

PRESS-IN STYLE CAPTIVE PANEL FASTENER ASSEMBLIES

PF11, PF12

Part Number Designation: PF11 - M3 - 0 - BL

Type: PF11 Thread Code: M3 Screw Length Code: 0 Finish Code: BL

Materials and standard Finishes

Screw: 300 or 400 Series Stainless Steel, passivated
Knob: Aluminum, natural Finish
Retainer: Heat-Treated Carbon Steel, Bright Nickel Over Copper Flash
Spring: 300 Series Stainless Steel

For Use in Sheet Hardness: 80 or less on the Rockwell "B" Scale

PF11 (滚花旋钮/Knurled Cap) PF12 (光滑旋钮/Smooth Cap)

Standard Recess Styles: Phillips/Slot, Phillips, Slotted, 6-Lobe, 6-Lobe/Slot

Optional Recess Styles: PF11/12, PF11P/12P, PF11S/12S, PF11L/12L, PF11LS/12LS

	Thread Size		Type		Thread Code	Screw Length Code	A (Shank) max	Min Sheet Thick	Hole Size In sheet +0.08	C Max	E ± 0.25	G		P		T1 Nom	T2 Nom	Driver Size	Min. Dist. Hole C/L To Edge		
			Knurled Cap	Smooth Cap										± 0.64	± 0.64						
Metric	M3	PF11	PF12	M3	0	0.92	0.92	5.56	5.54	10.59	4.32	0	7.87	11.4	1#	7.11					
					1						5.84	1.52									
					2						7.37	3.05									
	M3.5	PF11	PF12	M3.5	0	0.92	0.92	6.35	6.33	11.43	5.84	0	11.43	16.3	2#	7.37					
					1						7.37	1.52									
					2						8.89	3.05									
	M4	PF11	PF12	M4	0	0.92	0.92	7.92	7.9	13.06	5.84	0	11.43	16.3	2#	8.38					
					1						7.37	1.52									
					2						8.89	3.05									
	M5	PF11	PF12	M5	0	0.92	0.92	7.92	7.9	13.06	5.84	0	11.43	16.3	2#	8.38					
					1						7.37	1.52									
					2						8.89	3.05									
	M6	PF11	PF12	M6	0	0.92	0.92	9.53	9.5	14.61	7.37	0	13.46	20.1	3#	11.68					
					1						8.89	1.52									
					2						10.41	3.05									
Unified	.112-40 #4-40	PF11	PF12	440	0	0.92	0.92	5.56	5.54	10.59	4.32	.170	0	7.87	11.4	1#	7.11				
					1						5.84	.230	1.52					7.87	11.4	1#	7.11
					2						7.37	.290	3.05								
	.138-32 #6-32	PF11	PF12	632	0	0.92	0.92	6.35	6.33	11.43	5.84	.230	0	11.43	16.3	2#	7.37				
					1						7.37	.290	1.52					11.43	16.3	2#	7.37
					2						8.89	.350	3.05								
	.164-32 #8-32	PF11	PF12	832	0	0.92	0.92	7.92	7.9	13.06	5.84	.230	0	11.43	16.3	2#	8.38				
					1						7.37	.290	1.52					11.43	16.3	2#	8.38
					2						8.89	.350	3.05								
	.190-32 #10-32	PF11	PF12	032	0	0.92	0.92	7.92	7.9	13.06	5.84	.230	0	11.43	16.3	2#	8.38				
					1						7.37	.290	1.52					11.43	16.3	2#	8.38
					2						8.89	.350	3.05								
	.250-20 1/4-20	PF11	PF12	0420	0	0.92	0.92	9.53	9.5	14.6	7.37	.290	0	13.46	20.1	3#	11.68				
					1						8.89	.350	1.52					13.46	20.1	3#	11.68
					2						10.41	.410	3.05								

PRESS-IN STYLE CAPTIVE PANEL FASTENER ASSEMBLIES

PF13, PF14

Part Number Designation: PF13 - M3 - 0 - BL

Type: PF13 Thread Code: M3 Screw Length Code: 0 Finish Code: BL

Materials and standard Finishes

Screw: 300 or 400 Series Stainless Steel, passivated
Knob: Aluminum, natural Finish
Retainer: Heat-Treated Carbon Steel, Bright Nickel Over Copper Flash
Spring: 300 Series Stainless Steel

For Use in Sheet Hardness: 80 or less on the Rockwell "B" Scale

PF13 (滚花旋钮/Knurled Cap) PF14 (光滑旋钮/Smooth Cap)

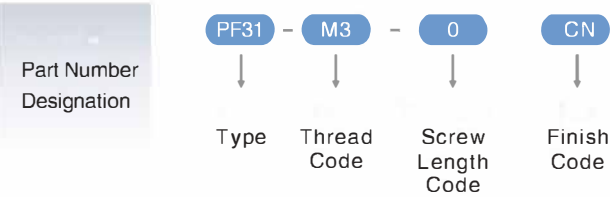
Standard Recess Styles: Phillips/Slot, Phillips, Slotted, 6-Lobe, 6-Lobe/Slot

Optional Recess Styles: PF13/14, PF13P/14P, PF13S/14S, PF13L/14L, PF13LS/14LS

	Thread Size	Type		Thread Code	Screw Length Code	A max	Min Sheet Thick	Hole Size In sheet +0.08	C Max	E ± 0.25	G ± 0.64		P ± 0.64		T1 Nom	T2 Nom	Driver Size	Min. Dist. Hole C/L To Edge					
		Knurled Cap	Smooth Cap																				
Metric	M3	PF13	PF14	M3	0	0.92	0.92	5.56	5.54	10.59	4.32	0		7.87	11.43	1#	7.11						
					1						5.84	1.52											
					2						7.37	3.05											
	M3.5	PF13	PF14	M3.5	0	0.92	0.92	6.35	6.33	11.43	5.84	0		11.43	16.26	2#	7.37						
					1						7.37	1.52											
					2						8.89	3.05											
	M4	PF13	PF14	M4	0	0.92	0.92	7.92	7.9	13.06	5.84	0		11.43	16.26	2#	8.38						
					1						7.37	1.52											
					2						8.89	3.05											
	M5	PF13	PF14	M5	0	0.92	0.92	7.92	7.9	13.06	5.84	0		11.43	16.26	2#	8.38						
					1						7.37	1.52											
					2						8.89	3.05											
	M6	PF13	PF14	M6	0	0.92	0.92	9.53	9.5	14.61	7.37	0		13.46	20.07	3#	11.68						
					1						8.89	1.52											
					2						10.41	3.05											
Unified	.112-40 #4-40	PF13	PF14	440	0	0.92	0.92	5.56	5.54	10.59	4.32	.170	0	.000	7.87	11.43	1#	7.11					
					1						.036	.036	.219	.218					.417	5.84	.230	1.52	.060
					2						.036	.036	.219	.218					.417	7.37	.290	3.05	.120
	.138-32 #6-32	PF13	PF14	632	0	0.92	0.92	6.35	6.33	11.43	5.84	.230	0	.000	11.43	16.3	2#	7.37					
					1						.036	.036	.250	.249					.450	7.37	.290	1.52	.060
					2						.036	.036	.250	.249					.450	8.89	.350	3.05	.120
	.164-32 #8-32	PF13	PF14	832	0	0.92	0.92	7.92	7.9	13.1	5.84	.230	0	.000	11.43	16.26	2#	8.38					
					1						.036	.036	.312	.311					.514	7.37	.290	1.52	.060
					2						.036	.036	.312	.311					.514	8.89	.350	3.05	.120
	.190-32 #10-32	PF13	PF14	032	0	0.92	0.92	7.92	7.9	13.1	5.84	.230	0	.000	11.43	16.26	2#	8.38					
					1						.036	.036	.312	.311					.514	7.37	.290	1.52	.060
					2						.036	.036	.312	.311					.514	8.89	.350	3.05	.120
	.250-20 1/4-20	PF13	PF14	0420	0	0.92	0.92	9.53	9.5	14.61	7.37	.290	0	.000	13.46	20.07	3#	11.68					
					1						.036	.036	.375	.374					.575	8.89	.350	1.52	.060
					2						.036	.036	.375	.374					.575	10.41	.410	3.05	.120

PRESS-IN STYLE CAPTIVE PANEL FASTENER ASSEMBLIES

PF30, PF31, PF32



PF Series Materials and standard Finishes

Screw: Carbon Steel, Bright Nickel Over Copper Flash

Retainer: Heat-Treated Carbon Steel, Bright Nickel Over Copper Flash

Spring: 300 Series Stainless Steel

HRB60 For Use in Sheet Hardness: 60 or less on the Rockwell "B" Scale

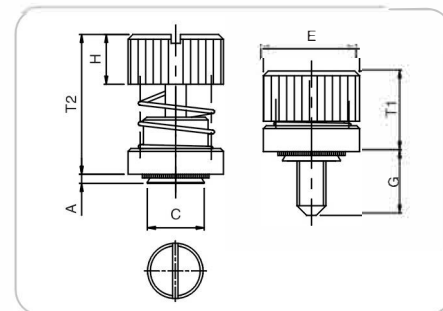
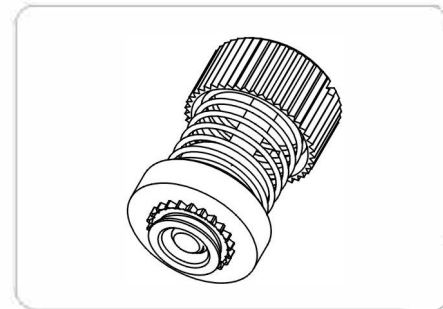
PFS Series Materials and standard Finishes

Screw: 300 Series Stainless Steel, Passivation

Retainer: 300 Series Stainless Steel, Passivation

Spring: 300 Series Stainless Steel

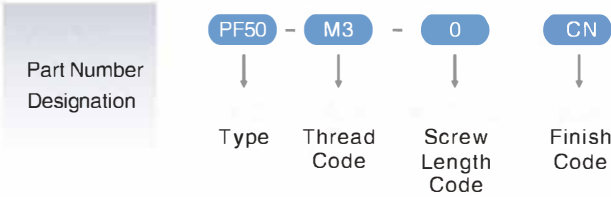
HRB70 For Use in Sheet Hardness: 70 or Less on the Rockwell "B" Scale



	Thread Size	Type		Thread Code	Screw Length Code	A		Minimum Sheet Thickness	Hole Size In sheet +0.08	C	E	G	H	T1	T2	Min. Dist. Hole C/L To Edge	
		鋼 steel	Stainless Steel			Max											
Metric	M3	PF31	PFS31	M3	30	0.97	1	5.5	5.48	10.3	7.62	5.13	8.26	15.11	6.6		
		PF32	PFS32			1.48	1.5										
		PF31A	PFS31A	M3	30	0.97	1	6	5.97								
		PF32A	PFS32A			1.48	1.5										
	M4	PF31	PFS31	M4	30	0.97	1	6.4	6.38	11.9	7.62	5.26	8.38	15.24	7.37		
		PF32	PFS32			1.48	1.5										
	M5	PF31	PFS31	M5	30	0.97	1	8	7.98	13.5	7.62	5.59	8.51	15.37	8.38		
		PF32	PFS32			1.48	1.5										
	M6	PF32	PFS32	M6	35	1.48	1.5	9.5	9.48	15.9	8.89	6.12	9.78	17.15	9.65		
	Unified	.112-40 #4-40	PF30	PFS30	440	30	0.76	.030	0.76	.030	5.16 .203	5.13 .202	10.3 .406	7.62 .300	5.13 .202	8.26 .325	15.1 .595
PF31			PFS31	0.97			.038	1	.040								
PF32			PFS32	1.47			.058	1.5	.060								
.138-32 #6-32		PF30	PFS30	632	30	0.76	.030	0.76	.030	5.56 .219	5.54 .218	11.13 .438	7.62 .300	5.13 .202	8.26 .325	15.1 .595	7.11 .28
		PF31	PFS31			0.97	.038	1	.040								
		PF32	PFS32			1.47	.058	1.5	.060								
.164-32 #8-32		PF30	PFS30	832	30	0.76	.030	0.76	.030	6.35 .250	6.32 .249	11.89 .468	7.62 .300	5.26 .207	8.38 .330	15.24 .600	7.4 .29
		PF31	PFS31			0.97	.038	1	.040								
		PF32	PFS32			1.47	.058	1.5	.060								
.190-32 #10-32		PF30	PFS30	032	30	0.76	.030	0.76	.030	7.92 .312	7.9 .311	13.46 .530	7.62 .300	5.59 .220	8.51 .335	15.37 .605	8.38 .33
		PF31	PFS31			0.97	.038	1	.040								
		PF32	PFS32			1.47	.058	1.5	.060								
.250-20 1/4-20		PF32	PFS32	0420	35	1.47	.058	1.5	.060	9.52 .375	9.5 .374	15.88 .625	8.89 .350	6.15 .242	9.78 .385	17.15 .675	9.65 .38

PRESS-IN STYLE CAPTIVE PANEL FASTENER ASSEMBLIES

PF50, PF60



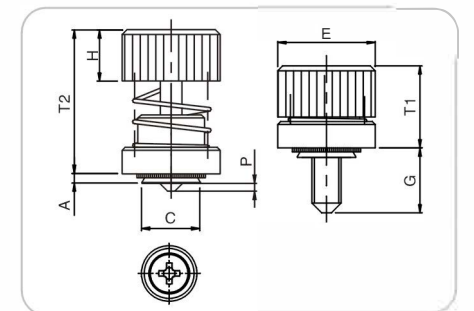
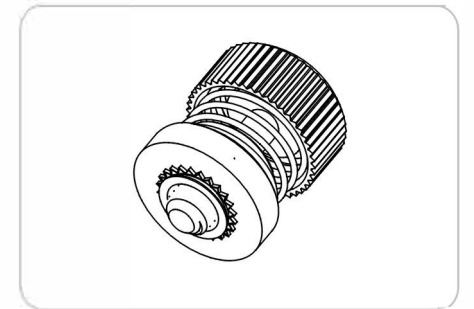
Materials and standard Finishes

Screw: Carbon Steel, Bright Nickel Over Copper Flash

Retainer: Heat-Treated Carbon Steel, Bright Nickel Over Copper Flash

Spring: 300 Series Stainless Steel

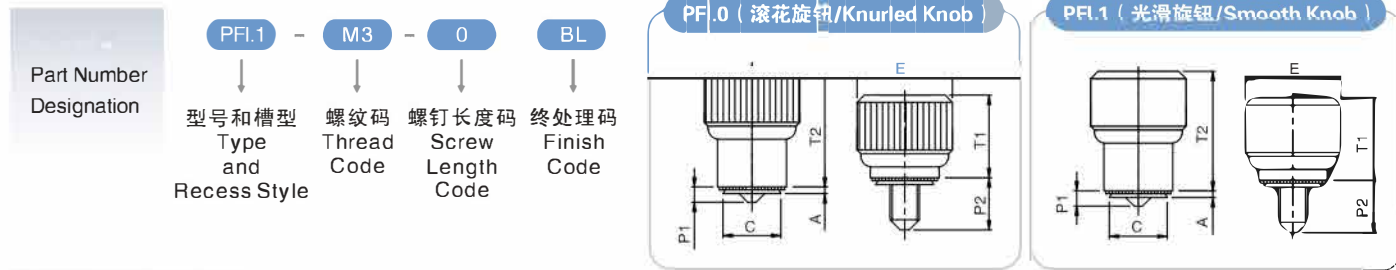
HRB60 For Use in Sheet Hardness: 60 or less on the Rockwell "B" Scale



