



Designers' Choice

# COIN CELL PC BATTERY HOLDERS

## 20mm to 30mm Sizes



**SINGLE CELL HOLDER**  
(3-VOLT)

**DUAL CELL HOLDER**  
(6-VOLT)

Single and Dual "Printed Circuit" Cell Holders for Lithium Coin Cells. Designed for easy battery replacement. Will accommodate diameters from 12mm to 30mm and heights from 1.6mm to 7.7mm. Some holders will accept more than two cells if they fall within the heights specified.

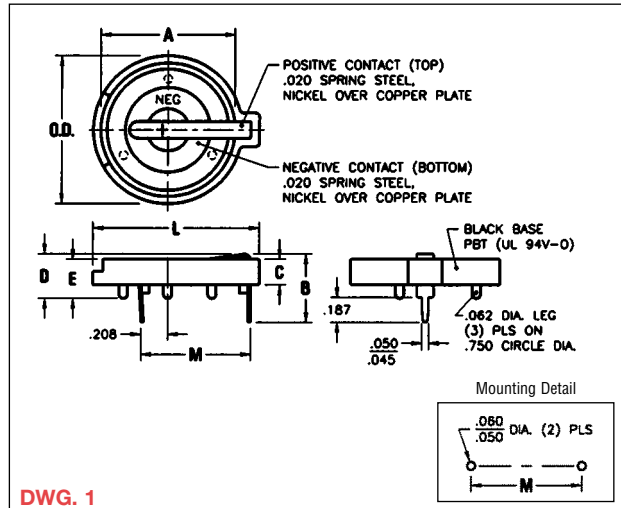
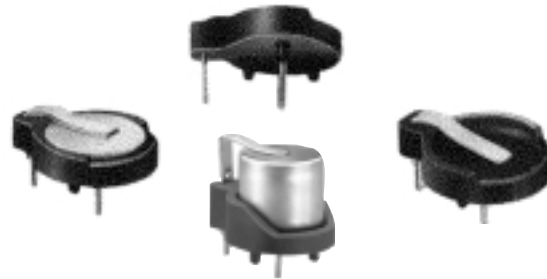
**IDEALLY SUITED FOR...**

- Duracell, Eveready, Panasonic, Ray-O-Vac, Sanyo, Varta, Toshiba, Seiko and other major battery manufacturers
- Computer memory, power transfer and back-up systems
- Video and telecommunications power back-up
- Preprogrammed video and electronic games
- Microprocessors and Microcomputer memory hold
- Notebook and laptop applications
- Emergency power systems
- Industrial and commercial security and alarm systems
- Communications power sources
- Miniaturized battery power devices

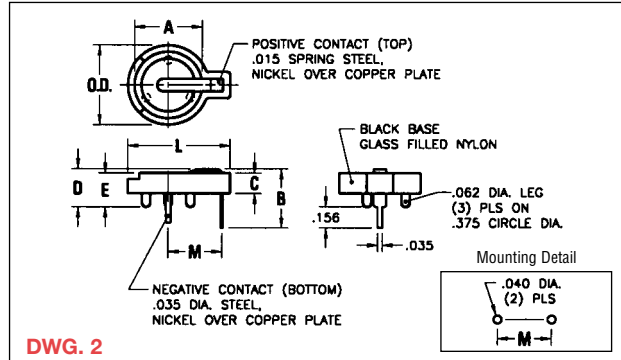
**DESIGN ADVANTAGES...**

- Low profile for high density packaging
- Reliable spring tension assures low contact resistance
- Retains battery securely to withstand shock and vibration
- Unique notched slots assure quick and easy battery insertion and replacement
- Base material UL Rated 94V-0. Impervious to most industrial solvents
- Operating temperature range: -60°F to +293°F (-50°C to +145°C)
- Advanced air-flow design pattern enhances air circulation around battery
- Nickel-over-copper plated spring steel contacts feature clearly marked polarities to help guard against improper insertion

