


Couplings

Rigid Separate / Rigid Clamping Long

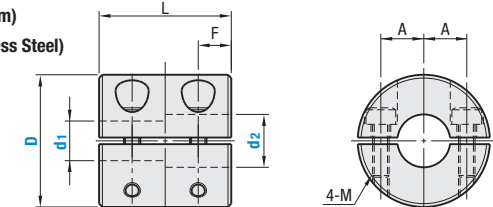
⚠ The Rigid Type cannot tolerate any lateral and angular misalignments. Adequate centering is required before use.

Couplings – Rigid Separate



RoHS 10

CPSR (Aluminum)
CPSRS (Stainless Steel)




Type	Material	Surface Treatment	Accessories
CPSR	Aluminum Alloy	Clear Anodize	Hex Socket Head Cap Screw
CPSRS	Stainless Steel	—	—

⚠ For the selection criteria and alignment procedures, see P.1091, 1093.

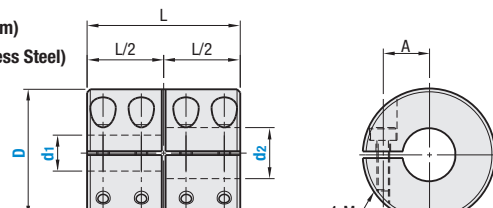
Part Number	Type	D	d ₁ , d ₂ (d ₁ ≠d ₂)		L	F	A	M	Part Number	Type	D	Allowable Torque (N-m)	Max. Rotational Speed (r/min)	Moment of Inertia (Kg-m ²)	Thread Tightening Torque (N-m)	Mass (g)									
			d ₁	d ₂													Part Number	Type	D						
CPSR (Aluminum)		16	5	6	16	3.75	5	M2.5	CPSR	(Aluminum)	16	0.3	39000	3.2 x 10 ⁻⁷	1	8.8									
																	20	6	8	20	0.5	31000	8.7 x 10 ⁻⁷	1.5	29
																	25	8	10	25	1	25000	2.7 x 10 ⁻⁶	2.5	61
CPSRS (Stainless Steel)		32	10	12	32	7.75	11	M4	CPSRS	(Stainless Steel)	16	0.3	39000	8.2 x 10 ⁻⁷	1	22									
																	20	0.5	31000	2.4 x 10 ⁻⁶	41				
																	25	1	25000	7.3 x 10 ⁻⁶	80				
																	32	2	19000	2.5 x 10 ⁻⁵	160				

Couplings – Rigid Clamping Long



RoHS 10

CPND (Aluminum)
CPNDS (Stainless Steel)



Type	Material	Surface Treatment	Accessories
CPND	Aluminum Alloy	Clear Anodize	Hex Socket Head Cap Screw
CPNDS	Stainless Steel	—	—

⚠ For the selection criteria and alignment procedures, see P.1091, 1093.

Part Number	Type	D	d ₁ , d ₂ (d ₁ ≠d ₂)		L	F ₁	F ₂	A	M	Part Number	Type	D	Allowable Torque (N-m)	Max. Rotational Speed (r/min)	Moment of Inertia (Kg-m ²)	Thread Tightening Torque (N-m)	Mass (g)									
			d ₁	d ₂														Part Number	Type	D						
CPND (Aluminum)		16	5	6	22	2.5	5.5	5	M2	CPND	(Aluminum)	16	0.3	39000	3.4 x 10 ⁻⁷	0.5	10									
																		20	6	8	24	1	25000	3.4 x 10 ⁻⁶	1	38
																		32	10	12	40	2	19000	1.0 x 10 ⁻⁵	1.5	70
CPNDS (Stainless Steel)		32	10	12	36	4.5	9	9	M2.5	CPNDS	(Stainless Steel)	16	0.3	39000	8.9 x 10 ⁻⁷	0.5	25									
																		20	0.5	31000	2.5 x 10 ⁻⁶	45				
																		25	1	25000	9.2 x 10 ⁻⁶	100				
																		32	2	19000	2.7 x 10 ⁻⁵	180				