	Size	Type		Thread Code	Screw Length Code	A	Minimum Sheet Thickness	Hole Size In sheet +0.08	C	E	G	H	P	T1	T2	Driver Size	Min. Dist. Hole C/L To Edge
		Knurled Cap	Smooth Cap			Max											
Metric	M3	PF50	PF60	M3	0	0.77	0.8	5.5	5.48	10.3	5.84	5.26	0	8.64	13.2	#1	6.6
					1						7.37		1.52				
	M3.5	PF50	PF60	M3.5	0	0.77	0.8	5.56	5.54	11.1	5.84	5.26	0	8.64	13.2	#2	7.1
					1						7.37		1.52				
	M4	PF50	PF60	M4	0	0.77	0.8	6.4	6.38	11.9	5.84	5.51	0	8.64	13.5	#2	7.4
					1						7.37		1.52				
Unified	.112-40 #4-40	PF50	PF60	440	0	0.77	0.8	5.16	5.13	10.3	5.84	5.26	0	8.64	13.2	#1	6.6
					1	.030	.030	.203	.202	.406	7.37	.207	1.52	.060	.340	.520	.26
	.138-32 #6-32	PF50	PF60	632	0	0.77	0.8	5.56	5.54	11.1	5.84	5.26	0	8.64	13.2	#2	7.11
					1	.030	.030	.219	.218	.438	7.37	.207	1.52	.060	.340	.520	0.28
	.164-32 #8-32	PF50	PF60	832	0	0.77	0.8	6.35	6.32	11.9	5.84	5.51	0	8.64	13.5	#2	7.37
					1	.030	.030	0.25	.249	.468	7.37	.217	1.52	.060	.340	.530	.29
	.190-32 #10-32	PF50	PF60	032	0	0.77	0.8	7.92	7.9	13.46	5.84	5.72	0	9.14	13.5	#2	8.38
					1	.030	.030	.312	.311	.530	7.37	.225	1.52	.060	.360	.530	.33
	.250-20 1/4-20	PF52	PF62	0420	0	1.47	1.5	9.52	9.5	15.9	7.11	6.25	0	10.03	15.2	#2	9.65
					1	.058	.060	.375	.374	.625	8.64	.246	1.52	.060	.395	.600	.38

PRESS-IN STYLE CAPTIVE PANEL FASTENER ASSEMBLIES

PFI.0, PFI.1



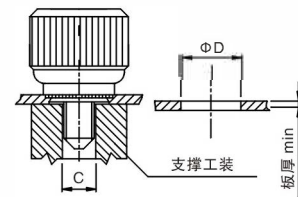
Materials and standard Finishes

Screw: Heat-Treated Carbon Steel, Zinc Plate, Chromate Plus Sealer or zinc Plate, chromate Plus Powder coating (screw head only)

Knob: Aluminum, natural finish
Retainer: Heat-Treated Carbon Steel, Zinc Plate, Chromate Plus Sealer

Spring: 300 Series Stainless Steel, Passivated

HRB80 For Use in Sheet
Hardness:
80 or less on the Rockwell "B" Scale
Southco
The type fasteners corresponds with SOUTH CO press-in style captive fasteners



Thread Size	Hole Size In Sheet	Hole C ± 0.15
M3/#4-40	5.6 ± 0.04	3.25
M3.5/#6-32	6.4 ± 0.03/-0.05	3.75
M4/#8-32	8-0.08	4.45
M5/#10-32	8.0/-0.08	5.25
M6/1/4-20	9.5 ± 0.1	6.25

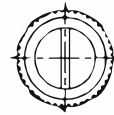
Phillips/Slot

Phillips

Slotted

6-Lobe

6-Lobe/Slot



PFI.0P/I.1P

PFI.0S/I.1S

PFI.0L/I.1L

PFI.0LS/I.1LS

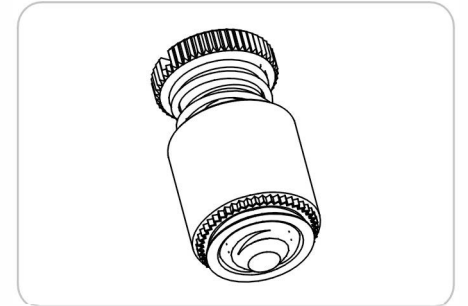
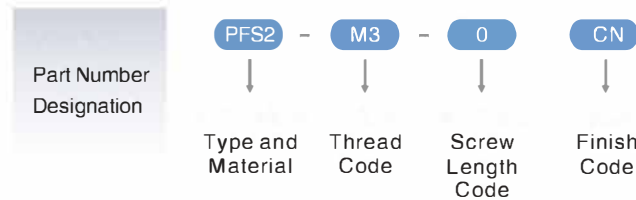
Standard Recess Styles

Optional Recess Styles

Thread Size	Recess Style		Thread Code	Screw Length Code	A Max	Minimum Sheet Thickness	Hole Size In sheet ΦD	C Max	E	P1	P2	Knob Height		Recess Style			Min. Dist. Hole C/L To Edge
	Knurled Cap	Smooth Cap										T1	T2	Slotted	Phillips	Torx	
M3 #4-40	PFI.0	PFI.1	M3 440	40	0.9	0.036	5.6	5.5	10.6	0.8	4	8.3	11.5	W=1 D=1	#1	T10 深1.1	8.4
				57													
				72													
				88													
M3.5 #6-32	PFI.0	PFI.1	M3.5 632	53	0.9	0.036	6.4	6.3	11.5	0.5	5.3	11.1	15.9	W=1.2 D=1.2	#2	T15 深1.8	9.6
				69													
				85													
				101													
M4 #8-32	PFI.0	PFI.1	M4 832	56	0.9	0.036	8	7.9	13	0.7	5.6	11.3	16.2	W=1.2 D=1.3	#2	T25 深2.3	12
				72													
				87													
				103													
M5 #10-32	PFI.0	PFI.1	M5 032	56	0.9	0.036	8	7.9	13	0.7	5.6	11.3	16.2	W=1.2 D=1.3	#2	T25 深2.3	12
				72													
				87													
				103													
M6 1/4-20	PFI.0	PFI.1	M6 0420	71	0.9	0.036	9.50	9.4	14.7	0.5	7.1	13.4	20	W=1.6 D=1.6	#2	T30 深2.3	14.1
				87													
				103													
				119													

PRESS-IN STYLE CAPTIVE PANEL FASTENER ASSEMBLIES

PFS2, PFC2



PFS2 Materials and standard Finishes

Screw and Retainer: Heat-Treated Carbon Steel, Bright Nickel Over Copper Flash

Spring: 300 Series Stainless Steel

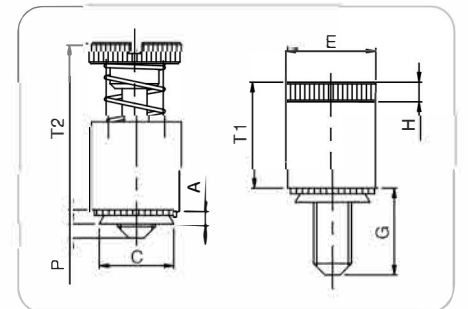
HRB80 For Use in Sheet
Hardness: 80 or less on the Rockwell "B" Scale

PFC2 Materials and standard Finishes

Screw and Retainer: 300 Series Stainless Steel, Passivated

Spring: 300 Series Stainless Steel

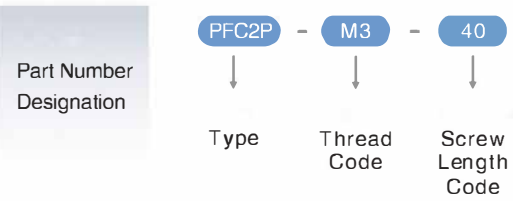
HRB70 For Use in Sheet
Hardness: 70 or less on the Rockwell "B" Scale



	Thread Size	Type		Thread Code	Screw Length Code	A Max	Minimum Sheet Thickness	Hole Size In sheet +0.08	C Max	E ± 0.25	G ± 0.4	H ± 0.13	P ± 0.64	T1 Max	T2 Nom	Min. Dist. Hole C/L To Edge
		steel	Stainless Steel													
公制 Metric	M3	PFS2	PFC2	M3	40	1.52	1.52	6.73	6.71	7.92	6.4	1.83	0	9.14	13.72	6.35
					62						9.5		3.2			
	M4	PFS2	PFC2	M4	50	1.52	1.52	7.92	7.9	9.53	7.9	2.08	0	11.43	17.53	7.87
					72						11.1		3.2			
	94	14.3	6.4													
	M5	PFS2	PFC2	M5	50						1.52		1.52			
					72	11.1	3.2									
	94	14.3	6.4													
	M6	PFS2	PFC2	M6	60	1.52	1.52	10.49	10.47	11.89		9.5		2.46	0	14.73
					82						12.7	3.2				
	04	15.9	6.4													
	英制 Unified	.112-40 #4-40	PFS2	PFC2	440						40	1.52 .060	1.52 .060		6.73 .265	
62						9.5 .375	3.2 .125									
.138-32 #6-32		PFS2	PFC2	632	40	1.52 .060	1.52 .060	7.14 .281	7.11 .280	8.74 .344	6.35 .250	1.83 .072	0 .000	9.14 .36	13.72 .54	7.11 .28
					62						9.5 .375		3.2 .125			
84		12.7 .500	6.35 .250													
.164-32 #8-32		PFS2	PFC2	832	50						1.52 .060		1.52 .060			
					72	11.1 .437	3.2 .125									
94		14.3 .562	6.35 .250													
.190-32 #10-32		PFS2	PFC2	032	50	1.52 .060	1.52 .060	8.74 .344	8.71 .343	10.31 .406		7.9 .312		2.08 .082	0 .000	11.43 .45
					72						11.1 .437	3.2 .125				
94		14.3 .562	6.35 .250													
.250-20 1/4-20		PFS2	PFC2	0420	60						1.52 .060	1.52 .060	10.49 .413		10.46 .412	
					82	12.7 .500	3.2 .125									
04		15.9 .625	6.35 .250													

PRESS-IN STYLE CAPTIVE PANEL FASTENER ASSEMBLIES

PFC2P

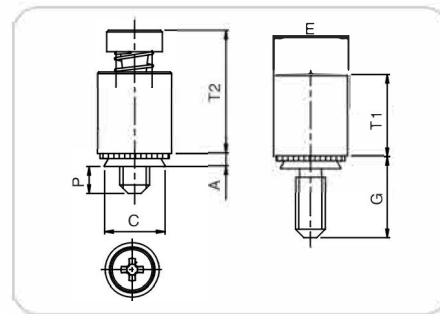
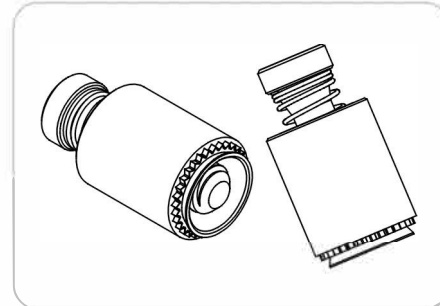


Materials and standard Finishes

Screw:300 or 400 Series Stainless Steel, passivated

Retainer:300 Series Stainless Steel, Passivated

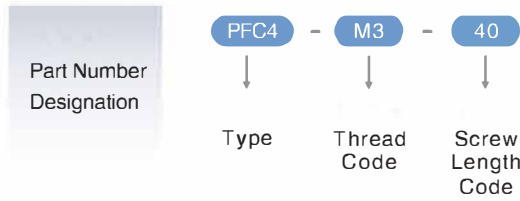
Spring:300 Series Stainless Steel
HRB70 For Use in Sheet Hardness:
70 or less on the Rockwell"B"Scale



	Thread Size	Type	Thread Code	Screw Length Code	A Max	Minimum Sheet Thickness	Hole Size In sheet +0.08	C Max	E ± 0.25	G ± 0.4	P ± 0.64	T1 Max	T2 Nom	Driver Size	Min.Dist. Hole C/L To Edge
Metric	M3 x 0.5	PFC2P	M3	40	1.53	1.53	6.73	6.71	7.92	6.4	0	9.4	13.72	#1	6.35
				62						9.5	3.2				
	M4 x 0.7	PFC2P	M4	50	1.53	1.53	7.92	7.9	9.53	7.9	0	12.19	17.91	#2	7.87
				72						11.1	3.2				
				94						14.3	6.4				
	M5 x 0.8	PFC2P	M5	50	1.53	1.53	8.74	8.72	10.31	7.9	0	12.45	17.91	#2	8.63
				72						11.1	3.2				
				94						14.3	6.4				
	M6 x 1	PFC2P	M6	60	1.53	1.53	10.49	10.47	11.89	9.5	0	15.75	22.99	#3	9.65
				82						12.7	3.2				
				04						15.9	6.4				
Unified	.112-40 4-40	PFC2P	440	40	1.52 .060	1.52 .060	6.73 .265	6.71 .264	7.92 .312	6.35 .250	0 .000	9.4 .370	13.72 .540	#1	6.35 .25
				62						9.5 .375	3.2 .125				
	.138-32 6-32	PFC2P	632	40	1.52 .060	1.52 .060	7.13 .281	7.11 .280	8.73 .344	6.35 .250	0 .000	9.65 .380	13.72 .540	#2	7.11 .28
				62						9.5 .375	3.2 .125				
				84						12.7 .500	6.35 .250				
	.164-32 8-32	PFC2P	832	50	1.52 .060	1.52 .060	7.9 .312	7.89 .311	9.53 .375	7.9 .312	0 .000	12.19 .480	17.91 .705	#2	7.87 .31
				72						11.1 .437	3.2 .125				
				94						14.3 .562	6.35 .250				
	.190-32 10-32	PFC2P	032	50	1.52 .060	1.52 .060	8.74 .344	8.72 .343	10.31 .406	7.9 .312	0 .000	12.45 .490	17.91 .705	#2	8.63 .34
				72						11.1 .437	3.2 .125				
				94						14.3 .562	6.35 .250				
	.250-20 1/4-20	PFC2P	0420	60	1.52 .060	1.52 .060	10.49 .413	10.46 .412	11.89 .468	9.5 .375	0 .000	15.75 .620	22.99 .905	#3	9.65 .38
				82						12.7 .500	3.2 .125				
				04						15.9 .625	6.35 .250				

