


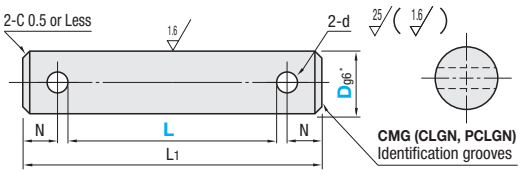
# Pivot Pins

## Cotter Pins



Type	Material	Hardness	Surface Treatment	Accessory
CMG	S45C (CMG) S45C Equivalent (CLGN)	-	Black Oxide	Cotter Pin 2 pcs.
CMGH	S45C (CMGH) S45C Equivalent (CLGHN)	40~45HRC	Black Oxide	
-	PCLGN	-	Electroless Nickel Plating	M SUS304
-	PCLGHN	40~45HRC	Electroless Nickel Plating	
-	GCLGN	S45C Equivalent	Plating Hardness 750HV~	M SWRM or Low carbon steel
-	SCLGN	SUS304 Equivalent	Hard Chrome Plating	
-	SCLGHN	SUS440C Equivalent	45~50HRC	M SUS304

D	Tolerance (g6)
3	-0.002 -0.008
4-6	-0.004 -0.012
8, 10	-0.005 -0.014
12-18	-0.006 -0.017
20-25	-0.007 -0.020



\* The tolerance Dg6 is only available for the diameter over the length L.  
The front diameter has a negative tolerance.  
CMG has identification grooves on the side in order to distinguish it from Hardened Type. (CLGN and PCLGN may also have identification grooves.)  
This type may have centering holes depending on dimensions.  
For L Dimension, Standard Machining Tolerances (Class: Medium) is used.

**L Dimension Selectable**

Part Number	Type	D	L Selection	L1	N	d	Included Cotter Pin		Unit Price		
							CMG, CMGH	SCMG	CMG	CMGH	SCMG
CMG	(The L dimensions marked with * are not available)	3	10 12 14 15 16 18 20	L+4.8	2	0.8	NPN0.8-8	NSPN0.8-8			
		4	10 12 14 15 16 18 20	L+6	2.5	1	NPN1-10	NSPN1-10			
CMGH	(Hardened)	5	10 12 14 15 16 18 20	L+7.2	3	1.2	NPN1.2-10	NSPN1.2-10			
		6	15 16 18 20 22 24 25 30	L+8.6	3.5	1.6	NPN1.6-10	NSPN1.6-10			
SCMG	(Stainless Steel)	8	18 20 22 24 25 30 35 40 45 50	L+10	4	2	NPN2-12	NSPN2-12			
		10	18 20 22 24 25 30 35 40 45 50	L+12.5	5	2.5	NPN2.5-15	NSPN2.5-15			
12	22 24 25 30 35 40 45 50	L+15.2	6	3.2	NPN3.2-20	NSPN3.2-20					

**L Dimension Configurable Type (0.1mm Increment)**


Part Number	Type	D	L=0.1mm Increment	L1	N	d	Included Cotter Pin		Unit Price																
							CLGN, CLGHN, GCLGN	PCLGN, PCLGHN, SCLGN, SCLGHN	CLGN	CLGHN	PCLGN	PCLGHN	GCLGN	SCLGN	SCLGHN										
CLGN, CLGHN, PCLGN, PCLGHN, GCLGN, SCLGN, SCLGHN	3			L+4.8	2	0.8	NPN0.8-8	NSPN0.8-8																	
	4	5.0~	50.0	L+6	2.5	1	NPN1-10	NSPN1-10																	
	5	10.0~	70.0	L+7.2	3	1.2	NPN1.2-10	NSPN1.2-10																	
	6	10.0~	100.0	L+8.6	3.5	1.6	NPN1.6-10	NSPN1.6-10																	
	8			L+10	4	2	NPN2-12	NSPN2-12																	
	10	15.0~	110.0	L+12.5	5	2.5	NPN2.5-15	NSPN2.5-15																	
	12			L+15.2	6	3.2	NPN3.2-20	NSPN3.2-20																	
	13	25.0~	200.0	L+18	7	4		NPN4-20	NSPN4-20																
	14																								
	15																								
	16																								
	17	30.0~	200.0	L+22	8.5	5		NPN5-35	NSPN5-35																
18																									
20																									
22																									
25																									

\* SCLGHN may be discolored by hardening.