## 12mm to 16mm & 1/3 "N" Sizes



DWG. 1



DWG. 2

CAT. NO.	DWG. NO.	NO. OF CELLS	DIMENSIONS								BATTERY CROSS REFERENCE	
			A	B	C	D	E	L	O.D.	M	CELL	
499	2	1	.495	.695	.250	.580	.350	.750	.593	.393	"1/3N"	DURACELL, EVEREADY, PANASONIC, RAY-O-VAC SANYO, SONY, SEIKO, TOSHIBA, VARTA
500	2	1	.495	.435	.150	.280	.250	.750	.593	.393	12mm	BR1216, CR1216, BR1220, CL1220, CR1220, BR1225
501	2	2	.495	.505	.250	.380	.350	.750	.593	.393		
502	2	1	.635	.505	.150	.312	.250	.897	.750	.463	16mm	BR1616, CR1612, CR1616, CR1620, CR1632
103	1	1	.796	.513	.195	.335	.295	1.130	.896	.807	20mm	BR2016, CR2016, DL2016, BR2020, CL2020, BR2025, CR2025, DL2025, BR2032, CR2032, DL2032
106	1	1	.796	.513	.195	.335	.295	1.219	1.093	.807		
1026	1	2	.796	.630	.312	.452	.412	1.219	1.093	.807		
104	1	1	.911	.513	.195	.335	.295	1.150	1.000	.807		
107	1	1	.911	.513	.195	.335	.295	1.219	1.093	.807	23mm	BR2320, CL2320, CR2320, BR2325, CR2325, DL2325, BR2330, CL2330, BR2335, CR2354**
1027	1	2	.911	.630	.312	.452	.412	1.219	1.093	.807		
105	1	1	.985	.513	.195	.335	.295	1.219	1.093	.807	24mm	CR2430, DL2430, CR2450*, DL2450*, CR2477†
1025	1	2	.985	.630	.312	.452	.412	1.219	1.093	.807		
1025-7	1	1	.985	.681	.312	.503	.412	1.219	1.093	.807		
301	1	1	1.187	.513	.195	.335	.295	1.425	1.297	.807	30mm	BR3032

\* For Cat. No. 1025 (1) cell only. \*\* For Cat. No. 1027 (1) cell only. † For Cat. No. 1025-7 only.

# COIN CELL BATTERY HOLDERS

Designers' Choice

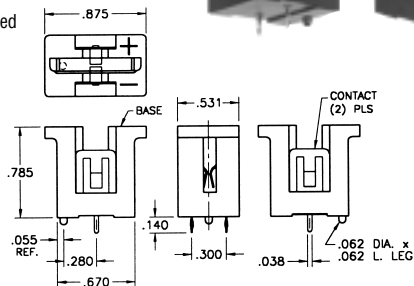


## VERTICAL 20mm COIN CELL HOLDERS

### COMPACT

This space saving vertical design features a rugged, lightweight body that mounts squarely and securely on PC boards for easy installation and replacement of batteries. Reliable spring tension assures low contact resistance.

- Accepts all major manufacturers' 20mm diameter batteries
- Molded notch prevents improper insertion of 2032 size cells
- Space saving design for high density packaging
- Retains cells securely, withstands shock and vibration
- Polarity clearly marked
- Mounts securely for wave soldering
- Temp range -60°F to +293°F (50°C to +145°C)



#### MATERIAL

Contacts: .012 Spring Steel, Tin over Nickel Plate

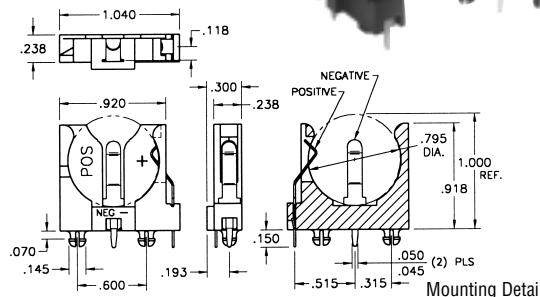
Base: PBT, UL Rated 94V-0

CAT. NO. 1067

### SLIMLINE

A "unique" space saving design. The battery is installed vertically from the top. The contacts of this holder are polarized to assure proper continuity and circuit protection.