PRESS-IN STYLE CAPTIVE PANEL FASTENER ASSEMBLIES

PFC4

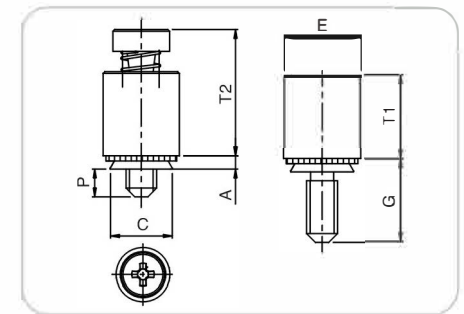
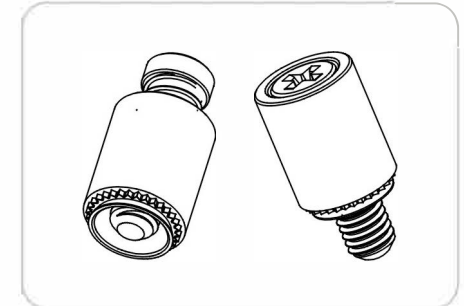


Materials and standard Finishes

Screw:400 Series Stainless Steel, passivated

Retainer:400 Series Stainless Steel, Quench
Hardening,Passivated

Spring:300 Series Stainless Steel
HRB88 For Use in Sheet Hardness:
88 or less on the Rockwell"B"Scale



	Thread Code	Type	Thread Code	Screw Length Code	A Max	Min. Sheet Thickness	Hole Size In sheet +0.08	C Max	E ± 0.25	G ± 0.4	P ± 0.64	T1 Max	T2 Nom	Driver Size	Min.Dist. Hole C/L To Edge
Metric	M3	PFC4	M3	40	1.53	1.53	6.73	6.71	8.74	6.4	0	9.4	13.72	#1	6.35
				62						9.5	3.2				
	M4	PFC4	M4	50	1.53	1.53	7.92	7.9	10.31	7.9	0	12.19	17.91	#2	7.87
				72						11.1	3.2				
				94						14.3	6.4				
	M5	PFC4	M5	50	1.53	1.53	8.74	8.72	11.1	7.9	0	12.45	17.91	#2	8.63
				72						11.1	3.2				
				94						14.3	6.4				
Unified	.112-40 #4-40	PFC4	440	40	1.52 .060	1.52 .060	6.73 .265	6.71 .264	8.74 .344	6.35 .250	0 .000	9.4 .370	13.72 .540	#1	6.35 .25
				62						9.5 .375	3.2 .125				
	.138-32 #6-32	PFC4	632	40	1.52 .060	1.52 .060	7.13 .281	7.11 .280	9.52 .375	6.35 .250	0 .000	9.65 .380	13.72 .540	#2	7.11 .28
				62						9.5 .375	3.2 .125				
				84						12.7 .500	6.35 .250				
	.164-32 #8-32	PFC4	832	50	1.52 .060	1.52 .060	7.92 .312	7.9 .311	10.31 .406	7.9 .312	0 .000	12.19 .480	17.91 .705	#2	7.87 .31
				72						11.1 .437	3.2 .125				
				94						14.3 .562	6.35 .250				
	.190-32 #10-32	PFC4	032	50	1.52 .060	1.52 .060	8.74 .344	8.71 .343	11.1 14.3	7.9 .312	0 .000	12.45 .490	17.91 .705	#2	8.63 .34
				72						11.1 .437	3.2 .125				
				94						14.3 .562	6.35 .250				

PRESS-IN STYLE CAPTIVE PANEL FASTENER ASSEMBLIES

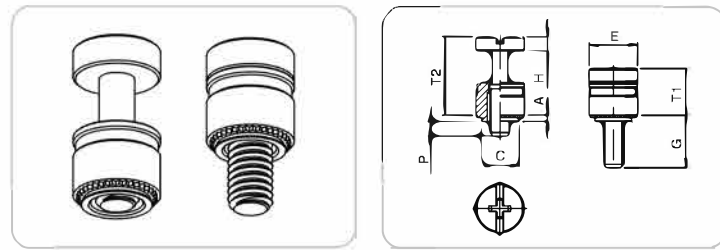
PFHV

Part Number
Designation

PFHV - M3 - 40 40N

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Type Thread Code Screw Length Code Finish Code



Materials and standard Finishes

Screw: Heat-Treated Carbon Steel,
Finish: Bright Nickel Over Copper Flash

Retainer: Carbon Steel,
Finish: Bright Nickel Over Copper Flash

HRB60 For Use in Sheet Hardness:
60 or less on the Rockwell "B" Scale

Metric	Thread Size	Type	Thread Code	Screw Length Code	A Max	Min. Sheet Thickness	Hole Size In sheet +0.08	C Max	E ±0.25	G ±0.64	H ±0.13	P ±0.64	T1 Nom	T2 Nom	Driver Size	Min. Dist. Hole C/L To Edge	
Metric	M3	PFHV	M3	0	0.92	0.92	5.5	5.49	6.95	5.55	2.03	0	6.69	11.3	#1	5.8	
				1						7.56		1.9					
	M3.5	PFHV	M3.5	0	0.92	0.92	6	5.98	7.45	6.01	2.34	0	7.45	12.5	#2	6.3	
				1						8.42		2.3					
	M4	PFHV	M4	0	0.92	0.92	6.4	6.38	7.85	6.59	2.79	0	8.5	14.1	#2	6.7	
				1						9.39		2.7					
Unified	.112-40 #4-40	PFHV	440	0	0.92	0.92	5.16	5.13	6.6	5.48	.216	0	.000	6.6	11.1	#1	5.41
				1	.036	.036	.203	.202	.260	8.02	.316	.080	2.4	.095	.260	.436	.213
	.138-32 #6-32	PFHV	632	0	0.92	0.92	5.56	5.53	7.01	5.94	.234	0	.000	7.36	12.3	#2	5.84
				1	.036	.036	.219	.218	.276	9.11	.359	.092	3.05	.120	.290	.484	.230

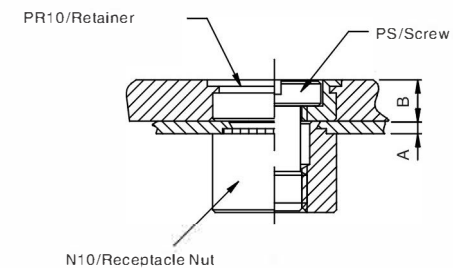
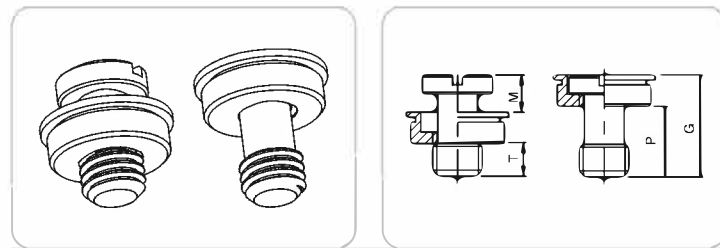
PF10

Part Number
Designation

PR10 - M3 - 40

↓ ↓ ↓

Type Thread Code Screw Length Code



Metric	Thread Size	Type	Thread Code	Screw Length Code	A Min	B Nom	G ±0.25	M	P	T Nom
Metric	M3	PF10	M3	40	1	3.18	10.16	4.06	7.11	3.3
	M4	PF10	M4	40	1	3.18	10.16	4.06	7.11	3.3
	M5	PF10	M5	40	1	3.18	10.16	4.06	7.11	3.3
Unified	.112-40 #4-40	PF10	440	40	1	3.18	10.16	4.06	7.11	3.3
					.04	.125	.40	.16	.28	.13
	.138-32 #6-32	PF10	632	40	1	3.18	10.16	4.06	7.11	3.3
					.04	.125	.40	.16	.28	.13
	.164-32 #8-32	PF10	832	40	1	3.18	10.16	4.06	7.11	3.3
					.04	.125	.40	.16	.28	.13
Unified	.190-32 #10-32	PF10	032	40	1	3.18	10.16	4.06	7.11	3.3
					.04	.125	.40	.16	.28	.13

FLUSH-MOUNTED SCREWS

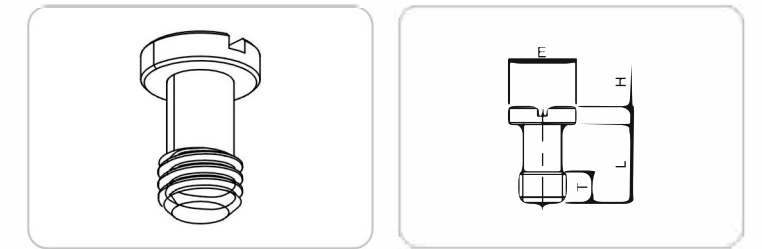
PS10

Part Number
Designation

PS10 - M3 - 40N

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Type Thread Code Screw Length Code

Materials and standard Finishes
300 Series Stainless Steel, Passivated

Metric	Thread Size	Type	Thread Code	Screw Length Code	E Nom	H +0.05 -0.15	L ±0.25	T Nom
公	M3X0.5	PS10	M3	40	4.7	1.91	8.38	3.3
	M4X0.7	PS10	M4	40	6.3	1.91	8.38	3.3
	M5X0.8	PS10	M5	40	7.1	1.91	8.38	3.3
吋制 Unified	.112-40 #4-40	PS10	440	40	4.6 .18	1.91 .075	8.38 .33	3.3 .13
	.138-32 #6-32	PS10	632	40	5.3 .21	1.91 .075	8.38 .33	3.3 .13
	.164-32 #8-32	PS10	832	40	6.35 .25	1.91 .075	8.38 .33	3.3 .13
	.190-32	PS10	032	40	7.11	1.91	8.38	3.3
	#10-32				.28	.075	.33	.13

FLUSH-MOUNTED RETAINERS

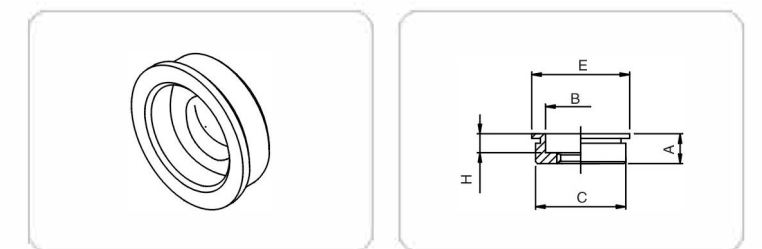
PR10

Part Number
Designation

PR10 - M3

↓ ↓

Type Thread Code



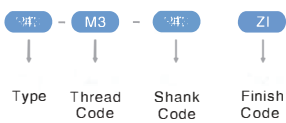
Materials and standard Finishes

300 Series Stainless Steel, Passivated
HRB70 For Use in Sheet Hardness: 70 or less on the
Rockwell "B" Scale

Metric	Thread Size	Type	Thread Code	A Max	Min. Sheet for Self-Clinching	Min. Sheet For Flush Installation	Hole Size In Sheet +0.08	B Nom	C Max	E Nom	H Nom	Min. Dist. Hole C/L To Edge
Metric	M3X0.5	PR10	M3	3.18	1.27	3.18	7.14	5	7.12	7.9	1.9	7.9
	M4X0.7	PR10	M4	3.18	1.27	3.18	8.74	6.5	8.72	9.5	1.9	8.7
	M5X0.8	PR10	M5	3.18	1.27	3.18	9.53	7.4	9.5	10.41	1.9	9.2
Unified	.112-40 #4-40	PR10	440	3.18	1.27	3.18	7.14	4.95	7.12	7.87	1.9	7.87
				.125	.050	.125	.281	.195	.280	.31	.075	.31
	.138-32 #6-32	PR10	632	3.18	1.27	3.18	7.92	5.72	7.9	8.64	1.9	8.38
				.125	.050	.125	.312	.225	.311	.34	.075	.33
	.164-32 #8-32	PR10	832	3.18	1.27	3.18	8.74	6.48	8.71	9.4	1.9	8.64
				.125	.050	.125	.344	.255	.343	.37	.075	.34
Unified	.190-32 #10-32	PR10	032	3.18	1.27	3.18	9.53	7.37	9.5	10.4	1.9	9.14
				.125	.050	.125	.375	.290	.374	.41	.075	.36

SELF-CLINCHING RECPTACLE NUTS

N10

Part Number
Designation

Materials and standard Finishes

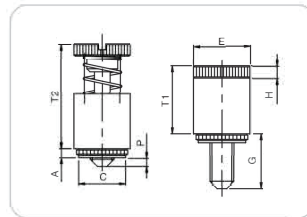
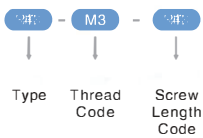
Retainer: Heat-Treated Carbon Steel, Zinc Plate, Chromate Plus Sealer

HRB80 For Use in Sheet Hardness: 80 or less on the Rockwell "B" Scale

Metric	Thread Size	Type	Thread Code	Shank Code	A Max	Min. Sheet Thickness	Hole Size in Sheet +0.08	C	E	F	H	T	Min. Dist. Hole C/L To Edge
								Max	Nom	± 0.25	Nom	± 0.13	
Unified	M3X0.5	N10	M3	1	0.97	1	4.75	4.73	7.11	3.3	3.2	6	5.59
	M4X0.7	N10	M4	1	0.97	1	6.35	6.33	8.64	3.3	4.75	6	7.11
	M5X0.8	N10	M5	1	0.97	1	7.04	7.01	9.53	3.3	5.41	6	7.87
	.112-.40 #4-.40	N10	440	1	0.97 .038	1 .040	4.75 .187	4.72 .186	7.11 .28	3.3 .130	3.2 .126	6 .24	5.59 .22
	.138-.32 #6-.32	N10	632	1	0.97 .038	1 .040	5.41 .213	5.38 .212	7.87 .31	3.3 .130	3.96 .156	6 .24	6.86 .27
	.164-.32 #8-.32	N10	832	1	0.97 .038	1 .040	6.35 .250	6.32 .249	8.64 .34	3.3 .130	4.75 .167	6 .24	7.11 .28
Unified	.190-.32 #10-.32	N10	032	1	0.97 .038	1 .040	7.04 .277	7.01 .276	9.4 .37	3.3 .130	5.41 .213	6 .24	7.87 .31

PRESS-IN STYLE CAPTIVE PANEL FASTENER ASSEMBLIES

PFK

Part Number
Designation

Materials and standard Finishes

Screw: 300 Series Stainless Steel, Passivated

Retainer: 300 Series Stainless Steel, Passivated

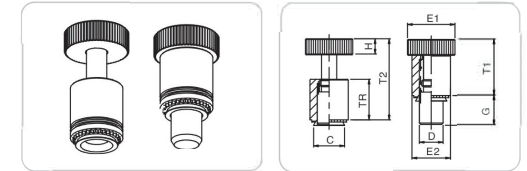
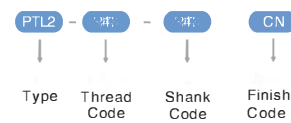
Spring: 300 Series Stainless Steel

