

Pivot Pins

Both Ends Tapped, Both Ends Threaded

Pivot Pins / Keys for Precision Pivot Pins

Keyway

Both Ends Tapped

Type	Material	Hardness	Surface Treatment
CLBM	S45C Equivalent	-	Black Oxide
CLBHM		40~45HRC	
PCLBM		-	Electroless Nickel Plating
PCLBHM	SUS304	40~45HRC	
SCLBM		-	Electroless Nickel Plating
SCLBHM	SUS440C Equivalent	45 ~ 50HRC	

CLBM, PCLBM may have identification grooves on the side in order to distinguish them from Hardened Type.
For L Dimension, Standard Machining Tolerances (Class: Medium) is used.

D Tolerance (g6)	Value
6	-0.004 -0.012
8, 10	-0.005 -0.014
12~18	-0.006 -0.017
20~25	-0.007 -0.020

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Part Number Type	D	L 0.1mm Increment	M (Coarse)		N (Coarse)		Unit Price													
			M	N	CLBM	CLBHM	PCLBM	PCLBHM	SCLBM	SCLBHM										
CLBM CLBHM PCLBM PCLBHM SCLBM SCLBHM	6	20.0~100.0	M 3	M 3																
	8	20.0~100.0	M 5	M 5																
	10	25.0~100.0	M 6	M 6																
	12	25.0~200.0																		
	13	35.0~200.0	M 8	M 8																
	14																			
	15																			
	16	40.0~200.0	M10	M10																
	17																			
	18																			
	20	50.0~200.0	M12	M12																
	22																			
25																				

SCLBHM may be discolored by hardening. For full length L, Mx2+Nx2<L is required.

Both Ends Threaded

Type	Material	Hardness	Surface Treatment	Accessory	D Tolerance (g6)
CLBN	S45C	-	Black Oxide	Nut 2 pcs.	6
CLBHN	Equivalent	40~45HRC			8, 10
SCLBN	SUS304	-		Equivalent	12~18
SCLBHN	SUS440C Equivalent	40~45HRC			20~25

For L Dimension, Standard Machining Tolerances (Class: Medium) is used.
CLBN may have identification grooves on the side in order to distinguish it from Hardened Type.

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Part Number Type	D	L 0.1mm Increment	F, T	M (Coarse)		Unit Price						
				M	N	CLBN	CLBHN	SCLBN	SCLBHN			
CLBN CLBHN SCLBN SCLBHN	6	15.0~100.0	9	M 5								
	8	20.0~100.0										
	10	25.0~100.0										
	12	25.0~200.0	12	M 8								
	13											
	14											
	15	30.0~200.0	16	M10								
	16											
	17											
	18	35.0~200.0	18	M12								
	20											
	22											
25		24	M20									

Ordering Example: Part Number - L
CLBM15 - 120.3

Alterations: Part Number - L - (MC, NC, NMC, NNC)
CLBM10 - 50 - MCS

Alterations	Thread Diameter	Thread Diameter
	MC, NC	NMC, NNC
Code	MC, NC	NMC, NNC
	Ordering Code: MC3	Ordering Code: NMC8
Spec.	D	D
	8	6
	10	8
	12	10
	13, 14	12, 13
	15	14
	16~18	15~17
	20, 22	18, 20
	25	22, 25
	<p>⊗ Not applicable to D6. ⊗ L: MCx2+NCx2</p> <p>⊗ Not applicable to Both Ends Threaded Type. ⊗ Not applicable to Both Ends Tapped Type.</p>	

Keyway

Type	Material	Hardness	Surface Treatment
CLKK	S45C (CLKK) S45C Equivalent (CLKG)	-	Black Oxide
CLKKH	S45C (CLKKH) S45C Equivalent (CLKGH)	40~45HRC	
PCLKG	S45C Equivalent (PCLG) (PCLGH) (GCLG)	-	Electroless Nickel Plating
PCLKGH	L Dimension Selectable	40~45HRC	
GCLKG	CLKGH Type is S45C Equivalent.	Plating Hardness 750HV-	Hard Chrome Plating
SCLKK	SUS304 Equivalent	-	
SCLKGH	SUS440C Equivalent	45 ~ 50HRC	

D Tolerance (g6)	Value
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

CLKK has identification grooves on the side in order to distinguish it from Hardened Type. (CLKG and PCLKG may also have identification grooves.)
This type may have centering holes depending on dimensions.
For L Dimension, Standard Machining Tolerances (Class: Medium) is used.

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L Dimension Selectable

Part Number Type	D	L Selection			ℓ	M	N	Unit Price		
		CLKK	CLKKH	SCLKK				CLKK	CLKKH	SCLKK
CLKK CLKKH (Hardened)	3	10 14 18 20	12 20	10 15 20	8	2.5	1			
	4	10	10 18 20	10 12 14 15 20						
	5	20	10 12 20	10 20						
	6	15 16 20 30	24 25 30	25 30						
	8	18 30 35 40 45 50	24 25 30 35 40 45 50	20 22 35 40 45 50						
SCLKK (Stainless Steel)	10	30 35 40 45 50	20 24 30 35 40 45 50	25 30 35 40 45 50	8	2.5	2			
	12	24 30 35 40 45 50	30 35 40 45 50	30 35 40 45 50						

L Dimension Configurable

Part Number Type	D	L=0.1mm Increment	ℓ	M	N	Unit Price						
						CLKG	CLKGH	PCLKG	PCLKGH	GCLKG	SCLKG	SCLKGH
CLKG CLKGH PCLKG PCLKGH GCLKG SCLKG SCLKGH	3	10.0~ 50.0	8	2.5	1							
	4											
	5											
	6											
	8											
	10											
	12	15.0~200.0			2							
	13											
	14											
	15											
	16											
	17	25.0~200.0				3						
18												
20												
22	30.0~200.0	3										
25												

SCLKGH may be discolored by hardening. Part Number CLKGH has been changed to CLKGHH.

Ordering Example: Part Number - L
CLKK8 - 30
CLKG15 - 120.3

Keys for Precision Pivot Pins

Part Number Type	Unit Price	Volume Discount Rate
HPK	2	1~29 pcs 30~200
WHPK	3.2	
SHPK	2	
(Stainless Steel)	3	

Part Number Type	No.	A	B	C	D	E	T	WHPK		WSPK	
								Unit Price	Volume Discount Rate	Unit Price	Volume Discount Rate
WHPK WSPK (Stainless Steel)	4	10	18	10	4.5	6	2.0				
	5	14	24	15	5.5	8					
	6	16	30	18	6.5	10	3.2 (3.0)				
	7	20	40	25	7	12	2.0 (3.2 (3.0))				

⊗ are the dimensions for WSPK plate thickness T. ⊗ For orders larger than indicated quantity, please check with WOS.

Ordering Example: Part Number - HPK2

HPK, WHPK Material: SPCC Surface Treatment: Black Oxide
SHPK, WSPK Material: SUS304-CP

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