- Polarized holder
- Mounts securely for wave soldering
- Reliable spring tension assures low contact resistance
- Retains 20mm batteries securely to withstand shock and vibration
- Temp range -60°F to +293°F (50°C to +145°C)



#### MATERIAL

Contacts: .016 Spring Steel, Tin over Nickel Plate

Base: PBT, UL Rated 94V-0

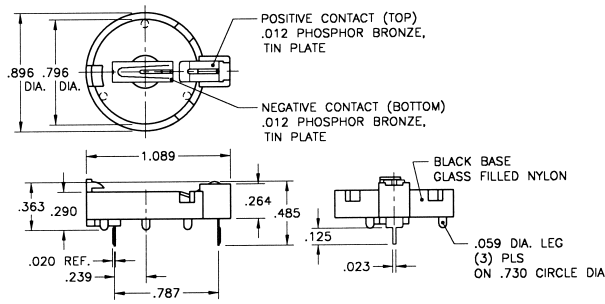
CAT. NO. 1065

## COMPACT 20mm COIN CELL HOLDER



- Suitable for 2025 and 2032 cells
- "Pop-in" design using minimum space
- Finger pressure lever disengages battery
- Reliable spring tension assures low contact resistance
- Retains batteries securely to withstand shock and vibration
- Temp range -60°F to +293°F (50°C to +145°C)

The "Ultimate" in space saving design. This 20mm coin cell holder allows "pop-in" entry of batteries using the minimum amount of space. Finger pressure lever allows batteries to disengage from holder.



#### MATERIAL

Contacts: .012 Phosphor Bronze, Tin Plate

Base: Glass Filled Nylon, UL Rated 94V-0

CAT. NO. 1066

## SURFACE MOUNT COIN CELL HOLDERS



Available on Tape and Reel

### SMT Design - Holders for 20mm and 23mm Lithium Coin Cell Batteries

- Temp. range -60°F to +540°F (-50°C to +282°C)
- Ideal for memory back-up applications
- Polarity clearly marked (+)
- UL approved material, 94V-0
- Rugged construction, light weight
- Compatible with vacuum and mechanical pick & place assembly systems
- Low profile for high density packaging
- SMT solder tail with "Flow-Hole" design for increased joint strength
- Viewable solder tails assures reliable joint inspection
- Safe for all soldering & reflow operations
- All conductive polystyrene carrier tape meets ANSI/EIA - 481 standard

#### SMALL PAD PATTERN

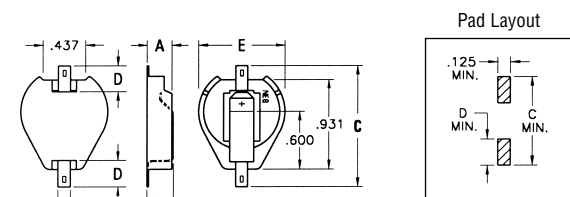
CAT. NO.	ON TAPE	CELLS	A	B	C	D	E	CELL	BATTERY
1061	1061TR	1	.256	.290	1.015	.156	.896	20mm	2016*, 2020, 2025, 2032
1062	1062TR	2	.375	.406	1.015	.156	.896	23mm	2320, 2325, 2330
1071	1071TR	1	.256	.290	1.015	.156	1.000		

\*Cat. No. 1061 (1 or 2 cells); Cat. No. 1062 (3 cells)