HRB70 For Use in Sheet Hardness: 70 or less on the Rockwell "B" Scale

Metric	Thread Size	Type	Thread Code	Screw Length Code	A Max	Min. Sheet Thickness	Hole Size in Sheet +0.08	C	E	G	H	P	T1	T2	Min. Dist. Hole C/L To Edge
								Max	Nom	± 0.4	± 0.13	± 0.64	Max	Nom	
Unified	M3X0.5	PFK	M3	40	1.53	1.53	6.73	7.19	7.92	6.4	9.5	1.83	3.2	9.14	5.08
				62						12.7	6.4				
				84						25.0	0				
	.112-.40 #4-.40	PFK	440	62	1.53 .060	1.53 .060	6.73 .265	7.19 .283	7.92 .312	9.5 .375	1.83 .072	3.175 .125	9.14 .36	13.72 .54	5.08 .20
				84						25.0	0				
				40						6.35 .250	0				
Unified	.138-.32 #6-.32	PFK	632	62	1.53 .060	1.53 .060	7.13 .281	7.59 .299	8.74 .344	9.5 .375	1.83 .072	3.175 .125	9.14 .36	13.72 .54	6.6 .26
				84						25.0	0				
				40						6.35 .250	0				

SPRING-LOADED PLUNGER ASSEMBLIES

PTL2, PSL2

Part Number
Designation

Material and Finish

Retainer and Plunger: Heat-Treated Carbon Steel, Nickel Over Copper Flash

Spring: 300 Series Stainless Steel

HRB80 For Use in Sheet Hardness: 80 or less on the Rockwell "B" Scale

Metric	Type	Plunger Diameter Code	Min Sheet Thickness	Min Sheet Thickness	Hole Size in Sheet +0.08	C	D	E1	E2	G	H	T1	T2	TR	Min. Dist. Hole C/L To Edge
						Max	-0.13	± 0.25	± 0.25	± 0.25	± 0.25	Nom	± 0.13		
Unified	PTL2	04	4	1.52	8.33	8.31	6.35	12.7	10.3	7.87	4.32	15.11	22.73	10.98	8.64
	PSL2	04	4	1.52	8.33	8.31	6.35	12.7	10.3	7.87	4.32	12.95	19.81	8.89	8.64
Unified	PTL2	04	4	1.52 .060	8.33 .328	8.31 .327	6.35 .250	12.7 .50	10.3 .406	7.87 .310	4.32 .17	15.11 .595	22.73 .895	10.92 .430	8.64 .34
	PSL2	04	4	1.52 .060	8.33 .328	8.31 .327	6.35 .250	12.7 .50	10.3 .406	7.87 .310	4.32 .17	15.11 .510	19.81 .780	8.89 .350	8.64 .34

PRESS-IN STYLE SPRING-LOADED PLUNGER

56

Material and Finish

Stud, Zinc Plate, Chromate Plus Sealer

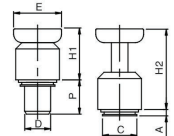
Ferrule And Endcap: steel, case hardened, zinc plate, chromate plus sealer
PC/ABS
KNOB (prism plunger) PC/ABS, black

Spring: 300 Series Stainless Steel

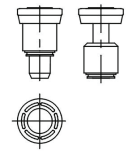
Specifying Prism Plunger (to indicate color in the Prism Plungers, change the last three digits of part number): 000black, 008blue, 012purple, 013red, 014green.

Type		Panel Thickness		Konib	Hole Size in Sheet ~0.10	C Max	D ~0.13	E	H1	H2	P	Min. Dist. Hole C/L To Edge
Without Hold Poen	Hold Poen											
		A										
Min	Max											
56-60-15	56-61-15			Bright				11.5 (.49)	12.2 (.48)	19.3 (.76)		
56-160-000	56-161-000	1.52 (.06)	3.81 (.15)	Color-Small	8.4 (.382)	8.26 (.325)	6.32 (.249)	13.3 (.52)	12.7 (.50)	19.8 (.78)	8.2 (.32)	9.6 (.375)
56-260-000	56-261-000			Color-Large				17 (.67)	12.7 (.50)	19.8 (.78)		

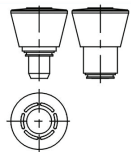
光學型/Bright



彩色型 (小) Prism (small)



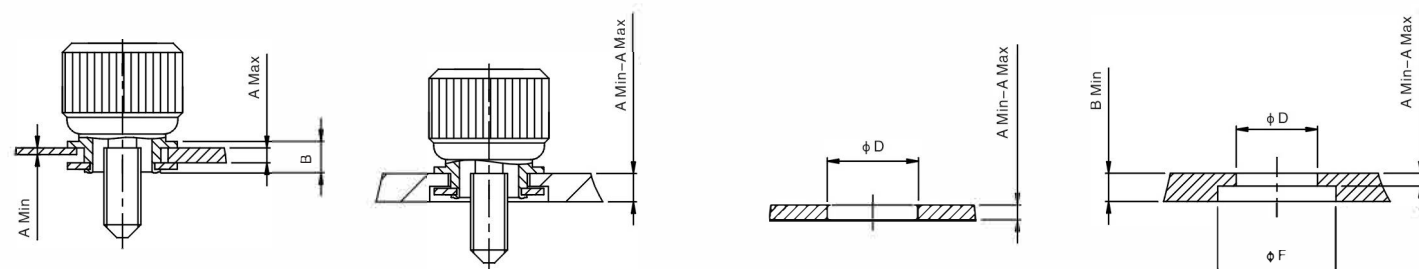
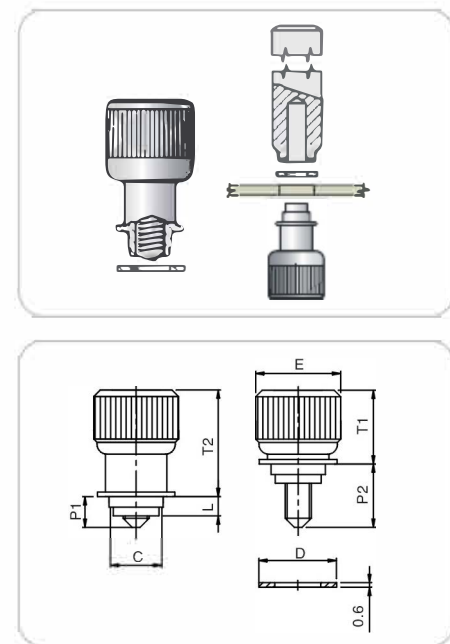
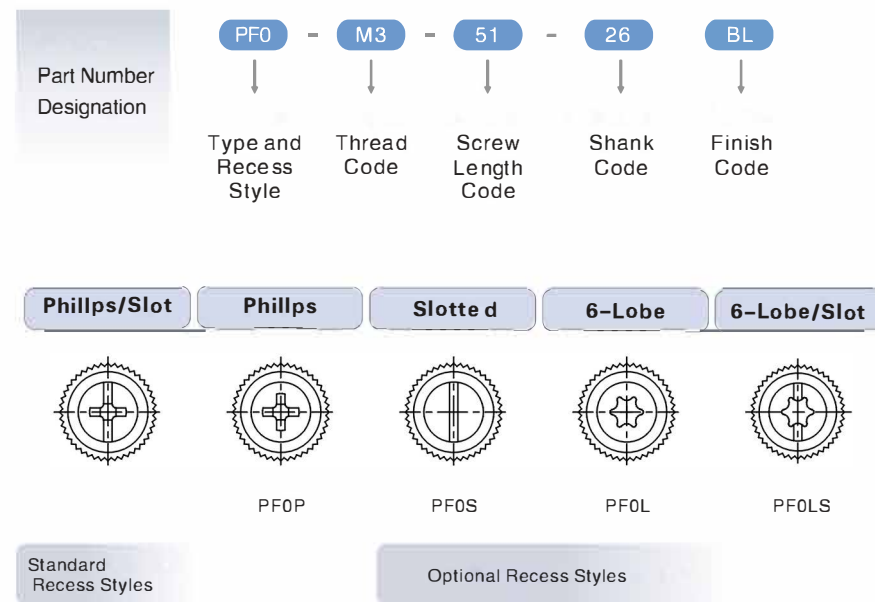
彩色型 (大) Prism (large)



Style		Out Panel Thickness		P	Knob Style	Hole Size in Sheet ± 0.04	C Max	D	E	H1	H2	B ± 0.13	L
Without Hold Open	Hold Open	Min	Max										
56-70-1-15	56-71-1-15	1.52 .06	3.17 .125	7.9 .31	光素型 Bright	9.15 .362	9.1 .358	6.3 .249	11.5 .45	13.7 .54	19.8 .78	0.4 .016	1.78 .07
56-70-2-15	56-71-2-15	>3.17 .125	4.7 .185	9.4 .37						12.2 .48	18.2 .72	1.52 .06	3.3 .13
56-170-1-000	56-171-1-000	1.52 .06	3.17 .125	7.9 .31	小彩色型 Color-Small	9.15 .362	9.1 .358	6.3 .249	13.3 .52	14.5 .57	20.5 .81	0.4 .016	1.78 .07
56-170-2-000	56-171-2-000	>3.17 .125	4.7 .185	9.4 .37						12.9 .51	19 .75	1.52 .06	3.3 .13
56-270-1-000	56-271-1-000	1.52 .06	3.17 .125	7.9 .31	大彩色型 Color-Large	9.15 .362	9.1 .358	6.3 .249	17 .67	14.5 .57	20.5 .81	0.4 .016	1.78 .07
56-270-2-000	56-271-2-000	>3.17 .125	4.7 .185	9.4 .37						12.9 .51	19 .75	1.52 .06	3.3 .13

FLOATING STYLE PANEL FASTENER ASSEMBLIES

PF0



PF0

Material and Finish

Screw Heat-Treated Carbon Steel, Zinc, Plate, Chromate Plus Sealer or zinc plate.chromate plus power coating(screw head only)

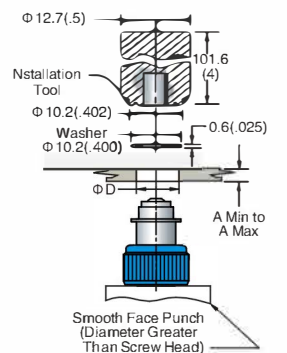
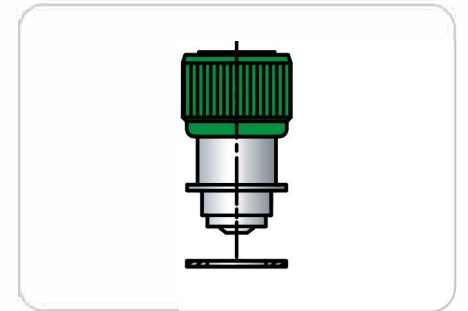
Knob: Aluminum, natural or black power coated

Retainer: Aluminum, natural

Spring: 300 Series Stainless Steel

Washer: 300 Series Stainless Steel, passivated SOUTHCO

The type fasteners corresponds with SOUTHCO pressin style captive fastener



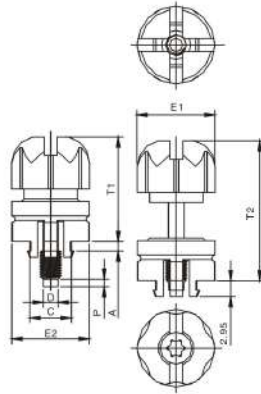
Thread Size	Type	Thred Code	Flange Length	Screw Length Code	L	Hole Size in Sheet ϕ D+0.08	Counter-bore of panel ϕ F	Outer Panel Dimension		B	C	D	E	T1	T2	P1	P2	Total Float	Driver Numbers												
								Min	Max																						
M3 #4-40	PF0	M3 440	26	51	2.6	6.4	9.4	-	0.8 .031	2 .08	4.9	7.8	10.6	8.7	11.9	1.9	5.1	2	1#												
				66	.104											3.4	6.6														
				82												5	8.2														
			34	51	3.4			>0.8 .031	1.6 .063	2.8 .111						1.9	5.1			3.4	6.6										
				66	.132					5						8.2															
				82																											
			42	66	4.2			>1.6 .063	2.4 .094	3.6 .143						3.4	6.6														
				87	.164					5						8.7															
			M3.5 #6-32	PF0	M3.5 632			29	72	2.9						7.2	10.3			-	0.8 .031	2.1 .084	5.7	8.6	11.5	10.6	15.4	2.4	7.2	2.2	2#
									88	.113																		4	8.8		
									104																			5.6	10.4		
37	72	3.7				>0.8 .031	1.6 .063	2.9 .115	2.4	7.8	4	8.8																			
	88	.144						5.6	10.4																						
	104							4	8.8																						
45	88	4.5				>1.6 .063	2.4 .094	3.7 .144	5.6	10.4																					
	104	.176																													
M4 #8-32	PF0	M4 832				32	73	3.2	8.8	12	-	0.8 .031	2.3 .090	7.3	10.2			13	11.2	16	2.3	7.3						2.3	2#		
							88	.127													3.8	8.8									
							104														5.4	10.4									
			40	73	4.0	>0.8 .031	1.6 .063	3.1 .121			2.3	7.3	3.8			8.8															
				88	.158			5.4			10.4																				
				104																											
			48	88	4.8	>1.6 .063	2.4 .094	3.9 .153			3.8	8.8																			
				104	.190			5.4			10.4																				
			M5 #10-32	PF0	M5 032	32	73	3.2			8.8	12	-			0.8 .031	2.3 .090				7.3	10.2	13	11.2	16.2	2.3	7.3			2.2	2#
							88	.127																		3.8	8.8				
							104																			5.4	10.4				
40	73	4.0				>0.8 .031	1.6 .063	3.1 .121	2.3	7.3			3.8	8.8																	
	88	.158						5.4	10.4																						
	104																														
48	88	4.8				>1.6 .063	2.4 .094	3.9 .153	3.8	8.8																					
	104	.190						5.4	10.4																						
M6 1/4-20	PF0	M6 0420				32	88	3.2	10.5	13.5			-	0.8 .031	2.3 .090	8.9	11.9	14.7	13.3	20						2.1	8.8	2.3	2#		
							104	.127																		3.7	10.4				
							12																			5.3	12				
			40	88	4.0	>0.8 .031	1.6 .063	3.1 .121			2.1	8.8	3.7	10.4																	
				104	.158			5.3			12																				
				12																											
			48	104	4.8	>1.6 .063	2.4 .094	3.9 .153			3.7	10.4																			
				12	.190			5.3			12																				

卡入型板面板紧固件 REELFAST SNAP-IN PANEL FASTENERS

PFS

材料和表面处理
Material & Finish Specifications

旋钮: 丙烯腈/丁二烯/苯乙烯共聚物
Knob: ABS;
定位套: 乙缩醛
Retainer: Acetal;
螺钉: 可热处理碳素钢
Screw: Heat-treated Carbon Steel.
螺钉镀铜底膜
Screw plating Bright Nickel Over Copper
Flash per ASTM A380.



