Reference Dia.	b Tolerance	t Reference Dia.	t Tolerance	Key Nominal Dim. bxh	Set Screw Size	Set Screw Tightening Torque (N・m)
15, 16, 17	5	±0.015	2.3	+0.1 0	5x5	M4	1.7
18, 19, 20, 22	6	±0.015	2.8		6x6	M5	4
24, 25	8	±0.018	3.3	+0.2 0	8x7	M6	7