#### LARGE PAD PATTERN

CAT. NO.	ON TAPE	CELLS	A	B	C	D	E	CELL	BATTERY
1063	1063TR	1	.256	.290	1.250	.278	.896	20mm	2016*, 2020, 2025, 2032
1064	1064TR	2	.375	.406	1.250	.278	.896	23mm	2320, 2325, 2330
1073	1073TR	1	.256	.290	1.250	.278	1.00		

\*Cat. No. 1063 (1 or 2 cells); Cat. No. 1064 (3 cells)



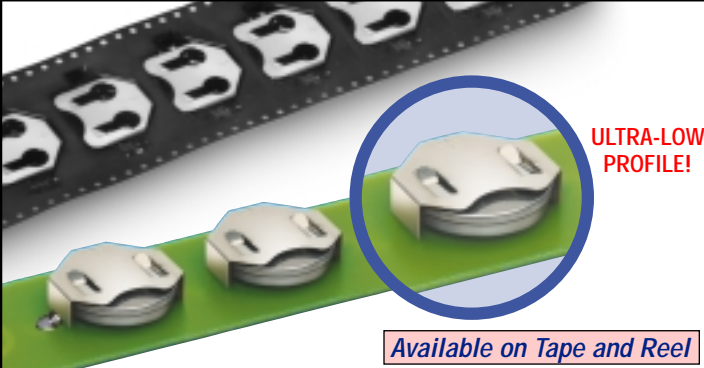
MATERIAL: Contacts: .015 Steel, Tin Plate Base: Nylon, Stanyl-46  
Tape & Reel Spec's: 44mm wide; 32mm pitch; 13 inch reel (200 pieces per reel)



Designers' Choice

# COIN CELL RETAINERS & HOLDERS

## SURFACE & THRU HOLE MOUNT COIN CELL RETAINER CONTACTS



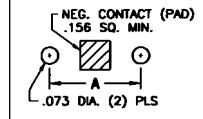
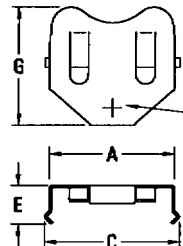
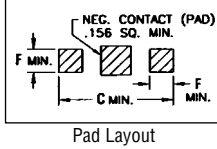
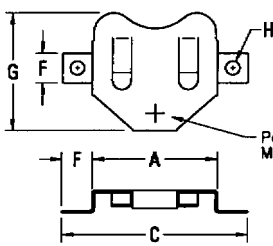
**ULTRA-LOW PROFILE!**

Available on Tape and Reel

### COMPACT CONTACTS

Economical and reliable retainer contacts are designed for quick and easy battery installation and replacement. Perfect for memory back-up applications. Surface and thru hole mount retainer contacts are available for 6.8mm to 24mm lithium coin cell batteries.

- Low profile for densely packed PCBs
- Retains cell securely, withstands shock & vibrations
- Reliable dual spring contacts assure low contact resistance
- Polarity clearly marked (+)
- Stable thru mount legs for increased strength
- Balanced & lightweight for reliable pick-up & placement
- Compatible with vacuum and mechanical pick & place assembly systems
- "Flow-Hole" SMT solder tail design for increased joint strength
- Viewable solder tails assures reliable joint inspection
- All conductive polystyrene carrier tape meets ANSI/EIA - 481 standard



Mounting Detail

Also Available:  
Optional negative bottom contact.  
(Cat. No. 2990, see page 9)

DWG. 1 - SURFACE MOUNT (SMT)

MATERIAL: .010 Phosphor Bronze, Nickel Plate

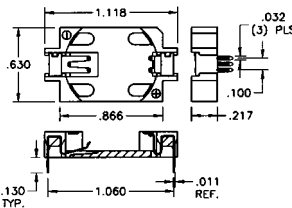
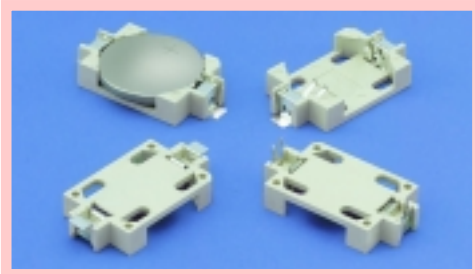
DWG. 2 - THRU HOLE MOUNT (THM)

