

Couplings, Motors

Disc Couplings



Product Name	High Torque, Clamping	High Flexibility Clamping / Set Screw	High Torque, Clamping	High Flexibility Clamping / Set Screw
Page	1063	1064	1065	1066



Clamping	High Positioning Accuracy Disc Clamping, Keywayed Bore	High Rigidity Disc, Clamping
1075	1076	1076



High Rigidity Both Sides Keywayed Bore	High Rigidity One Side Clamping, One Side Keywayed Bore	High Rigidity Both Side Keyless Clamping	High Rigidity, Clamping	High Rigidity One Side Keyless Clamping, One Side Keywayed Bore
1077	1078	1079	1080	1081



1082	Standard Torque, Set Screw	Standard Torque, Clamping	High Torque, Set Screw	High Torque, Clamping
	1083	1084	1085	1086

Oldham Couplings



Product Name	Clamping / Set Screw	Clamping / Set Screw	Spacer	Short Clamping	Spacer	Set Screw
Page	1067	1068	1068	1093	1067	1087



1087	Clamping	High Rigidity, Set Screw	High Rigidity, Clamping	Large Shaft Dia., Set Screw
	1088	1089	1090	1091



1091	Large Shaft Dia., Clamping	High Rigidity Large Shaft Dia., Set Screw	High Rigidity Large Shaft Dia., Clamping	Super Short Clamping
	1091	1092	1092	1093

Slit Couplings



Product Name	Set Screw, Clamping, Short	Clamping, Long	Clamping	Set Screw
Page	1069	1070	1071, 1072	1073, 1074

Jaw Couplings



Product Name	High Rigidity, Set Screw	High Rigidity, Clamping	Set Screw	Clamping	Jaw & Spider, Set Screw
Page	1097	1097	1095	1096	1094

Rigid Couplings



Product Name	Rigid Set Screw	Rigid Clamping	Rigid - Separate	Rigid - Clamping, Long
Page	1099	1099	1100	1100

Universal Joints



Product Name	Dowel Pin Type	Keyway / Tapped	N Coupling
Page	1101	1102	1098

Others Couplings



Motors



1094	Bellows - Clamping	Resin Set Screw	Induction Motors, Reversible Motors, Gearheads
	1103	1104	1107



1111	Motors with Electromagnetic Brake and Gearheads	Mounting Bracket for Small Geared Motor (Alteration)	Medium Geared Motors
	1113	1115	1116

Low-Price, High-Performance C-VALUE Couplings introduced!!

Variation

Types in popular demands such as **Disc**, **Oldham**, and **Slit** type couplings are provided.

High Quality

Ensures performance equivalent to that of conventional products

• Allowable Torque Ex. MCSLC32=5Nm

GCPW33=5Nm



Disc
P.1064, 1066



Oldham
P.1068



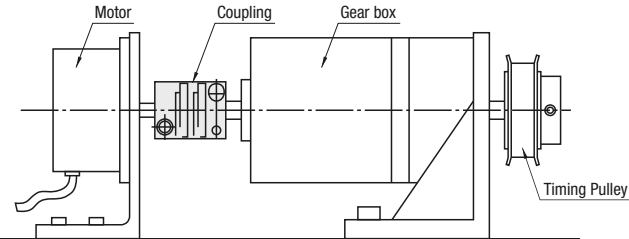
Slit
P.1072, 1074

Couplings - Overview

C-VALUE Couplings - Overview

Couplings

Couplings are machine components designed to connect two separate rotating bodies (motor shaft, ball screw, etc.) and transmit a torque between them. They allow various misalignments (Lateral/Angular/Axial) of the rotating bodies to be absorbed, and alleviate installation and adjustment work loads. Furthermore, they protect expensive inter-connected machine components from sudden and unexpected excess loads by breaking and disconnecting.



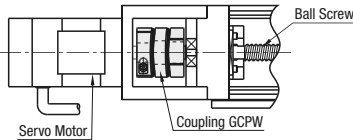
Coupling Type

Type	Disc	Oldham	Slit
External Appearance Photo			
Features	- High Torque - Zero Backlash - High Torsional Rigidity	- High Torque - Allowable misalignment is large - Eccentric reaction force is small - Easy to install	- Light - Integrated Structure with No Backlash - Low Moment of Inertia, Highly responsive
Applicable Motor	Servo Motor Stepping Motor	General-purpose Motor	Servo Motor Stepping Motor
Zero Backlash	○	△	○
Representative Type	GCPW	GCOC	GSACL
Page	P.1063~P.1066, P.1075~P.1086	P.1067~P.1068, P.1087~P.1093	P.1069~P.1074

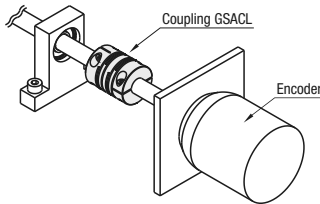
Type	N Coupling	Jaw	Rigid	Bellows	Universal Joints
External Appearance Photo					
Features	- Low Moment of Inertia - Can take load in axial direction - Easy to install	- High Torque - Electrical Insulation - Absorbs the vibrations	- Zero Backlash - High Torsional Rigidity	- Zero Backlash - Isokinetic	Allowable misalignment is large
Applicable Motor	General-purpose Motor	Stepping Motor General-purpose Motor	Servo Motor Stepping Motor	Stepping Motor	Stepping Motor General-purpose Motor
Zero Backlash	○	×	○	○	-
Representative Type	CPN	CPJC	CPRC	CPBC	UNCA
Page	P.1098	P.1094~P.1097	P.1099~P.1100	P.1103	P.1101~P.1102



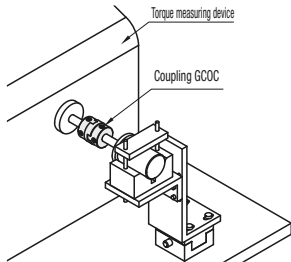
Example Disc



Slit



Oldham



Highly suitable for applications requiring high speeds and high positioning accuracies, such as ball screw drives.

*Although Double Disc Type can absorb angular and lateral misalignments, Single Disc Type does not tolerate lateral misalignment due to the structure. Single Disc Type is space-saving as compared to Double Disc Type, and has high torsional rigidity.

Most suitable for positioning in Stepping Motors as it is integrated structure with no backlash.

Most suitable in cases where reactive force occurs as the misalignment allowance ranges are large and eccentricity is not allowed.

Introduction of C-VALUE Series

Features

1 Overwhelming low price

2 Performance equivalent to the existing products

3 Short Lead Time

Buying in large quantity is economical.

Quantity	1~3	4~6	7~10	11~20	21~
Discount Rate	Unit Price	10%	20%	30%	To Be Quoted

⇒ 11 pcs. onwards 30% discount

Comparison with similar products

Disc Couplings

	Part Number	Price	Allowable Torque	Allowable Lateral Misalignment
Similar Products	MCSLC32		Equiv. to similar products	33% more than similar products
↓				
C-VALUE	GCPW33	30% OFF		

Oldham Couplings

	Part Number	Price	Allowable Torque	Allowable Lateral Misalignment
Similar Products	CPOC32		Equiv. to similar products	Equiv. to similar products
↓				
C-VALUE	GCOC32	25% OFF		

Slit Couplings

	Part Number	Price	Allowable Torque	Allowable Lateral Misalignment
Similar Products	CPLCN32		Equiv. to similar products	Equiv. to similar products
↓				
C-VALUE	GSACL32	35% OFF		

Proposing a product than enables remarkable cost reduction.

Coupling Selection Method

Terminology for Couplings·Assembly Procedure

When Selection is Based on Motor

1 Please select appropriate coupling type based on the motor type and the application in which it is to be used.

* Motor type and Coupling type are not limited to the following combinations. Select after confirming each product page.
* When selection is by torque, start from 2.

Coupling Easy Selection Chart

Type	Coupling Characteristics			Motor		
	Zero Backlash	High Torque	Allowable Lateral Misalignment Allowable Angular Misalignment	Servo	Stepping Motor Compact Servo	General-purpose
Disc	○	○	○	○	○	×
Oldham	×	○	○	×	×	○
Slit	○	○	○	○	○	×

Selection Example)

<Prerequisites>

Rotating Direction: One-way rotation

Applications: Transfer Conveyor (Positioning not required)

Motor: General-purpose Motor

<Selection>

As positioning is not required in one-way rotation, zero backlash is not required. General-purpose Motor is used and Oldham Couplings can be selected.

2 Calculate the compensation torque applied to coupling

Connection with Servo Motors / Stepping Motors

Calculate the Compensation Torque by multiplying Compensation Factor with the Motor's Peak Torque. For Compensation Factor, please see products page. Choose a coupling with the torque capacity (shaft slip torque) higher than the calculated compensation torque.

Compensation Torque = Motor's Peak Torque x Compensation Factor

Connection with General-purpose Motor

Calculate the load torque, and the compensation torque should be 1-5 times of the load torque. Choose a coupling with the torque capacity (shaft slip torque) higher than the calculated compensation torque.

$$\text{Load Torque (N} \cdot \text{m)} = 9550 \times \frac{\text{Transmission Power (kW)}}{\text{Rotational Speed (r/min)}}$$

$$\text{Compensation Torque} = \text{Load Torque (N} \cdot \text{m)} \times 1 \sim 5$$

3 Check coupling tolerance

Check that the Tolerance (Angular and Lateral misalignments and Max. Rotational Speed) and the Moment of Inertia mentioned in the catalogue meet the conditions of the device.

4 Select shaft bore

Check if the outer diameter of the connecting shaft is included in the inner diameter range of the coupling. If the outer diameter is not included, select a large size.

5 Select shaft connection method

Select in accordance with the clamp, keyed locking, keyless clamping applications.

6 Final confirmation

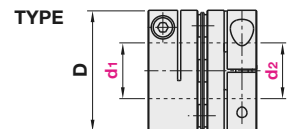
Finally check the dimension table to confirm that the coupling is compatible with the device.

How to Create Coupling Part Number

Part Number (Type, D) - I.D. 1 (d1) - I.D. 2 (d2) d1≤d2

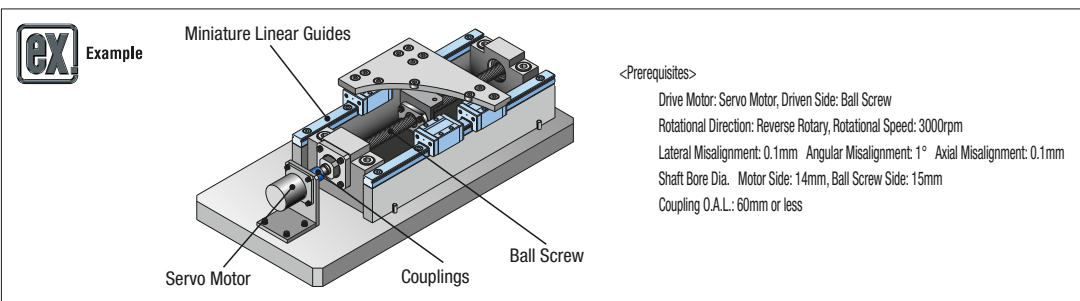
Ex.) TYPE: GCPS When D=33 d1=10 d2=11

GCPS33-10-11



Selection Example

Select on the basis of the following Example.



<Prerequisites>

Drive Motor: Servo Motor, Driven Side: Ball Screw

Rotational Direction: Reverse Rotary, Rotational Speed: 3000rpm

Lateral Misalignment: 0.1mm Angular Misalignment: 1° Axial Misalignment: 0.1mm

Shaft Bore Dia. Motor Side: 14mm, Ball Screw Side: 15mm

Coupling O.A.L.: 60mm or less

1. Select Coupling Type

Required characteristics of coupling from the above conditions

- Zero Backlash
- Allow lateral/angular misalignments

Refer to the above Coupling Easy Selection Chart, and select.

Compatible Coupling Type ⇒ Disc Couplings: GCPW

2. Calculate the compensation torque applied to coupling

Condition: Servo Motor's Peak Torque: 3.0N · m

Servo Motor's Rated Torque: 1.0N · m

Calculation of Compensation Torque

Compensation Torque = Motor's Peak Torque (3.0N · m) x Compensation Factor (2.0) = 6.0N · m

Select D(O.D.) with allowable torque 6.0N · m or more ⇒ GCPW39

* Compensation factor is for reference when using couplings with servo motors in general.
Please use the values as reference.

3. Check coupling tolerance

Allowable Lateral Misalignment: 0.25mm Allowable Angular Misalignment: 1° Allowable Axial Misalignment: ±0.5mm

Allowable Rotational Speed: 10000rpm

⇒ Conditions are met

4. Select shaft bore

Check if 14mm and 15mm shaft bore can be selected in GCPW39.

14mm and 15mm both fall under the category of D (O.D.) = 39 specification.

d1=14, d2=15 ⇒ GCPW39-14-15

5. Selecting the method to fasten shaft bore

⇒ GCPW has only clamp, and need not be selected

6. Check that the dimension matches the device

Overall Length: 49.6mm

⇒ Matches with the overall length 60mm or less

Finally selected Part Number ⇒ GCPW39-14-15

Terminology

• Allowable Torque

A torque that a coupling can continuously transmit. Select a allowable torque according to selection method given on **P.1061** which would ensure that using load torque is less than the allowable torque of the coupling. In couplings for Servo Motors, compensation factor recommended for each part number is set.

• Slip Torque

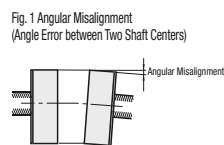
A torque which spins the fastened shaft and coupling, and slides out. Select the shaft slip torque when it is less than the allowable torque according to the selection method given on **P.1061**, such that the load torque is less than the shaft slip torque of the coupling.

• Misalignment

An error between 2 coupling shaft centers. Misalignments are: Angular Misalignment, Lateral Misalignment and Axial Misalignment. Align (Centering) the shafts to ensure that misalignment between two shafts is less than the mentioned allowable misalignment. When two or more misalignments are combined, the allowable value for respective misalignment is 1/2. (Explanation regarding misalignment is as follows)

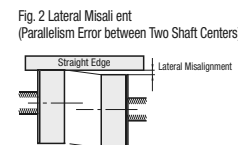
Angular Misalignment

Angle Error between two coupling shafts. (Fig. 1)



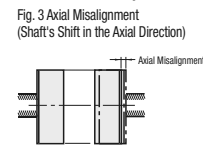
Lateral Misalignment

Angle Error between two coupling shafts. (Fig. 2)



Axial Misalignment

Displacement in the axial direction of various shafts. (Fig. 3): This misalignment occurs at the time of motor acceleration or, due to swelling at the time of rise in temperature.



• Static Torsional Spring Constant (Torsional Rigidity)

Torsional rigidity of the coupling. It shows the phase difference between the rotating direction of input shaft and output shaft, when torque is applied to the coupling. The value given in the catalogue indicates the torsional rigidity for the whole coupling. The responsiveness increases as this value increases, and highly-precise rotation control becomes possible.

• Max. Rotational Speed

Highest available rotational speed. Balancing is necessary when using for high speed rotation, as dynamic balance is not considered in this value.

• Moment of Inertia

Inertia moment of the coupling. Rotatory inertia increases in respect to increase in the value of inertia moment.

• Zero Backlash

A rattling noise occurring in various parts of the coupling, corresponding to the rotating direction. When using Servo Motors, consider using disk coupling or slit couplings with zero backlash for the purpose of highly precise positioning, clock-wise and anti-clockwise rotation.

• Tightening Torque

A bolt tightening torque to fasten the coupling to the shaft. Use torque wrench to tighten the coupling to prescribed torque.

• Temperature Correction Factor

Resin spacer couplings such as Oldham and Jaw Types have allowable torque values that vary depending on the operating temperature. Select couplings by multiplying couplings Allowable Torque, Max. Rotational Speed, etc by Temperature Compensation Factor in the right hand table.

Operating Temperature (°C)	Temperature Correction Factor
-20 ~ 30	1.00
30 ~ 40	0.80
40 ~ 60	0.70
60 ~ 100	0.55

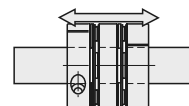
Assembly Procedure

- 1) Confirm that the clamping screws are loosened, and wipe clean the inner bore and shaft surfaces off dust and oils.
- 2) Insert the shaft into the coupling while taking care not to apply excessive compressive/tensile forces on the disc section.
- 3) Adjust the disk coupling in left-right hub concentration in precise manner, using the jig. Quickly check the angular and lateral misalignment using coupling as a base.

3-1) Quick Lateral Misalignment Check (Fig. 4):

Slide the coupling in axial direction while the bolts are loosened and check that it is moving smoothly. Center the coupling properly as the single type coupling does not allow lateral misalignment.

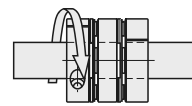
Fig. 4 Quick Lateral Misalignment Check



3-2) Quick Angular Misalignment Check (Fig. 5):

Rotate the coupling/shaft and visually check for smooth and even movement.

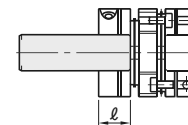
Fig. 5 Quick Angular Misalignment Check



4) Final assembly: Adjust the shaft insertion as

per the dimensions given in the catalogue (Fig. 6) and fasten it with prescribed torque by using the torque wrench. Do not fasten till the prescribed torque at once. Alternate between left and right clamp and tighten it two or three times.

Fig. 6 Shaft Insertion Depth



Disc Couplings

For Servo Motors

Ultra High Torque Clamping (Double Disc)

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

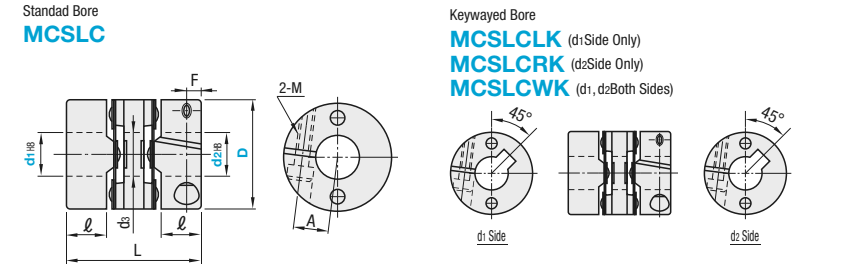


RoHS

Type	Parts	Material	Surface Treatment	Accessory
MCSLC	Main Body	Aluminum Diecast	Electroless Nickel Plating	
MCSLCLK	Disc	Stainless Steel	-	Hex Socket Head Cap Screw
MCSLCRK	Screw	EN 1.7220 Equiv.	Black Oxide	

Standard Bore
MCSLC

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



Part Number		d1, d2 Selection (d1≤d2)							Clamp Screw		Unit Price		
Type	D	Keywayed Bore Type is selectable for diameter 6 or larger							M	Tightening Torque (N·m)	MCSLC	MCSLCLK	MCSLCWK
Clamping MCSLC MCSLCLK MCSLCRK MCSLCWK	16	*4	5	6					6.8	23.2	7	5	3
	20	*4	5	6	6.35	7	8		8.1	26	7.5	6.5	3.7
	25	*5	6	6.35	7	8	9.53	10	10.4	30.2	9	8.5	4
	32				8	9.53	10	11	12	14			
	40				8	9.53	10	11	12	14	15	16	18
	50						14	15	16	18	20	22	24

When d1, d2 is *, 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 ²)	Allowable Axial Misalignment (mm)	Compensation Factor	Mass (g)
Type	D								
MCSLC MCSLCLK MCSLCRK MCSLCWK	16	0.9	2	450	6000	2.7x10 ⁻⁷	±0.2	5~10	10
	20	1.3		700	5500	8.0x10 ⁻⁷			16
	25	2.8		950	5000	2.5x10 ⁻⁶			30
	32	5		1100	4000	6.6x10 ⁻⁶			62
	40	9	0.2	2800	3800	1.9x10 ⁻⁵	±0.5		110
	50	16		3400	3500	5.0x10 ⁻⁵	±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

MCSLC40 - 10 - 15

MCSLCWK40 - 10 - 12

Alterations

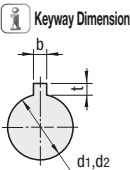
Part Number - Shaft Bore Dia. d1 (LDC) - Shaft Bore Dia. d2 (RDC)

MCSLC40 - LDC9.5 - RDC10.5

MCSLCWK40 - 8 - 10 - KRH4

Express service is not available.

Alterations	Shaft Bore Dia.	Keyway Width																						
Spec.		Keyway Width (b) is changed as the table below. ORDERING CODE KLH4 KRH4																						
	0.1mm Increment	<table><tr><th>Shaft Bore Dia. d1, d2</th><th>KLH, KRH (b)</th><th>t</th></tr><tr><th>Reference Dia.</th><th>Tolerance</th><th>Reference Dia.</th><th>Tolerance</th></tr><tr><td>8</td><td>2</td><td>±0.0125</td><td>1.0</td><td></td></tr><tr><td>12</td><td>5</td><td>±0.0150</td><td>1.8</td><td>+0.1</td></tr><tr><td>22</td><td>8</td><td>±0.0180</td><td>3.3</td><td>+0.2</td></tr></table>	Shaft Bore Dia. d1, d2	KLH, KRH (b)	t	Reference Dia.	Tolerance	Reference Dia.	Tolerance	8	2	±0.0125	1.0		12	5	±0.0150	1.8	+0.1	22	8	±0.0180	3.3	+0.2
	Shaft Bore Dia. d1, d2	KLH, KRH (b)	t																					
	Reference Dia.	Tolerance	Reference Dia.	Tolerance																				
	8	2	±0.0125	1.0																				
	12	5	±0.0150	1.8	+0.1																			
	22	8	±0.0180	3.3	+0.2																			
	ORDERING CODE																							
	LDC7.8																							
	RDC9.3																							



Shaft Bore Dia. d1, d2	b		t		Key Nominal Dim. b×h
	Reference Dia.	Tolerance	Reference Dia.	Tolerance	
6~7.9	2	±0.0125	1.0	+0.1 0	2x2
8~10	3		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	+0.2 0	6x6
22.1~24	8	±0.0180	3.3		8x7

Disc Couplings

For Servo Motors

Ultra High Torque Clamping/Set Screw (Double Disc)

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

Similar products page P.1063

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

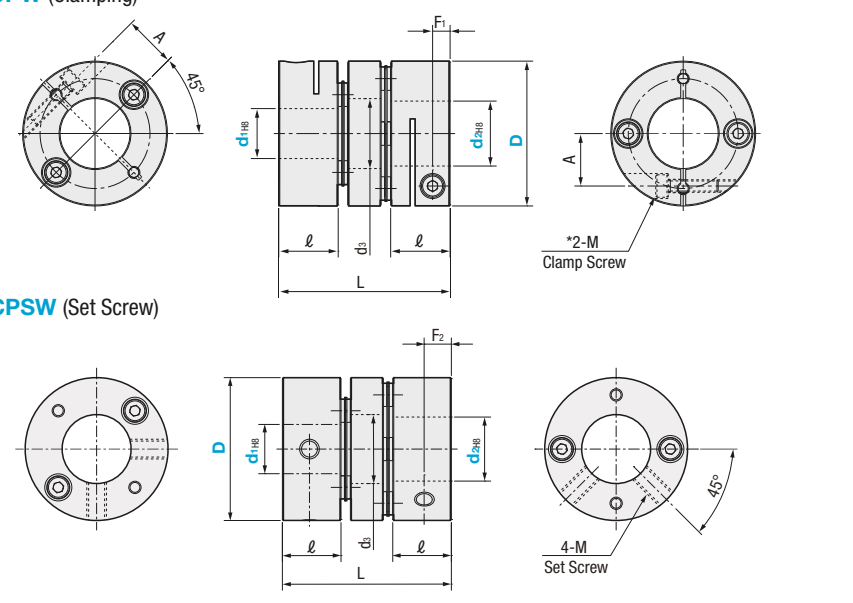


RoHS

TYPE	Main Body	Disc	Clamp Screw / Set Screw	Main Body	Clamp Screw / Set Screw	Accessory
GCPW	Aluminum Alloy	Stainless Steel	EN 1.7220 Equiv.	Clear Anodize	Black Oxide	Clamp Screw Set Screw

GCPW (Clamping)

GCPSW (Set Screw)



Part Number		d1, d2 Selection (d1≤d2)							Clamp Screw		Set Screw		Unit Price	
Type	D								M	Tightening Torque (N·m)	M	Tightening Torque (N·m)	GCPW	GCPSW
Clamping GCPW Set Screw GCPSW	20	4	5	6	6.35	8			8.5	28.8	11	3.5	5.5	6.4
	26		5	6	6.35	8	10	11	11.5	34.1	11.9	3.5	5.5	9
	29		5	6	6.35	8	10	11	12	14				
	33			6	8	10	11	12	14	15	16			
	39				8	10	11	12	14	15	16	18		

Characteristic Values

Part Number		Allowable Torque	Allowable angle	Allowable Lateral	Static Torsional Rigidity	Max. Velocity	Moment of	Allowable Axial	Compensation	Mass (g)	
Type	D	(N·m)	(°)	Misalignment (mm)	(N·m/rad)	(r/min)	Inertia (kg·m²)	Misalignment (mm)	Factor	GCPW	GCPSW
GCPW GCPSW	20	1	2	0.1	550	10000	1.1x10 ⁻⁶	±0.20	2	19	19
	26	2		0.15	700		3.3x10 ⁻⁶	±0.20		31	33
	29	3		0.15	1200		5.5x10 ⁻⁶	±0.30		43	44
	33	5		0.2	1500		1.1x10 ⁻⁵	±0.40		60	65
	39	8		0.25	3350		2.7x10 ⁻⁵	±0.50		113	118

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											
Type	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	3.0	3.0	3.0	-	-	-
	33	-	-	-	2.5	-	2.5	3.5	3.5	4.0	5.0	5.0	-
	39	-	-	-	-	-	5.5	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

