

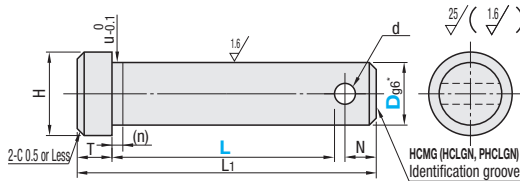
Pivot Pins

Cotter Pins with Shoulder



Type		M Material	H Hardness	S Surface Treatment	A Accessory
L Dimension Selectable	L Dimension Configurable				
HCMG	HCLGN	S45C (HCMG) S45C Equivalent (HCLGN)	-	Black Oxide	Cotter Pin 1 pc.
HCMGH	HCLGHN	S45C (HCMGH) S45C Equivalent (HCLGHN)	40~45HRC		
-	PHCLGN	S45C Equivalent (PHCLGN)	-	Electroless Nickel Plating	
-	PHCLGHN	S45C Equivalent (PHCLGHN)	40~45HRC		
-	GHCLGN	S45C Equivalent (GHCLGN)	Plating Hardness 750HV-	Hard Chrome Plating	
SHCMG	SHCLGN	SUS304 Equivalent	-		
-	SHCLGHN	SUS304 Equivalent	45~50HRC		
-	GSCLGN	SUS440C Equivalent	45~50HRC Plating Hardness 750HV-	Hard Chrome Plating	
-	GSCLGHN	SUS440C Equivalent	45~50HRC Plating Hardness 750HV-	Hard Chrome Plating	
					M SUS304
					M SWRM or Low carbon steel
					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.

⚡ HCMG has identification grooves on the side in order to distinguish it from Hardened type. (HCLGN and PHCLGN may also have identification grooves.)

⚡ Relief dimension under the shoulder is for reference.

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

⚡ This type may have centering holes depending on dimensions.

L Dimension Selectable

Part Number	Type	D	L Selection	L1	N	u	(n)	d	T	H	Included Cotter Pin	Unit Price
HCMG		3	10 12 14 15 16 18 20	L+ 4.4	2.5	2.9		0.8		5.5	NPN0.8- 8	NSPN0.8- 8
HCMGH		4	10 12 14 15 16 18 20	L+ 4.5	3.5	3.9		1	1.5	6.5	NPN1 -10	NSPN1 -10
(Hardened)		5	10 12 14 15 16 18 20	L+ 5.6	4.5	4.9		1.2		8	NPN1.2-10	NSPN1.2-10
SHCMG		6	15 16 18 20 22 24 25 30	L+ 5.8	3.5	5.8	1.5	1.6		9	NPN1.6-10	NSPN1.6-10
(Stainless Steel)		8	18 20 22 24 25 30 35 40 45 50	L+ 7	4	7.8		2	2	12	NPN2 -12	NSPN2 -12
		10	18 20 22 24 25 30 35 40 45 50	L+ 8.25	5	9.8		2.5	2	14	NPN2.5-15	NSPN2.5-15
		12	22 24 25 30 35 40 45 50	L+10.6	6	11.8		3.2	3	17	NPN3.2-20	NSPN3.2-20

L Dimension Configurable Type (0.1mm Increment)

Part Number	Type	D	L=0.1mm Increment	L1	N	u	(n)	d	T	H	Included Cotter Pin	Unit Price
HCLGN		3	5.0~50.0	L+ 4.4	2.5	2.9		0.8		5.5	NPN0.8- 8	NSPN0.8- 8
HCLGHN		4	5.0~50.0	L+ 4.5	3.5	3.9		1	1.5	6.5	NPN1 -10	NSPN1 -10
PHCLGN		5	10.0~60.0	L+ 5.6	4.5	4.9		1.2		8	NPN1.2-10	NSPN1.2-10
PHCLGHN		6	10.0~100.0	L+ 5.8	3.5	5.8	1.5	1.6		9	NPN1.6-10	NSPN1.6-10
GHCLGN		8	10.0~100.0	L+ 7	4	7.8		2	2	12	NPN2 -12	NSPN2 -12
SHCLGN		10	15.0~100.0	L+ 8.25	5	9.8		2.5	2	14	NPN2.5-15	NSPN2.5-15
SHCLGHN		12	15.0~200.0	L+10.6	6	11.8		3.2	3	17	NPN3.2-20	NSPN3.2-20
PHCLGHN		13	20.0~200.0	L+12	7	12.8	1.5	1.8		18	NPN4 -20	NSPN4 -20
GHCLGN		14	20.0~200.0	L+12	7	13.8	1.5	2	3	19	NPN4 -20	NSPN4 -20
SHCLGN		15	20.0~200.0	L+12	7	14.8	1.5	2	3	20	NPN4 -25	NSPN4 -25
SHCLGHN		16	20.0~200.0	L+12	7	15.8	1.5	2	3	21	NPN4 -25	NSPN4 -25
GSCLGN		17	20.0~200.0	L+12	7	16.8	1.5	2	3	22	NPN4 -25	NSPN4 -25
GSCLGHN		18	20.0~200.0	L+12	7	17.8	1.5	2	3	23	NPN4 -25	NSPN4 -25
		20	20.0~200.0	L+14.5	8	19.8		2.5	4	26	NPN5 -35	NSPN5 -35
		22	20.0~200.0	L+14.5	8	21.8		2.5	4	27	NPN5 -35	NSPN5 -35
		25	20.0~200.0	L+15.5	9	24.8		3.2	4	30	NPN5 -35	NSPN5 -35

⚡ SHCLGHN and GSHCLGHN may be discolored by hardening.

Ordering Example	Part Number	-	L
	HCMG8	-	30
	HCLGN15	-	120.3

Alterations Part Number - [L] - (NC, TC, HC) ⚡ Applicable to L Dimension Configurable Type.

Alterations	Cotter Pin Hole Position	Shoulder Thickness	Shoulder Diameter Cut
Code	NC	TC	HC
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+NC+d/2+T	Ordering Code: TC3 ⚡ TC=0.5mm Increment ⚡ T<TC≤5 ⚡ L1=L+N+d/2+TC	Ordering Code: HC ⚡ D=3~10 HC=H/2-1 ⚡ D=12~25 HC=H/2-2 ⚡ The positional relationship between the shoulder diameter cut and the cotter pin is established as shown on the drawing below.