MATERIAL: .010 Phosphor Bronze, Nickel Plate

CAT. NO.	ON TAPE & REEL	DWG. NO.	MTG. TYPE	A	B	C	D	E	F	G	H DIA.	CELL DIA.	BATTERY REFERENCE	TAPE & REEL SPEC'S
2998	2998TR	1	SMT	.315	.197	.421	.114	—	.070 × .200	.315	.064	6.8mm	MC621, V364, SC621	24mm wide; 12mm pitch; 13 inch (1250 pieces per reel)
3000	3000TR	1	SMT	.520	.281	.745	.125	—	.125	.500	.047	12mm	BR1216, CR1216, BR1220, CL1220, CR1220, BR1225	32mm wide; 16mm pitch; 13 inch reel (1000 pieces per reel)
3001	—	2	THM	.520	.281	.585	.118	.210	.062	.500	—	16mm	BR1616, CR1612, CR1616, CR1620, CR1632	44mm wide; 24mm pitch; 13 inch reel (600 pieces per reel)
3012	3012TR	1	SMT	.664	.250	.914	.156	—	.125	.594	.047	20mm	BR2016, CR2016, DL2016, BR2020, CL2020, BR2025, CR2025, DL2025, DR2032, CR2032, DL2032	44mm wide; 24mm pitch; 13 inch reel (500 pieces per reel)
3013	—	2	THM	.664	.250	.723	.145	.265	.062	.594	—	23mm	BR2320, CL2330, CR2320, BR2325, CR2325, DL2325	56mm wide; 32mm pitch; 13 inch reel (400 pieces per reel)
3002	3002TR	1	SMT	.831	.371	1.210	.156	—	.200	.775	.093	23mm	CR2354, DL2354	56mm wide; 32mm pitch; 13 inch reel (200 pieces per reel)
3003	—	2	THM	.831	.371	.890	.145	.265	.062	.775	—	24mm	CR2430, DL2430	56mm wide; 32mm pitch; 13 inch reel (400 pieces per reel)
3004	3004TR	1	SMT	.939	.371	1.339	.145	—	.200	.939	.093	24mm	CR2450, DL2450	56mm wide; 32mm pitch; 13 inch reel (200 pieces per reel)
3005	—	2	THM	.939	.371	1.004	.145	.256	.062	.939	—	24mm	—	—
3010	3010TR	1	SMT	.939	.371	1.339	.240	—	.200	.819	.093	24mm	—	—
3011	—	2	THM	.939	.371	1.004	.240	.351	.062	.819	—	24mm	—	—
3006	3006TR	1	SMT	1.000	.371	1.400	.156	—	.200	.918	.093	24mm	—	—
3007	—	2	THM	1.000	.371	1.065	.145	.265	.062	.918	—	24mm	—	—
3008	3008TR	1	SMT	1.000	.500	1.400	.230	—	.200	.890	.093	24mm	—	—
3009	—	2	THM	1.000	.500	1.059	.230	.350	.062	.890	—	24mm	—	—

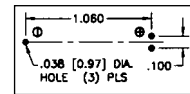
## LOW PROFILE SURFACE & THRU HOLE MOUNT COIN CELL HOLDERS

Designed for quick and easy installation and replacement of 2032 coin cell lithium batteries. The contacts of these holders are polarized to assure proper continuity and circuit protection.