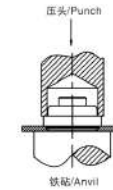
公制 Metric	螺纹规格 Thread Size	型号 Type	起子码 Drive Code	螺纹码 Thread Code	A ±.007 ±0.18	C ±.008 ±0.20	D ±.005 0.13	E1 Nom.	E2 ±.010 ±0.25	G ±.015 ±0.40	P Driver Size	T1 ±.050 ±1.27	T2 Nom	起子规格 Drive Size	最大板厚 Sheet Thickness Max.	板孔尺寸 Hole Size in sheet ±.003 ±0.08
公制 Metric	.112-40 (#4-40)	PFS	L	440	.072 1.83	.217 5.51	.069 1.75	.500 12.7	.410 10.41	0.341 8.66	.040 1.02	.706 17.93	.991 25.17	#10	.065 1.65	.219 5.56
	.112-40 (#6-32)	PFS	L	632	.072 1.83	.248 6.3	.086 2.18	.500 12.7	.410 10.41	0.341 8.66	.050 1.27	.706 17.93	.991 25.17	#15	.065 1.65	.250 6.35
	.164-32 (#8-32)	PFS	L	832	.072 1.83	.310 7.87	.111 2.82	.590 14.73	.500 12.7	0.341 8.66	.055 1.40	.760 19.30	1.045 26.54	#20	.065 1.65	.312 7.92
公制 Metric	螺纹规格 Thread Size	型号 Type	起子码 Drive Code	螺纹码 Thread Code	A ±0.18	C ±0.20	D 0.13	E1 Nom.	E2 ±0.25	G ±0.40	P Driver Size	T1 ±1.27	T2 Nom	起子规格 Drive Size	最大板厚 Sheet Thickness Max.	板孔尺寸 Hole Size in sheet ±.003 ±0.08
	M3	PFS	L	M3	1.83	5.51	2.06	12.7	10.41	8.66	1.02	17.93	25.17	#10	1.65	5.56
	M3.5	PFS	L	M3.5	1.83	6.3	2.4	12.7	10.41	8.66	1.27	17.93	25.17	#15	1.65	6.35
	M4	PFS	L	M4	1.83	7.87	2.79	14.73	12.7	8.66	1.4	19.3	26.54	#20	1.65	7.92

自扣紧浮动螺母组件 FLOATING SELF-CLINCHING FASTENERS

AS

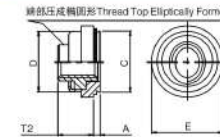
编码示例
Part Number
Designation

AS - M3 - 2 - ZI
↓
型号和材质
Type and Material
↓
螺纹码
Thread Code
↓
铆位长度码
Shank Code
↓
镀层码
Finish

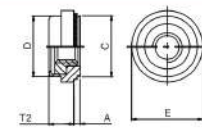
材质、表面处理和适用范围
Material, Finish and for use in sheet
Hardness

AS, LAS 保持座热处理碳素钢制造, 镀白锌; AS, LAS 螺母用碳素钢制造, 镀白锌; 适用于板材硬度等于或小于 HRB70。
AS, LAS 保持座和方螺母均用 300 系列不锈钢制造, AS, LAS, AC 和 LAC 适用于板材硬度等于或小于 HRB70。
AS, LAS 的保持座是 made of heat-treated carbon steel and zinc plating (ZI); AS, LAS 的螺母是 made of carbon steel and zinc plating (ZI); AS, LAS 的保持座和螺母是 made of 300 series stainless steel and passivated and /or tested per ASTM A380. AS, LAS, AC and LAC fasteners are available in sheet Hardness 70 or less on the Rockwell "B" scale.

自锁型 Self-Locking Types LAS, LAC



非自锁型 Non-Locking Types AS, AC

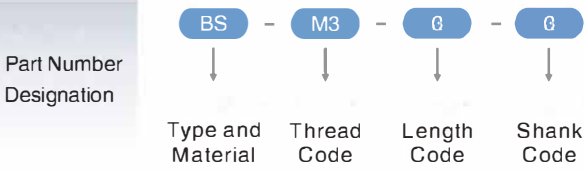


本手册中公制尺寸单位为 mm; 寸制尺寸单位为 mm/inches, 以后不再说明。
This manual Metric all dimensions are in millimeters and unified all dimensions are in millimeters and inches, hereafter no longer explain.

公制 Metric	螺纹规格 Thread Size	型号 Type				螺纹码 Thread Code	铆位 长度码 Shank Code	A Max	最小 厚度 Min Sheet Thickness	板孔 尺寸 Hole Size in Sheet ±0.08	C Max	D Max	E Max	T1 Max	T2 Max	孔中心 到板边 最小距离 Min Dist Hole C/L To Edge
		非自锁型 Non-Locking		自锁型 Self-Locking												
		钢 Steel	不锈钢 Stainless Steel	钢 Steel	不锈钢 Stainless Steel											
M3	AS	AC	LAS	LAC	M3	1 2	0.97 1.38	1 1.4	7.37	7.35	7.37	9.14	3.31	4.83	7.62	
	M4	AS	AC	LAS	LAC	M4	1 2	0.97 1.38	1 1.4	9.35	9.33	9.28	11.18	3.31	5.34	8.64
							1 2	0.97 1.38	1 1.4	10.31	10.29	10.29	11.94	4.32	6.86	9.14
	M5	AS	AC	LAS	LAC	M5	1 2	0.97 1.38	1 1.4	13.08	13.06	12.96	15.24	5.34	7.88	10.67
							2	1.38	1.4							
寸制 Unified	#4-40	AS	AC	LAS	LAC	440	1 2	0.97 1.38 .038 .054	1 1.4 .040 .056	7.37 290	7.35 .289	7.37 .290	9.14 .36	3.31 .13	4.83 .19	7.62 .30
							1 2	0.97 1.38 .038 .054	1 1.4 .040 .056	8.33 .328	8.31 .327	8.51 .335	9.9 .39	3.31 .13	5.08 .20	8.12 .32
	#6-32	AS	AC	LAS	LAC	632	1 2	0.97 1.38 .038 .054	1 1.4 .040 .056	9.35 .368	9.33 .367	9.28 .365	11.18 .44	3.31 .13	5.34 .21	8.64 .34
							1 2	0.97 1.38 .038 .054	1 1.4 .040 .056	10.31 .406	10.29 .405	10.29 .405	11.94 .47	4.32 .17	6.86 .27	9.14 .36
	#10-32	AS	AC	LAS	LAC	032	1 2	0.97 1.38 .038 .054	1 1.4 .040 .056	10.31 .406	10.29 .405	10.29 .405	11.94 .47	4.32 .17	6.86 .27	9.14 .36
							1 2	0.97 1.38 .038 .054	1 1.4 .040 .056	10.31 .406	10.29 .405	10.29 .405	11.94 .47	4.32 .17	6.86 .27	9.14 .36
	#10-24	AS	AC	LAS	LAC	024	1 2	0.97 1.38 .038 .054	1 1.4 .040 .056	10.31 .406	10.29 .405	10.29 .405	11.94 .47	4.32 .17	6.86 .27	9.14 .36
							2	1.38 .054	1.4 .056							
	1/4-28	AS	AC	LAS	LAC	0428	2	1.38 .054	1.4 .056	13.08 .515	13.06 .514	12.96 .510	15.24 .60	5.34 .21	7.88 .31	10.67 .42
	1/4-20	AS	AC	LAS	LAC	0420	2	1.38 .054	1.4 .056	13.08 .515	13.06 .514	12.96 .510	15.24 .60	5.34 .21	7.88 .31	10.67 .42

SELF-CLINCHING BLIND FASTENERS

W B, BS

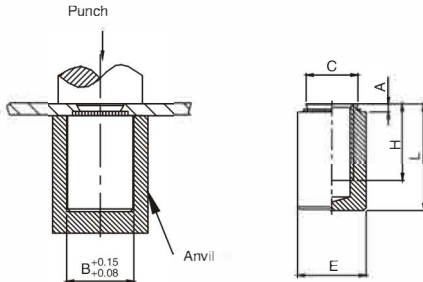


Material,Finish and for use in sheet Hardness

B- HRB80.
B Type fasteners are made of heat-treated carbon steel and Zinc plating(ZI); Type B fasteners are available for sheet Hardness 80 or less on the Rockwell "B" scale.

BS 300ASTM A380
BS TYPE fasteners are made of 300 series stainless steel, passivated and/or test per ASTM A380.

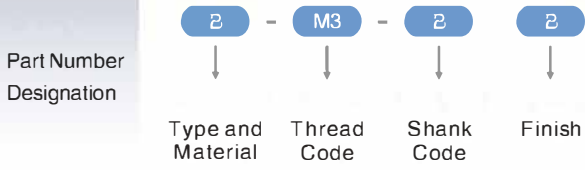
BS HRB70.
BS type fasteners available in sheet Hardness 70 or less on the Rockwell "B" scale



INSTALLATION

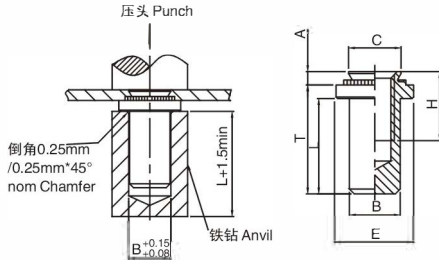
Thread Size	Type		Thread Code	Shank Code	A Max	Min Sheet Thickness	Hole Size In Sheet +0.08	C Max	E ± 0.25	H Min	L Max	Min Dist Hole C/L To Edge
	Steel	Stainless Steel										
M3x0.5	B	BS	M3	0	0.77	0.8-1	4.25	4.22	6.35	5.3	10	4.8
				1	0.97	1						
				2	1.38	1.4						
M4x0.7	B	BS	M4	0	0.77	0.8-1	5.4	5.38	7.95	7.1	10	6.9
				1	0.97	1						
				2	1.38	1.4						
M5x0.8	B	BS	M5	0	0.77	0.8-1	6.4	6.38	8.75	7.1	10	7.1
				1	0.97	1						
				2	1.38	1.4						
M6x1.0	B	BS	M6	0	1.15	1.2	8.75	8.72	11.1	6.3	10	8.6
				1	1.38	1.4						
				2	2.21	2.3						
M8x1.25	B	BS	M8	1	1.38	1.4	10.5	10.47	12.65	10	16	9.7
				2	2.21	2.3				14	20	
										24	30	
M12x1.75	B	BS	M12	2	1.95	2	14.1	14.1	17	14	20	10.8
										24	30	

W B, BS



Material,Finish and for use in sheet Hardness

B; HRB80.
B Type fasteners are made of heat-treated carbon steel and Zinc plating(ZI); Type B fasteners are available for sheet Hardness 80.O or less on the Rockwell"B"scale. BS , ASTM A380
BS Type fasteners are made of 300 series stainless steel , passivated and /or tested per ASTM A380
BS; HRB70.
BS Type fasteners are available in sheet Hardness 70 or less on the Rockwell"B"scale

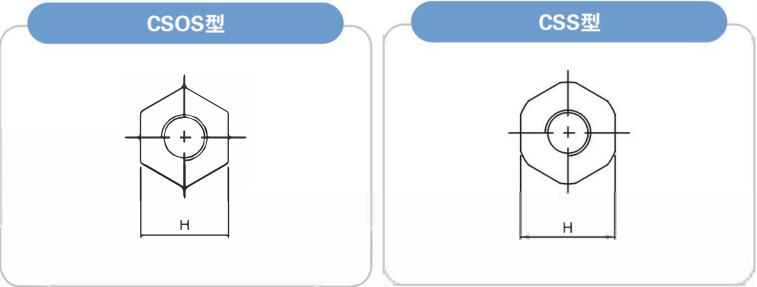
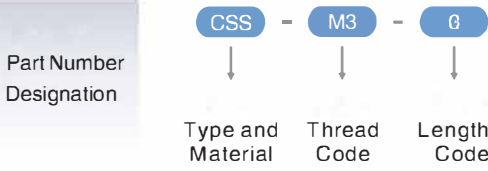


INSTALLATION

Metric	Thread Size	Type		Thread Code	Shank Code	A max	min sheet thickness	Hole size in sheet ± 0.08	B max	C max	E max	H max	L max	T ± 0.25	Min Dist Hole C/L To Edge
		Steel	Stainless Steel												
Metric	M3	B	BS	M3	1	0.97	1	4.25	3.84	4.22	6.35	5.3	8.5	9.6	4.8
					2	1.38	1.4								
	M4	B	BS	M4	1	0.97	1	5.4	5.2	5.38	7.95	7.1	9.8	11.2	6.9
					2	1.38	1.4								
	M5	B	BS	M5	1	0.97	1	6.4	6.02	6.38	8.75	7.1	9.8	11.2	7.1
					2	1.38	1.4								
	M6	B	BS	M6	1	1.38	1.4	8.75	7.8	8.72	11.1	7.8	12.7	14.3	8.6
					2	2.21	2.3								
Unified	#4-40	B	BS	440	1	0.97	1	4.22	3.8	4.19	6.35	5.33	8.5	9.6	4.8
					2	1.38	1.4								
	#6-32	B	BS	632	1	0.97	1	4.76	4.29	4.75	7.11	5.84	8.5	9.6	5.6
					2	1.38	1.4								
	#8-32	B	BS	832	1	0.97	1	5.4	5.18	5.38	7.87	7.11	9.8	11.2	6.86
					2	1.38	1.4								
	#10-32	B	BS	032	1	0.97	1	6.35	5.97	6.32	8.64	7.11	9.8	11.2	7.11
					2	1.38	1.4								
	1/4-20	B	BS	0420	1	1.38	1.4	8.74	7.75	8.7	10.92	7.87	12.7	14.2	8.6
					2	2.21	2.3								

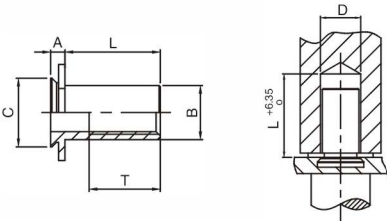
CONCEALED-HEAD STANDOFF

W CSS, CSOS



Material,Finish and for use in sheet Hardness:

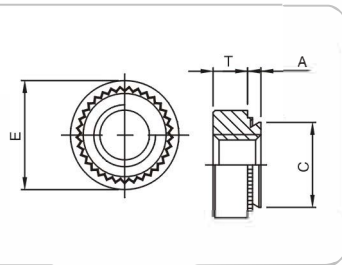
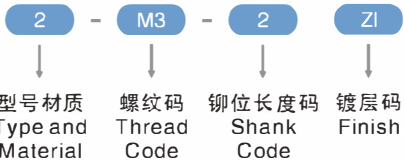
CSS ,CSOS 300,HRB70.
Type CSS and CSOS fasteners are made of 300 series stainless steel.
The fasteners are used wherever sheet Hardness 70 or less on the Rockwell"B"scale.



STEEL AND STAINLESS STEEL SELF-CLINCHING NUTS

W S, CLS

Part Number Designation



材质，表面处理和适用范围

Material, Finish and For use in sheet Hardness

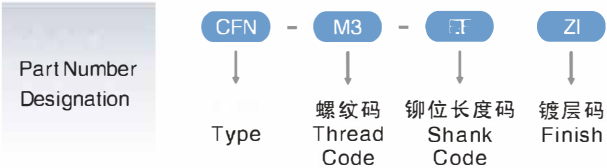
S 型用热处理碳钢制造，镀白锌。适用板材硬度等于或小于 HRB80。CLS 型用 300 系列不锈钢制造，钝化和/按 ASTM A380 测试。适用板材硬度等于或小于 HRB70

Type s Nuts are made of Heat Treated Carbon Steel, Zinc plating (ZI). For Use in Sheet Hardness of 80 or less on the Rockwell "B" Scale. Type CLS Nuts are made of 300 series Stainless Steel, Passivated and/or Tested per ASTM A380. For Use in Sheet Hardness of 70 or less on the Rockwell "B" Scale.

