

Pivot Pins

Lock Nut with Extra Low Hex Socket Head

■Features: Thinner shoulder design ensures use in limited spaces.



RoHS10

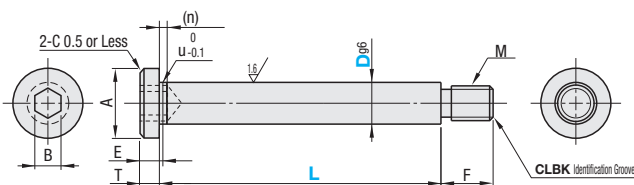
Type	M Material	H Hardness	S Surface Treatment	A Accessory
CLBK	S45C	-	Black Oxide	Nut 1 pc.
CLBKH	Equivalent	40~45HRC		
SCLBK	SUS304	-		
SCLBKH	SUS400 Equivalent	45~50HRC		

There are identification grooves on the side of **CLBK** to be distinguished from Hardened Type.

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.



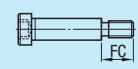
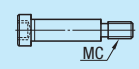
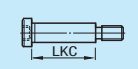
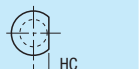
D	Tolerance
4-6	-0.004 -0.012
8, 10	-0.005 -0.014
12-18	-0.006 -0.017
20-25	-0.007 -0.020

Part Number		L=0.1mm Increment	A	T	F	B	E	u	(n)	M (Coarse)	Unit Price								
Type	D										CLBK	CLBKH	SCLBK	SCLBKH					
CLBK CLBKH SCLBK SCLBKH	4	10.0~50.0	7	1.5	6	2	2	3.9	1.5	M3									
	5	10.0~60.0	9		9	2.5		4.9		M4									
	6	10.0~100.0	10					5.8		M5									
	8	10.0~100.0	13		12	3		7.8		M6									
	10	15.0~100.0	16	2.5	16	4	3	9.8		M8									
	12	15.0~200.0	18		18	5		11.8		M10									
	13	25.0~200.0	24					12.8		M12									
	14							13.8											
	15	30.0~200.0	27	24	6	4	5	14.8		M16									
	16							15.8											
	20							19.8											
	25							24.8											

⚠ SCLBKH may be discolored by hardening.

Ordering Example
Part Number - L
CLBK15 - 120.3

Alterations
Part Number - L - (FC...etc.)
CLBK10 - 50.5 - FC8

	Thread Part Length	Thread Diameter	L Dimension Tolerance	Shoulder Diameter Cut
Alterations				
Code	FC	MC	LKC	HC
Spec.	Ordering Code FC4 FC=1mm Increment M(MC)≤FC≤M(MC)×3	Ordering Code MC3 MC (Selection Range) D 3 4 5 6 8 10 12 13-16 20 25 When ordering MC5 for D12, also specify Alteration FC. Not applicable to D4.	Ordering Code LKC Changes L dimension tolerance to ±0.05.	Ordering Code HC D=4~10 HC=A/2-1 D=12~25 HC=A/2-2

Pivot Pins

Tapped with Shoulder / Tapped, Hex Socket Head with Shoulder



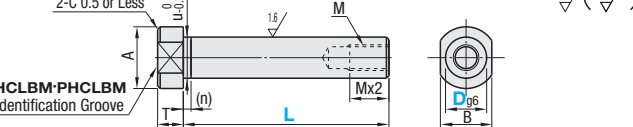
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Type	M Material	H Hardness	S Surface Treatment	D Tolerance (g6)
HCLBM	S45C Equivalent	-	Black Oxide	6 -0.004 -0.012
HCLBHM		40~45HRC		8, 10 -0.005 -0.014
PHCLBM		-	Electroless Nickel Plating	12~18 -0.006 -0.017
PHCLBHM		40~45HRC		20~25 -0.007 -0.020
GHCLBM	SUS304	-	Hard Chrome Plating: Plating Thickness 3µm or more	
SHCLBM		40~45HRC		
SHCLBHM		45~50HRC		
GSHCLBHM		45~50HRC Plating Hardness 750HV~	Hard Chrome Plating: Plating Thickness 3µm or more	

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

There are identification grooves on the side of **HCLBM** and **PHCLBM** to be distinguished from Hardened Type.