Disc Couplings

For Servo Motors

Ultra High Torque Clamping (Single Disc)

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

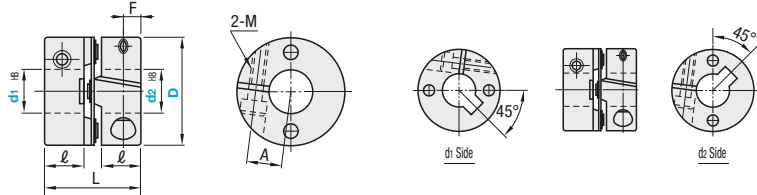


RoHS

Type	Parts	Material	Surface Treatment	Accessory
MCSSC MCSSCWK	Main Body	Aluminum Diecast	Electroless Nickel Plating	Hex Socket Head Cap Screw
	Disc	Stainless Steel	-	
	Screw	EN 1.7220 Equiv.	Black Oxide	

Standard Bore
MCSSC

Keywayed Bore (d1-d2 Both Sides)
MCSSCWK



Part Number		d1, d2 Selection (d1≤d2)						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
	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	21.6	9	8.5	4
	32			8	9.53	10	11	29	12.4	10	6
	40			8	9.53	10	11	35	15.5	13.1	7.8
	50				14	15	16	41	18	16.7	9

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 ²)	Allowable Axial Misalignment (mm)	Compensation Factor	Mass (g)
Type	D									
MCSSC MCSSCWK	16	0.9	1	-	650	6000	2.2x10 ⁻⁷	±0.1	5~10	8
	20	1.3			950	5500	7.0x10 ⁻⁷			13
	25	2.8			1300	5000	2.2x10 ⁻⁶			24
	32	5			1400	4000	5.6x10 ⁻⁶	±0.2		53
	40	9			3300	3800	1.5x10 ⁻⁵			90
	50	16			4000	3500	3.9x10 ⁻⁵	±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

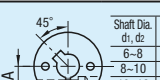
MCSSCWK32 - 8 - 10

Alterations

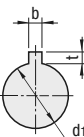
Part Number - Shaft Bore Dia. d1 (LDC) - Shaft Bore Dia. d2 (RDC)

MCSSC40 - LDC9.5 - RDC10.5

MCSSCWK40 - 8 - 10 - KRH4

Alterations	Shaft Bore Dia.	Keyway Width	Keyway																																																		
Spec.	 0.1mm Increment <table><tr><td>ORDERING CODE</td><td>D</td><td>LDC, RDC</td></tr><tr><td>16</td><td>4-6</td></tr><tr><td>20</td><td>4-8</td></tr><tr><td>25</td><td>5-10</td></tr><tr><td>LDC7.8</td><td>32</td><td>6-14</td></tr><tr><td>RDC9.3</td><td>40</td><td>8-18</td></tr><tr><td></td><td>50</td><td>14-24</td></tr></table>	ORDERING CODE	D	LDC, RDC	16	4-6	20	4-8	25	5-10	LDC7.8	32	6-14	RDC9.3	40	8-18		50	14-24	Keyway Width (b) is changed as the table below. <table><tr><td>ORDERING CODE</td><td>KLH4</td><td>KRH4</td></tr><tr><td>Shaft Bore Dia. d1, d2</td><td>Reference Dia.</td><td>Tolerance</td></tr><tr><td>8</td><td>2</td><td>±0.0125 1.0</td></tr><tr><td>10</td><td>4</td><td>±0.0150 1.8</td></tr><tr><td>12</td><td>5</td><td>±0.0150 2.3</td></tr><tr><td>22</td><td>8</td><td>±0.0180 3.3</td></tr></table> ⊗ Cannot be combined with shaft bore change (LDC, RDC) alterations. ⊗ Applicable to Keywayed Bore only.	ORDERING CODE	KLH4	KRH4	Shaft Bore Dia. d1, d2	Reference Dia.	Tolerance	8	2	±0.0125 1.0	10	4	±0.0150 1.8	12	5	±0.0150 2.3	22	8	±0.0180 3.3	 <table><tr><td>Shaft Dia. d1, d2</td><td>LK, RK</td></tr><tr><td>6-8</td><td>2</td></tr><tr><td>8-10</td><td>3</td></tr><tr><td>10-12</td><td>4</td></tr><tr><td>12-17</td><td>5</td></tr><tr><td>17-22</td><td>6</td></tr><tr><td>22-24</td><td>8</td></tr></table> ORDERING CODE LK3 RK4 ⊗ Keyway machining is available for Ø6 ~ . ⊗ For keyway dimensions, refer to the right table.	Shaft Dia. d1, d2	LK, RK	6-8	2	8-10	3	10-12	4	12-17	5	17-22	6	22-24	8
	ORDERING CODE	D	LDC, RDC																																																		
	16	4-6																																																			
	20	4-8																																																			
	25	5-10																																																			
LDC7.8	32	6-14																																																			
RDC9.3	40	8-18																																																			
	50	14-24																																																			
ORDERING CODE	KLH4	KRH4																																																			
Shaft Bore Dia. d1, d2	Reference Dia.	Tolerance																																																			
8	2	±0.0125 1.0																																																			
10	4	±0.0150 1.8																																																			
12	5	±0.0150 2.3																																																			
22	8	±0.0180 3.3																																																			
Shaft Dia. d1, d2	LK, RK																																																				
6-8	2																																																				
8-10	3																																																				
10-12	4																																																				
12-17	5																																																				
17-22	6																																																				
22-24	8																																																				
Code	LDC (Left Shaft) RDC (Right Shaft)	KLH (Left Shaft) KRH (Right Shaft)	LK (Left Shaft) RK (Right Shaft)																																																		

Keyway Dimension



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

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.

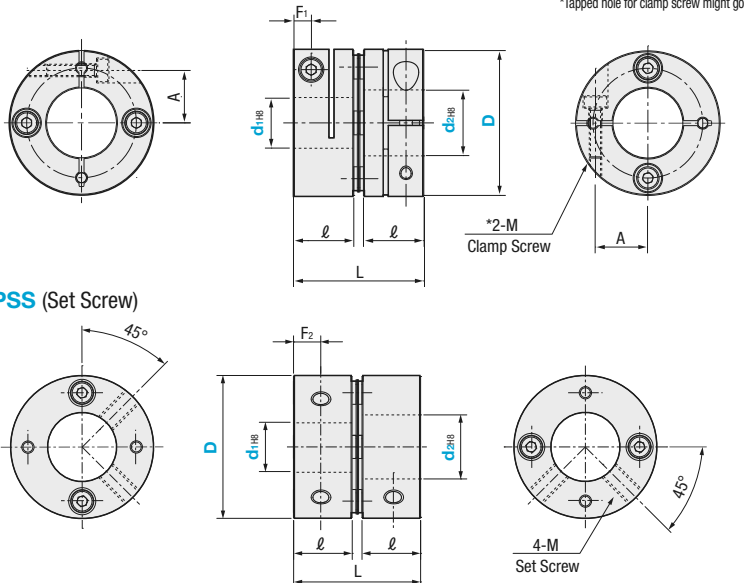


RoHS

TYPE	Main Body	Disc	Clamp Screw / Set Screw	Surface Treatment	Accessory
GCPSS	Aluminum Alloy	Stainless Steel	EN 1.7220 Equiv.	Clear Anodize	Clamp Screw
GCPSS				Black Oxide	Set Screw

GCPSS (Clamping)

GCPSS (Set Screw)



Part Number		d1, d2 Selection (d1≤d2)						Clamp Screw		Set Screw		Unit Price	
Type	D							M	Tightening Torque (N·m)	M	Tightening Torque (N·m)	GCPSS	GCPSS
Clamping GCPSS Set Screw GCPSS	20	4	5	6	6.35	8		23.05	11	3.5	5.5	6.4	
	26		5	6	6.35	8	10	25.45	11.9	3.5	5.5	9	
	29		5	6	6.35	8	10	25.7	11.9	3.5	5.5	10.5	
	33			6	8	10	11	28.5	13	4	6.5	12	
	39				8	10	11	35	16	4.75	8	14	
					8	10	11						

Characteristic Values

Part Number		Allowable Torque	Allowable angle	Static Torsional Rigidity	Max. Velocity	Moment of Inertia	Allowable Axial Misalignment	Compensation	Mass (g)	
Type	D	(N·m)	(°)	(N·m/rad)	(r/min)	(kg·m ²)	(mm)	Factor	GCPSS	GCPSS
GCPSS GCPSS	20	1	2	700	10000	8.8x10 ⁻⁷	±0.10	2	16	17
	26	2		1000		2.5x10 ⁻⁶	±0.10		24	26
	29	3		1350		4.1x10 ⁻⁶	±0.15		31	35
	33	5		2000		7.7x10 ⁻⁶	±0.20		44	49
	39	8		4250		1.9x10 ⁻⁵	±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											
Type	D	4	5	6	6.35	8	10	11	12	14	15	16	18
GCPSS 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

Slit Couplings

Extra Super Duralumin - Clamping, Set Screw, Short For Servo Motors

■Features: Due to the use of extra super Duralumin, it has high torsional rigidity and is applicable with servo motors.

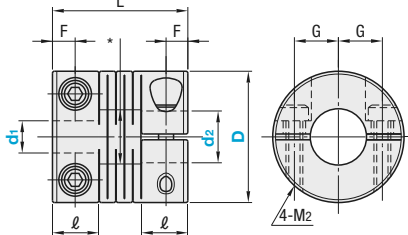
🔗For more misalignment tolerances and higher torque capacities, see Disc Type 📄P.1075.

■For Servo Motors



RoHS

CPCX (Clamping)

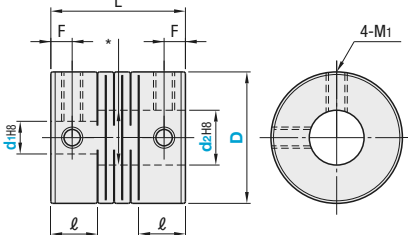


*d1, d2 Identical Diameter = d1+0.5
d1, d2 Different Diameters = Large Shaft Diameter + 0.5

🔗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.

CPSX (Set Screw)



Type	M Material	S Surface Treatment	A Accessory
CPCX	Extra Super Duralumin	Clear Anodize	Hex Socket Head Cap Screw
CPSX			Set Screw

Part Number		d1	d2	L	ℓ	F	M1	M2	G	Unit Price	
Type	D									CPCX	CPSX
Clamping CPCX	16	5	5 6	17.4	6	3	M3	M2	4.74		
		6	6								
	19	5	5 6 7 8	20	6.8	3.4	M3	M2.5	5.6		
		6	6 6.35 7 8								
		6.35	6.35 8								
		8	8 *10								
	24	*10	*10	25	8.5	4.25	M4	M3	8		
		6	6 8 10								
		6.35	6.35 8 10								
		7	8								
		8	8 9.525 10								
		9.525	10								
		10	10 *11 *12								
		*11	*12								
		*12	*12								
Set Screw CPSX	29	8	8 10 11 12	30	10.2	5.1	M4	M3	9		
		10	10 11 12 *14								
		11	12 *14								
		12	12 *14								
	34	10	14	35	12	6	M5	M3	11		
		11	14								
		12	12 14 16								
		14	14 15 16								
		15	15 16								
		16	16								

🔗CPCX is not available for * marked sizes.

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)	Screw Tightening Torque (N·m)	Compressive Factor	Mass (g)
Type	D										
CPCX	16	0.5	0.5	0.05	200	39000	2.5x10 ⁻⁷	±0.1	0.5	1	7
	19	1			270	33000	5.8x10 ⁻⁷		1		12
	24	1.5			790	26000	1.8x10 ⁻⁶		1.5		23
	29	2			1400	21000	4.7x10 ⁻⁶				41
	34	3			2200	18000	1.1x10 ⁻⁵				62
CPSX	16	0.5	0.5	0.05	200	39000	2.8x10 ⁻⁷	±0.1	0.7	1	7
	19	1			270	33000	6.2x10 ⁻⁷		10		
	24	1.5			790	26000	2.0x10 ⁻⁶		1.7		22
	29	2			1400	21000	5.2x10 ⁻⁶				40
	34	3			2200	18000	1.1x10 ⁻⁵				64



Ordering Example

Part Number - Shaft Bore Dia. d1 - Shaft Bore Dia. d2
CPSX19 - 5 - 6

Slit Couplings

Extra Super Duralumin - Clamping Long For Servo Motors

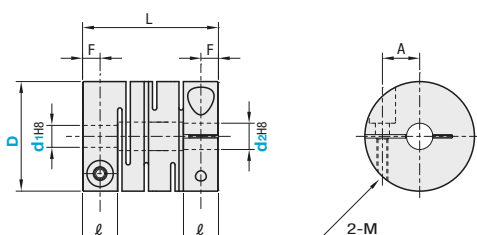
■Features: Long slit coupling for Servo Motors.

■For Servo Motors



RoHS

CPLCX (Clamping)



🔗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.

🔗Tolerances for d1 and d2 are values before slit machining.

🔗For the selection criteria and alignment procedures, see 📄P.1061.

M Material	S Surface Treatment	A Accessory
Extra Super Duralumin	Clear Anodize	Hex Socket Head Cap Screw

Part Number		d1	d2	L	ℓ	M (Coarse)	A	F	Unit Price
Type	D								
Clamping CPLCX	16	5	5 6	23	6.5	M2.5	5	3.25	
		6	6						
	20	5	6 6.35 8	26	7.5	M2.5	6.5	3.75	
		6	6 6.35 8						
		6.35	8						
		8	8						
	25	5	6 8 10	31	8.5	M3	9	4.2	
		6	8 10						
		6.35	8 10						
		8	8 10						
		10	10						
	32	8	8 10 12	41	12	M4	11	6	
		10	10 12 14						
		12	12 14						

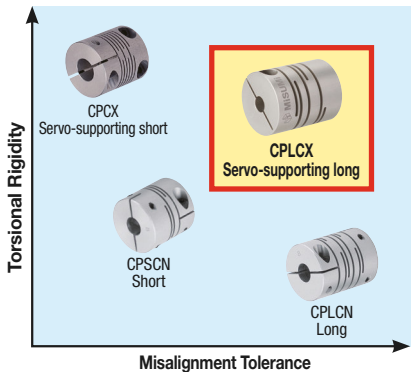
Part Number	Allowable Torque (N·m)	Angular Misalignment (°)	Lateral Misalignment (mm)	Static Torsional Spring Constant (N·m/rad)	Max. Rotational Speed (r/min)	Moment of Inertia (kg·m ²)	Allowable Axial Misalignment (mm)	Screw Tightening Torque (N·m)	Mass (g)
Type	D								
CPLC X	16	0.5	1	96	39000	3.7x10 ⁻⁷	±0.3	1.0	10.1
	20	1		204	31000	10.0x10 ⁻⁷	±0.3	1.0	17.6
	25	2		456	25000	2.9x10 ⁻⁶	±0.4	1.5	30.8
	32	4		600	19000	10.7x10 ⁻⁶	±0.4	2.5	70.4

◆ Features of CPLCX
Provides torsional rigidity while allowing high misalignment



Ordering Example

Part Number - Shaft Bore Dia. d1 - Shaft Bore Dia. d2
CPLCX20 - 5 - 6



Suitable for Servo Motors with high responsiveness.
Reduces centering workload as the allowable misalignment is large.

Slit Couplings

Clamping, Short/Long

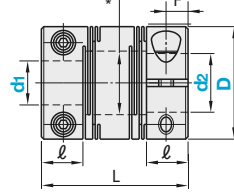
Points of comparison between similar products | Max. Rotational Speed: 19,000~52,000rpm

Features: Because backlash is 0, it is suitable for applications where rotation accuracy is required.

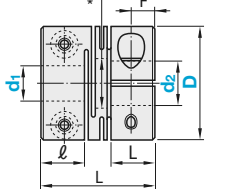
Slit Clamping



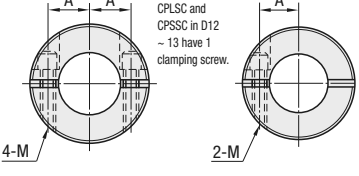
CPLCN (Aluminum - Long)
CPLSC (Stainless Steel - Long)



CPSCN (Aluminum - Short)
CPSSC (Stainless Steel - Short)



*d1, d2 Identical Diameter = d1+0.5
d1, d2 Different Diameters = Large Shaft Diameter + 0.5



Type	M Material	S Surface Treatment	A Accessory
CPLCN, CPSCN	Aluminum Alloy	Clear Anodize	Hex Socket Head Cap Screw
CPLSC, CPSSC	Stainless Steel	-	-

RoHS

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.
Tolerances for d1 and d2 are values before slit machining.

Part Number		d1	d2	L		l	M (Coarse)	A	F		Slip Torque (N·m)		Unit Price				
Type	D			CPLCN CPLSC	CPSCN CPSSC				CPLCN CPLSC	CPSCN CPSSC	CPLSC CPSSC	CPLCN CPLSC	CPLSC CPSSC	CPLCN CPLSC	CPSCN CPSSC		
CPLCN (Aluminum)	12	*4	*4 *5	18.5	14	5	5.2	M2	4	2.5	2.6	-	-				
	16	*5	*5 *6	23	18	6.5	6.8	5	3.25	3.4	-	-					
	20	*6	*6 6.35 *8	26	20	7.5	7.65	M2.5	6.5	3.75	3.8	-	0.9				
	25	*8	*8 8 9.525 *10	31	25	8.5	9.6	M3	9	4.25	4.8	0.7	1.2				
CPLSC (Stainless Steel)	16	*5	*5 *6	23	18	6.5	6.8	5	3.25	3.4	-	-					
	20	*6	*6 6.35 *8	26	20	7.5	7.65	M2.5	6.5	3.75	3.8	-	-				
	25	*8	*8 8 9.525 *10	31	25	8.5	9.6	M3	9	4.25	4.8	0.7	1.4				
	32	*10	*10 10 11 *12 14	41	32	12	12.6	M4	11	6	6.3	0.9	-				
CPSCN (Aluminum)	12	*4	*4 *5	18.5	14	5	5.2	M2	4	2.5	2.6	-	-				
	16	*5	*5 *6	23	18	6.5	6.8	5	3.25	3.4	-	-					
	20	*6	*6 6.35 *8	26	20	7.5	7.65	M2.5	6.5	3.75	3.8	-	-				
	25	*8	*8 8 9.525 *10	31	25	8.5	9.6	M3	9	4.25	4.8	0.7	1.9				
CPSSC (Stainless Steel)	16	*5	*5 *6	23	18	6.5	6.8	5	3.25	3.4	-	-					
	20	*6	*6 6.35 *8	26	20	7.5	7.65	M2.5	6.5	3.75	3.8	-	-				
	25	*8	*8 8 9.525 *10	31	25	8.5	9.6	M3	9	4.25	4.8	0.7	-				
	32	*10	*10 10 11 *12 14	41	32	12	12.6	M4	11	6	6.3	1.2	1.9				
CPSCN (Aluminum)	12	*4	*4 *5	18.5	14	5	5.2	M2	4	2.5	2.6	-	-				
	16	*5	*5 *6	23	18	6.5	6.8	5	3.25	3.4	-	-					
	20	*6	*6 6.35 *8	26	20	7.5	7.65	M2.5	6.5	3.75	3.8	-	-				
	25	*8	*8 8 9.525 *10	31	25	8.5	9.6	M3	9	4.25	4.8	0.7	-				
CPSSC (Stainless Steel)	16	*5	*5 *6	23	18	6.5	6.8	5	3.25	3.4	-	-					
	20	*6	*6 6.35 *8	26	20	7.5	7.65	M2.5	6.5	3.75	3.8	-	-				
	25	*8	*8 8 9.525 *10	31	25	8.5	9.6	M3	9	4.25	4.8	0.7	-				
	32	*10	*10 10 11 *12 14	41	32	12	12.6	M4	11	6	6.3	1.2	2.4				
CPSCN (Aluminum)	12	*4	*4 *5	18.5	14	5	5.2	M2	4	2.5	2.6	-	-				
	16	*5	*5 *6	23	18	6.5	6.8	5	3.25	3.4	-	-					
	20	*6	*6 6.35 *8	26	20	7.5	7.65	M2.5	6.5	3.75	3.8	-	-				
	25	*8	*8 8 9.525 *10	31	25	8.5	9.6	M3	9	4.25	4.8	0.7	-				
CPSSC (Stainless Steel)	16	*5	*5 *6	23	18	6.5	6.8	5	3.25	3.4	-	-					
	20	*6	*6 6.35 *8	26	20	7.5	7.65	M2.5	6.5	3.75	3.8	-	-				
	25	*8	*8 8 9.525 *10	31	25	8.5	9.6	M3	9	4.25	4.8	0.7	-				
	32	*10	*10 10 11 *12 14	41	32	12	12.6	M4	11	6	6.3	1.2	2.4				
CPSCN (Aluminum)	12	*4	*4 *5	18.5	14	5	5.2	M2	4	2.5	2.6	-	-				
	16	*5	*5 *6	23	18	6.5	6.8	5	3.25	3.4	-	-					
	20	*6	*6 6.35 *8	26	20	7.5	7.65	M2.5	6.5	3.75	3.8	-	-				
	25	*8	*8 8 9.525 *10	31	25	8.5	9.6	M3	9	4.25	4.8	0.7	-				
CPSSC (Stainless Steel)	16	*5	*5 *6	23	18	6.5	6.8	5	3.25	3.4	-	-					
	20	*6	*6 6.35 *8	26	20	7.5	7.65	M2.5	6.5	3.75	3.8	-	-				
	25	*8	*8 8 9.525 *10	31	25	8.5	9.6	M3	9	4.25	4.8	0.7	-				
	32	*10	*10 10 11 *12 14	41	32	12	12.6	M4	11	6	6.3	1.2	2.4				
CPSCN (Aluminum)	12	*4	*4 *5	18.5	14	5	5.2	M2	4	2.5	2.6	-	-				
	16	*5	*5 *6	23	18	6.5	6.8	5	3.25	3.4	-	-					
	20	*6	*6 6.35 *8	26	20	7.5	7.65	M2.5	6.5	3.75	3.8	-	-				
	25	*8	*8 8 9.525 *10	31	25	8.5	9.6	M3	9	4.25	4.8	0.7	-				
CPSSC (Stainless Steel)	16	*5	*5 *6	23	18	6.5	6.8	5	3.25	3.4	-	-					
	20	*6	*6 6.35 *8	26	20	7.5	7.65	M2.5	6.5	3.75	3.8	-	-				
	25	*8	*8 8 9.525 *10	31	25	8.5	9.6	M3	9	4.25	4.8	0.7	-				
	32	*10	*10 10 11 *12 14	41	32	12	12.6	M4	11	6	6.3	1.2	2.4				
CPSCN (Aluminum)	12	*4	*4 *5	18.5	14	5	5.2	M2	4	2.5	2.6	-	-				
	16	*5	*5 *6	23	18	6.5	6.8	5	3.25	3.4	-	-					
	20	*6	*6 6.35 *8	26	20	7.5	7.65	M2.5	6.5	3.75	3.8	-	-				
	25	*8	*8 8 9.525 *10	31	25	8.5	9.6	M3	9	4.25	4.8	0.7	-				
CPSSC (Stainless Steel)	16	*5	*5 *6	23	18	6.5	6.8	5	3.25	3.4	-	-					
	20	*6	*6 6.35 *8	26	20	7.5	7.65	M2.5	6.5	3.75	3.8	-	-				
	25	*8	*8 8 9.525 *10	31	25	8.5	9.6	M3	9	4.25	4.8	0.7	-				
	32	*10	*10 10 11 *12 14	41	32	12	12.6	M4	11	6	6.3	1.2	2.4				
CPSCN (Aluminum)	12	*4	*4 *5	18.5	14	5	5.2	M2	4	2.5	2.6	-	-				
	16	*5	*5 *6	23	18	6.5	6.8	5	3.25	3.4	-	-					
	20	*6	*6 6.35 *8	26	20	7.5	7.65	M2.5	6.5	3.75	3.8	-	-				
	25	*8	*8 8 9.525 *10	31	25	8.5	9.6	M3	9	4.25	4.8	0.7	-				
CPSSC (Stainless Steel)	16	*5	*5 *6	23	18	6.5	6.8	5	3.25	3.4	-	-					
	20	*6	*6 6.35 *8	26	20	7.5	7.65	M2.5	6.5	3.75	3.8	-	-				
	25	*8	*8 8 9.525 *10	31	25	8.5	9.6	M3	9	4.25	4.8	0.7	-				
	32	*10	*10 10 11 *12 14	41	32	12	12.6	M4	11	6	6.3	1.2	2.4				
CPSCN (Aluminum)	12	*4	*4 *5	18.5	14	5	5.2	M2	4	2.5	2.6	-	-				
	16	*5	*5 *6	23	18	6.5	6.8	5	3.25	3.4	-	-					
	20	*6	*6 6.35 *8	26	20	7.5	7.65	M2.5	6.5	3.75	3.8	-	-				
	25	*8	*8 8 9.525 *10	31	25	8.5	9.6	M3	9	4.25	4.8	0.7	-				
CPSSC (Stainless Steel)	16	*5	*5 *6	23	18	6.5	6.8	5	3.25	3.4	-	-					
	20	*6	*6 6.35 *8	26	20	7.5	7.65	M2.5	6.5	3.75	3.8	-	-				
	25	*8	*8 8 9.525 *10	31	25	8.5	9.6	M3	9	4.25	4.8	0.7	-				
	32	*10	*10 10 11 *12 14	41	32	12	12.6	M4	11	6	6.3	1.2	2.4				
CPSCN (Aluminum)	12	*4	*4 *5	18.5	14	5	5.2	M2	4	2.5	2.6	-	-				
	16	*5	*5 *6	23	18	6.5	6.8	5	3.25	3.4	-	-					
	20	*6	*6 6.35 *8	26	20	7.5	7.65	M2.5	6.5	3.75	3.8	-	-				
	25	*8	*8 8 9.525 *10	31	25	8.5	9.6	M3	9	4.25	4.8	0.7	-				
CPSSC (Stainless Steel)	16	*5	*5 *6	23	18	6.5	6.8	5	3.25	3.4	-	-					
	20	*6	*6 6.35 *8	26	20	7.5	7.65	M2.5	6.5	3.75	3.8	-	-				
	25	*8	*8 8 9.525 *10	31	25	8.5	9.6	M3	9	4.25	4.8	0.7	-				
	32	*10	*10 10 11 *12 14	41	32	12	12.6	M4	11	6	6.3	1.2	2.4				
CPSCN (Aluminum)	12	*4	*4 *5	18.5	14	5	5.2	M2	4	2.5	2.6	-	-				
	16	*5	*5 *6	23	18	6.5	6.8	5	3.25	3.4	-	-					
	20	*6	*6 6.35 *8	26	20	7.5	7.65	M2.5	6.5	3.75	3.8	-	-				
	25	*8	*8 8 9.525 *10	31	25	8.5	9.6	M3	9	4.25	4.8	0.7	-				
CPSSC (Stainless Steel)	16	*5	*5 *6	23	18	6.5	6.8	5	3.25	3.4	-	-					
	20	*6	*6 6.35 *8	26	20	7.5	7.65	M2.5	6.5	3.75	3.8	-	-				
	25	*8	*8 8 9.525 *10	31	25	8.5	9.6	M3	9	4.25	4.8	0.7	-				
	32	*10	*1														

Slit Couplings

Set Screw, Short / Long

Points of comparison between similar products | Max. Rotational Speed: 19,000~78,000rpm

■Features: Because backlash is 0, it is suitable for applications where rotation accuracy is required.