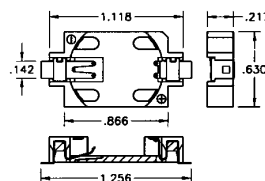


### Thru Hole Mount

Mounting Detail

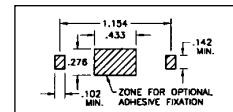


CAT. NO. 1059 (Bulk)



### Surface Mount

Pad Layout



CAT. NO. 1060 (Bulk)

CAT. NO. 1060TR (Tape & Reel)

Tape & Reel Spec's: 44mm wide; 24mm pitch; 13 inch reel (500 pieces per reel)

- Polarized Holder
- Retains cell securely to withstand shock and vibration
- Reliable dual spring contacts assure low contact resistance

- Low Profile for densely packaged PCB's
- Compatible with vacuum and mechanical pick & place assembly systems
- Conductive polystyrene carrier tape meets ANSI/EIA - 481 standard

### MATERIAL

Contacts: .006 Phosphor Bronze, Electro-Solder over Nickel Plate  
Base: Glass Filled LCP, UL Rated 94V-0

# ENGINEERING DATA

Designers' Choice



## DRILL SIZE DIAMETER TABLE

Diameter	Drill Size	Diameter	Drill Size	Diameter	Drill Size	Diameter	Drill Size
.0135	80	.0935	42	.2031	13/64	.4040	Y
.0145	79	.0938	3/32	.2040	6	.4062	13/32
.0156	1/64	.0960	41	.2055	5	.4130	Z
.0160	78	.0980	40	.2090	4	.4219	27/64
.0180	77	.0995	39	.2130	3	.4375	7/16
.0200	76	.1015	38	.2188	7/32	.4531	29/64
.0210	75	.1040	37	.2210	2	.4688	15/32
.0225	74	.1065	36	.2280	1	.4844	31/64
.0240	73	.1094	7/64	.2340	A	.5000	1/2
.0250	72	.1100	35	.2344	15/64	.5156	33/64
.0260	71	.1110	34	.2380	B	.5312	17/32
.0280	70	.1130	33	.2420	C	.5469	35/64
.0292	69	.1160	32	.2460	D	.5625	9/16
.0310	68	.1200	31	.2500	1/4	.5781	37/64
.0312	1/32	.1250	1/8	.2500	E	.5938	19/32
.0320	67	.1285	30	.2570	F	.6094	39/64
.0330	66	.1360	29	.2610	G	.6250	5/8
.0350	65	.1405	28	.2656	17/64	.6406	41/64
.0360	64	.1406	9/64	.2660	H	.6562	21/32
.0370	63	.1440	27	.2720	I	.6719	43/64
.0380	62	.1470	26	.2770	J	.6875	11/16
.0390	61	.1495	25	.2810	K	.7031	45/64
.0400	60	.1520	24	.2812	9/32	.7188	23/32
.0410	59	.1540	23	.2900	L	.7344	47/64
.0420	58	.1562	5/32	.2950	M	.7500	3/4
.0430	57	.1570	22	.2969	19/64	.7656	49/64
.0465	56	.1590	21	.3020	N	.7812	25/32
.0469	3/64	.1610	20	.3125	5/16	.7969	51/64
.0520	55	.1660	19	.3160	O	.8120	13/16
.0550	54	.1695	18	.3230	P	.8281	53/64
.0595	53	.1719	11/64	.3281	21/64	.8438	27/32
.0625	1/16	.1730	17	.3320	Q	.8594	55/64
.0635	52	.1770	16	.3390	R	.8750	7/8
.0670	51	.1800	15	.3438	11/32	.8906	57/64
.0700	50	.1820	14	.3480	S	.9062	29/32
.0730	49	.1850	13	.3580	T	.9219	59/64
.0760	48	.1875	3/16	.3594	23/64	.9375	15/16
.0781	5/64	.1890	12	.3680	U	.9531	61/64
.0785	47	.1910	11	.3750	3/8	.9688	31/32
.0810	46	.1935	10	.3770	V	.9844	63/64
.0820	45	.1960	9	.3860	W	1.0000	1/1
.0860	44	.1990	8	.3906	25/64		
.0890	43	.2010	7	.3970	X		

