

# Oldham Couplings

## Clamping / Set Screw


# MISUMI C-VALUE Oldham Couplings

## Clamping / Set Screw


Points of comparison between similar products | Max. Rotational Speed: 15,000~39,000rpm

Features: Projection structure of the spacer effortlessly allows angular and lateral misalignment and thereby reduces load on the shaft.

**Clamping**

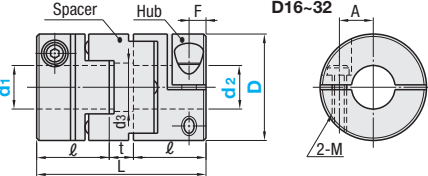


**Set Screw**

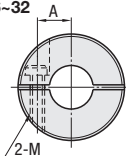


TYPE	Material		Surface Treatment	Accessory
	Hub	Spacer	Hub	
CPOC	Aluminum Alloy	Polyacetal	Clear Anodize	Clamp Screw
CPO	Aluminum Alloy	Polyacetal	Clear Anodize	Set Screw

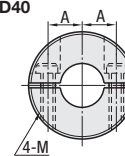
**CPOC (Clamping)**



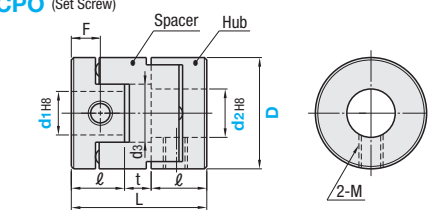
**D16~32**



**D40**



**CPO (Set Screw)**



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 selection criteria, see P.1061.

Part Number	Type	D	d1, d2 Selection (d1≤d2)										d3	L	L	t	F	A	Set Screw / Clamp Screw		Unit Price	
																			M	Tightening Torque (N·m)		
Clamping <b>CPOC</b>	16																		5	6.35	1	
	20																		6	6.35	1	
	25																		8	6.35	1.5	
	32																		10	6.35	2.5	
	*40																		12	6.35	4	
Set Screw <b>CPO</b>	16	3	4	5	6	6.35													7	9.53	0.7	
	20		4	5	6	6.35	8												9	9.53	1.7	
	25		5	6	6.35	8	9.53	10											11	9.53	4	
	32		6	6.35	8	9.53	10	12	14										13	9.53	7	
	*40		7	7	8	9.53	10	12	14	15	16								17	9.53	7	

\* The spacer of D40 is black.

### Characteristic Values

Part Number	Type	D	Allowable Torque (N·m)	Angular Misalignment (°)	Lateral Misalignment (mm)	Max. Rotational Speed (r/min)	Moment of Inertia (kg·m <sup>2</sup> )	Mass (g)
<b>CPOC</b>	16	0.7	1.0	3	1.0	39000	5.8x10 <sup>-7</sup>	12
	20	1.2	1.5	3	1.5	31000	1.5x10 <sup>-6</sup>	19
	25	2.0	2.0	3	2.0	25000	4.4x10 <sup>-6</sup>	36
	32	4.5	2.5	3	2.5	19000	1.4x10 <sup>-5</sup>	69
	40	9.0	3.0	3	3.0	15000	4.1x10 <sup>-5</sup>	130
<b>CPO</b>	16	0.7	1.0	3	1.0	39000	3.2x10 <sup>-7</sup>	7
	20	1.2	1.5	3	1.5	31000	1.0x10 <sup>-6</sup>	14
	25	2.0	2.0	3	2.0	25000	3.0x10 <sup>-6</sup>	27
	32	4.5	2.5	3	2.5	19000	9.5x10 <sup>-6</sup>	50
	40	9.0	3.0	3	3.0	15000	2.3x10 <sup>-5</sup>	80

Ordering Example

Part Number: CPO25 - Shaft Bore Dia. d1: 8 - Shaft Bore Dia. d2: 10

Part Number: CPOC20 - Shaft Bore Dia. d1: 6 - Shaft Bore Dia. d2: 8

Alterations

Part Number: CPOC16 - Shaft Bore Dia. d1 (LDC) - Shaft Bore Dia. d2 (RDC)

CPOC16 - LDC4.5 - RDC5.5

CPOC25 - 6 - 10 - RK3

Keyway Dimension

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

Alterations

Shaft Bore Dia. Keyway

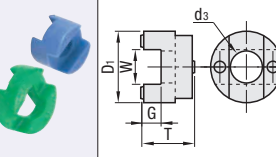
CPO CPOC

Spec. 0.1mm Increment

Code	LDC (Left Shaft)	RDC (Right Shaft)	LK (Left Shaft)	RK (Right Shaft)
16	LDC	RDC	LK	RK
20	LDC	RDC	LK	RK
25	LDC	RDC	LK	RK
32	LDC	RDC	LK	RK
40	LDC	RDC	LK	RK