Relief dimension under the shoulder is for reference.



Part Number Type	D	L=0.1mm Increment	A	B	u	T	(n)	M (Coarse)	Unit Price						
HCLBM HCLBHM PHCLBM PHCLBHM GHCLBM SHCLBM SHCLBHM GSHCLBHM	6	15.0~100.0	10	8	5.8	5	1.5	M 3							
	8	15.0~100.0	13	10	7.8			M 5							
	10	20.0~100.0	16	13	9.8			M 6							
	12	20.0~200.0	18	14	11.8			M 8							
	13	25.0~200.0	24	21	12.8										
	14				13.8			M 10							
	15	30.0~200.0	27	23	14.8			M12							
	16				15.8										
	17				16.8										
	18				17.8										
	20	35.0~200.0	30	27	19.8			M16							
	22				21.8										
	25				24.8										

⚠ SHCLBHM and GSHCLBHM may be discolored by hardening.



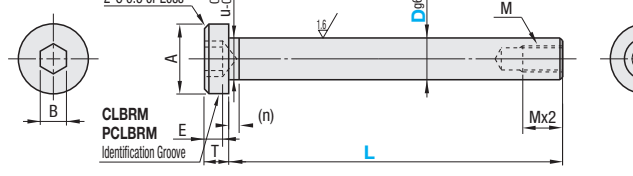
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Type	M Material	H Hardness	S Surface Treatment	D Tolerance (g6)
CLBRM	S45C Equivalent	-	Black Oxide	6 -0.004 -0.012
CLBRHM		40~45HRC		8, 10 -0.005 -0.014
PCLBRM		-	Electroless Nickel Plating	12~18 -0.006 -0.017
PCLBRHM		40~45HRC		20~25 -0.007 -0.020
GCLBRM	SUS304	-	Hard Chrome Plating: Plating Thickness 3µm or more	
SCLBRM		40~45HRC		
SCLBRHM		45~50HRC		
SCLBRHM		45~50HRC		

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

There are identification grooves on the side of **CLBRM** and **PCLBRM** to be distinguished from Hardened Type.

Relief dimension under the shoulder is for reference.

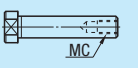
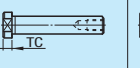
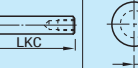
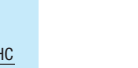


Part Number		L=0.1mm Increment	A	T	B	E	u	(n)	M (Coarse)	Unit Price					
Type	D									CLBRM	CLBRHM	PCLBRM	PCLBRHM	GCLBRM	SCLBRM
CLBRM CLBRHM PCLBRM PCLBRHM GCLBRM SCLBRM SCLBRHM	6	15.0~100.0	10	5	3	2	5.8	1.5	M 3						
	8	20.0~100.0	13		5	3	7.8		M 5						
	10	25.0~100.0	16		6	4	9.8		M 6						
	12	25.0~200.0	18				11.8								
	13	30.0~200.0	24		8	5	12.8		M 8						
	14						13.8								
	15						14.8			M10					
	16						15.8								
	17	35.0~200.0	27		10	6	16.8		M12						
	18						17.8								
	20						19.8								
	22						21.8			M16					
	25	55.0~200.0	30		12	8	24.8								

⚠ SCLBRHM may be discolored by hardening.

Ordering Example
Part Number - L
HCLBHM8 - 35.8
SCLBRHM10 - 50.5

Alterations
Part Number - L - (MC, TC, LKC, HC)
HCLBHM10 - 50.5 - TC3

	Thread Diameter	Shoulder Thickness	L Dimension Tolerance	Shoulder Diameter Cut
Alterations				
Code	MC	TC	LKC	HC
Spec.	Ordering Code MC3 MC (Selection Range) D 2.6 3 4 5 6 8 10 12 13-15 16-18 20, 22 25 FC=0.5mm Increment 2≤TC≤4.5 Not available for Tapped, Hex Socket Head with Shoulder Type.	Ordering Code TC3 TC=0.5mm Increment 2≤TC≤4.5	Ordering Code LKC Changes L dimension tolerance to ±0.05.	Ordering Code HC D=6~8 HC=A/2-1 D=10~25 HC=A/2-2