Slit Set Screw



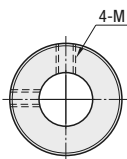
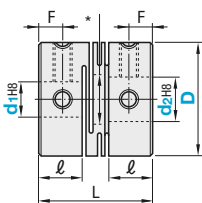
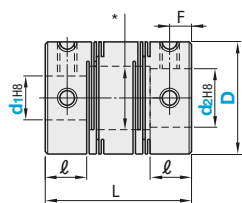
RoHS

CPL (Aluminum - Long)

CPLS (Stainless Steel - Long)

CPS (Aluminum - Short)

CPSS (Stainless Steel - Short)



*d1, d2 Identical Diameter = d1+0.5
d1, d2 Different Diameters = Large Shaft Diameter + 0.5
* When d1 is 4mm or less and d2 is 5mm or more, there are 3 set screws.
* When both d1 and d2 are less than 4mm, there are 2 set screws.

Type	M	Material	S	Surface Treatment	A	Accessory
CPL, CPS		Aluminum Alloy		Clear Anodize		Set Screw
CPLS, CPSS		Stainless Steel		-		

⚠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**.

Part Number		d1	d2	L		ℓ		M	F	Unit Price			
Type	D			CPL CPLS	CPS CPSS	CPL CPLS	CPS CPSS			CPL	CPLS	CPS	CPSS
CPL (Aluminum)	8	*2	*2 3	14	10	3.5	3.4	M2	1.7				
		*3	*3 4										
	12	3	3 4	18.5	14	5	5.2	M2.5	2.5				
		*4	*4 *5										
	16	*5	*5 6										
		4	4 5 6										
		*5	*5 *6										
		*6	*6 6.35 8	23	18	6.5	6.8						
	20	6.35	8										
		*5	5 *6 *8					M3	3				
		*6	*6 6.35 7 *8 10	26	20	7.5	7.65						
		6.35	8										
CPLS (Stainless Steel)	20	*5	*6 10										
		*6	*6 6.35 *8 10										
CPS (Aluminum)	25	6.35	8 10	31	25	8.5	9.6						
		*8	*8 *10 12										
CPSS (Stainless Steel)	25	9.525	10										
		*10	*10 12										
32	32	12	12					M4					
		6	8										
	32	6.35	8 10	41	32	12	12.6						
		*8	*8 *10 12										
	32	*10	*10 11 *12 14										
		*12	*12 *14										
	32	14	14 16										
		8	9.525										
40	40	10	10										
		12	12										
	40	14	14	56	-	17	-	M5	8.5				
		15	15										
	40	16	16										
		18	18										

⚠CPS and CPSS are available in * marked sizes only.

Part Number		Allowable Torque (N·m)	Max. Rotational Speed (r/min)	Moment of Inertia (kg·m ²)	Static Torsional Spring Constant (N·m/rad)	Lateral Misalignment (mm)	Angular Misalignment (°)	Allowable Axial Misalignment (mm)	Screw Tightening Torque (N·m)	Mass (g)
Type	D									
CPL (Aluminum)	8	0.1	78000	1.2x10 ⁻⁸	25	0.10	2	±0.2	0.3	1.4
	12	0.4	52000	8.3x10 ⁻⁸	45					
	16	0.5	39000	3.3x10 ⁻⁷	80					
	20	1	31000	9.0x10 ⁻⁷	170	0.15	2	±0.4	0.7	8.1
	25	2	25000	2.6x10 ⁻⁶	380					
	32	4	19000	9.6x10 ⁻⁶	500					
	40	8	15000	3.2x10 ⁻⁵	700					
								60		
									4	130

Part Number		Allowable Torque (N·m)	Max. Rotational Speed (r/min)	Moment of Inertia (kg·m ²)	Static Torsional Spring Constant (N·m/rad)	Lateral Misalignment (mm)	Angular Misalignment (°)	Allowable Axial Misalignment (mm)	Screw Tightening Torque (N·m)	Mass (g)
Type	D									
CPLS (Stainless Steel)	8	0.2	78000	3.1x10 ⁻⁸	50	0.10	2	±0.2	0.3	3
	12	0.3	52000	2.1x10 ⁻⁷	64				0.5	9.3
	16	0.5	39000	8.4x10 ⁻⁷	85			±0.3	0.7	21
	20	1	31000	2.4x10 ⁻⁶	250	0.15	2			38
	25	2	25000	6.8x10 ⁻⁶	330			±0.4	1.7	71
	32	3.5	19000	2.6x10 ⁻⁵	850			±0.5		160
	40	8	15000	8.7x10 ⁻⁵	1000			0.20	4	350

Ordering Example: Part Number - Shaft Bore Dia. d1 - Shaft Bore Dia. d2
CPL16 - 5 - 6

⚠To change the shaft bore diameter, see **P.1071**.

Slit Couplings

Set Screw, Long

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

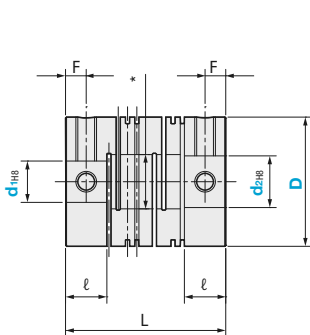
Similar products page **P.1073**

■Features: Product quality and performance same as of the conventional products but at lower price. Replaceable from CPL.

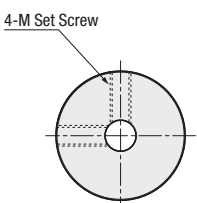


RoHS

GSASL



*d1, d2 Identical Diameter = d1+0.5
d1, d2 Different Diameters = Large Shaft Diameter



⚠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.

⚠Tolerances for d1 and d2 are values before slit machining.

TYPE	M	Material	S	Surface Treatment	A	Accessory
GSASL		Aluminum Alloy		Clear Anodize		Set Screw

Part Number		d1	d2	L	ℓ	Set Screw		F	Unit Price
Type	D					M (Coarse)	Tightening Torque (N·m)		
Set Screw GSASL	16	4	4 5	23	6.4	M3	0.7	3	
		5	5 8						
	20	5	6 8	26	7	M3	0.7	3	
		6	6 8 10						
	25	6	10	31	8	M4	1.7	4	
		6.35	8 10						
	32	8	8 10 12	41	11	M4	1.7	6	
		10	10 11 12 14						
	32	10	10 11 12 14			M4	1.7	6	
		12	12 14						
	32	12	12 14			M4	1.7	6	
		14	14						

Characteristic Values

Part Number	Allowable Torque (N·m)	Max. Rotational Speed (rpm)	Moment of Inertia (kg·m ²)	Static Torsional Spring Constant (N·m/rad)	Lateral Misalignment (mm)	Allowable Angular Misalignment (°)	Allowable Axial Misalignment (mm)	Mass (g)
GSASL	16	0.5	6.5x10 ⁻⁷	44	0.1	2	±0.4	9
	20	1	1.5x10 ⁻⁶	110				16
	25	2	4.2x10 ⁻⁶	215				27
	32	4	1.6x10 ⁻⁵	420	0.15		±0.5	64
	32	4	1.6x10 ⁻⁵	420	0.15			64

⚠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**.

Ordering Example: Part Number - Shaft Bore Dia. d1 - Shaft Bore Dia. d2
GSASL20 - 6 - 8

Part Number		Allowable Torque (N·m)	Max. Rotational Speed (r/min)	Moment of Inertia (kg·m ²)	Static Torsional Spring Constant (N·m/rad)	Angular Misalignment (°)	Allowable Axial Misalignment (mm)	Screw Tightening Torque (N·m)	Mass (g)
Type	D	8	0.1	78000	1.0x10 ⁻⁸	24	±0.1	0.3	1
CPS (Aluminum)	12	0.4	52000	7.0x10 ⁻⁸	80	0.5		3.1	
	16	0.5	39000	2.8x10 ⁻⁷	180	0.7		7.4	
	20	1	31000	7.5x10 ⁻⁷	200	±0.2	1.7	12	
	25	2	25000	2.3x10 ⁻⁶	780		1.7	24	
	32	4	19000	8.0x10 ⁻⁶	1100		1.7	50	

⊗CPS does not allow eccentricity.

Part Number		Allowable Torque (N·m)	Max. Rotational Speed (r/min)	Moment of Inertia (kg·m ²)	Static Torsional Spring Constant (N·m/rad)	Angular Misalignment (°)	Allowable Axial Misalignment (mm)	Screw Tightening Torque (N·m)	Mass (g)
Type	D								
CPSS (Stainless Steel)	8	0.2	78000	2.4x10 ⁻⁸	49	1	±0.1	0.3	2.7
	12	0.3	52000	1.8x10 ⁻⁷	140			0.5	7.8
	16	0.5	39000	7.2x10 ⁻⁷	240			0.7	18
	20	1	31000	2.0x10 ⁻⁶	330	±0.2	0.7	32	
	25	2	25000	6.1x10 ⁻⁶	720		1.7	63	
	32	3.5	19000	2.1x10 ⁻⁵	1300		1.7	130	

⊗CPSS does not allow eccentricity.

Disc Couplings

Clamping

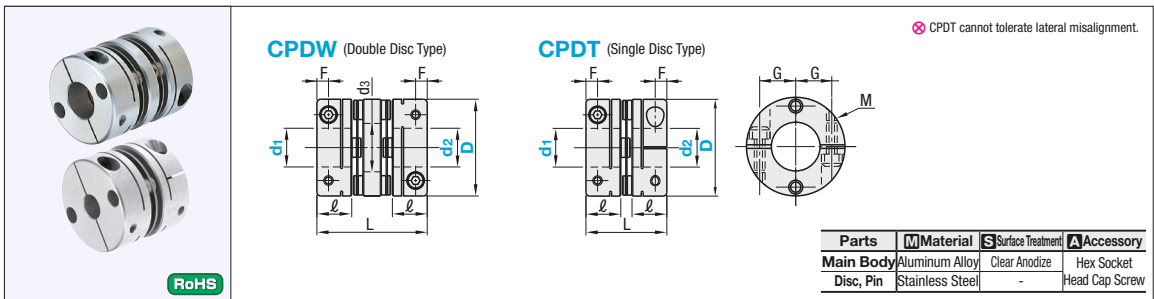
For Servo Motors

Disc Couplings "Servo-Fine"

High Rigidity Clamping / High Positioning Accuracy 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.



Part Number		d1, d2 Selection (d1≤d2)										L		l		ds		F		G		Clamp Screw		Unit Price	
Type	D	4	5	6	7	8	CPDW	CPDT	8	8.5	2.5	6.5	M	Tightening Torque (N·m)	CPDW	CPDT									
Double Disc CPDW	19						27	20					M2	0.5											
	25		6	6.35			31	24	10	12.5	3.5	9	M2.5	1											
Single Disc CPDT	32				8	10	40	29	12	16	4	11	M3	1.5											
	40				8	10	44	33	14	21	5	15	M4	2.5											
	50						57	42	18	26	6	18	M5	7											

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 ²)	Allowable Axial Misalignment (mm)	Compensation Factor coefficient	Mass (g)
CPDW	19	0.7	0.12	200	33000	8.7x10 ⁻⁷	±0.5	1	18
	25	1		450	25000	2.7x10 ⁻⁶			25
	32	2.5		1100	19000	9.6x10 ⁻⁶			60
	40	3.5	0.15	1400	15000	1.9x10 ⁻⁵			100
	50	9		2200	12000	8.1x10 ⁻⁵			210

Part Number		Allowable Torque	Angular Misalignment	Static Torsional Spring Constant	Max. Rotational Speed	Moment of Inertia	Allowable Axial Misalignment	Compensation Factor	Mass
Type		(N · m)	(°)	(N · m/rad)	(r/min)	(kg · m²)	(mm)	coefficient	(g)
CPDT	19	0.7	0.7	280	33000	6.3x10 ⁻⁷	±0.2	1	9
	25	1		630	25000	2.1x10 ⁻⁶			19
	32	2.5		1600	19000	7.2x10 ⁻⁶			41
	40	3.5		2600	15000	1.3x10 ⁻⁵			68
	50	9		3100	12000	6.1x10 ⁻⁵			140

⚠ Single Disc Type cannot tolerate lateral misalignment.

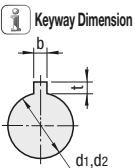
⚠ The lateral, angular, and axial misalignment values shown are for each occurring individually. When multiple misalignments are occurring simultaneously, the allowable maximum value of each will be reduced to 1/2.

⚠ For the selection criteria and alignment procedures, see P.1061

Ordering Example	Part Number	-	Shaft Bore Dia. d1	-	Shaft Bore Dia. d2
	CPDW40	-	12	-	14
	CPDT50	-	16	-	18

Alterations	Part Number	-	Shaft Bore Dia. d1	-	Shaft Bore Dia. d2	-	(LK, RK)
	CPDW40	-	LDC8.5	-	14	-	RK5

Alterations	Shaft Bore Dia.	Keyway
Spec.		
Code	LDC (Left Shaft) RDC (Right Shaft)	LK (Left Shaft) RK (Right Shaft)



Shaft Bore Dia. d1, d2	LK, RK	b	t	Key Nominal Dim. b x h
8, 10	3	±0.0125	1.4	3x3
11, 12	4	±0.0125	1.8	4x4
14~17	5	±0.0150	2.3	5x5
18~22	6	±0.0150	2.8	6x6
24, 25	8	±0.0180	3.3	8x7

For Servo Motors (High Rigidity)



Part Number		d1, d2 Selection (d1≤d2)										L		l		ds		F		A		Clamp Screw		Unit Price	
Type	No.	4	5	6	7	8	SCPW	SCPS	8	8.5	2.5	6.5	M	Tightening Torque (N·m)	SCPW	SCPS									
Double Disc SCPW	16	*3	4	5	6		16.6	6.5	23	16.6	7.2	3	5.3	M2.6	1.0										
	21		4	5	6	8	21	9.5	24.5	16.7	7	3.5	7	M2.6	1.2										
	28			5	6	8	28	12	32.2	21.5	9	4	9.5	M3	1.5										
	34				6	8	34	15	35	23.3	9.8	5	12	M3	1.5										
Single Disc SCPS	46				8	9	46	22	44	29.8	12.6	6	16.5	M4	3.5										
	55						54.5	26	55	37.2	16	7	20.5	M5	6.0										

⚠ When d1, d2 is *3, use with the load torque 60% or less than shown in the table to prevent slipping.

Double Disc Type (High Rigidity)

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)	Compensation Factor coefficient	Mass (g)
SCPW	16	1.0	1.0	500	10000	4.22x10 ⁻⁷	±0.20	1.5	11
	21	1.2	1.0	800		1.11x10 ⁻⁶			17
	28	1.6	1.2	3000		4.68x10 ⁻⁶			42
	34	4.0	0.20	4800		1.10x10 ⁻⁵			65
	46	10.0	1.5	11500		4.70x10 ⁻⁵			151
	55	25.0	0.25	19000		1.19x10 ⁻⁴			260

Single Disc Type (High Rigidity)

Part Number		Allowable	Angular	Static Torsional	Max. Rotational	Moment of	Allowable Axial	Compensation	Mass (g)
Type	No.	Torque (N · m)	Misalignment (°)	Spring Constant (N · m/rad)	Speed (r/min)	Inertia (kg · m ²)	Misalignment (mm)	Factor coefficient	
SCPS	16	1.0	1.0	1000	10000	3.16x10 ⁻⁷	±0.10	1.5	8
	21	1.2	1.0	1700		7.90x10 ⁻⁷			12
	28	1.6	1.2	6000		3.24x10 ⁻⁶			30
	34	4.0		8000		7.60x10 ⁻⁶			45
	46	10.0	1.5	20000		3.23x10 ⁻⁵			105
	55	25.0		33000		8.19x10 ⁻⁵			180

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

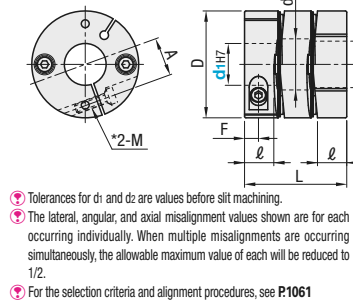
⚠ Single Disc Type cannot tolerate lateral misalignment.

■ Features: Torsional rigidity is improved over the conventional type (SCPW) (by approx. up to 26%). Suitable for applications requiring high accuracy positioning at high speeds. All the screws are Trivalent Chromate treated and reliable to use in clean environments.

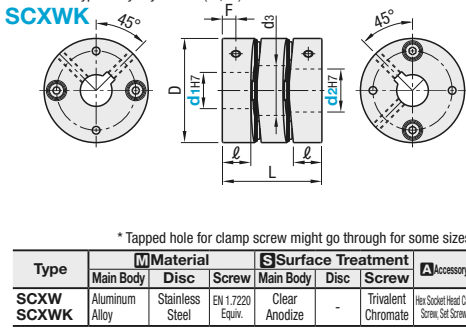
For Servo Motors (High Positioning Accuracy)



Double Disc Type Keywayed Bore (d1, d2)



Double Disc Type - Keywayed Bore (d1, d2)



Part Number		d1, d2 Selection (d1≤d2)										L		l		ds		F		A		Clamp Screw		Unit Price	
Type	No.	4	5	6	(8)	10	SCPW	SCXWK	8	8.5	2.5	6.5	M	Tightening Torque (N·m)	SCPW	SCXWK									
Double Disc Type SCXW	21	4	5	6	(8)		21	9.5	24.5	7	3.5	3	7	M2.6	1.2										
	28		5	6	(8)	(10)	28	12	32	9	4	4	9.5	M3	1.5										
Double Disc Type - Keywayed Bore SCXWK	34			6	(8)	(10)	34	17	35	9.8	5	4.5	12	M3	1.5										
	46				8	(10)	46	22	44	12.6	6	6	16.5	M4	3.5										
	55						54.5	26	55	16	7	-	20.5	M5	7										

Double Disc Type (High Positioning Accuracy)

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)	Compensation Factor coefficient	Mass (g)
SCXW SCXWK	21	1.2	1.0	900	10000	1.20x10 ⁻⁷	±0.20	1.5	18
	28	1.6	1.2	3600		4.68x10 ⁻⁶			42
	34	4.0	0.20	5700		1.10x10 ⁻⁵			65
	46	10.0	1.5	14500		4.70x10 ⁻⁵			151
	55	25.0	0.25	23000		1.19x10 ⁻⁴			260

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

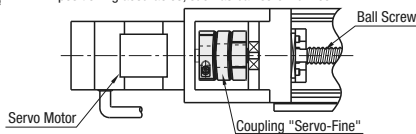
Ordering Example	Part Number	-	Shaft Bore Dia. d1	-	Shaft Bore Dia. d2
	SCXW46	-	10	-	14
	SCXWK46	-	12	-	14
	SCPW34	-	8	-	12

Keyway Dimension

Shaft Bore Dia. d1, d2	b	t	Key Nominal Dim. b x h	Set Screw
8, 10	3	±0.0125	1.4	3x3 M2 0.3
12	4	±0.0125	1.8	4x4 M3 0.7
14	5	±0.0150	2.3	5x5 M4 1.7



Highly suitable for applications requiring high speeds and high positioning accuracies, such as ball screw drives.



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

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

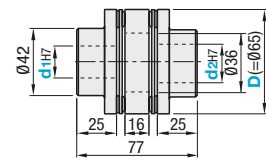
■ For Servo Motors



RoHS

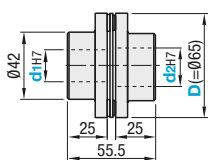
■ Both Sides Keywayed Bore

CPSWWK (Double Disc)



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

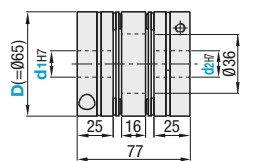
CPSHWK (Single Disc)



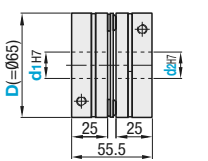
* The keyways on the right and left sides face the same direction.

■ Both Sides Clamping

CPSWC (Double Disc)



CPSHC (Single Disc)

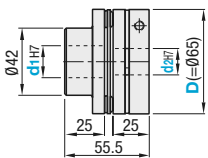


■ One Side Clamping, One Side Keywayed Bore

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		
CPSWWK	CPSWC	CPSWCK	Double	EN 1.1191 Equiv.	-	EN 1.4310 Equiv.	Clamp Screw Set Screw
CPSHWK	CPSHC	CPHCK	Single				

Part Number		D	d1, d2 Selection (Keywayed bores are available up to Ø25)	Clamp Screw		Unit Price		
Type				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	15 16 17 18 19	M6x20	15.7			
Both Sides Clamping	CPSWC		20 22 24 25 30					
One Side Clamping, One Side Keywayed Bore	CPSWCK							

Part Number		D	d1, d2 Selection (Keywayed bores are available up to Ø25)	Clamp Screw		Unit Price		
Type				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	15 16 17 18 19	M6x20	15.7			
Both Sides Clamping	CPSHC		20 22 24 25 30					
One Side Clamping, One Side Keywayed Bore	CPSHCK							

■ Double Disc Type

Part Number	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 coefficient	Mass (g)
CPSWWK	15-25				58000	8000	4.87x10 ⁻⁴			884
CPSWC	65 15-30	60	0.6	0.2			8.29x10 ⁻⁴	±0.6	1.5	1275
CPSWCK	15-30						6.58x10 ⁻⁴			1080

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



Ordering Example Part Number - Shaft Bore Dia. d1 - Shaft Bore Dia. d2
CPSWC65 - 20 - 30

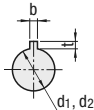
■ Single Disc Type

Part Number	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 coefficient	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

⚠ Single Disc Type cannot tolerate lateral misalignment.



Keyway Dimension



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

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.

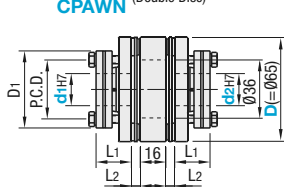
■ For Servo Motors



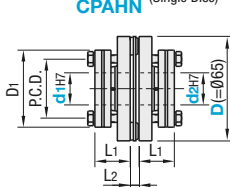
RoHS

■ Both Sides Keyless Clamping

CPSWN (Double Disc)

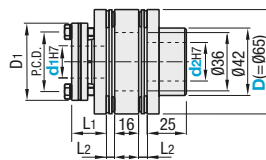


CPSHN (Single Disc)

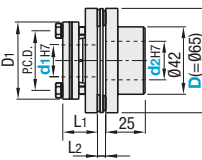


■ One Side Keyless Clamping, One Side Keywayed Bore

CPSWMK (Double Disc)



CPSHMK (Single Disc)



⚠ The coupling with Ø35mm bore diameter conforms to servo motor shaft tolerance of Ø35 ^{±0.01}.

⚠ 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		Material	Surface Treatment	Material		
CPSWN	CPSWMK	Double	EN 1.1191 Equiv.	-	EN 1.4310 Equiv.		Locking Screw
CPAWN	-	Double	Aluminum	Clear Anodize			Set Screw
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	One Side Keyless Clamping, One Side Keywayed Bore	One Side Keyless Clamping, One Side Keywayed Bore
Double Disc Type	65	15 16 *17 18 *19 20 22 24 25 30 35	15	26.5	5.5 (EN 1.1191 Equiv.)	41	29	M5x25	6			
Both Sides Keyless Clamping			30									
CPSWN (EN 1.1191 Equiv.)			32									
CPAWN (Aluminum)			35									
One Side Keyless Clamping, One Side Keywayed Bore			☹For CPAWN, * is not available.	18, 19	22	5.0 (Aluminum)	48	37	M5x22			
				20, 22				42				
				24, 25				45				
				30				51				
				35								

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	Keyless Clamping	One Side Keyless Clamping, One Side Keywayed Bore	
Single Disc Type	65	15 16 *17 18 *19 20 22 24 25 30 35 ☹For CPAHN, * is not available.	15	26.5	5.5 (EN 1.1191 Equiv.)	41	29	M5x25	6	CPSHN	CPAHN	CPSHMK	
Both Sides Keyless Clamping			30										
CPSHN (EN 1.1191 Equiv.)			32										
CPAHN (Aluminum)			35										
One Side Keyless Clamping, One Side Keywayed Bore CPSHMK			20, 22	5.0 (Aluminum)	48	37	M5x22						
			24, 25		53	42							
			30		58	45							
			35		63	51							

■ Double Disc Type

Part Number	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 coefficient	Mass (g)
CPSWN	15-19	60			58000		6.53x10 ⁻⁴			984
CPAWN	65 15-30	80	0.6	0.2	47000	8000	2.33x10 ⁻⁴	±0.6	1.5	351
CPSWMK	15-35	40			58000		5.70x10 ⁻⁴			934

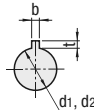
⚠ Static torsional spring constant, inertia moment, and mass values are for cases of maximum shaft diameter.