Ordering Example: Part Number - L  
 CMG8 - 30  
 CLGN15 - 120.3

Alterations: Part Number - L - (NC)  
 CLGN15 - 120.3 - NC3  
 \* Applicable to L Dimension Configurable Type.

**Cotter Pin Hole Position**



Alteration: NC

Code: NC


Spec.:

Ordering Code	NC3
D	NC (Selection Range)
3	1.5
4	1.5 2
5	1.5 2 2.5
6, 8	2 2.5 3
10	2.5 3 4
12	3 4 5
13-18	3 4 5 6
20-25	4 5 6 7

\* L1=L+NCx2+d

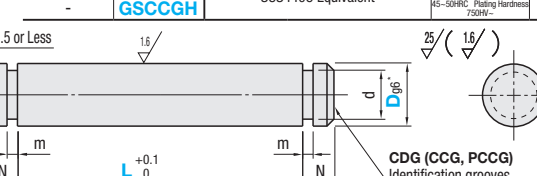
# Pivot Pins

## Straight Retaining Ring



Type	Material	Hardness	Surface Treatment	Accessory
CDG	S45C (CDG) S45C Equivalent (CCG)	-	Black Oxide	Retaining Ring 2 pcs.
CDGH	S45C (CDGH) S45C Equivalent (CCGH)	40~45HRC	Black Oxide	
-	PCCG	-	Electroless Nickel Plating	M SUS304
-	PCCGH	40~45HRC	Electroless Nickel Plating	
-	GCCG	S45C Equivalent	Plating Hardness 750HV~	M Spring Steel
-	GCCGH	S45C Equivalent	Plating Hardness 750HV~	
SCDG	SUS304 Equivalent	-	-	M SUS304
-	SCCGH	45~50HRC	-	
-	GSCCGH	SUS440C Equivalent	45~50HRC Plating Hardness 750HV~	M SUS304

D	Tolerance (g6)
2, 3	-0.002 -0.008
4-6	-0.004 -0.012
8, 10	-0.005 -0.014
12-18	-0.006 -0.017
20-25	-0.007 -0.020



\* The tolerance Dg6 is only available for the diameter over the length L.  
The front diameter has a negative tolerance.  
CDG has identification grooves on the side in order to distinguish it from Hardened Type. (CCG and PCCG may also have identification grooves.)  
This type may have centering holes depending on dimensions.

**L Dimension Selectable**

Part Number	Type	D	L Selection	m	N	d	Included Retaining Ring	Unit Price		
								Shape	JIS Nominal	CDG
CDG	(Hardened)	3	10 12 14 15 16 18 20 22 24 25 30	0.5	2	2	E Type	No. 2		
		4		0.7	3	3		No. 3		
SCDG	(Stainless Steel)	5	15 16 18 20 22 24 25 30 35 40 45 50	0.9	3	5	C Type	No. 5		
		8		1.15	7	7		No. 7		
10	18 20 22 24 25 30 35 40 45 50	0	4	9.6	9.6	No. 10				
12	22 24 25 30 35 40 45 50	0	4	11.5	11.5	No. 12				

\* For details, see P2303.

**L Dimension Configurable Type (0.1mm Increment)**

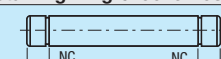
Part Number	Type	D	L=0.1mm Increment	m	N	d	Included Retaining Ring	Unit Price							
								Shape	JIS Nominal	CCG	CCGH	PCCG	PCCGH	GCCG	SCCG
CCG, CCGH, PCCG, PCCGH, GCCG, SCCG, SCCGH, GSCCGH		2	5.0~30.0	0.5	2	1.5	E Type	No. 1.5							
								No. 2							
								No. 3							
								No. 4							
								No. 5							
								No. 7							
								No. 10							
								No. 12							
								No. 13							
								No. 14							
								No. 15							
								No. 16							
C Type	No. 17														
	No. 18														
	No. 20														
	No. 22														
	No. 25														
	No. 25														

\* For details, see P2303. \* SCCGH and GSCCGH may be discolored by hardening.

Ordering Example: Part Number - L  
 CDG8 - 30  
 CCG15 - 120.3

Alterations: Part Number - L - (NC)  
 CCG15 - 120.3 - NC3  
 \* Applicable to L Dimension Configurable Type.

**Retaining Ring Groove Position**



Alteration: NC

Code: NC

Spec.:

Ordering Code	NC3
D	NC (Selection Range)
2-4	1.5-3
5	1.7-3
6	1.9-4
8	2.4-5
10-18	2.7-5
20-25	2.9-5

\* Overall Length is L+NCx2.