

# Couplings

-Disc-



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	Polyamide	Electroless Nickel Plating	U-MCGLC
	Carbon Fiber		U-MCKLC
	Stainless Steel		U-MCSLC

Included Hardware: S.H.C.S.

⚠ Declination, Eccentricity, End Play are independent allowances for all couplings. The allowances decrease when there are multiple misalignments.

Part No.	D	L, R Selection (Callout, L < R)																
		Inch Bore						Metric Bore										
Type	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
U-MCGLC U-MCKLC U-MCSLC	16	0.630	0.19						5	6								
	20	0.787	0.19	0.25					5	6	8							
	25	0.984		0.25	0.38					6	8	10						
	32	1.260			0.38	0.50					8	10	12	14				
	40	1.575				0.38	0.50	0.63				8	10	12	14	16	18	
	50	1.969					0.63	0.75						14	16	18	20	22

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-MCKLC 20 — L 0.25 — R 5 (One End Inch Bore The Other End Metric Bore)  
 U-MCKLC 20 — L 0.19 — R 0.25 (Both Ends Inch Bore)  
 U-MCKLC 16 — L 5 — R 6 (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					L, R				
Inch Bore					Metric Bore				
Callout (in)	Nominal (in)	Dimension (in)	Tolerance (in)		Callout (mm)	Metric Size	Dimension (in)	Tolerance (in)	
0.19	3/16	0.1875	0.1882	0.1875	5	5mm	0.1969	0.1976	0.1969
0.25	1/4	0.2500	0.2509	0.2500	6	6mm	0.2362	0.2369	0.2362
0.38	3/8	0.3750	0.3759	0.3750	8	8mm	0.3150	0.3159	0.3150
0.50	1/2	0.5000	0.5010	0.5000	10	10mm	0.3937	0.3946	0.3937
0.63	5/8	0.6250	0.6260	0.6250	12	12mm	0.4724	0.4734	0.4724
0.75	3/4	0.7500	0.7512	0.7500	14	14mm	0.5512	0.5522	0.5512
					16	16mm	0.6299	0.6309	0.6299
					18	18mm	0.7087	0.7097	0.7087
					20	20mm	0.7874	0.7886	0.7874
					22	22mm	0.8661	0.8673	0.8661

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

D		T (Clamping Bolts)						
Callout (mm)	Diameter (in)	d1 (in)	Y (in)	ℓ (in)	A (in)	F (in)	Size (mm)	Tightening Torque (lbf-in)
16	0.630	0.268	0.91	0.28	0.197	0.118	M2.5	8.85
20	0.787	0.319	1.02	0.30	0.256	0.146	M2.5	8.85
25	0.984	0.409	1.19	0.35	0.335	0.157	M3	15.05
32	1.260	0.591	1.61	0.49	0.394	0.236	M4	22.13
40	1.575	0.768	1.85	0.61	0.516	0.307	M5	61.96
50	1.969	0.984	2.09	0.71	0.657	0.354	M6	106.21

Part No.	Type	D (mm)	Operating Torque (lb-in)	Max. Torque (lb-in)	Max Rev. (rpm)	Allowed Misalignment			Torsional Stiffness (lb-in/deg)	Moment of Inertia (lb-in <sup>2</sup> )	Mass (oz)
						Declination (deg)	Eccentricity (in)	End Play (± in)			
U-MCGLC		16	3.54	7.08	9000	3.5	0.012	0.012	10.8	0.0008	0.32
		20	5.31	10.62	7600	3.5	0.012	0.016	20.1	0.0025	0.49
		25	12.39	24.78	6000	3.5	0.012	0.020	37.1	0.0075	0.95
		32	23.01	46.03	4800	3.5	0.012	0.020	86.5	0.0205	2.12
		40	38.95	77.89	4000	3.5	0.016	0.024	151.4	0.0581	3.67
U-MCKLC		16	5.31	10.62	9000	2.5	0.008	0.012	20.1	0.0008	0.32
		20	7.97	15.93	7600	2.5	0.008	0.012	34.0	0.0025	0.49
		25	19.47	38.95	6000	2.5	0.008	0.016	68.0	0.0075	0.95
		32	33.63	67.27	4800	2.5	0.008	0.016	148.3	0.0205	2.12
		40	60.19	120.38	4000	2.5	0.012	0.020	293.5	0.0581	3.67
U-MCSLC		16	7.97	15.93	6000	2.0	0.006	0.008	69.5	0.0009	0.35
		20	11.51	23.01	6500	2.0	0.006	0.008	108.1	0.0027	0.56
		25	24.78	49.57	5000	2.0	0.006	0.012	146.8	0.0085	1.06
		32	44.26	88.51	4000	2.0	0.006	0.016	169.9	0.0226	2.19
		40	79.66	159.32	3800	2.0	0.008	0.020	432.5	0.0649	3.88
	50	141.62	283.24	3500	2.0	0.008	0.024	525.2	0.1709	7.76	

⚠ U-MCSLC has a large torsional rigidity with zero backlash and is well suited for servo motors.



Standard

6 Days

Express

4 Days (Specify Express A) \$ 2.00/piece P.30

⚠ Non-Returnable P.30

⚠ A flat charge of \$5.40 for 3 or more identical pieces.



Price

### Quantity Discount Rate

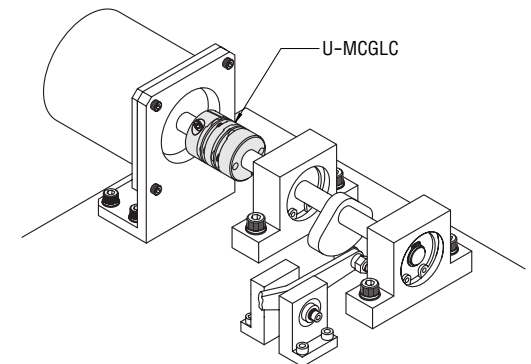
Quantity	1-4	5-9	10-19	20-
Rate	—	5%	10%	15%

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

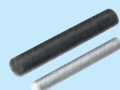
D	\$ Unit Price (Qty. 1~4)		
	U-MCGLC	U-MCKLC	U-MCSLC
16	24.00	31.00	32.50
20	27.00	34.00	35.50
25	31.00	39.00	41.00
32	34.00	43.00	45.00
40	39.00	48.00	50.50
50	44.00	53.00	55.50



Example



Related Components



Rotary Shafts P.205



Bearings with Housings P.252

Express Options P.30



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