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	
	Reference Dia.	Tolerance	Reference Dia.	Tolerance		Size	Tightening Torque (N · m)
15, 16, 17	5	±0.015	2.3	+0.1	5x5	M4	1.7
18, 19, 20, 22	6	±0.015	2.8	0	6x6	M5	4
24, 25	8	±0.018	3.3	+0.2	8x7	M6	7

Disc Couplings

High Rigidity (O.D. 87), 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

■ **Features:** The keywayed bore type covers high torque of up to 180N · m.

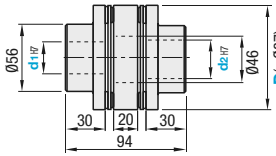


Type		Disc Type	Main Body	Disc	Accessory	
Both Sides Keywayed Bore	Both Sides Clamping		Material Surface Treatment	Material		
CPSWWK	CPSWC	Double	EN 1.1191 Equiv.	-	EN 1.4310 Equiv.	Clamp Screw Set Screw
CPSHWK	-	Single				

⚠ Tolerances for d1 and d2 are values before slit machining.
⚠ Shipped after center-aligned and assembled.

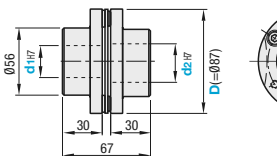
■ **Both Sides Keywayed Bore**

CPSWWK (Double Disc)



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

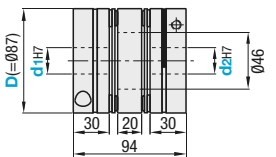
CPSHWK (Single Disc)



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

■ **Both Sides Clamping**

CPSWC (Double Disc)



Part Number		D	d1, d2 Selection	Clamp Screw		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	Mass (kg)	Unit Price
Type				Size	Tightening Torque (N · m)										
Double Disc Type Both Sides Keywayed Bore CPSWWK	87	20 22 24 25 30 35	M8x25	28	180	0.6	0.2	140000	6000	1.94x10 ⁻³	±1.0	1.5	1.9		
Double Disc Type Both Sides Clamping CPSWC															

⚠ The coupling with Ø35mm bore diameter conforms to servo ^{+0.01}₀ motor shaft tolerance of 35mm.

Part Number		D	d1, d2 Selection	Clamp Screw		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	Mass (kg)	Unit Price
Type				Size	Tightening Torque (N · m)									
Single Disc Type Both Sides Keywayed Bore CPSHWK	87	20 22 24 25 30 35	M8x25	28	180	0.6		330000	6000	1.11x10 ⁻³	±0.5	1.5	1.3	

⚠ The coupling with Ø35mm bore diameter conforms to servo ^{+0.01}₀ motor shaft tolerance of 35mm.

⚠ 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**

 Ordering Example

Part Number - Shaft Bore Dia. d1 - Shaft Bore Dia. d2
CPSWC65 - **20** - **30**

Shaft Bore Dia. d1, d2	b		t		Key Nominal Dim. b×h	Set Screw	
	Reference Dia.	Tolerance	Reference Dia.	Tolerance		Size	Tightening Torque (N · m)
20, 22	6	±0.015	2.8	+0.1 0	6x6	M5	4
24, 25, 30	8	±0.018	3.3	+0.2	8x7	M6	7
35	10	±0.018	3.3	0	10x8	M8	15

• Cautions on Installations

- Do not tighten the locking screws before inserting shafts into coupling. (Tightening the lock screws with empty bores will cause bushing distortion.)
- Use a torque wrench to tighten the locking screws.
- Never use screws other than included for the locking screws.

• Removal

- Ensure that the machine has completely stopped before starting work.
- Loosen the locking screws sequentially in a circumferential order.
- Insert screws into removal screws holes and tighten evenly.
- Repeat the installation procedure for re-installation.



• Installation

- Wipe the shaft surface clean and apply a thin layer of oil or grease. (Do not use oils or greases containing Molybdenum Sulfide.)
- Wipe clean the contacting inner bores of the coupling, as well as the screw and seating surfaces of the locking screws.
- Insert the shaft into the coupling. (Please do not tighten keyless clamping flange to the bolt before inserting the shaft.)
- After locating, tighten the locking screws using a torque wrench in the diagonal order, beginning lightly (approx. 1/4 of the predetermined tightening torque).
- Tighten the screws to higher torque (Approx. 1/2 of specified max.)
- Tighten the screws to the specified max. torque.
- Finally, tighten the screws in a circumferential order.

Disc Couplings

High Rigidity (O.D. 87), 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 250N · m.

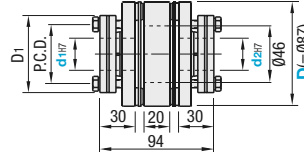


Type		Disc Type	Main Body	Disc	Accessory	
Both Sides Keyless Clamping	One Side Keyless Clamping, One Side Keywayed Bore		Material Surface Treatment	Material		
CPSWN	CPSWMK	Double	EN 1.1191 Equiv.	-	EN 1.4310 Equiv.	Locking Screw, Set Screw
CPSHN	CPSHMK	Single				

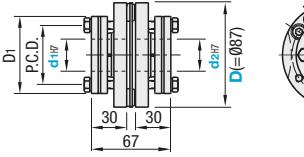
⚠ Tolerances for d1 and d2 are values before slit machining.
⚠ Shipped after center-aligned and assembled.
⚠ The locking screw holes have integrated removal screw holes on the keyless clamping flange. Use M8 screws into the screw holes for removal.
For installation and removal of Keyless Clamping Type couplings, see **P.1079**

■ **Both Sides Keyless Clamping**

CPSWN (Double Disc)

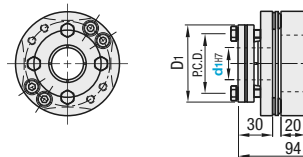


CPSHN (Single Disc)

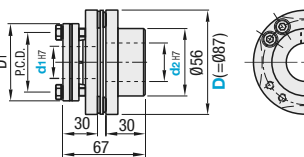


■ **One Side Keyless Clamping, One Side Keywayed Bore**

CPSWMK (Double Disc)



CPSHMK (Single Disc)



Part Number		D	d1, d2 Selection (Keyless Clamping)	d2 Selection (Keywayed Bore)	d1,d2	D1	P.C.D.	Locking Screw		Unit Price	
Type								Size	Tightening Torque (N · m)	CPSWN	CPSWMK
Double Disc Type, Both Sides Keyless Clamping CPSWN	87	25 30 35 38 40 45	20 22 24 25 30 35		25	62	50	M6x30	13.7		
					30	66	54				
Double Disc Type, One Side Keyless Clamping, One Side Keywayed Bore CPSWMK					35	68	54				
					38~45	78	64				

⚠ The coupling with Ø35mm bore diameter conforms to servo ^{+0.01}₀ motor shaft tolerance of 35mm.

Part Number		D	d1, d2 Selection (Keyless Clamping)	d2 Selection (Keywayed Bore)	d1,d2	D1	P.C.D.	Locking Screw		Unit Price	
Type								Size	Tightening Torque (N · m)	CPSHN	CPSHMK
Single Disc Type Both Sides Keyless Clamping CPSHN	87	25 30 35 38 40 45	20 22 24 25 30 35		25	62	50	M6x30	13.7		
					30	66	54				
Single Disc Type One Side Keyless Clamping, One Side Keywayed Bore CPSHMK					35	68	54				
					38~45	78	64				

⚠ The coupling with Ø35mm bore diameter conforms to servo ^{+0.01}₀ motor shaft tolerance of 35mm.

■ Characteristic Values

• Double Disc Type

Part Number	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	Mass (kg)
Type											
CPSWN	87	25	200	0.6	0.2	140000	6000	2.49x10 ⁻³	±1.0	1.5	2.3
		30, 35, 38 40, 45	250								
CPSWMK		20~45	180					2.22x10 ⁻³			2.1

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

⚠ 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**

 Ordering Example

Part Number - Shaft Bore Dia. d1 - Shaft Bore Dia. d2
CPSWN65 - **35** - **20**

• Single Disc Type

Part Number	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	Mass (kg)
Type										
CPSHN	87	25	200	0.6	330000	6000	1.68x10 ⁻³	±0.5	1.5	1.6
		30, 35, 38 40, 45	250							
CPSHMK		20~45	180				1.40x10 ⁻³			1.5

⚠ Single Disc Type cannot tolerate lateral misalignment.

Shaft Bore Dia. d1, d2	b		t		Key Nominal Dim. b×h	Set Screw	
	Reference Dia.	Tolerance	Reference Dia.	Tolerance		Size	Tightening Torque (N · m)
20, 22	6	±0.015	2.8	+0.1 0	6x6	M5	4
24, 25, 30	8	±0.018	3.3	+0.2	8x7	M6	7
35	10	±0.018	3.3	0	10x8	M8	15

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 (Double Disc)
CPAWS (Single Disc)

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

■ **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	Both Sides Keyless Clamping	Both Sides Keywayed Bore	One Side Keyless Clamping, One Side Keywayed Bore	Disc Type	Main Body Material	Surface Treatment	Disc Material	Accessory
CPSWS	CPSWSK	CPSWSMK	Double	Single	EN 1.1191 Equiv.	-	EN 1.4310 Equiv.	Locking Screw
CPAWS	-	-	Double	Double	Aluminum	Clear Anodize	-	Set Screw
CPAWS	-	-	Single	Single	Aluminum	Clear Anodize	-	Set Screw

Part Number		D	d1, d2 Selection	d1,d2	D1	P.C.D.	Locking Screw (Keyless Clamping)		Unit Price			
Type							Size	Tightening Torque (N・m)	Both Sides Keyless Clamping		Both Sides Keywayed Bore	One Side Keyless Clamping, One Side Keywayed Bore
Double Disc Type Both Sides Keyless Clamping	CPSWS (EN 1.1191 Equiv.)	40	10 12 14 15 16	10,12	32	23	M4x18	3.5	CPSWS	CPAWS	CPSWSK	CPSWSMK
Both Sides Keywayed Bore Equiv.)	CPSWSK (EN 1.1191			14,15	38	27						
One Side Keyless Clamping, One Side Keywayed Bore Equiv.)	CPSWSMK (EN 1.1191			16	39	28						

Part Number		D	d1, d2 Selection	d1,d2	D1	P.C.D.	Locking Screw (Keyless Clamping)		Unit Price	
Type							Size	Tightening Torque (N・m)	Both Sides Keyless Clamping	
Single Disc Type Both Sides Keyless Clamping	CPSHS (EN 1.1191	40	10 12 14 15 16	10,12	32	23	M4x18	3.5	CPSHS	CPAHS
Both Sides Keyless Clamping	CPSHS (EN 1.1191			14,15	38	27				
Both Sides Keyless Clamping	CPAHS (Aluminum)			16	39	28				

Double Disc Type

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 ²)	Allowable Axial Misalignment (mm)	Compensation Factor	Mass (g)
CPSWS	40	8	2	1	0.2	6300	10000	7.43x10 ⁻⁵	±0.5	1.5	329
CPAWS		6	4					2.65x10 ⁻⁵			117
CPSWSK		8	7.5					7.73x10 ⁻⁵			332
CPSWSMK								7.58x10 ⁻⁵			331

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



Ordering Example
Part Number - Shaft Bore Dia. d1 - Shaft Bore Dia. d2
CPSWSK40 - 10 - 16

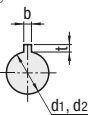
Single Disc Type

Part Number	Type	D	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)
CPSHS	40	8	2	1	15000	10000	5.48x10 ⁻⁵	±0.25	1.5	246
CPAHS		6	4				1.96x10 ⁻⁵			88

⊗ Single Disc Type cannot tolerate lateral misalignment.



Keyway Dimension



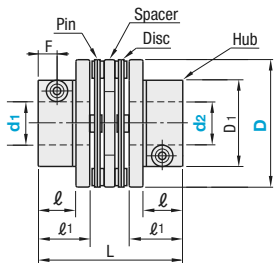
Shaft Bore Dia. d1, d2	b	t	Key Nominal Dim. b x h	Set Screw Size	Tightening Torque (N·m)
10	3	±0.0125	1.4	3x3	M2 0.3
12	4	±0.0150	1.8	4x4	M3 0.7
14, 15, 16	5	±0.0150	2.3	5x5	M4 1.7

Disc Couplings

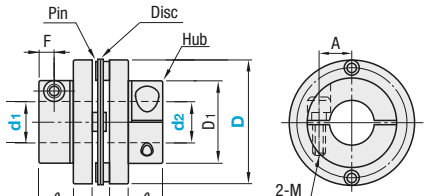
Clamping



Double Disc Type CPDD



Single Disc Type CPDS



- ⚠ CPDS 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**.

Parts	Material	Surface Treatment	Accessory
Main Body	Aluminum Alloy	Clear Anodize	Hex Socket
Disc, Pin	Stainless Steel	-	Head Cap Screw

Part Number		d1, d2 Selection (d1≤d2)		L	l	l1	D1	Clamp Screw	A	F	Unit Price	
Type	D			CPDD	CPDS			M			CPDD	CPDS
CPDD CPDS	32	6	8 10	40	32	9	13.7	22	M3	1.5	8	4
	40		8 10 11 12 14	46	38	12	16.5	28	M4	2.5	10.5	6
	50		12 14 15 16 18 19 20	52	44	15	19.4	39	M5	7	14.8	7
	63		15 16 18 19 20 25	58	50	18	22.3	45	M6	12	17	8

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 ²)	Allowable Axial Misalignment (mm)	Mass (g)
Double Disc Type CPDD	32	2	2	2	0.15	1000	19000	6.2x10 ⁻⁵	±0.4	48
	40	4	4		0.2	1500	15000	1.6x10 ⁻⁵	±0.5	81
	50	7.5	7.5		0.2	2000	12000	4.6x10 ⁻⁵	±0.6	150
	63	10	10		0.3	2500	10000	1.1x10 ⁻⁴	±0.8	230

Part Number	Type	D	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)	Mass (g)
Single Disc Type CPDS	32	2	2	1	1300	19000	4.5x10 ⁻⁵	±0.2	38
	40	4	4		2800	15000	1.2x10 ⁻⁵		66
	50	7.5	7.5		3700	12000	3.7x10 ⁻⁵		120
	63	10	10		5000	10000	8.4x10 ⁻⁵		190

- ⊗ 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**.



Ordering Example
Part Number - Shaft Bore Dia. d1 - Shaft Bore Dia. d2
CPDD40 - 10 - 14
CPDS50 - 12 - 14

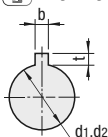


Alterations
Part Number - Shaft Bore Dia. d1 (LDC) - Shaft Bore Dia. d2 (RDC) - (LK, RK)
CPDD40 - LDC8.5 - 14 - RK5

Alterations	Shaft Bore Dia.	Keyway
Spec.	0.1mm Increment Ordering Code LDC 15.2 RDC 21.7	Ordering Code LK4 RK4
	CPDD, CPDS D LDC, RDC 32 6~10 40 8~14 50 12~20 63 15~25	Shaft Dia. d1, d2 LK, RK 8, 10 3 11, 12 4 14~17 5 18~22 6 24, 25 8
		⚠ Keyway machining is available for 08~.
		⊗ Cannot be combined with shaft bore change (LDC, RDC) alterations.
		⚠ For keyway dimensions, refer to the left table.
Code	LDC(Left Shaft) RDC(Right Shaft)	LK(Left Shaft) RK(Right Shaft)



Keyway Dimension



Shaft Bore Dia. d1, d2	LK, RK	b	t	Key Nominal Dim. b x h
8, 10	3	±0.0125	1.4	3x3
11, 12	4	±0.0150	1.8	4x4
14~17	5	±0.0150	2.3	5x5
18~22	6	±0.0150	2.8	6x6
24, 25	8	±0.0180	3.3	8x7

Disc Couplings

Standard Torque, Set Screw

■Features: Couplings with polyimide discs highly tolerant on lateral and angular misalignments.

Double Disc Type
MCGL (Standard Bore)

Single Disc Type
MCGLLK (Keywayed Bore d1)
MCGLRK (Keywayed Bore d2)
MCGLWK (Keywayed Bore d1, d2)

Single Disc Type
MCGR (Standard Bore)
MCGRK (Keywayed Bore d2)
MCGRWK (Keywayed Bore d1, d2)

Standard Bore

Keywayed Bore

Material

Surface Treatment

Accessory

RoHS

Part Number	Type	D	d1, d2 Selection (d1≤d2)	d3	L	ℓ	F	Set Screw	Unit Price
			Keywayed Bore Type is selectable for diameter 6 or larger (D=13 is not available)						
Double Disc Type	MCGL	10	2 3 4	4.1	15	4.2	2	M2	0.3
	MCGLLK	13	3 4 5 6	5.5	19	5.5	2.5	M2	0.3
	MCGLRK	16	4 5 6 6.35 7 8	6.8	23.2	7	3	M3	0.7
	MCGLWK	20	4 5 6 6.35 7 8 10	8.1	26	7.5	3.7	M3	0.7
		25	5 6 6.35 7 8 9.53 10 11 12	10.4	30.2	9	4	M4	1.7
		32	6 6.35 7 8 9.53 10 11 12 14 15 16	15	41	12.4	6	M4	1.7
		40	8 9.53 10 11 12 14 15 16 18 20	19.5	47	15.5	7.8	M5	4
		50	14 15 16 18 20 22 24 25	25	53	18	9	M6	7
Single Disc Type	MCGR	10	2 3 4	10.5	4.2	2			-
	MCGRK	13	3 4 5 6	13.5	5.5	3			-
	MCGRWK	16	4 5 6 6.35 7 8	16.5	7	3			-
		20	4 5 6 6.35 7 8 10	18.4	7.5	4			-
		25	5 6 6.35 7 8 9.53 10 11 12	21.6	9	4			-
		32	6 6.35 7 8 9.53 10 11 12 14 15 16	29	12.4	6			-
		40	8 9.53 10 11 12 14 15 16 18 20	35	15.5	7.8			-
		50	14 15 16 18 20 22 24 25	41	18	9			-

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·m²)	Mass (g)
Double Disc Type	MCGL	10	0.15	0.3	0.1	21	26000	4.6x10 ⁻⁸	±0.2
	MCGLLK	13	0.25	0.3	0.1	44	20000	8.0x10 ⁻⁸	3
	MCGLRK	16	0.4	0.3	0.1	70	19000	2.4x10 ⁻⁷	±0.3
	MCGLWK	20	0.6	0.3	0.1	130	18000	7.2x10 ⁻⁷	±0.4
		25	1.4	0.3	0.1	240	16000	2.2x10 ⁻⁶	±0.5
		32	2.6	0.3	0.1	560	12000	6.0x10 ⁻⁶	±0.6
		40	4.4	0.4	0.1	980	8000	1.7x10 ⁻⁵	±0.6
		50	7.0	0.4	0.1	1100	6000	4.6x10 ⁻⁵	±0.6
Single Disc Type	MCGR	10	0.15	0.1	0.1	27	26000	4.0x10 ⁻⁸	2
	MCGRK	13	0.25	0.1	0.1	60	20000	7.0x10 ⁻⁸	±0.1
	MCGRWK	16	0.4	0.1	0.1	90	19000	2.0x10 ⁻⁷	7
		20	0.6	0.1	0.1	170	18000	6.0x10 ⁻⁷	±0.2
		25	1.4	0.1	0.1	300	16000	1.8x10 ⁻⁶	±0.2
		32	2.6	0.1	0.1	700	12000	5.2x10 ⁻⁶	±0.3
		40	4.4	0.15	0.1	1200	8000	1.3x10 ⁻⁵	±0.3
		50	7.0	0.15	0.1	1450	6000	3.6x10 ⁻⁵	±0.3

Ordering Example	Part Number	Shaft Bore Dia. d1	Shaft Bore Dia. d2
	MCGL20	5	10
	MCGLRK25	8	12

Keyway Dimension

Keyway Width

Spec.

Code

Keyway Dimension

Keyway Width

Spec.

Code

Disc Couplings

Standard Torque, Clamping

■Features: Couplings with polyimide discs highly tolerant on lateral and angular misalignments.

Double Disc Type
MCGLC (Standard Bore)

Single Disc Type
MCGLC (Standard Bore)

Double Disc Type
MCGLCLK (Keywayed Bore d1)
MCGLCRK (Keywayed Bore d2)
MCGLCWLK (Keywayed Bore d1, d2)

Single Disc Type
MCGLC (Standard Bore)
MCGLCRK (Keywayed Bore d2)
MCGLCWLK (Keywayed Bore d1, d2)

Standard Bore

Keywayed Bore

Material

Surface Treatment

Accessory

RoHS

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							
Double Disc Type	MCGLC	13	*3 4 5	5.5	19	5.5	4.1	2.5	M2	0.42
	MCGLCLK	16	*4 5 6	6.8	23.2	7	5	3	M2.5	1
	MCGLCRK	20	*4 5 6 6.35 7 8	8.1	26	7.5	6.5	3.7	M3	1.7
	MCGLCWLK	25	*5 6 6.35 7 8 9.53 10	10.4	30.2	9	8.5	4	M4	2.5
		32	8 9.53 10 11 12 14	15	41	12.4	10	6	M5	7
		40	8 9.53 10 11 12 14 15 16 18	19.5	47	15.5	13.1	7.8	M6	12
		50	14 15 16 18 20 22 24	25	53	18	16.7	9		
Single Disc Type	MCGLC	13	*3 4 5	13.5	5.5	4.1	2.5			-
	MCGLCLK	16	*4 5 6	16.5	7	5	3			-
	MCGLCRK	20	*4 5 6 6.35 7 8	18.4	7.5	6.5	3.7			-
	MCGLCWLK	25	*5 6 6.35 7 8 9.53 10	21.6	9	8.5	4			-
		32	8 9.53 10 11 12 14	29	12.4	10	6			-
		40	8 9.53 10 11 12 14 15 16 18	35	15.5	13.1	7.8			-
		50	14 15 16 18 20 22 24	41	18	16.7	9			-

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·m²)	Mass (g)
Double Disc Type	MCGLC	13	0.25	0.3	0.1	60	12000	7.0x10 ⁻⁸	±0.2
	MCGLCLK	16	0.4	0.3	0.1	90	9000	2.4x10 ⁻⁷	±0.3
	MCGLCRK	20	0.6	0.3	0.1	130	7600	6.0x10 ⁻⁷	±0.4
	MCGLCWLK	25	1.4	0.3	0.1	240	6000	2.2x10 ⁻⁶	±0.5
		32	2.6	0.3	0.1	560	4800	6.0x10 ⁻⁶	±0.6
		40	4.4	0.4	0.1	980	4000	1.7x10 ⁻⁵	±0.6
		50	7.0	0.4	0.1	1100	3500	4.6x10 ⁻⁵	±0.6
Single Disc Type	MCGLC	13	0.25	0.1	0.1	60	12000	7.0x10 ⁻⁸	±0.1
	MCGLCLK	16	0.4	0.1	0.1	90	9000	2.0x10 ⁻⁷	±0.1
	MCGLCRK	20	0.6	0.1	0.1	170	7600	6.0x10 ⁻⁷	±0.2
	MCGLCWLK	25	1.4	0.1	0.1	300	6000	1.8x10 ⁻⁶	±0.2
		32	2.6	0.1	0.1	700	4800	5.2x10 ⁻⁶	±0.3
		40	4.4	0.15	0.1	1200	4000	1.3x10 ⁻⁵	±0.3
		50	7.0	0.15	0.1	1450	3500	3.6x10 ⁻⁵	±0.3

Ordering Example	Part Number	Shaft Bore Dia. d1	Shaft Bore Dia. d2
	MCGLC16	5	6
	MCGLCWLK20	6	8

Keyway Dimension

Keyway Width

Spec.

Code

Keyway Dimension

Keyway Width

Spec.

Code

Disc Couplings

High Torque, Set Screw

■ **Features:** Couplings with carbon fiber discs have higher torque ratings than the polyimide discs, and are more lateral/angular misalignment tolerant than stainless steel.