Part Number Example

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


CPSR25 - 8 - 10

Couplings

Bellow Set Screw / Clamping

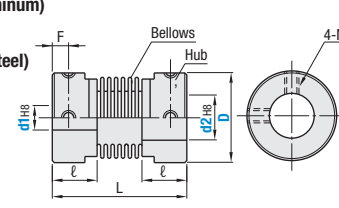
Features: Suitable for encoders because of its speed consistency even with misalignment. Allowable axial misalignment is big and can absorb the shaft length changes caused by temperature changes in the shaft.

Couplings – Bellow Set Screw / Clamping

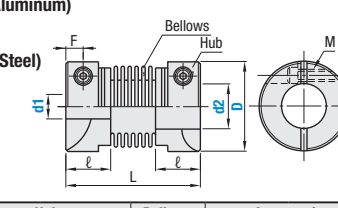


RoHS 10

Set Screw
CPB (Aluminum)
CPBS (Stainless Steel)



Clamping
CPBC (Aluminum)
CPBSC (Stainless Steel)



⚠ Tolerance values for d₁, d₂ are applied before slit is machined.
⚠ The lateral, angular, and axial misalignment values shown are for each occurring individually. When more than one misalignments are occurring simultaneously, the allowable maximum value of each will be reduced by 1/2.
⚠ For the selection criteria and alignment procedures, see P.1091, 1093.

Part Number	Type	D	d ₁ , d ₂ (d ₁ ≠d ₂)		L	ℓ	F	M	Tightening Torque (N-m)	Part Number	Type	D	Clamp Screw																	
			d ₁	d ₂									M	Tightening Torque (N-m)																
Set Screw		12	3	4	23.5	7.5	2.5	M2.5	0.5	CPB, CPBC	(Aluminum Alloy)	16	5	6	23.5	7.5	2.3	4	M2	0.5										
																					16	4	5	6	8	26.5	9	3	M3	0.7
																					*20	5	6	8	10	33 (32)	10	3.5	M3	0.7
																					25	6	8	10	12	36.5	12	4.5	M4	1.7
																					32	6	8	10	12	42	13.5	5.5	M4	1.7
Clamping		16	5	6	26.5	9	3	M2.5	1	CPB, CPBC	(Aluminum Alloy)	16	5	6	26.5	9	3	5	M2.5	1										
																					*20	6	8	10	33 (32)	10	3.5	6.5	M2.5	1
																					25	8	10	12	36.5	12	4.5	9	M3	1.5
																					32	8	10	12	42	13.5	5	11	M4	2.5

⚠ Overall length of CPBS20 is 32.

⚠ Overall length of CPBSC20 is 32.

