

Oldham Couplings

Set Screw / Spacers

Oldham Couplings

Clamping

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

MCO (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

Standard Bore	Keywayed Bore				Material	Accessory
	d1 (One Side)	d2 (One Side)	d1, d2 (Both Sides)	Hub		
MCO	MCOLK	MCORK	MCOWK	SUS304 Sintered Alloy	Carbon Reinforced Resin	Set Screw

Part Number	Type	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														MCO	MCOLK	MCOWK
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	M2	0.3	-	-	-
12		3	4	5				12	12.5	4.0	14.2	5.2	2.5	M3	0.7	-	-	-
15		4	5	6	6.35	7	8	14.5	15	5.0	16	5.4	2.6	M3	0.7	-	-	-
17		5	6	6.35	7	8		16.8	17.5	7.2	19.8	6.7	3.2	M4	1.7	-	-	-
20		6	6.35	7	8	9.53	10	11	12	20	21	8.2	21.4	7	3.4	-	-	-
26		6	6.35	7	8	9.53	10	11	12	14	26	27	12.0	25.6	9	4	-	-
30											30	31	13.0	33	12	6	-	-
34											34	35	13.0	34	13	5.5	-	-
38											38	41	16.0	40	15	7	-	-

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)
6	0.3	0.3	9	1.5x10 ⁸	±0.25	1.5	1.5	
8	0.5	0.4	13	2.2x10 ⁸	±0.3	2.5	2.5	
10	0.8	0.4	21	3.6x10 ⁸	±0.32	4	4	
12	1	0.5	44	1.6x10 ⁷	±0.35	8	8	
15	1.6	0.8	90	3.5x10 ⁷	±0.45	11	11	
17	2.2	1	250	7.8x10 ⁷	±0.55	18	18	
20	3.2	1.5	340	8000	1.7x10 ⁶	29	29	
26	6	2	420	6500	6.2x10 ⁶	65	65	
30	15	2	1200	6200	2x10 ⁶	100	100	
34	16	2.5	2400	6000	2.5x10 ⁶	155	155	
38	28	2.5	3500	5800	8x10 ⁶	240	240	

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 ~ 20	6	2.8	6x6

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

Ordering Example

Part Number	Shaft Bore Dia. (d1)	Shaft Bore Dia. (d2)
MCO20	6	6
MCOLK20	8	12
MCOWK20	10	12

Alterations

Part Number	Shaft Bore Dia. (LDC)	Shaft Bore Dia. (RDC)	(KLH, KRH)
MCO20	LDC6.5	RDC9	
MCOWK30	8	10	KRH4

Alterations	Shaft Bore Dia.			Keyway Width		
	LDC (Left Shaft)	RDC (Right Shaft)	Ordering Code	KLH (Left Shaft)	KRH (Right Shaft)	Ordering Code
Spec.	0.1mm Increment LDC7.8 RDC9.3	0.1mm Increment LDC7.8 RDC9.3	KLH, KRH(b)	Keyway Width (b) is changed as the table below. Ordering Code: KLH4 KRH4	Keyway Width (b) is changed as the table below. Ordering Code: KLH4 KRH4	KLH, KRH(b)
Code	LDC (Left Shaft)	RDC (Right Shaft)		KLH (Left Shaft)	KRH (Right Shaft)	

■ Spacers (for MCO or MCOC) P.1088

MCOS No.6-26 No.30-38

* As W dimension is made close, fitting adjustments are required.
 * Material: Carbon Reinforced Resin

Part Number	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	1.5	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 MCOC□□15	
17	17.5	6	7.2	4.6	2.9	MCO□□17 MCOC□□17	
20	21	6.6	8.2	5.8	3.2	MCO□□20 MCOC□□20	
26	27	7.2	12.0		4	MCO□□26 MCOC□□26	
30	31	8.5	13.0		4	MCO□□30 MCOC□□30	
34	35	7.9	13.0		4.2	MCO□□34 MCOC□□34	
38	41	9.4	16.0		4.2	MCO□□38 MCOC□□38	

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

MCOC (Standard Bore)
MCOCLK (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

Standard Bore	Keywayed Bore				Material	Accessory
	d1 (One Side)	d2 (One Side)	d1, d2 (Both Sides)	Hub		
MCOC	MCOCLK	MCOCRK	MCOCWK	SUS304 Sintered Alloy	Carbon Reinforced Resin	Hex Socket Head Cap Screw

Part Number	Type	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																M	Tightening Torque (N·m)	MCOC	MCOCLK
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	3.0	-	-
30																					
34																					
38																					

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

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)
15	1.6	0.8	90	10000	5.0x10 ⁻⁷	±0.45	15	
17	2.2	1	250	1.0x10 ⁶	±0.55	28	28	
20	3.2	1.5	340	8000	2.4x10 ⁶	40	40	
26	6	2	420	6500	8.0x10 ⁶	85	85	
30	15	2	1200	6200	2.0x10 ⁶	100	100	
34	16	2.5	2400	6000	2.5x10 ⁶	155	155	
38	28	2.5	3500	5800	8.0x10 ⁶	240	240	

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

Ordering Example

Part Number	Shaft Bore Dia. (d1)	Shaft Bore Dia. (d2)
MCOC20	6	6
MCOCLK20	6	8
MCOCWK20	8	10

Alterations

Part Number	Shaft Bore Dia. (LDC)	Shaft Bore Dia. (RDC)	(KLH, KRH)
MCOC20	LDC6.5	RDC9	
MCOCWK30	8	10	KRH4

Alterations	Shaft Bore Dia.			Keyway Width		
	LDC (Left Shaft)	RDC (Right Shaft)	Ordering Code	KLH (Left Shaft)	KRH (Right Shaft)	Ordering Code
Spec.	0.1mm Increment LDC7.8 RDC9.3	0.1mm Increment LDC7.8 RDC9.3	KLH, KRH(b)	Keyway Width (b) is changed as the table below. Ordering Code: KLH4 KRH4	Keyway Width (b) is changed as the table below. Ordering Code: KLH4 KRH4	KLH, KRH(b)
Code	LDC (Left Shaft)	RDC (Right Shaft)		KLH (Left Shaft)	KRH (Right Shaft)	