Double Disc Type MCKL (Standard Bore)

MCKLLK (Keywayed Bore d1)
MCKLRK (Keywayed Bore d2)
MCKLWK (Keywayed Bore d1, d2)

Single Disc Type MCKS (Standard Bore)

MCKSRK (Keywayed Bore d2)
MCKSWK (Keywayed Bore d1, d2)

RoHS

⚠ 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 **P1061**

Standard Bore	Keywayed Bore			Material		Surface Treatment		Accessory
	d1 (One Side)	d2 (One Side)	d1, d2 (Both Sides)	Main Body	Disc	Main Body		
MCKL	MCKLLK	MCKLRK	MCKLWK	Aluminum Diecast	Carbon Fiber	Electroless	Set Screw	
MCKS	-	MCKSRK	MCKSWK	-	-	Nickel Plating	-	

Part Number		d1, d2 Selection (d1≤d2)										d3	L	ℓ	F	Set Screw			Unit Price	
Type	D	🔑 Keywayed Bore Type is selectable for diameter 6 or larger (D=13 is not available)														M	Tightening Torque (N·m)	MCKL	MCKLLK MCKLRK	MCKLWK
Double Disc Type MCKL MCKLLK MCKLRK MCKLWK	10	2	3	4								4.1	15	4.2	2	M2	0.3		-	-
	13	3	4	5	6						5.5	19	5.5	2.5				-	-	
	16	4	5	6	6.35	7	8					6.8	23.2	7	3	M3	0.7			
	20	4	5	6	6.35	7	8	10			8.1	26	7.5	3.7						
	25	5	6	6.35	7	8	9.53	10	11	12	10.4	30.2	9	4	M4	1.7				
	32	6	6.35	7	8	9.53	10	11	12	14	15	16	15	41			12.4	6		
	40	8	9.53	10	11	12	14	15	16	18	20	19.5	47	15.5	7.8	M5	4			
	50	14	15	16	18	20	22	24	25	25	53	18	9	M6	7					

Part Number		d1, d2 Selection (d1≤d2)										L	ℓ	F	Set Screw		Unit Price				
Type	D	🔑 Keywayed Bore Type is selectable for diameter 6 or larger (D=13 is not available)													M	Tightening Torque (N · m)	MCKS	MCKSRK	MCKSWK		
Single Disc Type MCKS MCKSRK MCKSWK	10	2	3	4								10.5	4.2	2	M2	0.3		-	-		
	13	3	4	5	6						13.5	5.5	3				-	-			
	16	4	5	6	6.35	7	8					16.5	7	3	M3	0.7					
	20	4	5	6	6.35	7	8	10				18.4	7.5	4							
	25	5	6	6.35	7	8	9.53	10	11	12			21.6	9	4	M4	1.7				
	32	6	6.35	7	8	9.53	10	11	12	14	15	16	29	12.4	6						
	40	8	9.53	10	11	12	14	15	16	18	20			35	15.5			7.8	M5	4	
	50	14	15	16	18	20	22	24	25				41	18	9	M6	7				

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·m²)	Allowable Axial Misalignment (mm)	Mass (g)	
MCKL MCKLLK MCKLRK MCKLWK	10	0.25	2.5	31	32000	4.6x10 ⁻⁸	±0.2	3	3
	13	0.35		80	24000	8.0x10 ⁻⁸	5	5	5
	16	0.6		130	23000	2.4x10 ⁻⁷	9	9	9
	20	1.0		220	22000	7.2x10 ⁻⁷	±0.3	14	14
	25	2.2		440	19000	2.2x10 ⁻⁶	±0.4	27	27
	32	3.8	0.3	960	15000	6.0x10 ⁻⁶	±0.4	60	60
	40	6.8		1900	10000	1.7x10 ⁻⁵	±0.5	104	104
	50	11.0		2250	8000	4.6x10 ⁻⁵	±0.5	210	210

Ordering Example	Part Number	Shaft Bore Dia. d1	Shaft Bore Dia. d2
MCKL20	-	5	10
MCKLWK25	-	10	12

Keyway Dimension

Shaft Bore Dia. d1, d2	b	t	Key Nominal Dim. b/t
6~7.9	2	1.0	2x2
8~10	3	±0.0125	3x3
10.1~12	4	1.8	4x4
12.1~17	5	±0.0150	5x5
17.1~22	6	2.8	6x6
22.1~25	8	±0.0180	8x7

Single 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·m²)	Allowable Axial Misalignment (mm)	Mass (g)	
MCKS MCKSRK MCKSWK	10	0.25	0.05	40	32000	4.0x10 ⁻⁸	±0.1	2	2
	13	0.35		100	24000	7.0x10 ⁻⁸	4	4	4
	16	0.6		160	23000	2.0x10 ⁻⁷	7	7	7
	20	1.0		290	22000	6.0x10 ⁻⁷	11	11	11
	25	2.2		550	19000	1.8x10 ⁻⁶	22	22	22
	32	3.8	0.1	1200	15000	5.2x10 ⁻⁶	±0.2	50	50
	40	6.8		2200	10000	1.3x10 ⁻⁵	85	85	85
	50	11.0		2600	8000	3.6x10 ⁻⁵	170	170	170

Alterations	Part Number	Shaft Bore Dia. d1 (LDC)	Shaft Bore Dia. d2 (RDC)	(KLH, KRH)
MCKL20	-	LDC6.2	RDC9	-
MCKLWK32	-	8	10	KRH4

Alterations	Shaft Bore Dia.	Keyway Width
Spec.	0.1mm Increment Ordering Code LDC7.8 RDC9.3	Keyway Width (b) is changed as the table below. Ordering Code KLH KRH4
		Shaft Bore Dia. d1, d2
		Reference Dia. Tolerance
		8 2 ±0.0125 1.0 ±0.1
		10 4 ±0.0150 1.8 0
		12 5 ±0.0180 2.3 ±0.2
		22 8 ±0.0180 3.3 ±0.2
		Cannot be combined with shaft bore change (LDC, RDC) alterations.
		Applicable to Keywayed Bore only.
		Code LDC (Left Shaft) RDC (Right Shaft) KLH (Left Shaft) KRH (Right Shaft)

Disc Couplings

High Torque, Clamping

■ **Features:** Couplings with carbon fiber discs have higher torque ratings than the polyimide discs, and are more lateral/angular misalignment tolerant than stainless steel.

Double Disc Type MCKLC (Standard Bore)

MCKLCLK (Keywayed Bore d1)
MCKLCRK (Keywayed Bore d2)
MCKLCWK (Keywayed Bore d1, d2)

Single Disc Type MCKSC (Standard Bore)

MCKSCWK (Keywayed Bore d1, d2)

RoHS

⚠ 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.

⚠ For the selection criteria and alignment procedures, see **P1061**

Standard Bore	Keywayed Bore			Material		Surface Treatment		Accessory
	d1 (One Side)	d2 (One Side)	d1, d2 (Both Sides)	Main Body	Disc	Main Body		
MCKLC	MCKLCLK	MCKLCRK	MCKLCWK	Aluminum Diecast	Carbon Fiber	Electroless	Hex Socket Head Cap Screw	
MCKSC	-	-	MCKSCWK	-	-	Nickel Plating	-	

Part Number		d1, d2 Selection (d1≤d2)										d3	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)	MCKLC	MCKLCLK MCKLCRK	MCKLCWK						
Double Disc Type MCKLC MCKLCLK MCKLCRK MCKLCWK	13	*3	4	5								5.5	19	5.5	4.1	2.5	M2	0.42		-	-	
	16	*4	5	6								6.8	23.2	7	5	3	M2.5	1				
	20	*4	5	6	6.35	7	8					8.1	26	7.5	6.5	3.7						
	25	*5	6	6.35	7	8	9.53	10				10.4	30.2	9	8.5	4	M3	1.7				
	32				8	9.53	10	11	12	14			15	41	12.4	10	6	M4	2.5			
	40				8	9.53	10	11	12	14	15	16	18	19.5	47	15.5	13.1	7.8	M5	7		
	50							14	15	16	18	20	22	24	25	53	18	16.7	9	M6	12	

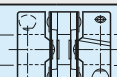
Part Number		d1, d2 Selection (d1≤d2)										L	ℓ	A	F	Clamp Screw		Unit Price					
Type	D	🔑Keywayed Bore Type is selectable for diameter 6 or larger														M	Tightening Torque (N·m)	MCKSC	MCKSCWK				
Single Disc Type MCKSC MCKSCWK	13	*3	4	5								13.5	5.5	4.1	2.5	M2	0.42		-				
	16	*4	5	6								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 is *3, *4, *5, use with the load torque 50% or less than that shown in the table to prevent slipping.

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·m²)	Allowable Axial Misalignment (mm)	Mass (g)	
MCKLC MCKLCLK MCKLCRK MCKLCWK	13	0.35	0.2	80	12000	8.0x10 ⁻⁸	±0.2	5	5
	16	0.6		130	9000	2.4x10 ⁻⁷	±0.3	9	9
	20	0.9		220	7600	7.2x10 ⁻⁷	±0.4	14	14
	25	2.2		440	6000	2.2x10 ⁻⁶	±0.4	27	27
	32	3.8		960	4800	6.0x10 ⁻⁶	±0.5	60	60
	40	6.8	0.3	1900	4000	1.7x10 ⁻⁵	±0.5	104	104
	50	11.0		2250	3500	4.6x10 ⁻⁵	±0.5	210	210

Part Number	Shaft Bore Dia. d1	Shaft Bore Dia. d2
MCKLC16	5	6
MCKLCWK40	12	15

Alterations	Part Number	Shaft Bore Dia. d1 (LDC)	Shaft Bore Dia. d2 (RDC)	(KLH, KRH, LK, RK)
MCKLC20	-	LDC6.2	RDC6.9	-
MCKLCWK32	-	10	10	KLH4 - KRH4

Alterations	Shaft Bore Dia.	Keyway Width	Keyway Machining																																			
Spec.		Keyway Width (b) is changed as the table below. Ordering Code KLH4 KRH4 <table><thead><tr><th>Shaft Bore Dia. d1, d2</th><th>Reference Dia.</th><th>Tolerance</th><th>t</th></tr></thead><tbody><tr><td>8</td><td>2</td><td>±0.0125</td><td>1.0</td></tr><tr><td>10</td><td>4</td><td>±0.0150</td><td>1.8</td></tr><tr><td>12</td><td>5</td><td>±0.0180</td><td>2.3</td></tr><tr><td>22</td><td>8</td><td>±0.0180</td><td>3.3</td></tr></tbody></table>  d1, d2 ⊗ Cannot be combined with shaft bore change (LDC, RDC) alterations. ⦿ Applicable to Keywayed Bore only.	Shaft Bore Dia. d1, d2	Reference Dia.	Tolerance	t	8	2	±0.0125	1.0	10	4	±0.0150	1.8	12	5	±0.0180	2.3	22	8	±0.0180	3.3		<table><thead><tr><th>Shaft Dia. d1, d2</th><th>LK, RK</th></tr></thead><tbody><tr><td>6-8</td><td>2</td></tr><tr><td>8-10</td><td>3</td></tr><tr><td>10-12</td><td>4</td></tr><tr><td>12-15</td><td>5</td></tr><tr><td>17-22</td><td>6</td></tr><tr><td>22-24</td><td>8</td></tr></tbody></table> Ordering Code LK3 RK4 ⦿ Keyway machining is available for Ø6 ~.	Shaft Dia. d1, d2	LK, RK	6-8	2	8-10	3	10-12	4	12-15	5	17-22	6	22-24	8
	Shaft Bore Dia. d1, d2	Reference Dia.	Tolerance	t																																		
	8	2	±0.0125	1.0																																		
	10	4	±0.0150	1.8																																		
	12	5	±0.0180	2.3																																		
	22	8	±0.0180	3.3																																		
	Shaft Dia. d1, d2	LK, RK																																				
	6-8	2																																				
8-10	3																																					
10-12	4																																					
12-15	5																																					
17-22	6																																					
22-24	8																																					
Code	LDC (Left Shaft) RDC (Right Shaft)	KLH (Left Shaft) KRH (Right Shaft)	LK (Left Shaft) RK (Right Shaft)																																			

Oldham Couplings

Set Screw / Spacers

■ Features: Hub and spacer can be separated for easy assembly.

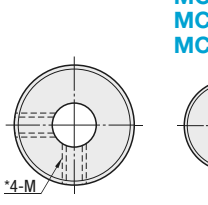


MCOWK (Standard Bore)

MCOLK (Keywayed Bore d1)
MCORK (Keywayed Bore d2)
MCOWK (Keywayed Bore d1, d2)

* One set screw location for D6 and D8.
* Operating Temperature: -40°C ~ 90°C
* 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

RoHS



Keyway Dimension

Keyway Width (b) is changed as the table below.

Ordering Code: KLH4 KRH4

Shaft Bore Dia. d1, d2

Shaft Bore Dia. d1, d2	Reference Dia.	Tolerance	Reference Dia.	Tolerance
6 ~ 7.9	2	±0.0125	1.0	±0.1
8 ~ 10	3	±0.0125	1.4	±0.1
10.1 ~ 12	4	±0.0150	1.8	±0.1
12.1 ~ 17	5	±0.0150	2.3	±0.1
17.1 ~ 20	6	±0.0150	2.8	±0.1

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

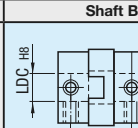
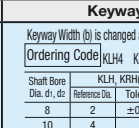
Standard Bore		Keywayed Bore				Material		Accessory	
Type	No.	d1 (One Side)	d2 (One Side)	d1, d2 (Both Sides)	Hub	Spacer	Material	Accessory	
MCOWK	6	6.2	2.4	8.4	3	1.5	EN 1.4301 Equi. Sintered Alloy	Set Screw	
MCOLK	8	8.2	3.4	9.6	3.5	1.7	Carbon Reinforced Resin		
MCORK	10	10.2	4.4	10.2	3.7	1.8			
MCOWK	12	12.5	4.0	14.2	5.2	2.5			
MCOWK	15	14.5	5.0	16	5.4	2.6			
MCOWK	17	16.8	7.2	19.8	6.7	3.2			
MCOWK	20	20	8.2	21.4	7	3.4			
MCOWK	26	26	12.0	25.6	9	4			
MCOWK	30	30	13.0	33	12	6			
MCOWK	34	34	13.0	34	13	5.5			
MCOWK	38	38	16.0	40	15	7			

Part Number	Type	No.	d1, d2 Selection (d1≤d2)	D	D1	d3	L	ℓ	F	Set Screw	Unit Price
			Keywayed Bore Type is selectable for diameter 6 or larger								
		6	1 1.5 2	6	6.2	2.4	8.4	3	1.5	M1.6	0.15
		8	1 2 3	8	8.2	3.4	9.6	3.5	1.7	M2	0.3
		10	2 3 4	10	10.2	4.4	10.2	3.7	1.8	M3	0.7
		12	3 4 5	12	12.5	4.0	14.2	5.2	2.5	M4	1.7
		15	4 5 6 6.35 7 8	15	14.5	5.0	16	5.4	2.6	M5	4.0
		17	5 6 6.35 7 8	17	16.8	7.2	19.8	6.7	3.2		
		20	6 6.35 7 8 9.53 10 11 12	20	20	8.2	21.4	7	3.4		
		26	6 6.35 7 8 9.53 10 11 12 14	26	26	12.0	25.6	9	4		
		30	8 10 12 14	30	30	13.0	33	12	6		
		34	10 11 12 14 15 16	34	34	13.0	34	13	5.5		
		38	10 12 14 15 16 18 20	38	38	16.0	40	15	7		

Part Number	Type	No.	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)	Mass (g)
		6	0.3	0.3	9	12000	1.5x10 ⁻³	±0.25	1.5	15
		8	0.5	0.4	13	12000	2.2x10 ⁻³	±0.3	2.5	28
		10	0.8	0.4	21	12000	3.6x10 ⁻³	±0.32	4	40
		12	1	0.5	44	12000	1.6x10 ⁻²	±0.35	8	85
		15	1.6	0.8	90	10000	3.5x10 ⁻²	±0.45	11	100
		17	2.2	1	250	10000	7.8x10 ⁻²	±0.55	18	155
		20	3.2	1.5	340	8000	1.7x10 ⁻¹	±0.6	29	240
		26	6	2	420	6500	6.2x10 ⁻¹	±0.6	65	
		30	15	2	1200	6200	2x10 ⁻¹	±0.6	100	
		34	16	2.5	2400	6000	2.5x10 ⁻¹	±0.6	155	
		38	28	2.5	3500	5800	8x10 ⁻¹	±0.6	240	

* The allowable torque varies depending on temperature. P.1062

Part Number	Alterations	Part Number	Alterations	Part Number	Alterations
MCOWK20	-	LDC6.5	-	RDC9	-
MCOLK20	-	8	-	10	-
MCOWK20	-	10	-	12	-

Alterations	Shaft Bore Dia.	Keyway Width
		
	0.1mm Increment	Keyway Width (b) is changed as the table below.
	Ordering Code: LDC7.8 RDC9.3	Ordering Code: KLH4 KRH4
	No. D LDC, RDC	No. D LDC, RDC
	6 6 1-2 17 16.8 5-8	6 6 1-2 17 16.8 5-8
	8 8 1-3 20 20 6-12	8 8 1-3 20 20 6-12
	10 10 2-4 26 26 6-15	10 10 2-4 26 26 6-15
	12 12 4-6 30 30 8-14	12 12 4-6 30 30 8-14
	15 14.5 4-8 34 34 10-16	15 14.5 4-8 34 34 10-16
		17 16.8 5-8 38 38 10-20

■ Spacers (for MCO or MCOC) P.1088

Part Number	Type	No.	D1	T	d3	W	G	Applicable Coupling	Unit Price
		6	6.2	2.2	2.4	1.3	1.3	MCO 6	
		8	8.2	2.4	3.4	1.6	1.5	MCO 8	
		10	10.2	2.6	4.4	1.6	1.6	MCO 10	
		12	12.5	3.8	4.0	3	1.8	MCO 12	
		15	15	4.8	5.0	3.4	2.3	MCO 15	
		17	17.5	6	7.2	4.6	2.9	MCO 17	
		20	21	6.6	8.2	5.8	3.2	MCO 20	
		26	27	7.2	12.0			MCO 26	
		30	31	8.5	13.0	7	4	MCO 30	
		34	35	7.9				MCO 34	
		38	41	9.4	16.0		4.2	MCO 38	

Ordering Example: Part Number MCOS15

Oldham Couplings

Clamping

■ Features: Hub and spacer can be separated for easy assembly.

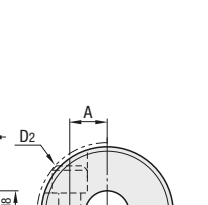


MCOC (Standard Bore)

MCOCCLK (Keywayed Bore d1)
MCOCRK (Keywayed Bore d2)
MCOCWK (Keywayed Bore d1, d2)

* Operating Temperature: -40°C ~ 90°C
* 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.
* For the selection criteria and alignment procedures, see P.1061

RoHS



Keyway Dimension

Keyway Width (b) is changed as the table below.

Ordering Code: KLH4 KRH4

Shaft Bore Dia. d1, d2

Shaft Bore Dia. d1, d2	Reference Dia.	Tolerance	Reference Dia.	Tolerance
6 ~ 7.9	2	±0.0125	1.0	±0.1
8 ~ 10	3	±0.0125	1.4	±0.1
10.1 ~ 12	4	±0.0150	1.8	±0.1
12.1 ~ 17	5	±0.0150	2.3	±0.1
17.1 ~ 20	6	±0.0150	2.8	±0.1

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

Standard Bore		Keywayed Bore				Material		Accessory	
Type	No.	d1 (One Side)	d2 (One Side)	d1, d2 (Both Sides)	Hub	Spacer	Material	Accessory	
MCOC	6	6.2	2.4	8.4	3	1.5	EN 1.4301 Equi. Sintered Alloy	Hex Socket Head Cap Screw	
MCOCCLK	8	8.2	3.4	9.6	3.5	1.7	Carbon Reinforced Resin		
MCOCRK	10	10.2	4.4	10.2	3.7	1.8			
MCOCWK	12	12.5	4.0	14.2	5.2	2.5			
MCOCWK	15	14.5	5.0	16	5.4	2.6			
MCOCWK	17	16.8	7.2	19.8	6.7	3.2			
MCOCWK	20	20	8.2	21.4	7	3.4			
MCOCWK	26	26	12.0	25.6	9	4			
MCOCWK	30	30	13.0	33	12	6			
MCOCWK	34	34	13.0	34	13	5.5			
MCOCWK	38	38	16.0	40	15	7			

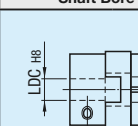
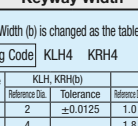
Part Number	Type	No.	d1, d2 Selection (d1≤d2)	D	D1	D2	d3	L	ℓ	A	F	Clamp Screw	Unit Price
			Keywayed Bore Type is selectable for diameter 6 or larger										
		15	4 5 6	14.5	15	16	5.0	18.4	6.6	4.5	3.2	M2.5	1.0
		17	5 6 6.35	16.8	17.5	19	7.2	24.4	9	5	4	M3	1.8
		20	6 6.35 7 8 9.53 10	20	21	23	8.2	27.2	10	7	4.5	M4	3.0
		26	6 6.35 7 8 9.53 10 11 12	26	27	29	12.0	30.4	11.5	8.4	5	M4	4.5
		30	8 10	30	31	32	13.0	33	12	8.5	6	M5	8.0
		34	10 11 12 14 15 16	34	35	37	13.0	34	13	11	6	M5	8.0
		38	10 12 14 15 16 18 20	38	41	41	16.0	40	15	11.5	7	M5	8.0

* Clamping screw tightening torque for shaft diameter 16mm (d1, d2) of MCOC34 is 5.4 (N·m).

Part Number	Type	No.	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)	Mass (g)
		15	1.6	0.8	90	10000	5.0x10 ⁻²	±0.45	15	15
		17	2.2	1	250	10000	1.0x10 ⁻¹	±0.55	28	28
		20	3.2	1.5	340	8000	2.4x10 ⁻¹	±0.6	40	40
		26	6	2	420	6500	8.0x10 ⁻¹	±0.6	85	85
		30	15	2	1200	6200	2.0x10 ⁻¹	±0.6	100	100
		34	16	2.5	2400	6000	2.5x10 ⁻¹	±0.6	155	155
		38	28	2.5	3500	5800	8.0x10 ⁻¹	±0.6	240	240

* The allowable torque varies depending on temperature. P.1062

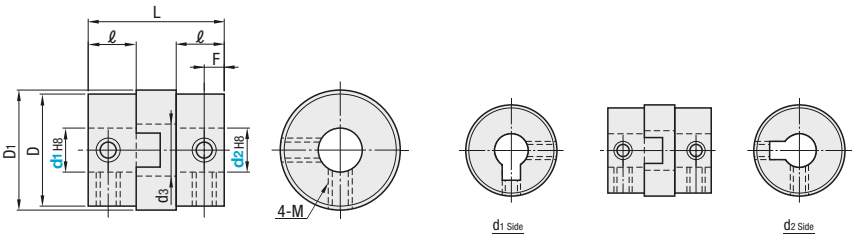
Part Number	Alterations	Part Number	Alterations	Part Number	Alterations
MCOC20	-	LDC6.5	-	RDC9	-
MCOCCLK20	-	6	-	8	-
MCOCWK20	-	8	-	10	-

Alterations	Shaft Bore Dia.	Keyway Width
		
	0.1mm Increment	Keyway Width (b) is changed as the table below.
	Ordering Code: LDC7.8 RDC9.3	Ordering Code: KLH4 KRH4
	No. D LDC, RDC	No. D LDC, RDC
	15 14.5 4-6	15 14.5 4-6
	17 16.8 5-8	17 16.8 5-8
	20 20 6-10	20 20 6-10
	26 26 6-12	26 26 6-12
	30 30 8-14	30 30 8-14
	34 34 10-16	34 34 10-16
	38 38 10-20	38 38 10-20

Oldham Couplings

High Rigidity, Set Screw

■ **Features:** Aluminum bronze is used for spacer and it has allowable torque twice as much as Resin Type.



MCOG (Standard Bore)

MCOGRK (Keywayed Bore d2)
MCOGWK (Keywayed Bore d1, d2)

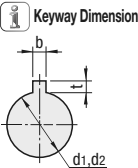
① The lateral, angular, and axial misalignment values shown are for each occurring individually. When multiple misalignments are occurring simultaneously, the allowable maximum value of each will be reduced to 1/2.

② For the selection criteria and alignment procedures, see **P1061**

Standard Bore	Keywayed Bore			Material		Accessory
	d2 (One Side)	d1, d2 (Both Sides)	Hub	Spacer		
MCOG	MCOGRK	MCOGWK	EN 1.4301 Equiv Sintered Alloy	Aluminum Bronze (Sold Lubricant Embedded)	Set Screw	

Part Number		d1, d2 Selection (d1≤d2)										Set Screw		Unit Price		
Type	No.	① Keywayed Bore Type is selectable for diameter 6 or larger										M	Tightening Torque (N·m)	MCOG	MCOGRK	MCOGWK
MCOG MCOGRK MCOGWK	15	4	5	6	6.35	7	8					M3	0.7			
	17		5	6	6.35	7	8					M4	1.7			
	20			6	6.35	7	8	9.53	10	11	12					
	26				6	6.35	7	8	9.53	10	11	12	14			
	30						8			10	12	14				
	34								10	11	12	14	15	16		
	38									10	12	14	15	16	18	20

Part Number	No.	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 Misalignment (mm)	Mass (g)
MCOG MCOGRK MCOGWK	15	3	1.5	0.5	800	8000	4 × 10 ⁻⁶	±0.1	15
	17	5		0.5	1000	7000	1 × 10 ⁻⁷	±0.1	25
	20	7		0.5	2200	6000	2 × 10 ⁻⁶	±0.1	37
	26	10		0.8	4000	5000	6 × 10 ⁻⁶	±0.2	79
	30	30		1	5500	5000	2.5 × 10 ⁻⁵	±0.3	120
	34	32		1	8000	4000	4 × 10 ⁻⁵	±0.2	180
	38	50		1	11000	4000	1 × 10 ⁻⁴	±0.3	256



Shaft Bore		b		t		Key Nominal	
Dia. d1, d2	Reference Dia.	Tolerance	Reference Dia.	Tolerance	Reference Dia.	Dim. b x h	
6~7.9	2	±0.0125	1.0		2x2		
8~10	3		1.4		3x3		
10.1~12	4		1.8		4x4		
12.1~17	5	±0.0150	2.3		5x5		
17.1~20	6		2.8		6x6		

- ① Excellent in high torque / high speed rotation applications.
- ② When lateral misalignment is more than 0.1, spacer wear will be in proportion to the amount of load torque, lateral misalignment, and the number of rotations.



