

Disc Couplings

High Rigidity (O.D. 65), Keywayed Bore / Clamping

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

For Servo Motors

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

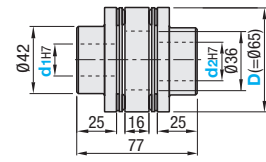
Features: High torque capacity of up to 60N · m, and shaft tightening methods are freely selectable.

For Servo Motors



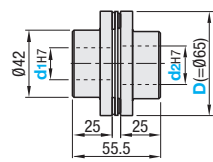
RoHS 10

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



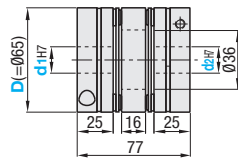
* The keyways on the right and left sides are 90° offset.

CPSHWK (Single Disc)

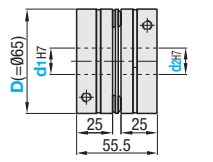


* The keyways on the right and left sides face the same direction.

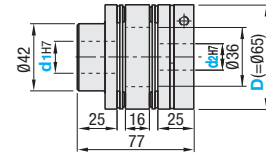
Both Sides Clamping **CPSWC** (Double Disc)



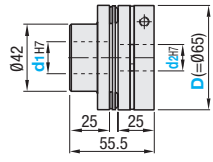
CPSHC (Single Disc)



One Side Clamping, One Side Keywayed Bore **CPSWCK** (Double Disc)



CPSHCK (Single Disc)



- 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.

Type			Disc Type	Main Body	Disc	Accessory
Both Sides Keywayed Bore	Both Sides Clamping	One Side Clamping, One Side Keywayed Bore		Material	Surface Treatment	Material
CPSWWK	CPSWC	CPSWCK	Double	S45C	-	SUS301CSP
CPSHWK	CPSHC	CPSHCK	Single	S45C	-	SUS301CSP

Part Number		d1, d2 Selection (Keywayed bores are available up to Ø25)	Clamp Screw		Unit Price		
Type	D		Size	Tightening Torque (N · m)	Both Sides Keywayed Bore	Both Sides Clamping	One Side Clamping, One Side Keywayed Bore
Double Disc Type							
Both Sides Keywayed Bore	CPSWWK	65	M6x20	15.7	CPSWWK	CPSWC	CPSWCK
Both Sides Clamping	CPSWC						
One Side Clamping, One Side Keywayed Bore	CPSWCK						

Part Number		d1, d2 Selection (Keywayed bores are available up to Ø25)	Clamp Screw		Unit Price		
Type	D		Size	Tightening Torque (N · m)	Both Sides Keywayed Bore	Both Sides Clamping	One Side Clamping, One Side Keywayed Bore
Single Disc Type							
Both Sides Keywayed Bore	CPSHWK	65	M6x20	15.7	CPSHWK	CPSHC	CPSHCK
Both Sides Clamping	CPSHC						
One Side Clamping, One Side Keywayed Bore	CPSHCK						

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 · m ²)	Allowable Axial Misalignment (mm)	Compensation Factor	Mass (g)
CPSWWK			15-25						4.87x10 ⁻⁴			884
CPSWC		65	15-30	60	0.6	0.2	58000	8000	8.29x10 ⁻⁴	±0.6	1.5	1275
CPSWCK			15-30						6.58x10 ⁻⁴			1080

Single Disc Type

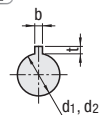
Part Number	Type	D	d1, d2	Allowable Torque (N · m)	Angular Misalignment (°)	Static Torsional Spring Constant (N · m/rad)	Max. Rotational Speed (r/min)	Moment of Inertia (kg · m ²)	Allowable Axial Misalignment (mm)	Compensation Factor	Mass (g)
CPSHWK			15-25					2.87x10 ⁻⁴			595
CPSHC		65	15-30	60	0.6	120000	8000	6.30x10 ⁻⁴	±0.3	1.5	985
CPSHCK			15-30					4.59x10 ⁻⁴			790

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
CPSWC65 - 20 - 30

Keyway Dimension



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

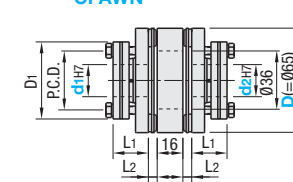
Features: The Keyless Clamping Type covers high torque of up to 80N · m.

