Couplings
–Disc for Servo Motors–

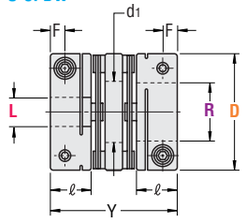
The Disc Couplings offer good overall performances for positioning applications requiring frequent starts/stops. Due to its relatively high frequency response resulting from high torsional stiffness, these couplings are frequently chosen for uses in XY tables, robotic mechanisms, and other precision motion control designs involving servo and stepping motors. MISUMI offers clamping mounting methods for the Disc Couplings.

Material		Surface Treatment	Type
Body	Aluminum Alloy	Clear Anodizing	U-CPDW
Disc / Pin	Stainless Steel	-	U-CPDT (Short)

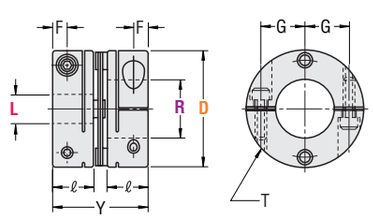
Included Hardware: S.H.C.S.

- U-CPDT does not allow for misalignment due to eccentricity.
- Declination,Eccentricity, End Play are Independent allowances for all couplings. The allowances decrease when there are multiple misalignments.

U-CPDW



U-CPDT



Part No.			L, R Selection (Callout, L ≤ R)																	
Type	D		Inch Bore						Metric Bore											
	Callout (mm)	Diameter (in)	3/16	1/4	3/8	1/2	5/8	3/4	5mm	6mm	8mm	10mm	12mm	14mm	16mm	18mm	20mm	22mm	25mm
U-CPDW / U-CPDT (Short Body)	19	0.748	0.19	0.25					5	6	8								
	25	0.984		0.25	0.38					6	8	10	12						
	32	1.260			0.38	0.50					8	10	12	14					
	40	1.575				0.50	0.63	0.75				10	12	14	16	18	20		
	50	1.969					0.63	0.75						14	16	18	20	22	25

Order Example The part number consists only of the fields with blue characters. Please refer to the table below for technical information.

Part No. — L — R

Type D

U-CPDW 19 — L0.25 — R6 (One End Inch Bore The Other End Metric Bore)
U-CPDW 19 — L0.19 — R0.25 (Both Ends Inch Bore)
U-CPDW 19 — L5 — R6 (Both Ends Metric Bore)

When you create the part number and the shaft sizes are different, remember that the smaller Callout should always be L and larger R.

Technical Information

L, R Inch Bore				
Callout (in)	Nominal (in)	Dimension (in)	Tolerance (in)	
0.19	3/16	0.1875	0.1882	0.1875
0.25	1/4	0.2500	0.2509	0.2500
0.38	3/8	0.3750	0.3759	0.3750
0.50	1/2	0.5000	0.5011	0.5000
0.63	5/8	0.6250	0.6261	0.6250
0.75	3/4	0.7500	0.7513	0.7500

L and R tolerance are verified before the slit machining process.

L, R Metric Bore				
Callout (mm)	Metric Size	Dimension (in)	Tolerance (in)	
5	5mm	0.1969	0.1976	0.1969
6	6mm	0.2362	0.2369	0.2362
8	8mm	0.3150	0.3158	0.3150
10	10mm	0.3937	0.3946	0.3937
12	12mm	0.4724	0.4735	0.4724
14	14mm	0.5512	0.5522	0.5512
16	16mm	0.6299	0.6310	0.6299
18	18mm	0.7087	0.7097	0.7087
20	20mm	0.7874	0.7887	0.7874
22	22mm	0.8661	0.8674	0.8661
25	25mm	0.9843	0.9856	0.9843

D		Y (in)		ℓ (in)	d1 (in)	F (in)	G (in)	T (Clamping Bolts)	
Callout (mm)	Diameter (in)	U-CPDW	U-CPDT					Size (mm)	Tightening Torque (lbf-in)
19	0.748	1.06	0.79	0.31	0.335	0.10	0.26	M2	4.43
25	0.984	1.22	0.94	0.39	0.492	0.14	0.35	M2.5	8.85
32	1.260	1.57	1.14	0.47	0.630	0.16	0.43	M3	13.28
40	1.575	1.73	1.30	0.55	0.827	0.20	0.59	M4	22.13
50	1.969	2.24	1.65	0.71	1.024	0.24	0.71	M5	61.96

Part No. Type	D (mm)	Operating Torque (lb-in)	Max. Torque (lb-in)	Max Rev. (rpm)	Allowed Misalignment Declination (deg)	Allowed Misalignment Eccentricity (in)	Allowed Misalignment End Play (± in)	Torsional Stiffness (lb-in/deg)	Moment of Inertia (oz-in²)	Mass (oz)
U-CPDW	19	6.20	13.28	10000	1.5	0.005	0.020	30.9	0.0476	0.63
	25	8.85	17.70	8000	1.5	0.005	0.020	69.5	0.1476	0.88
	32	22.13	44.26	6000	1.5	0.006	0.020	169.9	0.5248	2.12
	40	30.98	61.96	5000	1.5	0.006	0.020	216.3	1.0387	3.53
	50	79.66	159.32	4000	1.5	0.006	0.020	339.8	4.4283	7.41
U-CPDT (Short Body)	19	6.20	13.28	10000	0.7	-	0.008	43.3	0.0344	0.32
	25	8.85	17.70	8000	0.7	-	0.008	97.3	0.1148	0.67
	32	22.13	44.26	6000	0.7	-	0.008	247.2	0.3936	1.45
	40	30.98	61.96	5000	0.7	-	0.008	401.6	0.7107	2.40
	50	79.66	159.32	4000	0.7	-	0.008	478.9	3.3349	4.94

U-CPDW and U-CPDT have large torsional strength with zero backlash and are well suited for servo motors.

Days to Ship

Standard: 6 Days
Non-Returnable P.30

Express: 4 Days (Specify Express A) $ 2.00/piece P.30
A flat charge of $5.40 for 3 or more identical pieces.

Price

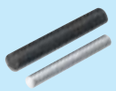
Quantity Discount Rate

Quantity	1~4	5~9	10~19	20~
Rate	—	5%	10%	15%

For larger quantity orders "Days to Ship" may differ from published catalog term. P.29

D	$ Unit Price (Qty. 1~4)	
	U-CPDW	U-CPDT
19	41.50	38.90
25	48.10	44.50
32	53.60	50.00
40	62.30	56.70
50	84.20	70.00

Related Components



Rotary Shafts P.205

Bearings with Housings P.252