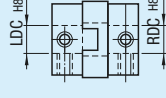
Ordering Example

Part Number	-	Shaft Bore Dia. d1	-	Shaft Bore Dia. d2
MCOG20	-	6	-	6
MCOGRK20	-	8	-	12
MCOGWK20	-	10	-	12



Alterations

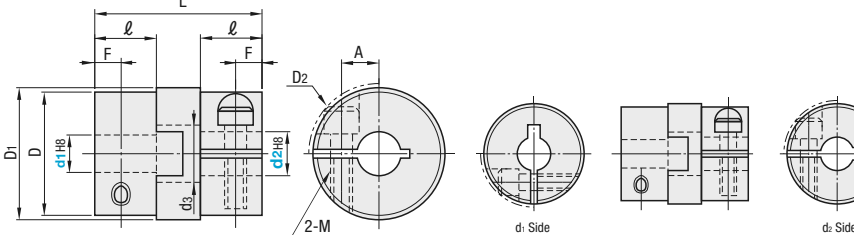
Part Number	-	Shaft Bore Dia. d1(LDC)	-	Shaft Bore Dia. d2(RDC)	-	(KLH, KRH)
MCOG20	-	LDC6.5	-	RDC9	-	
MCOGWK30	-	8	-	10	-	KRH4

Alterations	Shaft Bore Dia.	Keyway Width
Spec.		Keyway Width (b) is changed as the table below.
		Ordering Code KLH4 KRH4
		Shaft Bore Dia. d1, d2
		KLH, KRH(b)
Code	LDC (Left Shaft) RDC (Right Shaft)	KLH (Left Shaft) KRH (Right Shaft)

Oldham Couplings

High Rigidity, Clamping

■ **Features:** Aluminum bronze is used for spacer and it has allowable torque twice as much as Resin Type.



MCOCG (Standard Bore)

MCOCGLK (Keywayed Bore d1)
MCOCGRK (Keywayed Bore d2)
MCOCGWK (Keywayed Bore d1, d2)

① Tolerances for d1 and d2 are values before slit machining.

② 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.

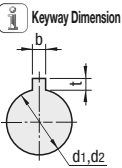
③ For the selection criteria and alignment procedures, see **P1061**

Standard Bore	Keywayed Bore			Material		Accessory
	d1 (One Side)	d2 (One Side)	d1, d2 (Both Sides)	Hub	Spacer	
MCOCG	MCOCGLK	MCOCGRK	MCOCGWK	EN 1.4301 Equiv Sintered Alloy	Aluminum Bronze (Sold Lubricant Embedded)	Hex Socket Head Cap Screw

Part Number		d1, d2 Selection (d1≤d2)										Clamp Screw		Unit Price		
Type	No.	① Keywayed Bore Type is selectable for diameter 6 or larger										M	Tightening Torque (N·m)	MCOCG	MCOCGLK	MCOCGRK
MCOCG MCOCGLK MCOCGRK MCOCGWK	15	4	5	6								M2.5	1.0			
	17		5	6	6.35							M3	1.8			
	20			6	6.35	7	8	9.53	10							
	26				6	6.35	7	8	9.53	10	11					
	30						8			10		M4	3.0			
	34								12	14		M5	8.0			
	38									10	11	M4	4.5			

④ *Clamping screw tightening torque for shaft diameter 16mm (d1, d2) of MCOCG34 is 5.4 (N·m).

Part Number	No.	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 Misalignment (mm)	Mass (g)
MCOCG MCOCGLK MCOCGRK MCOCGWK	15	3	1.5	0.5	800	8000	6 × 10 ⁻⁷	±0.1	17
	17	5		0.5	1000	7000	1.2 × 10 ⁻⁶	±0.1	30
	20	7		0.5	2200	6000	3 × 10 ⁻⁶	±0.1	48
	26	10		0.8	4000	5000	1 × 10 ⁻⁵	±0.2	90
	30	30		1	5500	5000	2.5 × 10 ⁻⁵	±0.3	120
	34	32		1	8000	4000	4 × 10 ⁻⁵	±0.2	172
	38	50		1	11000	4000	1 × 10 ⁻⁴	±0.3	246



Shaft Bore		b		t		Key Nominal	
Dia. d1, d2	Reference Dia.	Tolerance	Reference Dia.	Tolerance	Reference Dia.	Dim. b x h	
6~7.9	2	±0.0125	1.0		2x2		
8~10	3		1.4		3x3		
10.1~12	4		1.8		4x4		
12.1~17	5	±0.0150	2.3		5x5		
17.1~20	6		2.8		6x6		

- ① Excellent in high torque / high speed rotation applications.
- ② When lateral misalignment is more than 0.1, spacer wear will be in proportion to the amount of load torque, lateral misalignment, and the number of rotations.



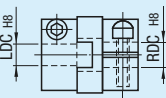
Ordering Example

Part Number	-	Shaft Bore Dia. d1	-	Shaft Bore Dia. d2
MCOCG20	-	6	-	6
MCOCGLK30	-	8	-	12
MCOCGWK38	-	10	-	12



Alterations

Part Number	-	Shaft Bore Dia. d1(LDC)	-	Shaft Bore Dia. d2(RDC)	-	(KLH, KRH)
MCOCG20	-	LDC6.5	-	RDC9	-	
MCOCGWK30	-	8	-	10	-	KRH4

Alterations	Shaft Bore Dia.	Keyway Width
Spec.		Keyway Width (b) is changed as the table below.
		Ordering Code KLH4 KRH4
		Shaft Bore Dia. d1, d2
		KLH, KRH(b)
Code	LDC (Left Shaft) RDC (Right Shaft)	KLH (Left Shaft) KRH (Right Shaft)

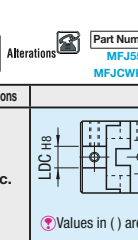
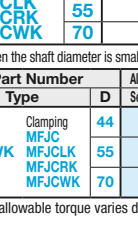
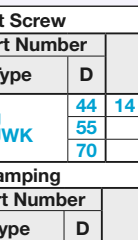
Oldham Couplings

Large Shaft Diameter, Set Screw / Clamping / Spacers

Oldham Couplings

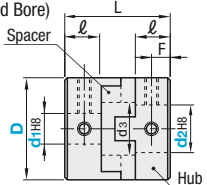
High Rigidity Large Shaft Diameter, Set Screw / Clamping

■Features: Large tolerance for lateral and angular misalignments covers up to Ø38 max. shafts.

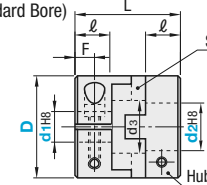


RoHS

■Set Screw
MFJ (Standard Bore)

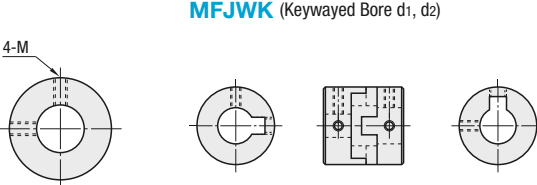


■Clamping
MFJC (Standard Bore)

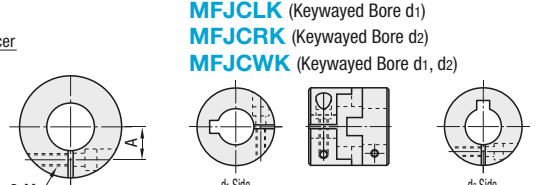


Operating Temperature: -20°C ~ 80°C
Tolerances for d1 and d2 are values before slit machining.
The lateral, angular, and axial misalignment values shown are for each occurring individually. When multiple misalignments are occurring simultaneously, the allowable maximum value of each will be reduced to 1/2.
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

■Set Screw
MFJWK (Keywayed Bore d1, d2)



■Clamping
MFJCLK (Keywayed Bore d1)
MFJCRK (Keywayed Bore d2)
MFJCWK (Keywayed Bore d1, d2)



For Keyway dimensions, see P.1092

Shape	Standard Bore	Keywayed Bore	Material	Accessory
Set Screw	MFJ	MFJWK	Aluminum Alloy	Set Screw
Clamping	MFJC	MFJCLK MFJCRK MFJCWK	Polyacetal	Hex Socket Head Cap Screw

Set Screw																			
Part Number		d1, d2 Selection (d1≤d2)										d3	L	ℓ	F	Set Screw		Unit Price	
Type	D															M	Tightening Torque (N·m)	MFJ	MFJWK
MFJ MFJWK	44	14	15	16	18	20	22					22.5	46	15	7.5	M6	7.0		
	55	18 20 22 25 26										28	57	19	9.5	M 8	15.0		
	70	22 25 28 30 35 38										39	77	25	12.5	M10	30.0		

Clamping												Clamp Screw		Unit Price							
Part Number		d ₁ , d ₂ Selection (d ₁ ≤d ₂)										d ₃	L	ℓ	F	A	M	Tightening Torque (N·m)	MFJC	MFJCLK MFJCRK	MFJCWK
Type	D																				
MFJC MFJCLK MFJCRK MFJCWK	44	14	15	16	18	20					22.5	46	15	7.5	14.5	M5	*8.4				
	55	18					20	22	25				28	57	19	9.5	17	M6	*14.4		
	70							22	25	28	30	35	39	77	25	12.5	24	M8	*30.0		

* When the shaft diameter is small, clamp screw tightening torque should be higher than the prescribed value to prevent shaft slipping. The above tightening torque is for reference.

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 · m²)	Alloy Steel Misalignment (mm)	Mass (g)	
Type	D	Set Screw	Clamping								
Set Screw MFJ MFJWK	Clamping MFJC MFJCLK MFJCRK MFJCWK	44	30	26	2	1	1500	12000	4 x 10 ⁻⁵	±0.5	140
		55	45	40		1.5	2800	10000	11 x 10 ⁻⁵	±0.6	260
		70	80	72		2	4800	8000	40 x 10 ⁻⁵	±0.8	450

Ordering Example

Part Number

-

MFJ44

-

15

-

20

Part Number

-

MFJCWK70

-

22

-

35

The allowable torque varies depending on temperatureP.1062

Alterations

Part Number - Shaft Bore Dia. (D) - Shaft Bore Dia. (d) - (KLH, KRH, LK, RK)

MFJ55 - LDC19.5 - RDC21

MFJCWK70 - 22 - 35 - KLH8

Spec.

0.1mm Increment

D	LDC, RDC
44	14~22(20)
55	18~26(25)
70	22~38(35)

Values in () are for Clamping Type.

Keyway Width

Keyway Width (b) is changed as the table below.

Ordering Code	KLH8	KRH8
Shaft Bore Dia. d1, d2	Reference Dia.	Tolerance
22	8	±0.0180
30	10	3.3
		0

Cannot be combined with shaft bore change (LDC, RDC) alterations.

Applicable to Keywayed Bore only.

Keyway

Ordering Code

LK5 RK8

Shaft Dia. d1, d2	LK, RK
14~17	5
17~22	6
22~30	8
30~38	10

For Keyway dimensions, see P.1092

Code

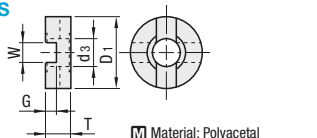
LDC (Left Shaft) RDC (Right Shaft) KLH (Left Shaft) KRH (Right Shaft) LK (Left Shaft) RK (Right Shaft)

■Spacers (for MFJ□□, MFJC□□)



RoHS

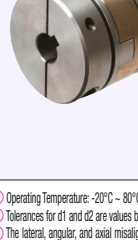
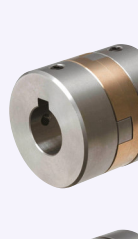
MFJS



Material: Polyacetal

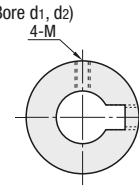
Part Number	Type	D1	T	d3	W	G	Applicable Coupling	Unit Price
MFJS	44	44.3	14	22.5	10.4	9	MFJ□□44 MFJC□□44	
	55	55	17	28	13	11	MFJ□□55 MFJC□□55	
	70	69	25	39	15	16.5	MFJ□□70 MFJC□□70	

■Features: Aluminum bronze is used for spacer and it has allowable torque twice as much as Resin Type (MFJ Series).

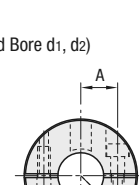


RoHS

■Set Screw
MFJGWK (Keywayed Bore d1, d2)



■Clamping
MFJCGWK (Keywayed Bore d1, d2)



Operating Temperature: -20°C ~ 80°C
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.
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
When the lateral/angular misalignments, the torque and the rotational speed are over 50% of the allowable values, apply grease with molybdenum disulfide periodically.

Shape	Keywayed Bore	Material	Accessory
Set Screw	MFJGWK	Stainless Steel	Set Screw
Clamping	MFJCGWK	Aluminum Bronze	Hex Socket Head Cap Screw

Set Screw												Set Screw						
Part Number		d1, d2 Selection (d1≤d2)										d3	L	ℓ	F	Set Screw		Unit Price
Type	D															M	Tightening Torque (N・m)	
MFJGWK	45	15	16	18	20						22.5	43.6	15	7.5	M 5	3.6		
	55				20	22	24	25			29	49.4	17	8.5	M 6	6.0		
	70							25	28	30	35	36	57.0	20	10	M 8	14.0	

Clamping																			
Part Number		d1, d2 Selection (d1≤d2)										Clamp Screw		Unit Price					
Type	D											M	Tightening Torque (N・m)						
MFJCGWK	45	15	16	18	20							22.5	46	16.2	6	14.5	M5	*10	
	55				20	22	24	25				29	57	20.8	7	18.5	M6	*15	

* When the shaft diameter is small, clamp screw tightening torque should be higher than the prescribed value to prevent shaft slipping. The above tightening torque is for reference.

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·m²)	Alloy Steel Misalignment (mm)	Mass (g)
MFJGWK	45	60	1	65000		1.7 x 10 ⁻⁴	±0.3	400
	55	90	1	100000	10000	3.3 x 10 ⁻⁴	±0.5	700
	70	160	1.6	180000		11 x 10 ⁻⁴	±0.6	1300

Ordering Example

Part Number - Shaft Bore Dia. (D) - Shaft Bore Dia. (d)

MFJGWK45 - 15 - 20

MFJCGWK55 - 22 - 25

Alterations

Part Number - Shaft Bore Dia. (D) - Shaft Bore Dia. (d) - (KLH, KRH)

MFJGWK45 - LDC19 - RDC19

MFJCGWK55 - 22 - 25 - KLH8

Shaft Bore Dia. d1, d2	Reference Dia.	Tolerance	Key Nominal Dim. b, h
14~17	5	±0.0150	2.3
17~22	6	±0.0150	2.8
22~30	8	±0.0180	3.3
30~38	10	±0.0180	3.3

Alterations	Shaft Bore Dia.		Keyway Width				
Spec.			Keyway Width (b) is changed as the table below.				
	Ordering Code		KLH8 KRH8				
	Shaft Bore Dia. d1, d2		KLH, KRH(b)		t		
	Reference Dia.		Tolerance		Reference Dia. Tolerance		
	22 8		±0.0180		3.3 +0.2 0		
30 10							
1mm Increment		D LDC, RDC					
Ordering Code		45 15-20					
LDC19		55 20-25					
RDC21		70 25-35					
				⊗ Cannot be combined with shaft bore change (LDC, RDC) alterations.			
Code	LDC (Left Shaft)	RDC (Right Shaft)	KLH (Left Shaft)	KRH (Right Shaft)			

Oldham Couplings

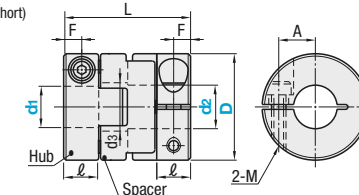
Blue Set Screw / Clamping, Green Short Clamping

Short Clamping



RoHS

CPOCG (Short)



Operating Temperature: -20°C ~ 80°C

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](#)

Parts	M Material	S Surface Treatment	A Accessory
Hub	Aluminum Alloy	Clear Anodize	Hex Socket Head Cap Screw
Spacer	Polyacetal	-	-

Part Number		d1, d2 Selection (d1≤d2)												d3	L	ℓ	t	F	A	Clamp Screw		Unit Price
Type	D																			M	Tightening Torque (N · m)	
CPOCG	12	3	4	5									6	14.9	5	-	2.5	4	M2	0.5		
	16	3	4	5	6								8	21	7		3.5	5	M2.5	1		
	20			5	6	6.35	7	8					10	22.1	6.5							
	25					6.35	7	8	10					14	27.2		8	4	9	M3	1.5	
	32							8	10	11	12	14	18	33.3	10		5	11	M4	2.5		

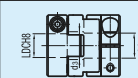
Part Number	Allowable Torque (N·m)	Angular Misalignment (°)	Lateral Misalignment (mm)	Static Torsional Spring Constant (N·m/rad)	Max. Rotational Speed (r/min)	Moment of Inertia (kg·m²)	Mass (g)
CPOCG	12	0.2	0.6	9	52000	7.1x10 ⁻⁸	3
	16	0.4	1	30	39000	3x10 ⁻⁷	8
	20	0.7	1.3	47	31000	7.4x10 ⁻⁷	13
	25	1.2	1.5	85	25000	2.2x10 ⁻⁶	24
	32	2.8	2	190	19000	7.3x10 ⁻⁶	48

The allowable torque varies depending on temperature. See [P.1062](#)

Spacers are available separately. See [P.1067](#)

Part Number	Shaft Bore Dia. d1 (LDC)	Shaft Bore Dia. d2 (RDC)	(L/R)K
CPOCG16	LDC4.5	RDC5.5	
CPOCG25	6	10	RK3

Shaft Bore Dia. d1, d2	b Reference Dia.	t Tolerance	Key Nominal Dim. b×h
8, 10	±0.0125	1.4	3x3
11, 12	±0.0150	1.8	4x4
14, 15, 16	±0.0150	2.3	5x5

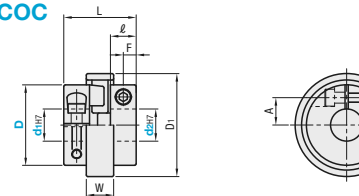
Alterations	Shaft Bore Dia.	Keyway
Spec.	 0.1mm Increment Dimes Code LDC 5.6 RDC 10.2 CPOCG D LDC, RDC 12 3 ~ 5 16 3 ~ 6 20 5 ~ 8 25 6.35 ~ 10 32 7 ~ 14	 Dimes Code Shaft Dia. d1, d2 L/R K RK LK 11, 12 4 RK 14, 15, 16 5 Keyway machining is available for 80- Cannot be combined with shaft bore change (LDC, RDC) alterations. For keyway dimension, refer to the following.
Code	LDC (Left Shaft) RDC (Right Shaft)	LK (Left Shaft) RK (Right Shaft)

Super Short Clamping



RoHS

SCOC



Operating Temperature: -20°C ~ 80°C

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.

For the selection criteria and alignment procedures, see [P.1061](#)

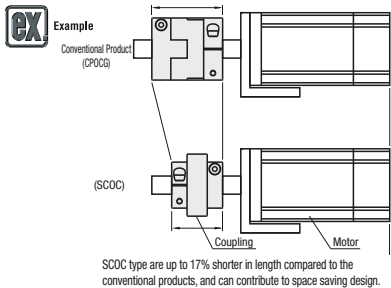
For installing, use Coupling O.A.L. as a reference.

Parts	M Material	S Surface Treatment	A Accessory
Hub	Aluminum Alloy	Clear Anodize	Hex Socket Head Cap Screw
Spacer	Polyacetal	-	-

Part Number		d1, d2 Selection (d1≤d2)										Clamp Screw		Unit Price
Type	D											M	Tightening Torque (N·m)	
SCOC	12	3	4	5								2	0.5	
	16	3	4	5	6							2.5	1.0	
	20			5	6	6.35	7	8						
	25				6	6.35	7	8	10			3	1.5	

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·m²)	Mass (g)
SCOC	12	0.3	0.3	18	12000	0.1x10 ⁻⁴	4
	16	0.8	0.5	55	9000	0.42x10 ⁻⁴	9
	20	1.0	1.0	95	6000	1.05x10 ⁻⁴	15
	25	1.6	1.2	162	5000	3.04x10 ⁻⁴	28

Part Number	Shaft Bore Dia. d1	Shaft Bore Dia. d2
SCOC25	8	10



Sleeved Couplings / Jaw & Spider Couplings

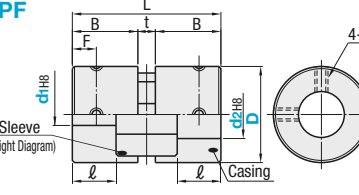
Set Screw

Sleeved Set Screw



RoHS

CPF



Only 1 set screw location when d1 and d2 are 4mm or less.

Operating Temperature: -20°C ~ 60°C

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](#)

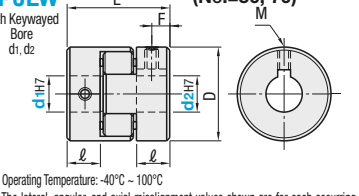
Parts	M Material	S Surface Treatment	A Accessory
Casing	Aluminum Alloy (Sintered Treatment for CPF32)	Electroplated Part Black (Sinter Treatment for CPF32)	Set Screw
Sleeve	Polyurethane (Orange)	-	-

Jaw & Spider, Set Screw



RoHS

CPJLW (No.=50, 70)



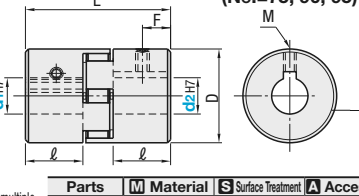
Operating Temperature: -40°C ~ 100°C

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](#)

Parts	M Material	S Surface Treatment	A Accessory
Main Body	Steel Type Sintered Alloy	Corrosion Resistant Coating	Set Screw
Spider	NBR (Black)	-	-

CPJLW (No.=75, 90, 95)



Operating Temperature: -40°C ~ 100°C

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](#)

Parts	M Material	S Surface Treatment	A Accessory
Main Body	Steel Type Sintered Alloy	Corrosion Resistant Coating	Set Screw
Spider	NBR (Black)	-	-

Part Number		d1, d2 Selection (d1≤d2)										L	B	ℓ	t	F	Sleeve			Set Screw		Unit Price
Type	D																C	K	H	M	Tightening Torque (N · m)	
CPF	16	3	4	5	6	6.35	8					27	12	8	3	4	11	14	6/6	M3	0.7	
	20			5	6	6.35	8	10				34	15	10	4	5	14	18	8/8			
	25				6	6.35	8	10	12			41	18	12	5	6	17	22	10/10	M4	1.7	
	32						8	10	12	14		48	21	14	6	7	20	29	12/14			

Part Number		d1, d2 Selection (d1≤d2)										D	L	ℓ	F	Set Screw		Unit Price
Type	No.															M	Tightening Torque (N·m)	
CPJLW	50		10	11	12	14	15	16				27.3	43.4	15.6				
	70			11	12	14	15	16	17	18	19	34.4	50.2	19				
	75					14	15	16	17	18	19	20	22					
	90									18	19	20	22	24	25			
	95										18	19	20	22	24	25	28	

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·m²)	Mass (g)
Type	D							
CPF	16	0.5	2	0.2	4.4	39000	9x10 ⁻⁷	22
	20	1			9.5	31000	2.7x10 ⁻⁶	42
	25	1.5			20	25000	8.1x10 ⁻⁶	81
	32	3			52	19000	2.5x10 ⁻⁵	150

The allowable torque varies depending on temperature. See [P.1062](#)

- Features (CPF)
- The torque is conveyed by the serrations engagement on the sleeve. A flexible coupling with a simple structure.
 - Excellent in flexibility with high tolerances to lateral/angular misalignments, and absorbs torsional vibrations.
 - Serrations engage with high accuracy and has significantly small backlash.
 - Simple structure, it can be fixed easily with a set screw and centered easily.
 - Oil resistant and wear resistant.

Part Number	Shaft Bore Dia. d1	Shaft Bore Dia. d2
CPF20	10	10
CPJLW50	10	12

- Features (CPJLW)
- A flexible coupling with a simple structure by combination of 2 bodies and 1 spider.
 - Main body and the spider are of smooth blind fit, making for easy installation, removal and maintenance.
 - (Body and spider are detachable.)

Shaft Bore Dia. d1, d2	b Reference Dia.	t Tolerance	Key Nominal Dim. b×h
10	±0.0125	1.4	3x3
11, 12	±0.0150	1.8	4x4
14~17	±0.0150	2.3	5x5
18~22	±0.0180	2.8	6x6
24~28	±0.0180	3.3	8x7

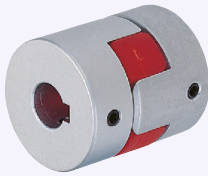
Part Number	Shaft Bore Dia. d1 (LDC)	Shaft Bore Dia. d2 (RDC)
CPF25	LDC7.6	RDC9.1

Alterations	Code	Spec.
Shaft Bore Dia.	LDC (Left Shaft) RDC (Right Shaft)	0.1mm Increment Ordering Code LDC7.6 RDC9.1 Not applicable to CPJLW

Jaw Couplings

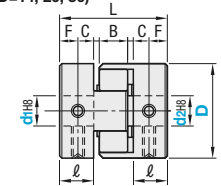
Set Screw

■Features: By changing the types of spacer, allowable torque and misalignment allowable value can be selected.

