

Pivot Pins

Cotter Pins

RoHS10

Type	Material	Hardness	Surface Treatment	Accessory		
L Dimension Selectable, Dimension Configurable						
CMG	CLGN	S45C (CMG) S45C Equivalent (CLGN)	-	Black Oxide	Cotter Pin 2 pcs.	M SWRM
CMGH	CLGHN	S45C (CMGH) S45C Equivalent (CLGHN)	40~45HRC			
-	PCLGN	S45C Equivalent (PCLGN)(PCLGHN)	-	Electroless Nickel Plating	Cotter Pin 2 pcs.	M SUS304
-	PCLGHN	⚠ L Dimension Selectable Type is S45C Equivalent.	40~45HRC			
-	GCLGN	S45C Equivalent	Plating Hardness 750HV~	Hard Chrome Plating: Plating Thickness 3μm or more	-	M SWRM
SCMG	SCLGN	SUS304 Equivalent	-	-		
-	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

Technical drawing of a cotter pin. The side view shows a cylindrical pin with a diameter of D_{g6} and a length of L . The pin has two end holes with diameters of $2-C \ 0.5$ or Less. The distance between the end holes is L_1 . The pin is divided into three sections: two end sections of length N and a central section of length L . The end view shows a circular cross-section with a dashed line indicating the identification groove. The identification groove is labeled "CMG, CLGN, PCLGN Identification Groove".

* Dg6 Tolerance is available for L dimensions only. Others are general tolerance.

There are identification grooves on the side of **CMG**, **CLGN** and **PCLGN** to be distinguished from Hardened Type.

This type may have centering holes depending on dimensions.

For L Dimension, Standard Machining Tolerances (Class: Medium) is used.

L Dimension Selectable

Part Number	D	L Selection	L ₁	N	d	Included Cotter Pin	Unit Price
Type	D					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	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	D	L=0.1mm Increment	L ₁	N	d	Included Cotter Pin	Unit Price
Type	D					CLGN, CLGHN, PCLGN, PCLGHN, GCLGN, SCLGN, SCLGHN	CLGN, CLGHN, PCLGN, PCLGHN, GCLGN, SCLGN, SCLGHN
CLGN CLGHN PCLGN PCLGHN GCLGN SCLGN SCLGHN	3	5.0~ 50.0	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	10.0~ 100.0	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	15.0~ 200.0	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	NPN4-25 NSPN4-25	
	18						
	20						
	22						
	25					NPN5-35 NSPN5-35	

* 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.				

Alteration	Cotter Pin Hole Position
	
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 L ₁ =L+NCx2+d

Pivot Pins

Straight Retaining Ring

RoHS10

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

Type		Material	Hardness	Surface Treatment	Accessory		
L Dimension Selectable	Dimension Configurable						
CDG	CCG	S45C (CDG) S45C Equivalent (CCG)	-	Black Oxide	Retaining Ring 2 pcs.	M Spring Steel	
CDGH	CCGH	S45C (CDGH) S45C Equivalent (CCGH)	40~45HRC			M SUS304	
-	PCCG	S45C Equivalent (PCCG)(PCCGH)	-	Electroless Nickel Plating		M Spring Steel	
-	PCCGH	⚠ L Dimension Selectable Type is S45C Equivalent.	40~45HRC			M SUS304	
-	GCCG	S45C Equivalent	Plating Hardness 750HV~	Hard Chrome Plating: Plating Thickness 3μm or more		M SUS304	
SCDG	SCCG	SUS304 Equivalent	-	-		M SUS304	
-	SCCGH	SUS440C Equivalent	45~50HRC			M SUS304	
-	GSCCGH		45~50HRC Plating Hardness 750HV~	Hard Chrome Plating: Plating Thickness 3μm or more		M SUS304	

2-C 0.5 or Less

* Dg6 Tolerance is available for L dimensions only. Others are general tolerance.

⚠ There are identification grooves on the side of **CDG**, **CCG** and **PCCG** to be distinguished from Hardened Type.

⚠ This type may have centering holes depending on dimensions.

25 / (1/8)

L Dimension Selectable

Part Number		L														m	N	d	Included Retaining Ring	Unit Price									
Type	D	Selection														Tolerance		Tolerance	Shape	JIS Nominal*	CDG	CDGH	SCDG						
CDG CDGH (Hardened)	3	10 12 14 15 16 18 20 22 24 25 30														0.5	2	2	E Type	No. 2									
	4															3		No. 3											
	5															4		No. 4											
SCDG (Stainless Steel)	6	15 16 18 20 22 24 25 30 35 40 45 50														0.7	0	5	C Type	No. 5									
	8																	7		No. 7									
	10															9.6	No. 10												
	12	22 24 25 30 35 40 45 50														1.15	4	11.5	No. 12										

* For details, see P2303.

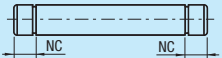
L Dimension Configurable Type (0.1mm Increment)

Part Number	D	L=0.1mm Increment	m	N	d	Included Retaining Ring	Unit Price
Type	D		Tolerance		Tolerance	Shape, JIS Nominal*	CCG, CCGH, PCCG, PCCGH, GCCG, SCCG, SCCGH, GSCCGH
CCG CCGH PCCG PCCGH GCCG SCCG SCCGH GSCCGH	2	5.0~ 30.0	0.5	2	1.5	No. 1.5	
	3	5.0~ 30.0			2	No. 2	
	4	10.0~ 60.0			3	No. 3	
	5	10.0~ 60.0			4	No. 4	
	6	10.0~ 100.0	0.7	3	5	No. 5	
	8	10.0~ 100.0			7	No. 7	
	10	15.0~ 100.0			9.6	No. 10	
	12	15.0~ 200.0			11.5	No. 12	
	13	25.0~ 200.0	0.9	4	12.4	No. 13	
	14				13.4	No. 14	
	15				14.3	No. 15	
	16				15.2	No. 16	
	17	30.0~ 200.0	1.15	4	16.2	No. 17	
	18				17	No. 18	
	20				19	No. 20	
	22				21	No. 22	
	25				23.9	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.				

Alteration	Retaining Ring Groove Position
	
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.