	螺纹规格 Thread Size	型号Type		螺纹码 Thread Code	尾部码 Shank Code	A	最小板厚 min sheet thickness	板孔尺寸 Hole size in sheet ± 0.08	C	E	T	孔中心到板边 最小距离 Min DistHole C/L To Edge
		碳钢 Steel	不锈钢 Stainless Steel			max		max	± 0.25	± 0.25		
公制 Metric	M2	S	CLS	M2	0	0.77	0.8-1	4.25	4.22	6.3	1.5	4.8
					1	0.97	1					
					2	1.38	1.4					
	M2.5	S	CLS	M2.5	0	0.77	0.8-1	4.25	4.22	6.3	1.5	4.8
					1	0.97	1					
					2	1.38	1.4					
	M3	S	CLS	M3	0	0.77	0.8-1	4.25	4.22	6.3	1.5	4.8
					1	0.97	1					
					2	1.38	1.4					
	M3.5	S	CLS	M3.5	0	0.77	0.8-1	4.75	4.73	7.1	1.5	5.6
					1	0.97	1					
					2	1.38	1.4					
	M4	S	CLS	M4	0	0.77	0.8-1	5.4	5.38	7.9	2	6.9
					1	0.97	1					
					2	1.38	1.4					
	M5	S	CLS	M5	0	0.77	0.8-1	6.4	6.38	8.7	2	7.1
					1	0.97	1					
					2	1.38	1.4					
M6	S	CLS	M6	0	1.15	1.2	8.75	8.72	11.05	4.08	8.6	
				1	1.38	1.4						
				2	2.21	2.3						
M8	S	CLS	M8	1	1.38	1.4	10.5	10.47	12.65	5.47	9.7	
				2	2.21	2.3						
				2	2.21	2.3						
M10	S	CLS	M10	1	2.21	2.31	14	13.97	17.35	7.48	13.5	
				2	3.05	3.18						
				2	3.05	3.18						
寸制 Unified	#2-56	S	CLS	256	0	0.76 .030	0.76 .030	4.22	4.19	6.35	1.78	4.8
					1	0.97 .038	1 .040					
					2	1.37 .054	1.42 .056					
	#3-48	S	CLS	348	0	0.76 .030	0.76 .030	4.22	4.19	6.35	1.78	4.8
					1	0.97 .038	1 .040					
					2	1.37 .054	1.42 .056					
	#4-40	S	CLS	440	0	0.76 .030	0.76 .030	4.22	4.19	6.35	1.78	4.8
					1	0.97 .038	1 .040					
					2	1.37 .054	1.42 .056					
	#6-32	S	CLS	632	0	0.76 .030	0.76 .030	4.76	4.75	7.11	1.78	5.6
					1	0.97 .038	1 .040					
					2	1.37 .054	1.42 .056					
	#8-32	S	CLS	832	0	0.76 .030	0.76 .030	4.76	4.75	7.11	1.78	5.6
					1	0.97 .038	1 .040					
					2	1.37 .054	1.42 .056					
	#10-24	S	CLS	024	0	0.76 .030	0.76 .030	5.41	5.38	7.87	2.28	6.9
					1	0.97 .038	1 .040					
					2	1.37 .054	1.42 .056					
#10-32	S	CLS	032	0	0.76 .030	0.76 .030	5.41	5.38	7.87	2.28	6.9	
				1	0.97 .038	1 .040						
				2	1.37 .054	1.42 .056						
#12-24	S	CLS	1224	0	0.76 .030	0.76 .030	5.41	5.38	7.87	2.28	6.9	
				1	0.97 .038	1 .040						
				2	1.37 .054	1.42 .056						
#12-28	S	CLS	1224	0	0.76 .030	0.76 .030	5.41	5.38	7.87	2.28	6.9	
				1	0.97 .038	1 .040						
				2	1.37 .054	1.42 .056						
#14-20	S	CLS	0420	0	1.14 .045	1.19 .047	8.74	8.71	11.18	4.32	8.64	
				1	1.37 .054	1.42 .056						
				2	2.21 .087	2.31 .091						
#14-28	S	CLS	0428	0	1.37 .054	1.42 .056	8.74	8.71	11.18	4.32	8.64	
				1	1.37 .054	1.42 .056						
				2	2.21 .087	2.31 .091						
#16-18	S	CLS	0518	0	1.37 .054	1.42 .056	10.5	10.46	12.7	5.84	9.7	
				1	1.37 .054	1.42 .056						
				2	2.21 .087	2.31 .091						
#16-24	S	CLS	0524	0	1.37 .054	1.42 .056	10.5	10.46	12.7	5.84	9.7	
				1	1.37 .054	1.42 .056						
				2	2.21 .087	2.31 .091						
#18-16	S	CLS	0616	0	2.21 .087	2.31 .091	12.7	12.67	14.2	6.86	11.2	
				1	2.21 .087	2.31 .091						
				2	3.05 .120	3.18 .125						
#18-24	S	CLS	0624	0	2.21 .087	2.31 .091	12.7	12.67	14.2	6.86	11.2	
				1	2.21 .087	2.31 .091						
				2	3.05 .120	3.18 .125						
#20-13	S	CLS	0813	0	3.05 .120	3.18 .125	16.66	16.64	20.6	9.1	16	
				1	3.05 .120	3.18 .125						
				2	5.97 .235	6.35 .250						
#20-20	S	CLS	0820	0	3.05 .120	3.18 .125	16.66	16.64	20.6	9.1	16	
				1	3.05 .120	3.18 .125						
				2	5.97 .235	6.35 .250						

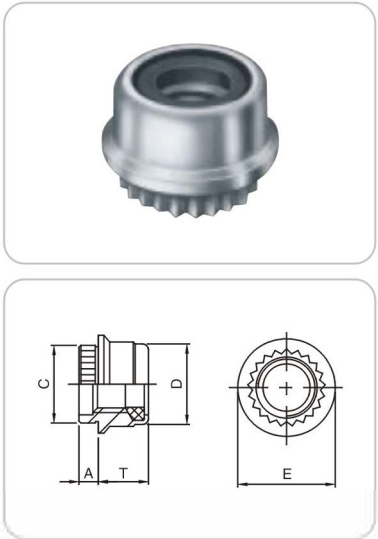
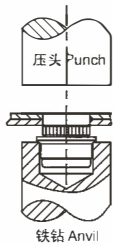
FLARE-MOUNTED NUT FOR CONNECTORS

W CFN



Material,Finish and for use in sheet Hardness

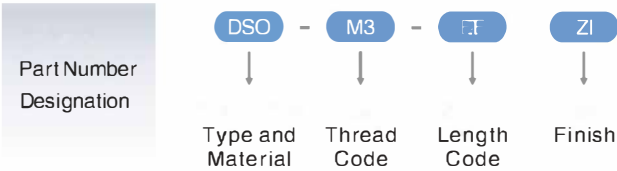
Type CFN nuts are made of carbon steel and Zinc Plating (ZI).For use in sheet Hardness of 60 or less on the Rockwell"B"scale.



Thread Size	Type	Thread Code	Shank Code	Nom Sheet Thickness	A ± 0.08	Mountingn Hole Size in Connector +0.08	C ± 0.05	D ± 0.1	E ± 0.03 -0.1	T Max	Min Dist Hole C/L To Edge
M3	CFN	M3	1	0.91-1.09	1.02	3.86	4.11	4.45	5.16	2.65	2.92
.112-40 #4-40	CFN	440	1	0.91-1.09 .036-.043	1.02 .04	3.86 .152	4.11 .162	4.45 .175	5.16 .203	2.65 .104	2.92 .115

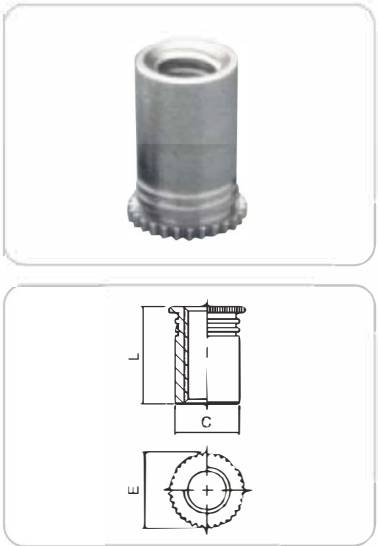
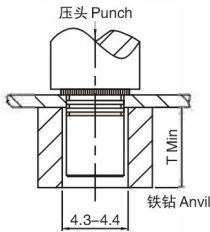
SELF-CLINCHING SCREWLOCK STANDOFFS FOR PANEL MOUNTING D-SUB CONNECTORS

W DSO, DSOS



Material,Finish and For use in sheet Hardness

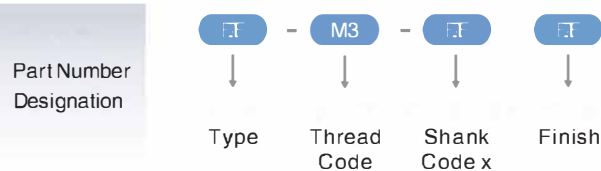
Type DSOS ScrewlockStandoffs are made of Heat Treated Carbon Steel,Zinc plating(ZI)For Use in Sheet Hardness of 80 or less on the Rockwell"B"Scale.Type DSOS Screwlock Standoff are made of 300 series Stainless Steel,Passivated and/or Tested per ASTM A380. For Use in Sheet Hardness of 70 or less on the Rockwell"B"Scale.



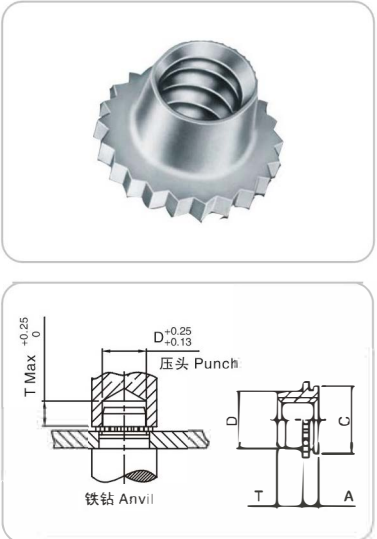
Thread Size	Type		Thread Code	Length Code	Sheet Thickness	Hole Size In sheet +0.08	C Max	H Nom	L ± 0.05 -0.13	Min Dist Hole C/L To Edge
	Steel	Stainless Steel								
M3	DSO	DSOS	M3	6.35 7	0.94-6.35	4.2	4.2	4.92	6.35 7	3.2
#4-40	DSO	DSOS	440	250 275	0.94-6.35 0.37-250	4.2 .166	4.2 .165	4.92 .194	6.35 250 7 275	3.2 0.126

MINIATURE SELF-CLINCHING FASTENERS

W U, UL, FE, FEO, FEOX, FEX



U,FEX,FEOX:
FE,FEO Types
U,FEX,FEOX round; Type
FE,FEO and UL Tops
elliptically squeezed



Material,Finish and for use in sheet Hardness

Type U,FEX and FEOX are made of 303 Stainless Steel,Passivated and/or Tested per ASTM A380.For Use in Sheet Hardness of 70 or less on the Rockwell"B"Scale.

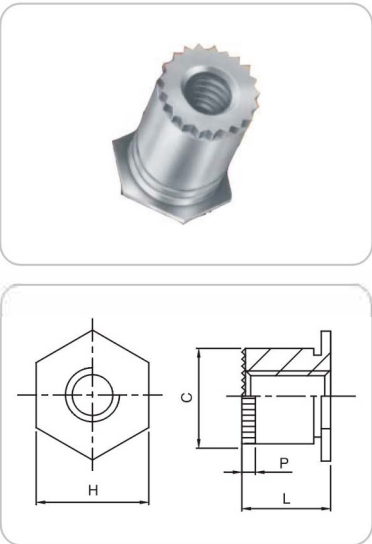
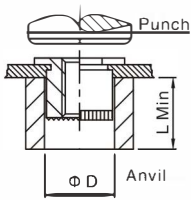
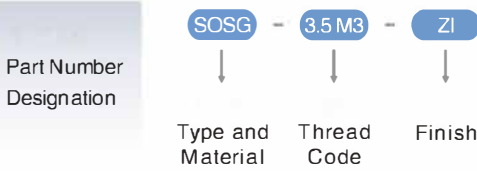
This suffix applicable only to types U and UL fasteners.

	Thread Size	Type		Thread Code	Shank Code	A max	板厚(1) sheet thickness	Hole size in sheet +0.08	C -0.13	D max	E ± 0.13	T +0.4	Min.Dist. Hole C/L To Edge	Max.Hole in attached Parts
		Non-locking	Self-locking											
Metric	M2	U	UL	M2	1	0.76	0.76-0.91	3.61	3.6	2.5	4.07	1.65	2.8	2.5
	M3	FEOX	FEO	M3	-	1.02	0.99-1.14	4.39	4.37	3.96	4.88	1.9	3.6	3.5
		FEX	FE			1.53	1.5-1.78							
	M4	FEOX	FEO	M4	-	1.02	0.99-1.14	7.39	7.37	5.23	8.17	2.55	5.2	4.5
		FEX	FE			1.53	1.5-1.78							
	M5	FEOX	FEO	M5	-	1.02	0.99-1.14	7.39	7.37	6.48	8.17	3.05	5.2	5.5
Unified		FEX	FE			1.53	1.5-1.78							
	M6	FEX	FE	M6	-	1.53	1.5-1.78	8.74	8.72	7.72	9.74	3.3	7.1	6.5
	#0-80	U	UL	080	0	0.51 .020	0.48-0.56 .019-.022	2.79 .110	2.77 .1095	1.93 .076	3.18 .125	1.27 .050	2.29 .09	2.03 .080
	#1-64	U	UL	164	0	0.51 .020	0.48-0.56 .019-.022	2.79 .110	2.77 .1095	2.09 .090	3.18 .125	1.27 .050	2.29 .09	2.36 .093
	#2-56	U	UL	256	0	0.51 .020	0.48-0.56 .019-.022	3.66 .144	3.63 .1435	2.69 .106	4.06 .160	1.65 .065	2.79 .11	2.69 .106
					1	0.79 .031	0.76-0.91 .030-.036							
	#4-40	FEOX	FEO	440	-	1.02 .040	0.99-1.14 .039-.045	4.37 .172	4.34 .171	3.68 .145	4.88 .192	1.65 .065	3.56 .14	3.35 .132
		FEX	FE			1.52 .06	1.5-1.78 .059-.070							
	#6-32	FEOX	FEO	632	-	1.02 .040	0.99-1.14 .039-.045	5.4 .213	5.38 .212	4.57 .180	6.2 .244	1.91 .075	4.32 .17	4.01 .158
		FEX	FE			1.52 .060	1.5-1.78 .059-.070							
	#8-32	FEOX	FEO	832	-	1.02 .040	0.99-1.14 .039-.045	7.37 .290	7.34 .289	5.46 .215	8.18 .322	2.29 .090	5.1 .20	4.67 .184
		FEX	FE			1.52 .060	1.5-1.78 .059-.070							
	#10-32	FEOX	FEO	032	-	1.02 .040	0.99-1.14 .039-.045	7.37 .290	7.34 .289	6.22 .245	8.18 .322	2.79 .110	5.1 .20	5.33 .210
		FEX	FE			1.52 .060	1.5-1.78 .059-.070							
	1/4-20	FEOX	FEO	0420	-	1.52 .060	1.5-1.78 .059-.070	8.74 .344	8.71 .343	8.08 .318	9.75 .384	3.05 .120	7.11 .28	6.86 .270
	1/4-28	FEX	FE	0428	-	1.52 .060	1.5-1.78 .059-.070							

- (1) (Amax=1.52). /In applications for sheet thickness between the two ranges(see"sheet thickness")use the fastener with the larger "A" dimension. For exsmple, if you want a#4-40 thread and your sheet thickness is between .045 / 1.14 mm and .059" / 1.49 mm , you should use type FE OR FEX(Amax=1.52).
- (2) Type Non-locking UNIFIED Thread 2B Go Gauge stop at barrel end but class 3A screw will pass thru with finger torque;Type Non-locking METRIC Thread 6H Go Gauge stop at barrel end but class 4h screw will pass thru with finger torque.