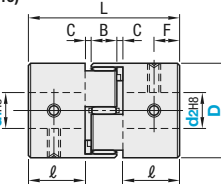


RoHS

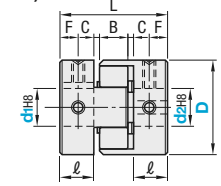
CPJ (Standard Bore)
(D=14, 20, 30)



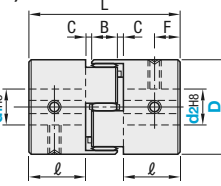
CPJ (Standard Bore)
(D=40)



CPJK (Keywayed Bore d1, d2)
(D=30)



CPJK (Keywayed Bore d1, d2)
(D=40)



Operating Temperature: -20°C ~ 60°C
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](#)

Parts	M Material	S Surface Treatment	A Accessory
Hub	Aluminum Alloy	Clear Anodize	Set Screw
Spacer	Polyurethane	-	

Part Number		Spacer (Color Selection)	d1, d2 Selection (d1≤d2)										L	ℓ	B	C	F	Set Screw		Unit Price			
Type	D																	M	Tightening Torque (N·m)				
CPJ	14	BL (Blue) WH (White) RD (Red)	3	4	5	6						22	7	6		1	3.5	M3	0.7				
	20				5	6	6.35	7	8	9.525			30	10	8		5						
	30							7	8	9.525	10	11	12	14		35	11	10	1.5	5.5	M4	1.7	
	40											10	11	12	14	15	16	66	25	12	2	12.5	M5

Part Number		Spacer (Color Selection)	d1, d2 Selection (d1≤d2)		L	ℓ	B	C	F	Set Screw		Unit Price			
Type	D									M	Tightening Torque (N・m)				
CPJK	30	BL (Blue)	10	11	12	14	35	11	10	1.5	5.5	M4	1.7		
	40	WH (White) RD (Red)	10	11	12	14	15	16	66	25	12	2	12.5	M5	4

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)	Mass (g)
Type	D	BL	WH	RD		BL	WH	RD		BL	WH	RD					
CPJ	14	0.7	1.2	2	1.0	0.15	0.10		0.10	8	14	22	45000	2.1x10 ⁻⁷		+0.6 0	7.3
	20	1.8	3	5		0.20	0.15			16	29	55	31000	1.0x10 ⁻⁶		+0.8 0	18
	30	4	7.5	12.5		0.20	0.15			46	73	130	21000	5.9x10 ⁻⁶		+1.0 0	46
	40	4.9	10	17		0.15	0.10			380	570	1200	15000	4.0x10 ⁻⁵		+1.2 0	150

⚠The allowable torque varies depending on temperature. See on [P.1062](#)

Ordering Example: Part Number - Spacer - Shaft Bore Dia. d1 - Shaft Bore Dia. d2
CPJ30 - WH - 8 - 10

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·m²)	Allowable Axial Displacement (mm)	Mass (g)
Type	D	BL	WH	RD	(°)	BL	WH	RD	BL	WH	RD				
CPJK	30	4	7.5	12.5	1.0	0.20	0.15	0.10	46	73	130	21000	5.8x10 ⁻⁶	+1.0 0	45
	40	4.9	10	17		0.15	0.10		380	570	1200	15000	3.8x10 ⁻⁵	+1.2 0	150

• Spacer is press-fitted into the body.

Keyway Dimension ⚠Applicable to CPJK only.

Shaft Bore Dia. d1, d2	b		t		Key Nominal Dim. b x h
	Reference Dia.	Tolerance	Reference Dia.	Tolerance	
10, 11, 12	4	±0.0150	1.8	+0.1	4x4
14, 15, 16	5		2.3	0	5x5

Alterations: Part Number - Spacer - Shaft Bore Dia. d1 (LDC) - Shaft Bore Dia. d2 (RDC)
CPJ14 - WH - LDC3.5 - RDC5.5

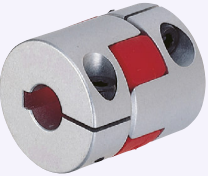
⚠Applicable to CPJ only.

Alterations	Code	Spec.
Shaft Bore Dia.	LDC (Left Shaft) RDC (Right Shaft)	0.1mm Increment Ordering Code: D LDC, RDC 14 3~6 20 5~9 30 7~14 40 10~16 ⚠Not applicable to CPJK.

Jaw Couplings

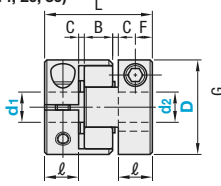
Clamping

■Features: By changing the types of spacer, allowable torque depending on application and misalignment allowable values can be selected.

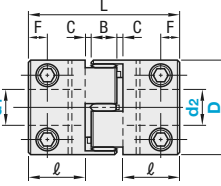


RoHS

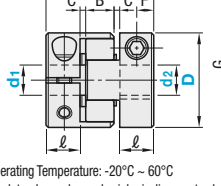
CPJC (Standard Bore)
(D=14, 20, 30)



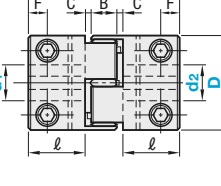
CPJC (Standard Bore)
(D=40)



CPJCK (Keywayed Bore d1, d2)
(D=30)



CPJCK (Keywayed Bore d1, d2)
(D=40)



Operating Temperature: -20°C ~ 60°C
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](#)

Parts	M Material	S Surface Treatment	A Accessory
Hub	Aluminum Alloy	Clear Anodize	Hex Socket Head Cap Screw
Spacer	Polyurethane	-	

Part Number		Spacer (Color Selection)	d1, d2 Selection (d1≤d2)										L	ℓ	B	C	F	G	Clamp Screw		Unit Price	
Type	D																		M	Tightening Torque (N·m)		
CPJC	14	BL (Blue) WH (White) RD (Red)	3	4	5						22	7	6		3.5	4	M2	0.5				
	20				5	6	6.35	7	8		30	10	8		1	5	6.5	M2.5	1			
	30							7	8	9.525	10	11	12		35	11	10	1.5	5.5	M4	2.5	
	40										10	11	12	14	15	16	66	25	12	2	8.5	14

Part Number		Spacer (Color Selection)	d1, d2 Selection (d1≤d2)								L	ℓ	B	C	F	G	Clamp Screw		Unit Price
Type	D																M	Tightening Torque (N・m)	
CPJCK	30	BL (Blue)	10	11	12						35	11	10	1.5	5.5	10	M4	2.5	
	40	WH (White) RD (Red)	10	11	12	14	15	16			66	25	12	2	8.5	14	M5	4	

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·m²)	Allowable Axial Misalignment (mm)	Mass (g)
Type	D	BL	WH	RD		BL	WH	RD	BL	WH	RD				
CPJC	14	0.7	1.2	2	1.0	0.15	0.10	0.10	8	14	22	45000	1.6x10 ⁻⁷	+0.6 0	6
	20	1.8	3	5		0.20	0.15		16	29	55	31000	1.1x10 ⁻⁶	+0.8 0	19
	30	4	7.5	12.5		0.20	0.15		46	73	130	21000	6.2x10 ⁻⁶	+1.0 0	50
	40	4.9	10	17		0.15	0.10		380	570	1200	15000	3.9x10 ⁻⁵	+1.2 0	160

⚠The allowable torque varies depending on temperature. [P.1062](#)

Ordering Example: Part Number - Spacer - Shaft Bore Dia. d1 - Shaft Bore Dia. d2
CPJC30 - BL - 10 - 11

Part Number	Allowable Torque (N·m)				Angular Misalign (°)	Lateral Misalign (mm)			Static Torsional Spring Constant (N·m/rad)			Max. Rotational Speed (r/min)	Moment of Inertia (kg·m ²)	Allowable Misalign (mm)	Mass (g)
	Type	D	BL	WH		RD	BL	WH	RD	BL	WH				
CPJCK	30	4	7.5	12.5	1.0	0.20	0.15		46	73	130	21000	4.2x10 ⁻⁶	+1.0 0	50
	40	4.9	10	17		0.15	0.10		380	570	1200	15000	3.7x10 ⁻⁵	+1.2 0	160

• Spacer is press-fitted into the body.

Keyway Dimension ⚠Applicable to CPJCK only.

b		t		Key Nominal Dim. b x h
Reference Dia.	Tolerance	Reference Dia.	Tolerance	
10, 11, 12	4	1.8	+0.1	4x4
14, 15, 16	5	2.3	0	5x5

Alterations: Part Number - Spacer - Shaft Bore Dia. d1 (LDC) - Shaft Bore Dia. d2 (RDC)
CPJC14 - WH - LDC3.5 - RDC4.5

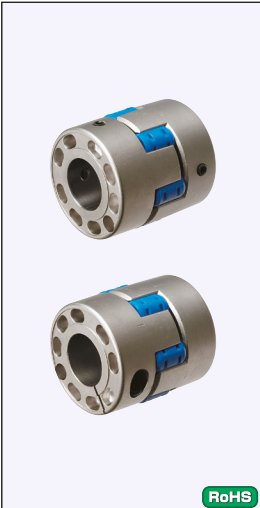
⚠Applicable to CPJC only.

Alterations	Code	Spec.
Shaft Bore Dia.	LDC (Left Shaft) RDC (Right Shaft)	0.1mm Increment Ordering Code: D LDC, RDC 14 3~5 20 5~8 30 7~12 ⚠LDC and RDC tolerance are values before slit machining. ⚠D40 cannot be changed. ⚠Not applicable to CPJCK.

Jaw Couplings

Set Screw / Clamping

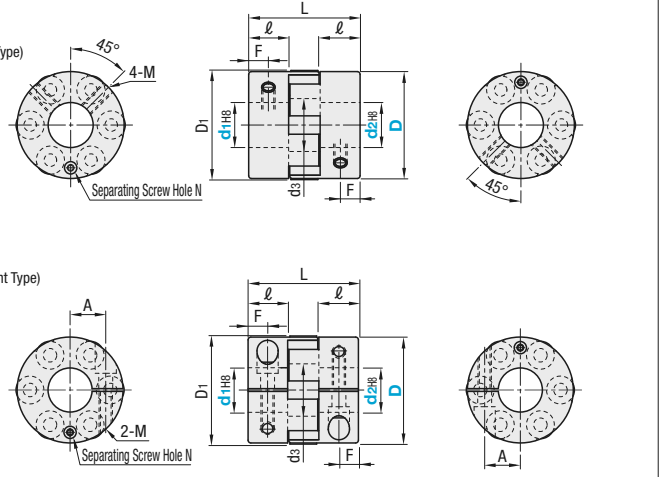
■ **Features:** Deals high torque and has significantly little backlash because the spacer is assembled by press-fitting. Suitable for transfer mechanism using servo motors, since the overall length is short and spacer absorbs the shocks of direction reversals.



■ Set Screw
MMJN (High Rigidity)
MMJP (Misalignment Tolerant Type)

■ Clamping
MMJCN (High Rigidity)
MMJCP (Misalignment Tolerant Type)

Operating Temperature: -20°C ~ 60°C
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.
For the selection criteria and alignment procedures, see **P.1061**
A separation of hub is possible by fitting commercially available bolt into the separating screw hole.



Type **Standard** **Material** **Surface Treatment** **Accessory**

		Hub	Spacer	Hub	
Set Screw	MMJN	Aluminum Diecast	Nylon (Black)	Electroless Nickel Plating	Set Screw
	MMJP		Polyurethane (Blue)		
Clamping	MMJCN	Aluminum Diecast	Nylon (Black)	Hex Socket Head Cap Screw	
	MMJCP		Polyurethane (Blue)		

Set Screw														
Part Number		d1, d2 Selection (d1≤d2)	D1	d3	L	ℓ	F	Set Screw		Separating Tap Dia. N	Unit Price			
Type	D							M	Tightening Torque (N・m)					
MMJN MMJP	55	15 16 18 20 24	56	27	60	21	10.5	M6	8	M4				
	70	18 20 24 28 30 35	72	35	75	26	13	M8	16	M5				
	95	24 28 30 35 40	97	46	100	35.5	17.5	M10	33	M6				

Clamping																
Part Number		d1, d2 Selection (d1≤d2)					D1	d3	L	ℓ	F	A	Clamp Screw		Separating Tap Dia. N	Unit Price
Type	D												M	Tightening Torque (N·m)		
MMJCN MMJCP	55	15 16 18 20 24					56	27	60	21	10.5	18.5	M6	15	M4	
	70	18 20 24 28 30 35					72	35	75	26	13	24	M8	32	M5	
	95	24 28 30 35 40					97	46	100	35.5	17.5	32	M10	65	M6	

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·m²)	Allowable Axial Misalignment (mm)	Mass (g)
MMJN	55	80	1	0.1	8000	11000	1.0x10 ⁻⁴	±0.5	300
	70	120			11000	8000	4.0x10 ⁻⁴	±0.7	600
	95	180	0.15		20000	6000	1.0x10 ⁻³	±1.0	1200

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·m²)	Allowable Axial Misalignment (mm)	Mass (g)
MMJCN	55	80	1	0.1	8000	8000	1.0x10 ⁻⁴	±0.5	300
	70	120			11000	6000	4.0x10 ⁻⁴	±0.7	600
	95	180	0.15		20000	4000	1.0x10 ⁻³	±1.0	1200

⚠ The allowable torque varies depending on temperature. See **P.1062**

Part Number	Alterations	Part Number	Alterations
MMJN55	- LDC19 - RDC22		

Keyway		Shaft Bore Dia.		Keyway Width	
MMJN MMJP	MMJCN MMJCP	LDC RDC	LDC RDC	KLH KRH	KLH KRH
Ordering Code		Ordering Code		Ordering Code	
LK5 RK5		LDC19 RDC21		KLH10 KRH10	
Shaft Dia. d1, d2		Shaft Dia. d1, d2		Shaft Dia. d1, d2	
15, 16		15, 16		15, 16	
18, 20		18, 20		18, 20	
24~30		24~30		24~30	
35		35		35	
40		40		40	

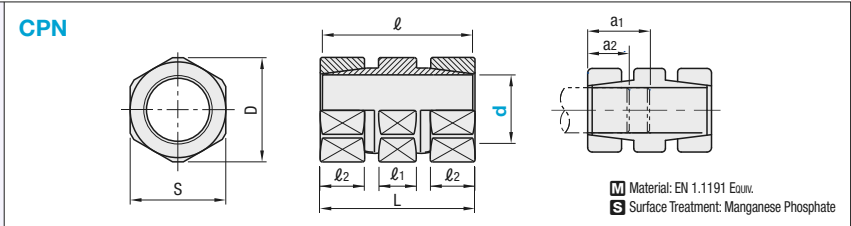
Keyway Dimension		Keyway Dimension	
LK	b	KLH	t
15, 16	5	15, 16	2.3
18, 20	6	18, 20	2.8
24~30	8	24~30	3.3
35	10	35	4.0
40	12	40	5.0

N Coupling / Chain Coupling

■ **Features:** Easy to tighten the shaft by nut alone, and able to handle thrust load.



■ N Coupling



CPN

Material: EN 1.1191 Equiv.
Surface Treatment: Manganese Phosphate

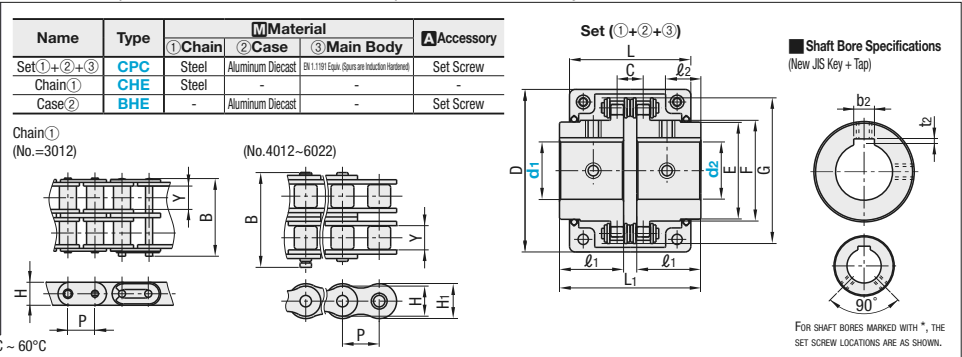
Part Number	Type	S	D	ℓ	ℓ1	ℓ2	L	Shaft Insertion Depth (mm)		Tightening Torque (N·m)	Moment of Inertia GD² (kg·m²)	Allowable Torque (N·m)	Max. Allowable Thrust (N)	Mass (g)	Unit Price
								Standard a1	Minimum a2						
CPN	6	12	13	20.5	5.5	5.5	21.5	10.25	7.5	11.8	4.24x10 ⁻⁶	7.8	833	13	
	7	14	15	20.5	5.5	5.5	21.9	10.25	7.5	12.7	5.25x10 ⁻⁷	8.8	981	17.5	
	8	14	15	21	6	6	23	10.5	7.5	13.7	8.25x10 ⁻⁷	9.8	1128	18	
	9	17	18.5	23.5	6.5	7	25.5	11.75	8.5	15.7	1.98x10 ⁻⁶	11.8	1520	30	
	10	17	18.5	25.4	7	7.5	27.4	12.7	9.2	19.6	2.08x10 ⁻⁶	15.7	1804	30	
	11	19	21	29	8	9	31	14.5	10.5	24.5	3.75x10 ⁻⁶	19.6	1912	43	
	12	19	21	30	8	9	32	15	11	29.4	3.75x10 ⁻⁶	37.3	2010	41	
	14	22	24.6	34	9	10	36	17	12.5	34.3	7.50x10 ⁻⁶	41.2	2442	60	
	15	23	25	37.5	9.5	11.5	39.5	18.75	14	39.2	1.00x10 ⁻⁵	49	2942	75	
	16	24	26	39	10	12	41	19.5	14.5	49	1.45x10 ⁻⁵	54.9	3275	100	
	17	26	28.5	41	11	12.5	43	20.5	15	53.9	1.93x10 ⁻⁵	60.8	3687	115	
	18	27	30	43	12	12.5	45	21.5	15.5	58.8	2.48x10 ⁻⁵	68.6	3942	130	
	19	29	32	45	12	13.5	47	22.5	16.5	63.7	3.25x10 ⁻⁵	75.5	4364	150	
	20	30	32.5	48	13	14.5	50	24	17.5	68.6	3.50x10 ⁻⁵	88.2	4952	160	
	22	32	35	50	14	15	52	25	18	78.4	5.00x10 ⁻⁵	103	5491	190	
	24	35	38.5	52	14	16	54	26	19	83.3	7.25x10 ⁻⁵	123	6080	230	
	25	36	40	55	15	17	57	27.5	20	88.2	9.00x10 ⁻⁵	157	7159	260	
	30	41	45	63	17	17	65	31.5	23	127	8.75x10 ⁻⁵	177	11768	350	
	35	46	51	69	19	19	71	34.5	25	167	1.55x10 ⁻⁴	206	11768	480	

Ordering Example	Part Number
	CPN10

■ **Features:** Dual row roller chains and sprockets construction has excellent torque transmission efficiency.



■ Chain Coupling



Set (①+②+③)

For shaft bores marked with *, the set screw locations are as shown.

Part Number		d1, d2 Selection (d1≤d2)										Mass (kg)	D	E	F	G	L1	ℓ1	ℓ2	C	Max. Rotational Speed (r/min)	Allowable Torque (N·m) at less than 50rpm	Unit Price	
Type	No.																							
CPC (①+②+③)	3012	14'	16'									0.6	69	25	26.5	45	64.8	29.8	16	10.2	250	100		
	4012	14	15	16	17	18	19	20	22"			0.9	77	33	36	62	79.4	36	17	14.4	250	218		
	4014	17	18	19	20	22	24	25	28	30"	30"	1.2	84	43	45	69	79.4	36	17	14.4	200	296		
	4016	19	20	22	24	25	28	30	32			1.7	92	48	51	77	87.4	40	23	14.4	200	386		
	5014	20	22	24	25	28	30	32	35			2.3	101	53	56	86	99.7	45	24	18.1	150	563		
	5016	22	24	25	28	30	32	35	38	40		3.1	111	60	63	96	99.7	45	24	18.1	150	735		
	5018	30	32	35	38	40	42	45				3.8	122	70	73	106	99.7	45	24	18.1	150	931		
	6018	40	42	45	48	50	55					7.0	142	85	88	127	123.5	56	28	22.8	100	1,754		
	6022	48	50	55								11.7	168	110	115	152	123.5	56	28	22.8	100	2,372		

Part Number		Chain only						Unit Price
Type	No.	Number of Links	P	H	H1	B	Y	
CHE (① Chain only)	3012	12	9.525	8.1	8.1	23.85	5.72	0.1
	4012	12	12.70	10.41	12.06	32.78	7.90	0.2
	4014	14	12.70	10.41	12.06	32.78	7.90	0.2
	4016	16	12.70	10.41	12.06	32.78	7.90	0.3
	5014	14	15.875	13.01	15.08	41.45	9.54	0.4
	5016	16	15.875	13.01	15.08	41.45	9.54	0.5
	5018	18	15.875	13.01	15.08	41.45	9.54	0.6
	6018	18	19.05	15.64	18.09	52.30	12.7	1.0
	6022	22	19.05	15.64	18.09	52.30	12.7	1.3

Part Number		Case only						Unit Price
Type	No.	D	L	Mass (kg)				
BHE (② Case only)	3012	69	63	0.3				
	4012	77	72	0.3				
	4014	84	75	0.4				
	4016	92	75	0.4				
	5014	101	85	0.5				
	5016	111	85	0.6				
	5018	122	85	0.8				
	6018	142	106	1.2				
	6022	168	117	1.8				

||
||
||

Rigid Couplings

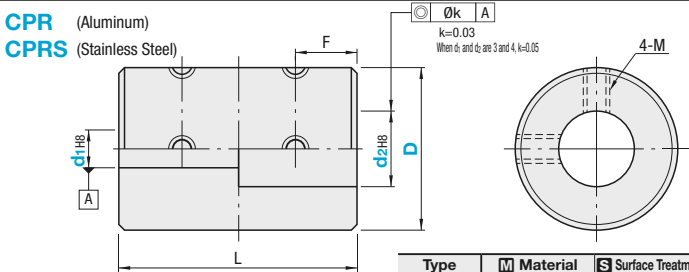
Set Screw, Clamping

The rigid type cannot tolerate any lateral and angular misalignments. Adequate centering is required before use.



Set Screw

CPR (Aluminum)
CPRS (Stainless Steel)



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

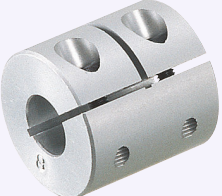
RoHS

Type	M	Material	S	Surface Treatment	A	Accessory
CPR		Aluminum Alloy		Clear Anodize		Set Screw
CPRS		Stainless Steel		-		

Part Number	Type	D	d1, d2 Selection (d1≤d2)				L	M	F	Unit Price	
			3	4	5	6				CPR	CPRS
CPR (Aluminum)	16	20	3	4	5	6	24	M3	6		
			5	6	8	10	30		7		
CPRS (Stainless Steel)	25	32	8	10	11	12	36	M4	9		
			12	14	15	16	41		10		
CPR (Aluminum)	40		15	16	18	20	44	M5	10.5		-

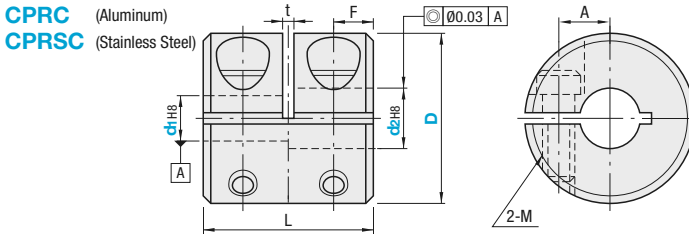
Part Number	Allowable Torque (N·m)	Max. Rotational Speed (r/min)	Moment of Inertia (kg·m²)	Screw Tightening Torque (N·m)	Mass (g)
CPR (Aluminum)	16 0.3	24000	4.4x10 ⁻⁷	0.7	11
	20 0.5	19000	1.3x10 ⁻⁶		20
	25 1	15000	3.9x10 ⁻⁶	1.7	39
	32 2	12000	1.2x10 ⁻⁵	4	71
	40 4	4000	1.5x10 ⁻⁵		120
CPRS (Stainless Steel)	16 0.3	24000	1.2x10 ⁻⁶	0.7	28
	20 0.5	19000	3.5x10 ⁻⁶		54
	25 1	15000	1.0x10 ⁻⁵	1.7	100
	32 2	12000	3.1x10 ⁻⁵		190

Recommended Tolerance of Applicable Shaft Diameter: h6 and h7



Clamping

CPRC (Aluminum)
CPRSC (Stainless Steel)



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

RoHS

Type	M	Material	S	Surface Treatment	A	Accessory
CPRC		Aluminum Alloy		Clear Anodize		Hex Socket Head Cap Screw
CPRSC		Stainless Steel		-		

Part Number	Type	D	d1, d2 Selection (d1≤d2)				L	M	A	t	F	Unit Price	
			5	6	8	10						CPRC	CPRSC
CPRC (Aluminum)	16	20	5	6			16	M2.5	5	1	3.75		
			6	8			20		6.5		4.75		
CPRSC (Stainless Steel)	25	32	8	10			25	M3	9		6		
			10	12	14		32		11		7.75		
CPRC (Aluminum)	40	50	14	15	16	18	44	M5	13	1.5	10.5		-
			18	20	24		55		16	2	13		-

Part Number	Allowable Torque (N·m)	Max. Rotational Speed (r/min)	Moment of Inertia (kg·m²)	Screw Tightening Torque (N·m)	Mass (g)
CPRC (Aluminum)	16 0.3	9500	3.0x10 ⁻⁷	1	9
	20 0.5	7600	8.7x10 ⁻⁷		15
	25 1	6100	2.7x10 ⁻⁶	1.5	29
	32 2	4800	7.1x10 ⁻⁶	2.5	61
	40 4	4000	1.5x10 ⁻⁵	7	120
CPRSC (Stainless Steel)	16 0.3	9500	8.0x10 ⁻⁷	1	22
	20 0.5	7600	2.4x10 ⁻⁶		41
	25 1	6100	7.3x10 ⁻⁶	1.5	80
	32 2	4800	2.5x10 ⁻⁵	2.5	160

Ordering Example: **Part Number** - Shaft Bore Dia. d1 - Shaft Bore Dia. d2
CPRC25 - 8 - 10

Rigid Couplings

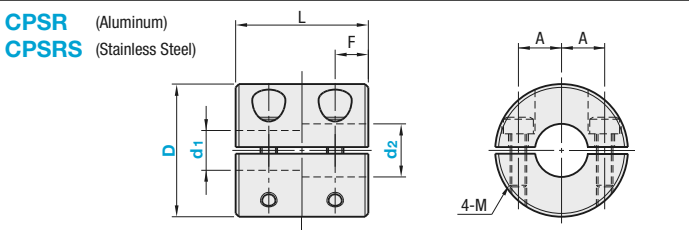
Split, Clamping Long

The rigid type cannot tolerate any lateral and angular misalignments. Adequate centering is required before use.