## MILLIMETER CONVERSION TABLE

MM	Decimal Inches	Fraction Inches	MM	Decimal Inches	Fraction Inches	MM	Decimal Inches	Fraction Inches	MM	Decimal Inches	Fraction Inches
0.1	.0039		6.5	.2559		12.8	.5039		19.2	.7559	
0.2	.0079		6.6	.2598		12.9	.5079		19.3	.7598	
0.3	.0118		6.7	.2638		13.0	.5118		19.4	.7638	
0.397	.0156	1/64	6.747	.2656	17/64	13.097	.5156	33/64	19.447	.7656	49/64
0.4	.0157		6.8	.2677		13.1	.5157		19.5	.7677	
0.5	.0197		6.9	.2717		13.2	.5197		19.6	.7717	
0.6	.0236		7.0	.2756		13.3	.5236		19.7	.7756	
0.7	.0276		7.1	.2795		13.4	.5276		19.8	.7795	
0.794	.0313	1/32	7.144	.2813	9/32	13.494	.5313	17/32	19.844	.7813	25/32
0.8	.0315		7.2	.2835		13.5	.5315		19.9	.7835	
0.9	.0354		7.3	.2874		13.6	.5354		20.0	.7874	
1.0	.0394		7.4	.2913		13.7	.5394		20.1	.7913	
1.1	.0433		7.5	.2953		13.8	.5433		20.2	.7953	
1.191	.0469	3/64	7.541	.2969	19/64	13.891	.5469	35/64	20.241	.7969	51/64
1.2	.0472		7.6	.2992		13.9	.5472		20.3	.7992	
1.3	.0512		7.7	.3031		14.0	.5512		20.4	.8031	
1.4	.0551		7.8	.3071		14.1	.5551		20.5	.8071	
1.5	.0591		7.9	.3110		14.2	.5591		20.6	.8110	
1.588	.0625	1/16	7.938	.3125	5/16	14.288	.5625	9/16	20.638	.8125	13/16
1.6	.0630		8.0	.3150		14.3	.5630		20.7	.8150	
1.7	.0669		8.1	.3189		14.4	.5669		20.8	.8189	
1.8	.0709		8.2	.3228		14.5	.5709		20.9	.8228	
1.9	.0748		8.3	.3268		14.6	.5748		21.0	.8268	
1.984	.0781	5/64	8.334	.3281	21/64	14.684	.5781	37/64	21.034	.8281	53/64
2.0	.0787		8.4	.3307		14.7	.5787		21.1	.8307	
2.1	.0827		8.5	.3346		14.8	.5827		21.2	.8346	
2.2	.0866		8.6	.3386		14.9	.5866		21.3	.8386	
2.3	.0906		8.7	.3425		15.0	.5906		21.4	.8425	
2.381	.0938	3/32	8.731	.3438	11/32	15.081	.5938	19/32	21.431	.8438	27/32
2.4	.0945		8.8	.3465		15.1	.5945		21.5	.8465	
2.5	.0984		8.9	.3504		15.2	.5984		21.6	.8504	
2.6	.1024		9.0	.3543		15.3	.6024		21.7	.8543	
2.7	.1063		9.1	.3583		15.4	.6063		21.8	.8583	
2.778	.1094	7/64	9.128	.3594	23/64	15.478	.6094	39/64	21.828	.8594	55/64
2.8	.1102		9.2	.3622		15.5	.6102		21.9	.8622	
2.9	.1142		9.3	.3661		15.6	.6142		22.0	.8661	
3.0	.1181		9.4	.3701		15.7	.6181		22.1	.8701	
3.1	.1220		9.5	.3740		15.8	.6220		22.2	.8740	
3.175	.1250	1/8	9.525	.3750	3/8	15.875	.6250	5/8	22.225	.8750	7/8
3.2	.1260		9.6	.3780		15.9	.6260		22.3	.8780	
3.3	.1299		9.7	.3819		16.0	.6299		22.4	.8819	