GROUNDING STANDOFFS

W SOSG, SOAG



Material,Finish and for use in sheet Hardness

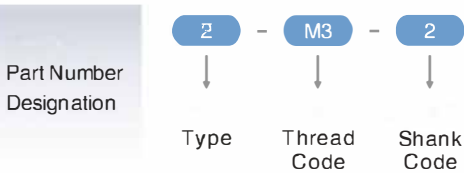
Type SOSG are made of 303 Stainless Steel,Passivated and/or Tested per ASTM A380.For Use in sheet Hardness of 70 or less on the Rockwell"B"Scale.Type SOAG are made of 7075-T5 Aluminium, None finish;For Use in Sheet Hardness of 50 or less on the Rockwell"B"Scale

Metric	Thread Size	Type		Thread Code	Length "L" +0.25(1) Metric Length is in millimeters 1/32inch/Length code is in 32nds of an inch							Min Sheet Thickness	Hole Size in Sheet +0.08	C -0.13	D +0.08	H ±0.25	P Nom	Min. Dist. Hole C/L To Edge
		Stainless Steel	铝 Aluminum		.125	.187	.250	.312	.375	.437	.500							
		SOSG	SOAG															
Unified	M3	SOSG	SOAG	3.5M3	3	4	6	8	10	12		1	5.4	5.39	5.5	6.4	0.76	6.8
	.112~40 #4~40	SOSG	SOAG	6440	4	6	8	10	12	14	16	1	5.4	5.38	5.49	6.4	0.76	6.8
		SOSG	SOAG									.040	.213	.212	.216	.250	.030	.27
	.138~32 #6~32	SOSG	SOAG	8632	4	6	8	10	12	14	16	1.27	7.14	7.11	7.21	7.9	0.76	7.87
		SOSG	SOAG									.050	.281	.280	.284	.312	.030	.31

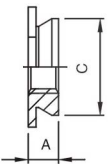
(1) 长度大于0.5"/12mm的SOSG和SOAG是盲螺纹。/For special lengths greater than .500"/12mm.Types SOSG and SOAG are blind thread.

平齐安装螺母 FLUSH FASTENERS

W F



-2, -3, -4 和 -5 铆位码的外形
Profile for -2, -3, -4 & -5
Shank Code



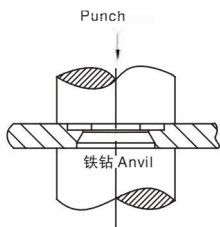
-1 铆位码的外形
Profile for -1
Shank Code



Fastener Material:

303 ASTM A380 HRB70.

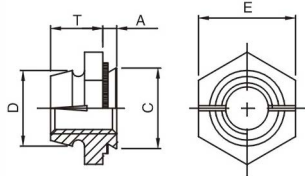
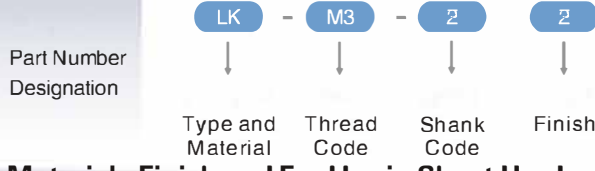
300 Series Stainless seel.
Finish:Passivated and/or tested per
ASTM A380.For use in sheet hardness:
70 or less on the Rockwell"B"Scale.



Metric	Thread Size	Type	Thread Code	Shank Code	A		Sheet Thickness	Hole Size in Sheet +0.08	C Max	H Nom	Min. Dist. Hole C/L To Edge
					Max						
Unified	M2	F	M2	1	1.53	.060	1.53~2.3	.060~.090	4.37	4.34	4.8
				2	2.3	.090	>2.3	>.091	.172	.171	.188
	M2.5	F	M2.5	1	1.53	.060	1.53~2.3	.060~.090	4.37	4.34	4.8
				2	2.3	.090	>2.3	>.091	.172	.171	.188
	M3	F	M3	1	1.53	.060	1.53~2.3	.060~.090	4.37	4.34	4.8
				2	2.3	.090	>2.3	>.091	.172	.171	.188
	M4	F	M4	1	1.53	.060	1.53~2.3	.060~.090	7.37	7.34	8
				2	2.3	.090	>2.3	>.091	.172	.171	.188
	M5	F	M5	1	1.53	.060	1.53~2.3	.060~.090	7.92	7.87	8.5
				2	2.3	.090	>2.3	>.091	.172	.171	.188
	M6	F	M6	3	3.05	.120	3.18~3.94	.125~.155	8.74	8.71	9.5
				4	3.84	.151	3.96~4.72	.156~.186	.344	.343	.375
Unified	#2~56	F	256	1	1.53	.060	1.53~2.3	.060~.090	4.37	4.34	4.8
				2	2.3	.090	>2.3	>.091	.172	.171	.188
	#4~40	F	440	1	1.53	.060	1.53~2.3	.060~.090	4.37	4.34	4.8
				2	2.3	.090	>2.3	>.091	.172	.171	.188
	#6~32	F	632	1	1.53	.060	1.53~2.3	.060~.090	5.41	5.38	6.35
				2	2.3	.090	>2.3	>.091	.213	.212	.250
	#8~32	F	832	1	1.53	.060	1.53~2.3	.060~.090	7.37	7.34	8
				2	2.3	.090	>2.3	>.091	.290	.289	.312
	#10~32	F	032	1	1.53	.060	1.53~2.3	.060~.090	7.92	7.9	8.5
				2	2.3	.090	>2.3	>.091	.312	.311	.343
	1/4~20	F	0420	3	3.05	.120	3.2~3.9	.125~.155	8.74	8.71	9.5
				4	3.84	.151	3.96~4.72	.156~.186	.344	.343	.375

SELF-LOCK NUT

W LK, LKS, LKA



Materials,Finish and For Use in Sheet Hardness

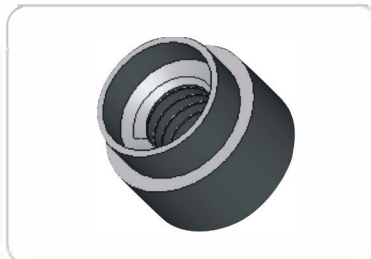
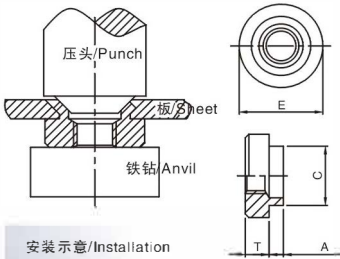
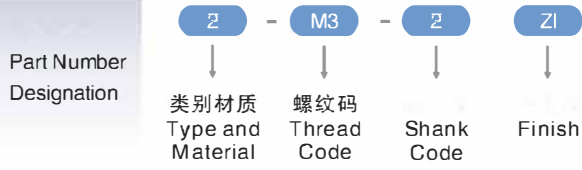
LK, LKS 300 HRB70. LKA 7075-T6HRB50.

Type LK Nuts are made of Heat-treated carbon Steel;Type LKS Nuts are made of 300 series Stainless Steel;Both of the above nutsare Lubricated in Black,Dry-film Lubricant per MIL-L-0046010,Type II over Cadmium Chromate Prime.For Use in Sheet Hardness of 70 or less on the Rockwell "B"Scale.Type LKA Nuts are made From 7075-T6 Aluminum,No finish.For Use in Sheet Hardness of 50 or less on the Rockwell"B"Scale.

Metric	Thread Size	型号 Type			Thread Code	Shank Code	A Max	Min Sheet Thickness	Hole Size in Sheet +0.08	C Max	D Max	E Nom	T ±0.25	Min Dist.Hole C/L To Edge
		Steel	Stainless Steel	Aluminum										
Unified	M2.5	LK	LKS	LKA	M2.5	1	0.97	1	4.73	4.35	4.45	6.35	3.43	3.9
						2	1.38	1.4						
	M3	LK	LKS	LKA	M3	1	0.97	1	4.75	4.73	4.85	6.35	3.43	4
						2	1.38	1.4						
	M4	LK	LKS	LKA	M4	1	0.97	1	6.76	6.73	6.2	8.73	4.45	5.2
						2	1.38	1.4						
	M5	LK	LKS	LKA	M5	1	0.97	1	7.92	7.9	7.75	9.53	5.21	5.6
						2	1.38	1.4						
	#2~56	LK	LKS	LKA	256	1	0.97	1	4.37	4.34	4.19	6.35	3.43	3.9
						2	1.38	1.4	.172	.171	.165	.250	.135	.156
	#4~40	LK	LKS	LKA	440	1	0.97	1	4.75	4.72	4.7	6.35	3.43	3.9
						2	1.38	1.4	.187	.186	.185	.250	.135	.156
Unified	#6~32	LK	LKS	LKA	632	1	0.97	1	5.56	5.54	5.59	7.9	3.68	4.75
						2	1.38	1.4	.219	.218	.220	.312	.145	.187
	#8~32	LK	LKS	LKA	832	1	0.97	1	6.75	6.73	6.35	8.72	4.45	5.2
						2	1.38	1.4	.266	.265	.250	.343	.175	.203
	#10~32	LK	LKS	LKA	032	1	0.97	1	7.92	7.9	7.62	9.53	5.2	5.5
						2	1.38	1.4	0.312	0.311	.300	.375	.205	.218

ROUND FLARE-IN NUTS

W Z, ZS



Materials and Finish

Type Z Nuts are made of carbon steel and Zinc Plating(ZI).Type ZS Nuts are made of 303 Stainless steel and Passivation.

Thread Size	ype		Thread Code	Shank Code	A Max	Min Sheet Thickness	Hole Size in Sheet +0.08	C Max	E ±0.25	T ±0.25
	Steel	Stainless Steel								
M3	Z	ZS	M3	1	1.2	1.2	5	4.98	7	3
				2	1.5	1.5				
				3	2	2				
M4	Z	ZS	M4	1	1.2	1.2	6	5.98	8	4
				2	1.5	1.5				
				3	2	2				
M5	Z	ZS	M5	1	2	2	8	7.98	10	5
				2	3	3				
				3	3	3				
M6	Z	ZS	M6	1	2	2	9	8.98	11	6
				2	3	3				
				3	3	3				
M8	Z	ZS	M8	1	2	2	11	10.98	13	6
				2	3	3				
				3	3	3				

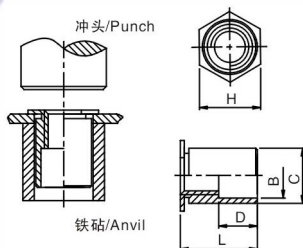
HRU-HOLE THREAD STANDOFFS

SO, SON, SOS, SO4, SOA

Part Number
Designation

SOO - M3 - 12 - 12

Type and Material Thread Code Length Code Finish



Material ,Finish and For use in sheet Hardness

Type SO, SON, SOS, SO4 and SOA are the same as Type SOO,SOON,SOO4 andSOOA.

Metric	Thread Size	Type			Thread Code	长度/Length. 公制长度码以毫米为单位/Length Code in millimeter 寸制长度码以1/32英寸为单位/Length Code in 32nds of an inch +0.05/-0.13(0.002/-0.005)												Min. Sheet Thickness	Hole Size in Sheet +0.08	B ± 0.13	C -0.13	H Nom	Min. Dist. Hole C/L Edge
		Steel	Stainless Steel	Aluminum		.375	.437	.500	.562	.625	.687	.750	.812	.875	.937	1.00	1.062						
	M3	SO SON	SOS SO4	SOA	M3 3.5M3	10	12	14	16	18	-	-	-	-	-	-	1.02	4.22 5.41	3.2	4.19 5.39	4.8 6.4	6 6.8	
	M3.5	SO SON	SOS SO4	SOA	M3.5	10	12	14	16	18	20	22	25	-	-	-	1.02	5.41	3.9	5.39	6.4	6.8	
M4	SO SON	SOS SO4	SOA	M4 3.5M4	1.27													6 7.14	4.8	5.98 7.12	7 7.9	7.5 8	
M5	SO SON	SOS SO4	SOA	M5	1.27													7.14	6.35	7.12	7.9	8	
D 尺寸 ± 0.25mm						4		8		11		-	-	-	-								
Unified	.112-40 #4-40	SO SON	SOS SO4	SOA	440 6440	12	14	16	18	20	22	24	-	-	-	-	1.02 .040	4.22 .166	3.2 .125	4.2 .165	4.8 .187	5.8 .23	
	.138-32 #6-32	SO SON	SOS SO4	SOA	632 8632	12	14	16	18	20	22	24	26	28	30	32	34	1.02 .040	5.41 .213	3.96 .156	5.4 .212	6.4 .250	6.8 .27
																		1.27 .050	7.14 .281	3.96 .156	7.1 .280	7.9 .312	7.8 .31
																		1.27 .050	7.14 .281	4.8 .188	7.1 .280	7.9 .312	7.8 .31
	.164-32 #8-32	SO SON	SOS SO4	SOA	832	12	14	16	18	20	22	24	26	28	30	32	34	1.27 .050	7.14 .281	4.8 .203	7.1 .280	7.9 .312	7.8 .31
	.190-32 #10-32	SO SON	SO SO4	SOA	032													1.27 .050	7.14 .281	5.16 .203	7.1 .280	7.9 .312	7.8 .31
	D 尺寸 ± 0.1 in						.187(4.75)			.312(7.92)			.437(11)										

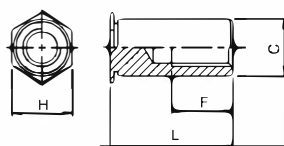
BLIND THREAD STANDOFFS

BSO, BSOS, BSO4, BSOA

Part Number
Designation

BSO - M3 - 12 - 12

Type and Material Thread Code Length Code Finish



Material ,Finish and For use in sheet Hardness

Type BSO,BSOS,BSO4 and BSOA are the same as Type SOO,SOON,SOOS, SOO4 and SOOA.