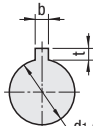
Part Number Example

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

CPB20 - 6 - 8

Part Number	Type	D	Allow. Torque (N-m)	Allow. Angular Misalign. (°)	Lateral Misalign. (mm)	Static Torsional Spring Constant (N-m/rad)	Max Rotational Speed (r/min)	Moment of Inertia (Kg-m ²)	Allow. Axial Misalign. (mm)	Mass (g)
CPB (Aluminum)		12	0.3	1.5	0.10	82	52000	9.0 x 10 ⁻⁸	+0.4 -1.2	4
		16	0.5	2	0.15	110	39000	3.5 x 10 ⁻⁷	+0.6 -1.8	9
		20	0.8	2	0.20	180	31000	9.9 x 10 ⁻⁷	+0.8 -2.5	16
		25	1.3	2	0.20	240	25000	3.1 x 10 ⁻⁶	+0.8 -2.5	32
CPBS (Stainless Steel)		12	0.5	1.5	0.10	100	52000	2.1 x 10 ⁻⁷	+0.4 -1.2	9
		16	1	2	0.15	150	39000	8.0 x 10 ⁻⁷	+0.6 -1.8	20
		20	1.5	2	0.20	220	31000	2.3 x 10 ⁻⁶	+0.8 -2.5	37
		25	2	2	0.20	330	25000	7.0 x 10 ⁻⁶	+0.8 -2.5	73
CPBC (Aluminum)		12	0.3	1.5	0.10	82	52000	9.7 x 10 ⁻⁸	+0.4 -1.2	4
		16	0.5	2	0.15	110	39000	3.7 x 10 ⁻⁷	+0.6 -1.8	10
		20	0.8	2	0.20	180	31000	1.0 x 10 ⁻⁶	+0.8 -2.5	16
		25	1.3	2	0.20	240	25000	3.1 x 10 ⁻⁶	+0.8 -2.5	32
CPBSC (Stainless Steel)		12	0.5	1.5	0.10	100	52000	2.1 x 10 ⁻⁷	+0.4 -1.2	9
		16	1	2	0.15	150	39000	8.1 x 10 ⁻⁷	+0.6 -1.8	22
		20	1.5	2	0.20	220	31000	2.3 x 10 ⁻⁶	+0.8 -2.5	38
		25	2	2	0.20	330	25000	6.9 x 10 ⁻⁶	+0.8 -2.5	74
CPBSC32		32	2	2	490	19000	2.1 x 10 ⁻⁵	2.1 x 10 ⁻⁵	+0.8 -2.5	130

Keyway Dimension

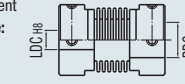
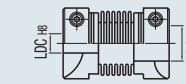



Shaft Bore Dia. d ₁ , d ₂	LK, RK	Dim.	Tolerance	Dim.	Tolerance	Key Nominal Dim. b x h
8, 10	3	3	±0.0125	1.4		3 x 3
12	4	4		1.8	+0.1 0	4 x 4
14	5	5	±0.0150	2.3		5 x 5

Part Number Alterations

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

CPB16 - LDC5.5 - RDC6.5 - 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																															
	 <table border="1"> <thead> <tr> <th>D</th> <th>LDC, RDC</th> </tr> </thead> <tbody> <tr> <td>12</td> <td>3.0-6.0</td> </tr> <tr> <td>16</td> <td>4.0-8.0</td> </tr> <tr> <td>20</td> <td>5.0-10.0</td> </tr> <tr> <td>25</td> <td>6.0-12.0</td> </tr> <tr> <td>32</td> <td>6.0-14.0</td> </tr> </tbody> </table>	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	 <table border="1"> <thead> <tr> <th>D</th> <th>LDC, RDC</th> </tr> </thead> <tbody> <tr> <td>12</td> <td>4.0-5.0</td> </tr> <tr> <td>16</td> <td>5.0-6.3</td> </tr> <tr> <td>20</td> <td>6.0-8.0</td> </tr> <tr> <td>25</td> <td>6.35-10.0</td> </tr> <tr> <td>32</td> <td>8.0-14.0</td> </tr> </tbody> </table>	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	 <table border="1"> <thead> <tr> <th>Shaft Dia. d₁, d₂</th> <th>LK, RK</th> </tr> </thead> <tbody> <tr> <td>8, 10</td> <td>3</td> </tr> <tr> <td>10-12</td> <td>4</td> </tr> <tr> <td>12-14</td> <td>5</td> </tr> </tbody> </table>	Shaft Dia. d ₁ , d ₂	LK, RK	8, 10	3	10-12	4	12-14
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Shaft Dia. d ₁ , d ₂	LK, RK																																	
8, 10	3																																	
10-12	4																																	
12-14	5																																	
Code	LDC (Left Shaft) RDC (Right Shaft)	LDC (Left Shaft) RDC (Right Shaft)	LK (Left Shaft) RK (Right Shaft)																															