3.4	.1339		9.8	.3858		16.1	.6339		22.5	.8858	
3.5	.1378		9.9	.3898		16.2	.6378		22.6	.8898	
3.572	.1406	9/64	9.922	.3906	25/64	16.272	.6406	41/64	22.622	.8906	57/64
3.6	.1417		10.0	.3937		16.3	.6417		22.7	.8937	
3.7	.1457		10.1	.3976		16.4	.6457		22.8	.8976	
3.8	.1496		10.2	.4016		16.5	.6496		22.9	.9016	
3.9	.1535		10.3	.4055		16.6	.6535		23.0	.9055	
3.969	.1563	5/32	10.319	.4063	13/32	16.669	.6563	21/32	23.019	.9063	29/32
4.0	.1575		10.4	.4094		16.7	.6575		23.1	.9094	
4.1	.1614		10.5	.4134		16.8	.6614		23.2	.9134	
4.2	.1654		10.6	.4173		16.9	.6654		23.3	.9173	
4.3	.1693		10.7	.4213		17.0	.6693		23.4	.9213	
4.366	.1719	11/64	10.716	.4219	27/64	17.066	.6719	43/64	23.416	.9219	59/64
4.4	.1732		10.8	.4252		17.1	.6732		23.5	.9252	
4.5	.1772		10.9	.4291		17.2	.6772		23.6	.9291	
4.6	.1811		11.0	.4331		17.3	.6811		23.7	.9331	
4.7	.1850		11.1	.4370		17.4	.6850		23.8	.9370	
4.763	.1875	3/16	11.113	.4375	7/16	17.463	.6875	11/16	23.813	.9375	15/16
4.8	.1890		11.2	.4409		17.5	.6890		23.9	.9409	
4.9	.1929		11.3	.4449		17.6	.6929		24.0	.9449	
5.0	.1969		11.4	.4488		17.7	.6968		24.1	.9488	
5.1	.2008		11.5	.4528		17.8	.7008		24.2	.9528	
5.159	.2031	13/64	11.509	.4531	29/64	17.859	.7031	45/64	24.209	.9531	61/64
5.2	.2047		11.6	.4567		17.9	.7047		24.3	.9567	
5.3	.2087		11.7	.4606		18.0	.7087		24.4	.9606	
5.4	.2126		11.8	.4646		18.1	.7126		24.5	.9646	
5.5	.2165		11.9	.4685		18.2	.7165		24.6	.9685	
5.556	.2188	7/32	11.906	.4688	15/32	18.256	.7188	23/32	24.606	.9688	31/32
5.6	.2205		12.0	.4724		18.3	.7205		24.7	.9724	
5.7	.2244		12.1	.4764		18.4	.7244		24.8	.9764	
5.8	.2283		12.2	.4803		18.5	.7283		24.9	.9803	
5.9	.2323		12.3	.4843		18.6	.7323		25.0	.9843	
5.953	.2344	15/64	12.303	.4844	31/64	18.653	.7344	47/64	25.003	.9844	63/64
6.0	.2362		12.4	.4882		18.7	.7362		25.1	.9882	
6.1	.2402		12.5	.4921		18.8	.7402		25.2	.9921	
6.2	.2441		12.6	.4961		18.9	.7441		25.3	.9961	
6.3	.2480		12.7	.5000		19.0	.7480		25.400	1.0000	1
6.350	.2500	1/4	12.700	.5000	1/2	19.050	.7500	3/4			
6.4	.2520					19.1	.7520				

## SCREW/STUD CLEARANCE HOLE TABLE

Screw/Stud Size	Screw/Stud Dia. Max.	Recommended Clearance Hole Dia.
0	.060	.067
1	.073	.078
2	.086	.093
3	.099	.105
4	.112	.120
5	.125	.130
6	.138	.144
8	.164	.169
10	.190	.196
12	.216	.220
14	.242	.250
1/4	.250	.257