Thread Size	Type			Thread Code	长度/Length: "L" +0.05/-0.13 长度码以毫米为单位/Length Code in millimeter													Min. Sheet Thickness	Hole Size in Sheet +0.08	C -0.13	H Nom	Min. Dist. Hole C/L Edge
	Steel	Stainless Steel	Aluminum																			
M3	BSO	BSOS	BSOA	M3	6	8	10	12	14	16	18	20	22	25	-	-	-	1.02	4.22	4.19	4.8	6
	BSON	BSON		3.5M3															5.41	5.39	6.4	6.8
M3.5	BSO	BSOS	BSOA	M3.5	6	8	10	12	14	16	18	20	22	25	-	-	-	1.02	5.41	5.39	6.4	6.8
M4	BSO	BSOS	BSOA	M4	6	8	10	12	14	16	18	20	22	25	-	-	-	1.27	6	5.98	7	7.5
	BSON	BSON		3.5M4															7.14	7.12	7.9	8
M5	BSO	BSOS	BSOA	M5	6	8	10	12	14	16	18	20	22	25	-	-	-	1.27	7.14	7.12	7.9	8
F min(mm)					3.2	4	5	6.5	9.5													

Thread Size	Type			Thread Code	长度/Length: (0.002/−0.005) Unified Length Code in 32nds of an inch													Min.Sheet Thickness	Hole Size in Sheet +0.08	C −0.13	H Nom	Min. Dist. Hole C/Edge
	Steel	Stainless Steel	Aluminum																			
					.312	.375	.437	.500	.562	.625	.687	.750	.812	.875	.937	1.00	1.062					
.112−40 #4−40	BSO BSON	BSOS BSO4	BSOA	440													1.02 .040	4.22 .166	4.2 .165	5 .187	5.8 .23	
				6440	10	12	14	16	18	20	22	24	26	28	30	32	34	1.02 .040	5.41 .213	5.38 .212	6 .250	6.8 .27
.138−32 #6−32	BSO BSON	BSOS BSO4	BSOA	632													1.02 .040	5.41 .213	5.38 .212	6 .250	6.8 .27	
				8632	10	12	14	16	18	20	22	24	26	28	30	32	34	1.27 .050	7.14 .281	7.11 .280	8 .312	7.8 .31
.164−32 #8−32	BSO BSON	BSOS BSO4	BSOA	832	10	12	14	16	18	20	22	24	26	28	30	32	34	1.27 .050	7.14 .281	7.11 .280	8 .312	7.8 .31
.190−32 #10−32	BSO BSON	BSO BSO4	BSOA	032	10	12	14	16	18	20	22	24	26	28	30	32	34	1.27 .050	7.14 .281	7.1 .280	8 .312	7.8 .31
(mm)					4 .156		4.75 .187		6.35 0.25			9.53 0.375										

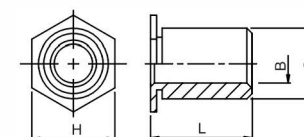
THRU-HOLE UNTHREAD STANDOFFS

SO, SON, SOA, SOS

Part Number
Designation

SO - 4116 - 12 - 12

Type and Material Thru-hole Code Length Code Finish



Material ,Finish and For use in sheet Hardness

Type SO, SOS, SOA are the same as Type SOO, SOON, SOOS, and SOOA.

Metric		型号 Type			Thru-hole Diameter +0.1/-0.08 +.004/--.003	Min.Sheet Thickness	Hole Size in Sheet +0.08/+-.003	C -0.13/--.005	H Nom	长度码/Length "L" +0.05,-0.13/+-.002,-.005 公制长度单位是mm (metric length code in millimeter) 寸制长度码单位是1/32英寸(Unified length code in 32nds of an inch)															Min. Dist. Hole C/Edge		
	Thru-hole Code	Steel	Stainless Steel	铝 Aluminum						.125	.187	.250	.312	.375	.437	.500	.562	.625	.687	.750							
	41.3	SO,SON	SOS	SOA						3.1	1.02	4.22	4.2	4.8	3	4	6	8	10	12	14	16	18	20		-	6
	63.1	SO,SON	SOS	SOA							1.02	5.41	5.39	6.4													6.8
	63.6	SO,SON	SOS	SOA						3.6	1.02	5.41	5.39	6.4	3	4	6	8	10	12	14	16	18	20		-	8
	83.6	SO,SON	SOS	SOA							1.27	7.14	7.12	7.9													8
	84.1	SO,SON	SOS	SOA						4.1	1.27	7.14	7.12	7.9	3	4	6	8	10	12	14	16	18	20		-	8
85.1	SO,SON	SOS	SOA	4.5	1.27	7.14	7.12	7.9	8																		
										.125	.187	.250	.312	.375	.437	.500	.562	.625	.687	.750							
Unified	4116	SO,SON	SOS	SOA	2.95	1.02	4.22	4.2	4.8	4	6	8	10	12	14	16	18	20	22	24	5.8						
			.040			.166	.165	.187	.23																		
	6116	SO,SON	SOS		.116	1.02	5.41	5.39	6.4												6.8						
						.040	.213	.212	.250												.27						
	6143	SO,SON	SOS	SOA	3.63	1.02	5.41	5.39	6.4	4	16	8	10	12	14	16	18	20	22	24	6.8						
			.040			.213	.212	.250	.27																		
	8143	SO,SON	SOS		.143	1.27	7.14	7.12	7.9												7.8						
					.050	.281	.280	.312												.31							
8169	SO,SON	SOS	SOA	4.29	1.27	7.14	7.12	7.9	4	6	8	10	12	14	16	18	20	22	24	7.8							
		.169			.050	.281	.280	.312												.31							
8194	SO,SON	SOS		4.93	1.27	7.14	7.12	7.9												7.8							
				.194	.050	.281	.280	.312												.31							

HEX-HEAD FLUSH-MOUNTED SELF-CLINCHING STUDS

W NFH, NFHS

Part Number Designation

NFH

M3

12

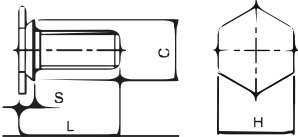
12

Type and Material

Thread Code

Length Code

Finish



Material ,Finish and For use in sheet Hardness

Type NFH studs are made of steel and Zinc plating (ZI). For use in sheet hardness of 60 or less on the Rockwell "B" Scale. Type NFHS studs are made of Stainless steel and Passivated. For use in sheet hardness of 70 or less on the Rockwell "B" Scale.

Thread Size	Type		Thread Code	Min. Sheet Thickness	Hole Size In Sheet +0.08	C -0.13	H Nom	S Max	Length "L" +0.05/-0.13 Length Code in millimeter												Min. Dist. Hole C/L to Edge
	Steel	Stainless Steel							5	6	8	10	12	16	20	25	30	35			
M3	NFH	NFHS	M3	1	4.8	4.78	6	1.25	5	6	8	10	12	16	20	25	30	35	7.2		
M4	NFH	NFHS	M4	1	4.8	4.78	6	1.25	5	6	8	10	12	16	20	25	30	35	7.2		
M5	NFH	NFHS	M5	1	5	4.98	6.35	1.25	-	6	8	10	12	16	20	25	30	35	7.5		
M6	NFH	NFHS	M6	1.6	6	5.98	7	1.4	-	-	8	10	12	16	20	25	30	35	9		

ROUND-HEAD FLUSH- MOUNTED SELF-CLINCHING STUDS

W FH, FHS, FHA

Part Number Designation

FH

M3

12

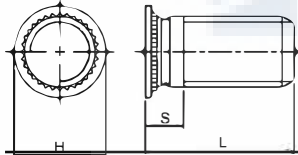
12

Type and Material

Thread Code

Length Code

Finish



Material ,Finish and For use in sheet Hardness

Type FH studs are made of Heat Treated Carbon Steel,Zinc plating (ZI). For use in sheet hardness of 80 or less on the Rockwell "B" Scale. Type FHS studs are made of 300 series stainless steel, Passivated and /or tested per ASTM A 380. For use in sheet hardness of 70 or less on the Rockwell "B" Scale. Type FHA studs are made of 2024-T4 Aluminum, No Finish. For use in sheet hardness of 50 or less on the Rockwell "B" Scale.

	Thread Size	Type			Thread Code	Min. Sheet Thickness	Hole Size In Sheet +0.08	Max. Hole In Attached Parts	H ± 0.4	S Max	Length "L" ± 0.4 Length Code in millimeters												Min. Dist. Hole C/L to Edge
		Steel	Stainless Steel	Aluminum							6	8	10	12	15	18	20	25	30	35			
公制 Metric	M2.5	FH	FHS	FHA	M2.5	1	2.5	3.1	4.1	1.95	6	8	10	12	15	18	—	—	—	—	5.4		
	M3	FH	FHS	FHA	M3	1	3	3.6	4.6	2.1	6	8	10	12	15	18	20	25	—	—	5.6		
	M3.5	FH	FHS	FHA	M3.5	1	3.5	4.1	5.3	2.25	6	8	10	12	15	18	20	25	30	—	6.4		
	M4	FH	FHS	FHA	M4	1	4	4.6	5.9	2.4	6	8	10	12	15	18	20	25	30	35	7.2		
	M5	FH	FHS	FHA	M5	1	5	5.6	6.5	2.7	—	8	10	12	15	18	20	25	30	35	7.2		
	M6	FH	FHS	FHA	M6	1.6	6	6.6	8.2	3	—	10	12	15	18	20	25	30	35	35	7.9		
	M8	FH	FHS	FHA	M8	2.4	8	8.6	9.6	3.7	—	—	—	12	15	18	20	25	30	35	9.6		
英制 Unified											Length "L" ± 015 Length Code in 16ths of an inch												
											.250	.312	.375	.500	.625	.750	.875	1.00	1.25	1.50			
	.086-56	FH	FHS	FHA	256	1	.040	.085	.105	.144	1.9	4	5	6	8	10	12	—	—	—	—	4.7	
	#2-56																						.187
	.112-40	FH	FHS	FHA	440	1	.040	.111	.135	.176	.085	4	5	6	8	10	12	14	16	—	—	5.6	
	#4-40																						.219
	.138-32	FH	FHS	FHA	632	1	.040	.148	.160	.206	.090	4	5	6	8	10	12	14	16	20	24	6.4	
	#6-32																						0.250
	.164-32	FH	FHS	FHA	832	1	.040	.163	.185	.237	.090	4	5	6	8	10	12	14	16	20	24	7.2	
	#8-32																						.281
	.19-24	FH	FHS	FHA	024	1	.040	.189	.210	.256	.100	—	5	6	8	10	12	14	16	20	24	7.2	
	#10-24																						.281
	.19-32	FH	FHS	FHA	032	1	.040	.189	.210	.256	.100	—	5	6	8	10	12	14	16	20	24	7.2	
	#10-32																						.281
.250-20	FH	FHS	FHA	0420	1.6	.062	.332	.366	.8	3.43	—	—	6	8	10	12	14	16	20	24	7.9		
1/4-20																						.35	
.313-18	FH	FHS	FHA	0518	2.4	.093	.7	9.33	4.6	4.1	—	—	—	8	10	12	14	16	20	24	9.5		
5/16-18																						.375	

FH,FHS ,FHA
INSTALLATION

Tooling for sheet thickness less than .06"/1.51mm with #2 thru #10/ M3 thru M5 Thread sizes and less than .093"/2.4mm for 1/4"/M6 threads.

Tooling for sheet thickness .06/1.51mm and greater with #2 thru #10/M3 thru M5 thread sizes and .093"/2.41mm and greater for 1/4"and 5/16"/M6 and M8 threads.

安装示意图 / Installation

安装工具 / Installation Tooling

安装示意图 / Installation

安装工具 / Installation Tooling

Thread Size	Anvil Dimension		Thread Size	Anvil Dimension	
	A+0.1/0	C+0.08/0		A	C
M2.5	3.1	2.53	256	2.79-2.89	2.21-2.29
M3	3.6	3.03	440	3.45-3.55	2.87-2.95
M3.5	4.1	3.53	632	4.11-4.22	3.53-3.61
M4	4.6	4.03	832	4.77-4.88	4.19-4.27
M5	5.6	5.03	024&032	5.49-5.59	4.85-4.93
M6	6.6	6.03	420	7.49-7.62	6.35-6.43
M8	8.6	8.03	0518	8.48-8.58	7.94-8.01
M10	-	10.03	0616	-	9.53-9.6

ROUND-HEAD FLUSH-MOUNTED SELF-CLINCHING STUDS

W FH4

Part Number Designation

FH4

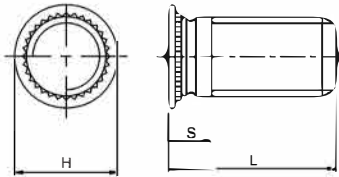
M3

12

Type and Material

Thread Code

Length Code



Material ,Finish and For use in sheet Hardness

Type FH4 Standoffs are made of 400 series Stainless Steel,Hardened, Passivated and /or Tested per ASTM A 380. For use in Sheet hardness of 92 or less on the the Rockwell "B" Scale.

Metric	Thread Size	Type	Thread Code	Sheet Thickness	Hole Size In Sheet +0.08	Max.Hole In Attached Parts	H Nom	S Max	Length "L" ± 0.4 Length Code in millimeters												Min.Dist Hole C/L to Edge
	M3	FH4	M3	1-2.4	3	3.6	4.6	2.1	6	8	10	12	15	18	20	25	-	-	5.6		
	M4	FH4	M4	1-2.4	4	4.6	5.9	2.4	6	8	10	12	15	18	20	25	30	35	7.2		
	M5	FH4	M5	1-2.4	5	5.6	6.5	2.7	-	8	10	12	15	18	20	25	30	35	7.2		
Unified									Length "L" ± .015 Length Code in 16ths of an inch												
									.250	.312	.375	.500	.625	.750	.875	1.00	1.25	1.50			
	.112-40 #4-40	FH4	440	1-2.4 .050-.095	2.8 .111	3.4 .135	4.5 .176	2.2 .085	4	5	6	8	10	12	14	16	-	-	5.6 .219		
	.138-32 #6-32	FH4	632	1-2.4 .050-.095	3.48 .137	4.1 .160	5.2 .206	2.29 .090	4	5	6	8	10	12	14	16	20	24	6.4 0.250		
	.164-32 #8-32	FH4	832	1-2.4 .050-.095	4.14 .163	4.7 .185	6 .237	2.29 .090	4	5	6	8	10	12	14	16	20	24	7.2 .281		
	.19-32 #10-32	FH4	032	1-2.4 .050-.095	4.8 .189	5.3 .210	6.5 .256	2.54 .100	-	5	6	8	10	12	14	16	20	24	7.2 .281		