Split

CPSR (Aluminum)
CPSRS (Stainless Steel)



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

RoHS

Type	M	Material	S	Surface Treatment	A	Accessory
CPSR		Aluminum Alloy		Clear Anodize		Hex Socket Head Cap Screw
CPSRS		Stainless Steel		-		

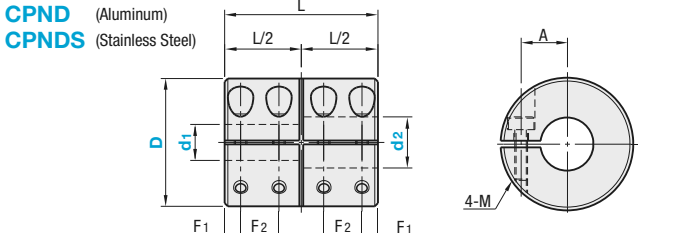
Part Number	Type	D	d1, d2 Selection (d1≤d2)				L	F	A	M	Unit Price	
			5	6	8	10					CPSR	CPSRS
CPSR (Aluminum)	16	20	5	6			16	3.75	5	M2.5		
			6	8			20	4.75	6.5			
CPSRS (Stainless Steel)	25	32	8	10			25	6	9	M3		
			10	12	14		32	7.75	11			

Part Number	Allowable Torque (N·m)	Max. Rotational Speed (r/min)	Moment of Inertia (kg·m²)	Screw Tightening Torque (N·m)	Mass (g)
CPSR (Aluminum)	16 0.3	39000	3.2x10 ⁻⁷	1	8.8
	20 0.5	31000	8.7x10 ⁻⁷		15
	25 1	25000	2.7x10 ⁻⁶	1.5	29
	32 2	19000	9.3x10 ⁻⁶	2.5	61
CPSRS (Stainless Steel)	16 0.3	39000	8.2x10 ⁻⁷	1	22
	20 0.5	31000	2.4x10 ⁻⁶		41
	25 1	25000	7.3x10 ⁻⁶	1.5	80
	32 2	19000	2.5x10 ⁻⁵	2.5	160



Clamping Long

CPND (Aluminum)
CPNDS (Stainless Steel)



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

RoHS

Type	M	Material	S	Surface Treatment	A	Accessory
CPND		Aluminum Alloy		Clear Anodize		Hex Socket Head Cap Screw
CPNDS		Stainless Steel		-		

Part Number	Type	D	d1, d2 Selection (d1≤d2)				L	F1	F2	A	M	Unit Price	
			5	6	8	10						CPND	CPNDS
CPND (Aluminum)	16	20	5	6			22	2.5	5.5	5	M2		
			6	8			24		6	7			
CPNDS (Stainless Steel)	25	32	8	10			36	4.5	9	9	M2.5		
			10	12	14		40	4	10	11			

Part Number	Allowable Torque (N·m)	Max. Rotational Speed (r/min)	Moment of Inertia (kg·m²)	Screw Tightening Torque (N·m)	Mass (g)
CPND (Aluminum)	16 0.3	39000	3.4x10 ⁻⁷	0.5	10
	20 0.5	31000	9.2x10 ⁻⁷		18
	25 1	25000	3.4x10 ⁻⁶	1	38
	32 2	19000	1.0x10 ⁻⁵	1.5	70
CPNDS (Stainless Steel)	16 0.3	39000	8.9x10 ⁻⁷	0.5	25
	20 0.5	31000	2.5x10 ⁻⁶		45
	25 1	25000	9.2x10 ⁻⁶	1	100
	32 2	19000	2.7x10 ⁻⁵	1.5	180

Ordering Example: **Part Number** - Shaft Bore Dia. d1 - Shaft Bore Dia. d2
CPSR25 - 8 - 10

Universal Joints

Set Pin

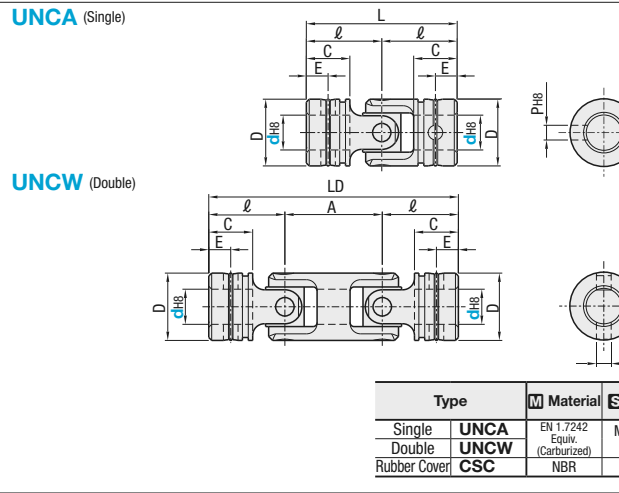
■ **Features:** A coupling in which connecting angle can be changed in any manner.



UNCA (Single)

UNCW (Double)

RoHS



• Rubber Cover
CSC (for Single)

Operating Ambient Temperature: -20°C ~ 100°C

JIS B1454 C Type (UNCA)
JIS B1454 CC Type (UNCW)

Type	M Material	S Surface Treatment	A Accessory
Single	UNCA	EN 1.7242 Equiv. (Carburized)	Manganese Phosphate Coating
Double	UNCW		Strong Set Pin (Tolerance m6) 2 pcs. Ring Snap Pin 2 pcs.
Rubber Cover	CSC	NBR	Ring Spring 2 pcs.

Universal Joints

Part Number	Type	d	D	Single		Double		ℓ	C	E	P	Unit Price	
				L	LD	A						UNCA	UNCW
UNCA (Single)	6	12	31	-	-	-	-	15.5	9	4.5	3		
	8	15	36	-	-	-	-	18	10	5	3.5		
	10	20	42	67.5	25.5	21	12	6	4.5				
	12	23	52	83	31	26	15	7.5	5				
	14	26	59	94.5	35.5	29.5	17	8.5	5.8				
	16	30	74	117.5	43.5	37	22	11	6.5				
	18	33	81	-	-	40.5	23.5	11.75	7				
	20	36	87	139	52	43.5	25	12.5	8				
	25	44	105	-	-	52.5	30	15	10				
	30	51	122	-	-	61	35	17.5	11.5				
UNCW (Double)	6	12	31	-	-	-	-	15.5	9	4.5	3		
	8	15	36	-	-	-	-	18	10	5	3.5		
	10	20	42	67.5	25.5	21	12	6	4.5				
	12	23	52	83	31	26	15	7.5	5				
	14	26	59	94.5	35.5	29.5	17	8.5	5.8				
	16	30	74	117.5	43.5	37	22	11	6.5				
	18	33	81	-	-	40.5	23.5	11.75	7				
	20	36	87	139	52	43.5	25	12.5	8				
	25	44	105	-	-	52.5	30	15	10				
	30	51	122	-	-	61	35	17.5	11.5				

Rubber Cover

Part Number	Type	d	KC	Unit Price
CSC (Single)	8	25		
	10	32		
	12	35		
	14	40		
	16	46		
	18	52		
	20	58		
	25	68		
	30	82		

* No rubber covers are available for d=6.

Part Number		UNCA, UNCW Common				UNCA				UNCW			
Type	d	Condition Variable	Allowable Rotational Speed (r/min)	Allowable Operating Angle (°)	Static Tensile Failure Load (N)	Allowable Torque (N · m)	Static Failure Torque (N · m)	GD² (kg · cm²)	Mass (g)	Allowable Torque (N · m)	Static Failure Torque (N · m)	GD² (kg · cm²)	Mass (g)
UNCA (Single)	6	28000	1800	30(*)	5300	5.3	16	0.015	15	-	-	-	-
	8	42000	1500		7840	11.6	35	0.044	30	-	-	-	-
	10	70000	1300		13000	27.4	83	0.13	55	20.1	61	0.21	95
	12	106000	1100		23000	46	140	0.35	110	33	100	0.55	180
	14	133000	1000		26000	66	200	0.67	155	46	140	1	250
	16	175000	900		39000	102	310	1.5	260	76	230	2.3	410
	18	203000	800		44000	132	400	2.3	345	-	-	-	-
	20	239000	700		52000	175	530	3.6	465	129	390	5.7	690
	25	356000	600		81000	330	1000	9.7	790	-	-	-	-
	30	465000	550		100000	495	1500	20	1160	-	-	-	-
UNCW (Double)	6	28000	1800	30(*)	5300	5.3	16	0.015	15	-	-	-	-
	8	42000	1500		7840	11.6	35	0.044	30	-	-	-	-
	10	70000	1300		13000	27.4	83	0.13	55	20.1	61	0.21	95
	12	106000	1100		23000	46	140	0.35	110	33	100	0.55	180
	14	133000	1000		26000	66	200	0.67	155	46	140	1	250
	16	175000	900		39000	102	310	1.5	260	76	230	2.3	410
	18	203000	800		44000	132	400	2.3	345	-	-	-	-
	20	239000	700		52000	175	530	3.6	465	129	390	5.7	690
	25	356000	600		81000	330	1000	9.7	790	-	-	-	-
	30	465000	550		100000	495	1500	20	1160	-	-	-	-

⚠ For Double Type, Allowable Operating Angle (°) on one end



Ordering Example

Part Number

UNCA16

CSC16

How to Select

① Conditional Variables (Formula)

$$\text{Calculation Condition Variable} = \frac{\text{Rotational Speed (r/min)}}{\text{Angle (°)}} \times \text{Torque (N · m)}$$

$$\text{Calculation Condition Variable} < \text{Allowable Condition Variable}$$

② Rotational Speed (r/min)

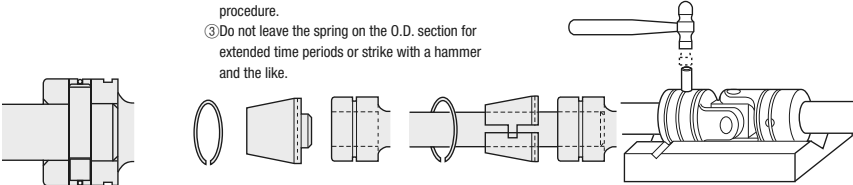
$$\text{Rotational Speed} \times \text{Angle Factor} < \text{Allowable Speed}$$

=Angle Factor Table=

Angle	5° or Less	10°	15°	20°	25°	30°
Angle Coefficient	1.00	1.05	1.18	1.43	1.82	2.50

High Strength Dowel Pins

- ① Material EN 1.7242 Equiv. is carburized and ground to an m6 tolerance.
- ② Effective section is shouldered as shown and tightly engaged only on one side.
- ③ Small misalignment is allowed on the mating side hole, but should be finished to an H8 tolerance.



Universal Joints

Keyway / Tapped

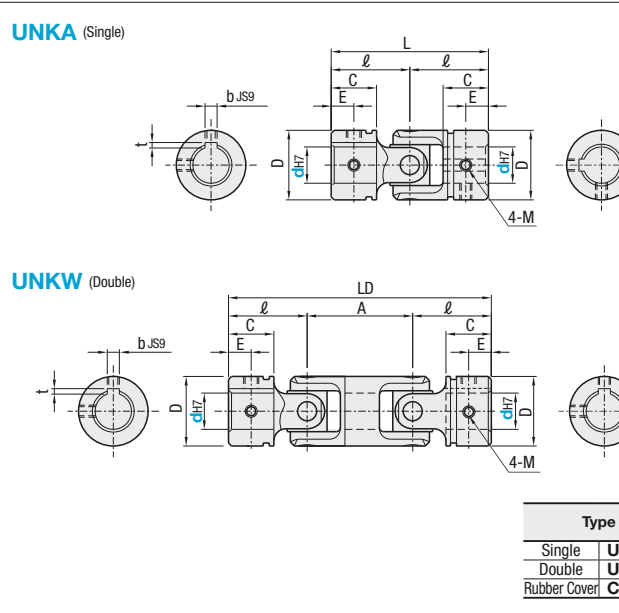
■ **Features:** Shaft does not require pin hole machining, and keyway alone can tighten it.



UNKA (Single)

UNKW (Double)

RoHS



• Rubber Cover
CSC (for Single)

Operating Ambient Temperature: -20°C ~ 100°C

JIS B1454 C Type (UNKA)
JIS B1454 CC Type (UNKW)

Type	M Material	S Surface Treatment
Single	UNKA	EN 1.7242 Equiv. (Carburized)
Double	UNKW	Manganese Phosphate Coating
Rubber Cover	CSC	NBR

Universal Joints

Part Number	Type	d	D	Single		Double		ℓ	C	E	b	t	M (Coarse)	Unit Price	
				L	LD	A								UNKA	UNKW
UNKA (Single)	10	19	42	67.5	25.5	21	12	6	3	1.4	M5				
	12	23	52	83	31	26	15	7.5	4	1.8	M5				
	14	26	59	94.5	35.5	29.5	17	8.5	5	2.3	M6				
	16	30	74	117.5	43.5	37	22	11	5	2.3	M6				
	20	36	87	139	52	43.5	25	12.5	6	2.8	M6				
UNKW (Double)	10	19	42	67.5	25.5	21	12	6	3	1.4	M5				
	12	23	52	83	31	26	15	7.5	4	1.8	M5				
	14	26	59	94.5	35.5	29.5	17	8.5	5	2.3	M6				
	16	30	74	117.5	43.5	37	22	11	5	2.3	M6				
	20	36	87	139	52	43.5	25	12.5	6	2.8	M6				

Part Number		UNKA, UNKW Common				UNKA				UNKW			
Type	d	Condition Variable	Allowable Rotational Speed (r/min)	Allowable Operating Angle (°)	Static Tensile Failure Load (N)	Allowable Torque (N · m)	Static Failure Torque (N · m)	GD² (kg · cm²)	Mass (g)	Allowable Torque (N · m)	Static Failure Torque (N · m)	GD² (kg · cm²)	Mass (g)
UNKA (Single)	10	80000	2000	30(*)	13000	27.4	83	0.13	55	20.1	61	0.21	95
	12	121000	1800		23000	46	140	0.35	110	33	100	0.55	180
	14	151000	1600		26000	66	200	0.67	155	46	140	1	250
	16	200000	1400		39000	102	310	1.5	260	76	230	2.3	410
UNKW (Double)	20	273000	1000		52000	175	530	3.6	465	129	390	5.7	690

⚠ For Double Type, Allowable Operating Angle (°) on one end

Rubber Cover

Part Number		KC	Unit Price
Type	d		
CSC (Single)	10	32	
	12	35	
	14	40	
	16	46	
	20	58	



Ordering Example

Part Number

UNKA16

CSC12

How to Select

① Conditional Variables (Formula)

$$\text{Calculation Condition Variable} = \frac{\text{Rotational Speed (r/min)}}{\text{Angle (°)}} \times \text{Torque (N · m)}$$

$$\text{Calculation Condition Variable} < \text{Allowable Condition Variable}$$

② Rotational Speed (r/min)

$$\text{Rotational Speed} \times \text{Angle Factor} < \text{Allowable Speed}$$

=Angle Factor Table=

Angle	5° or Less	10°	15°	20°	25°	30°
Angle Coefficient	1.00	1.05	1.18	1.43	1.82	2.50

Bellows Couplings

Set Screw / Clamping

■ **Features:** Suitable for encoders because of its speed constancy even with misalignment. Allowable axial misalignment is big and can absorb the shaft length changes caused by temperature changes in the shaft.



Set Screw
CPB (Aluminum)
CPBS (Stainless Steel)

Clamping
CPBC (Aluminum)
CPBSC (Stainless Steel)

4-M
When d1 and d2 are both less than 4mm, there are 2 set screws.

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.
For the selection criteria and alignment procedures, see **P1061**

RoHS

Parts

	Hub	Bellow	Accessory
	M Material	S Surface Treatment	M Material
CPB, CPBC	Aluminum Alloy	Clear Anodize	Phosphor Bronze
CPBS, CPBSC	Stainless Steel	-	Stainless Steel

CPB, CPBS Set Screw
CPBC, CPBSC Hex Socket Head Cap Screw

Part Number		d1, d2 Selection (d1≤d2)					L	ℓ	F	Set Screw		Unit Price	
Type	D									M	Tightening Torque (N·m)	CPB	CPBS
Set Screw CPB CPBS	12	3	4	5	6		23.5	7.5	2.5	M2.5	0.5		
	16		4	5	6	8	26.5	9	3				
	*20			5	6	8	33(32)	10	3.5	M3	0.7		
	25				6	8	36.5	12	4.5				
	32					10	42	13.5	5.5	M4	1.7		
					6	8							

* Overall length of CPBS20 is 32.

Part Number		d1, d2 Selection (d1≤d2)					L	ℓ	F	G	Clamp Screw		Unit Price	
Type	D										M	Tightening Torque (N·m)	CPBC	CPBSC
Clamping CPBC CPBSC	12	4	5				23.5	7.5	2.3	4	M2	0.5		
	16		5	6			26.5	9	3	5				
	*20			6	8		33(32)	10	3.5	6.5	M2.5	1		
	25				8	10	36.5	12	4.5	9	M3	1.5		
	32				8	10	42	13.5	5	11	M4	2.5		

* Overall length of CPBSC20 is 32.

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)	Mass (g)
CPB (Aluminum)	12 0.3	1.5	0.10	82	52000	9.0x10 ⁻⁸	+0.4	4
	16 0.5			110	39000	3.5x10 ⁻⁷	-1.2	9
	20 0.8	2	0.15	180	31000	9.9x10 ⁻⁷	+0.6	16
	25 1.3			240	25000	3.1x10 ⁻⁶	-1.8	32
	32 2	0.20	0.20	330	19000	9.2x10 ⁻⁶	+9.8	57
CPBS (Stainless Steel)	12 0.5	1.5	0.10	100	52000	2.1x10 ⁻⁷	+0.4	9
	16 1			150	39000	8.0x10 ⁻⁷	-1.2	20
	20 1.5	2	0.15	220	31000	2.3x10 ⁻⁶	+0.6	37
	25 2			330	25000	7.0x10 ⁻⁶	-1.8	73
	32 3	0.20	0.20	490	19000	2.1x10 ⁻⁵	+9.8	130
CPBC (Aluminum)	12 0.3	1.5	0.10	82	52000	9.7x10 ⁻⁸	+0.4	4
	16 0.5			110	39000	3.7x10 ⁻⁷	-1.2	10
	20 0.8	2	0.15	180	31000	1.0x10 ⁻⁶	+0.6	16
	25 1.3			240	25000	3.1x10 ⁻⁶	-1.8	32
	32 2	0.20	0.20	330	19000	9.6x10 ⁻⁶	+9.8	58
CPBSC (Stainless Steel)	12 0.5	1.5	0.10	100	52000	2.1x10 ⁻⁷	+0.4	9
	16 1			150	39000	8.1x10 ⁻⁷	-1.2	22
	20 1.5	2	0.15	220	31000	2.3x10 ⁻⁶	+0.6	38
	25 2			330	25000	6.9x10 ⁻⁶	-1.8	74
	32 3	0.20	0.20	490	19000	2.1x10 ⁻⁵	+9.8	130

Ordering Example

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

CPB20 - 6 - 8

Keyway Dimension

Shaft Bore Dia. d1, d2

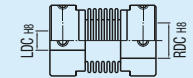
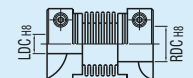
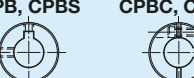
b	t	Key Nominal Dim. b, t
8, 10	3	3x3
12	4	4x4
14	5	5x5

Alterations

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

CPB16 - LDC5.5 - RDC6.5 - (LK, RK)

CPBSC32 - 10 - 12 - LK4

Type	CPB, CPBS	CPBC, CPBSC	CPB, CPBS, CPBC, CPBSC
Alterations	Shaft Bore Dia.	Shaft Bore Dia.	Keyway
Spec.	 0.1mm Increment Ordering Code LDC7.5 RDC9.5	 0.1mm Increment Ordering Code LDC7.5 RDC9.5	 Ordering Code LK5 RK3 For keyway dimensions, refer to the above. Keyway machining is available for Ø8-.
	D LDC, RDC 12 3.0~ 6.0 16 4.0~ 8.0 20 5.0~10.0 25 6.0~12.0 32 6.0~14.0	D LDC, RDC 12 4.0 ~ 5.0 16 5.0 ~ 6.3 20 6.0 ~ 8.0 25 6.35~10.0 32 8.0 ~14.0	Shaft Dia. d1, d2 LK, RK 8, 10 3 12 4 14 5
Code	LDC (Left Shaft) RDC (Right Shaft)	LDC (Left Shaft) RDC (Right Shaft)	LK (Left Shaft) RK (Right Shaft)

Plastic Coupling

Set Screw, Short

■ **Features:** Economical couplings for low torque applications. Suitable for encoders and potentiometers where little torque is required.



MCJN

MCJSN (Short)

Operating Temperature: -20°C ~ 80°C
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 **P1061**.

RoHS

Type

Type	Material	Accessory
MCJN	Glass Fiber Reinforced PBT Resin	Set Screw
MCJSN	PBT Resin	

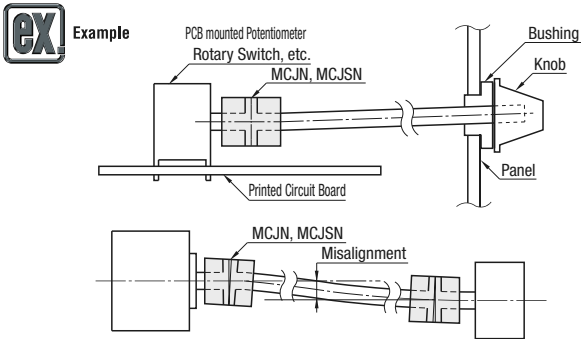
Part Number		d1	d2	D	L	ℓ	F	Set Screw		Unit Price
Type	No.							M x Length	Tightening Torque (N·m)	
MCJN	9	1.5	1.5	9	11.4	3.2	1.6	M2x4	0.08	
	10	2	2	10	13.2					
	12	2.5	2.5	12	11.8	5.1	1.7	M3x4	0.15	
	14	3	3	13.5	21	5.3	2.7	M3x5	0.2	
	15	3	3	15	20.5					
	16	3	3	16	21	5.5			0.25	
	20	4	4	20	24	6.8	3.5	M4x6	0.4	
	22	5	5	22	25.6	7.1	3.6		0.5	
	28	10	10	28	34.4	7.5	3.9	M4x8	0.8	

Part Number		d1	d2	D	L	ℓ	F	Set Screw		Unit Price
Type	No.							M x Length	Tightening Torque (N·m)	
MCJSN	8	2	2	8	9	3.2	1.6	M2x3	0.05	
	12	2.5	2.5	12	14.5	5.3			0.18	
	14	3.2	3.2		14.2					
	14	4	4	14	15	5.2	2.6	M3x4	0.2	
	15	5	5							
	15	6	6	15	15.5	5.5	2.8			
	18	8	8	18	17.8	5.5	2.6	M3x5	0.25	

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)	Mass (g)
MCJN	9 0.05	2	0.15	1.5	4000	1x10 ⁻⁶	±0.2	0.9
	10 0.06			2	4000	1.4x10 ⁻⁶		1.1
	12 0.08			4	4000	4.5x10 ⁻⁶		2.5
	14 0.1	2.5	0.2	10	5000	0.8x10 ⁻⁷		3.4
	15 0.12			12	5000	1x10 ⁻⁷		4
	16 0.15			16	6000	1.3x10 ⁻⁷	±0.3	4.5
	20 0.25			28	8000	4x10 ⁻⁷		7.5
	22 0.35			32	10000	7x10 ⁻⁷		10
	28 0.8	2		40	12000	2.1x10 ⁻⁶		19
MCJSN	8 0.05	2	0.05	1.8	4000	0.5x10 ⁻⁶	±0.15	0.7
	12 0.1			2	4000	0.4x10 ⁻⁷		2.3
	14 0.15		0.1	8	5000	0.6x10 ⁻⁷	±0.2	2.7
	15 0.15			9	6000	0.8x10 ⁻⁷		3
	18 0.2		0.15	16	6000	2.5x10 ⁻⁷	±0.3	4

Precautions for Use

- Avoid rough handling. The couplings are highly reliable in light loading applications. They are suitable for potentiometers and encoders.
- Do not apply excessive bending and torsional forces during installation. Be sure to maintain **tightening torque for set screws**. (Resin material breaks if the tightening torque exceeds the allowable range)
- The couplings have been proven with heat-run tests that show 10 years of service life and 10⁸ revolutions if used at under the allowable torque and misalignment values.



(Note)1. For small misalignment, use one MCJ Series for connection.
2. For big misalignment, use two MCJ Series for connection.