For Servo Motors

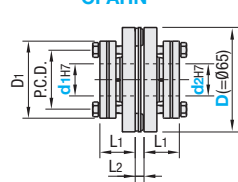


RoHS 10

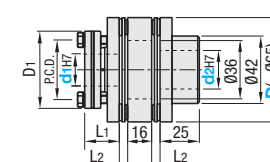
Both Sides Keyless Clamping **CPSWN** (Double Disc)



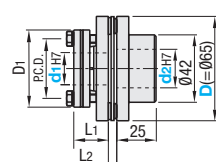
CPSHN (Single Disc)



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 0.035".
- 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	One Side Keyless Clamping, One Side Keywayed Bore		Material	Surface Treatment	Material
CPSWN	CPSWMK	Double	S45C	-	SUS301CSP	Locking Screw
CPSHN	CPSHMK	Single	Aluminum	Clear Anodize	SUS301CSP	Set Screw
CPAWN	-	Double				
CPAHN	-	Single				

Part Number		d1, d2 (Keywayed bores are available up to Ø25)	d1, d2	L1	L2	D1	P.C.D.	Locking Screw (Keyless Clamping)		Unit Price												
Type	D							Size	Tightening Torque (N · m)	Both Sides Keyless Clamping	Both Sides Keyless Clamping, One Side Keywayed Bore	One Side Keyless Clamping, One Side Keywayed Bore										
Double Disc Type																						
Both Sides Keyless Clamping	CPSWN (S45C)	65	15 16 * 17 18 * 19 20 22 24 25 30 35	26.5	5.5 (S45C)	41	29	M5x25	6	CPSWN	CPAWN	CPSWMK										
CPAWN (Aluminum)																						
One Side Keyless Clamping, One Side Keywayed Bore	CPSWMK																					

Part Number		d1, d2 (Keywayed bores are available up to Ø25)	d1, d2	L1	L2	D1	P.C.D.	Locking Screw (Keyless Clamping)		Unit Price												
Type	D							Size	Tightening Torque (N · m)	Both Sides Keyless Clamping	Both Sides Keyless Clamping, One Side Keywayed Bore	One Side Keyless Clamping, One Side Keywayed Bore										
Single Disc Type																						
Both Sides Keyless Clamping	CPSHN (S45C)	65	15 16 * 17 18 * 19 20 22 24 25 30 35	26.5	5.5 (S45C)	41	29	M5x25	6	CPSHN	CPAHN	CPSHMK										
CPAHN (Aluminum)																						
One Side Keyless Clamping, One Side Keywayed Bore	CPSHMK																					

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 · m ²)	Allowable Axial Misalignment (mm)	Compensation Factor	Mass (g)
CPSWN			15-19	60			58000		6.53x10 ⁻⁴			984
CPAWN		65	20-35	80	0.6	0.2	47000	8000	2.33x10 ⁻⁴	±0.6	1.5	351
CPSWCK			15-35	60			58000		5.70x10 ⁻⁴			934

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 · m ²)	Allowable Axial Misalignment (mm)	Compensation Factor	Mass (g)	
CPSHN			15-19	60			120000		4.53x10 ⁻⁴		695	
CPAHN		65	20-35	80	0.6	0.2	98000	8000	1.61x10 ⁻⁴	±0.3	1.5	248
CPSHCK			15-35	60			120000		3.70x10 ⁻⁴		645	

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
CPSWN65 - 35 - 20

Keyway Dimension



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