### Spacers (for CPO, CPOC, CPOCG)

CPOS CPOCGS




Part Number	Type	No.	D1	T	d3	W	G	Applicable Coupling	Unit Price
<b>CPOS</b>	16	12	7	8	4.5	8	4.5	CP016, CPOC16	
	20	15	9	10	5.5	10	5.5	CP020, CPOC20	
	25	18	11	12	6.5	12	6.5	CP025, CPOC25	
	32	21	14.5	15	7.5	15	7.5	CP032, CPOC32	
	40	24	17	19	8.5	19	8.5	CP040, CPOC40	
<b>CPOCGS</b>	12	4.88	6	3.95	2.44	6	3.95	CPOCG12	
	16	6.96	8	4.95	3.48	8	4.95	CPOCG16	
	20	8.06	10	6.95	4.03	10	6.95	CPOCG20	
	25	11.18	14	8.95	5.59	14	8.95	CPOCG25	
	32	13.34	18	9.95	6.67	18	9.95	CPOCG32	

Similar products page P.1067


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

Features: Product quality and performance same as of the conventional products but at lower price. Replaceable from CPOC, CPO.

**Clamping**

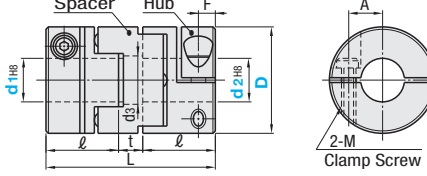


**Set Screw**

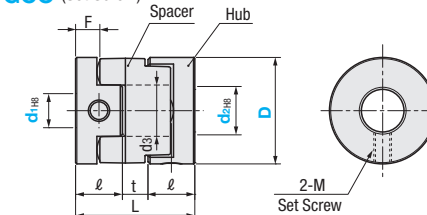


TYPE	Material		Surface Treatment	Accessory
	Hub	Spacer	Hub	
GCOC	Aluminum Alloy	Polyacetal	Clear Anodize	Clamp Screw
GCO	Aluminum Alloy	Polyacetal	Clear Anodize	Set Screw

**GCOC (Clamping)**



**GCO (Set Screw)**



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 selection criteria, see P.1061.

Tolerances for d1 and d2 are values before slit machining.

Part Number	Type	D	d1, d2 Selection (d1≤d2)										d3	L	L	t	F	A	Set Screw / Clamp Screw		Unit Price	
																			M	Tightening Torque (N·m)		
Clamping <b>GCOC</b>	16																		5	6.35	1	
	20																		6	6.35	1	
	25																		8	6.35	1.5	
	32																		10	6.35	2.5	
	*40																		12	6.35	4	
Set Screw <b>GCO</b>	16	3	4	5	6	6.35													7	9.53	0.7	
	20		4	5	6	6.35	8												9	9.53	1.7	
	25		5	6	6.35	8	10												11	9.53	4	
	32		6	6.35	8	10	12	14											13	9.53	7	
	*40		7	7	8	9.53	10	12	14	15	16								17	9.53	7	


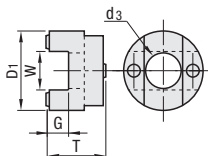
### Characteristic Values

Part Number	Type	D	Allowable Torque (N·m)	Angular Misalignment (°)	Lateral Misalignment (mm)	Max. Rotational Speed (rpm)	Moment of Inertia (kg·m <sup>2</sup> )	Mass (g)
<b>GCOC</b>	16	0.7	1.0	3	1.0	10000	4.4x10 <sup>-7</sup>	11
	20	1.2	1.5	3	1.5	10000	1.2x10 <sup>-6</sup>	20
	25	2.0	2.0	3	2.0	10000	3.3x10 <sup>-6</sup>	37
	32	4.5	2.5	3	2.5	10000	1.4x10 <sup>-5</sup>	70
<b>GCO</b>	16	0.7	1.0	3	1.0	10000	2.2x10 <sup>-7</sup>	6
	20	1.2	1.5	3	1.5	10000	6.9x10 <sup>-7</sup>	13
	25	2.0	2.0	3	2.0	10000	2.1x10 <sup>-6</sup>	23
	32	4.5	2.5	3	2.5	10000	6.5x10 <sup>-6</sup>	45

Inertia moment and mass values are for cases of maximum shaft diameter.

### Spacer

GCOCs

Material: Polyacetal

Part Number	Type	No.	D1	T	d3	W	G	Applicable Coupling	Unit Price
<b>GCOCs</b>	16	15.6	12	7	8	4.5	4.5	GCOC16, GCOC16	
	20	19.6	15	9	10	5.5	5.5	GCOC20, GCOC20	
	25	24.6	18	11	12	6.7	6.7	GCOC25, GCOC25	
	32	31.6	21	14.5	15.3	7.5	7.5	GCOC32, GCOC32	

Ordering Example

Part Number: GCOCs20