


# THRU HOLE (THM) & SURFACE MOUNT (SMT) BUTTON CELL RETAINERS

Economical and reliable SMT and THM coin cell retainers specifically designed for miniature electronic applications with limited board space.

- Available in Thru Hole Mount (THM) or Surface Mount (SMT) configurations
- SMT solder tail with "flow-hole" design for increased joint strength
- THM legs maintain relative position during and after soldering
- Ideally suited for High Density packaging
- Reliable spring tension assures low contact resistance
- Retains battery securely to withstand shock and vibration
- Solder tail located outside of retainer body which facilitates visual inspection of the solder joints

**AVAILABLE ON TAPE AND REEL**

**4.8 mm**

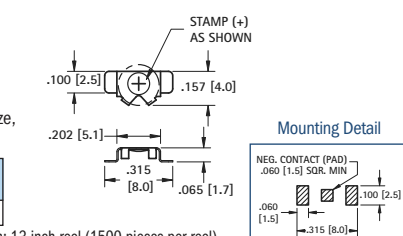


Surface Mount

**MATERIAL:** .006 (.15) Phosphor Bronze, Gold Plate (Flash)


CAT. NO.	ON TAPE BULK & REEL	BATTERY REFERENCE
2994	2994TR	ML414

Tape & Reel Spec's: 16mm wide; 8mm pitch; 13 inch reel (1500 pieces per reel)



Mounting Detail

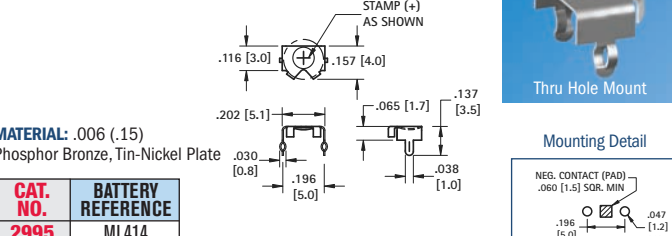
**4.8 mm**



Thru Hole Mount

**MATERIAL:** .006 (.15) Phosphor Bronze, Tin-Nickel Plate


CAT. NO.	BATTERY REFERENCE
2995	ML414



Mounting Detail

**AVAILABLE ON TAPE AND REEL**

**6.8 mm**

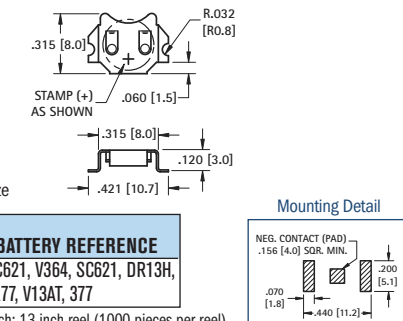


Surface Mount

**MATERIAL:** .010 (.25) Phosphor Bronze


CAT. NO.	ON TAPE BULK & REEL	FINISH	BATTERY REFERENCE
2998	2998TR	Tin-Nickel	MC621, V364, SC621, DR13H, DR77, V13AT, 377
3098	3098TR	Matte Tin	

Tape & Reel Spec's: 24mm wide; 12mm pitch; 13 inch reel (1000 pieces per reel)



Mounting Detail

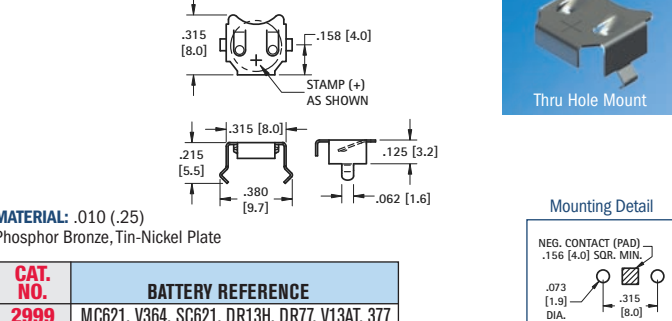
**6.8 mm**



Thru Hole Mount

**MATERIAL:** .010 (.25) Phosphor Bronze, Tin-Nickel Plate


CAT. NO.	BATTERY REFERENCE
2999	MC621, V364, SC621, DR13H, DR77, V13AT, 377



Mounting Detail

**AVAILABLE ON TAPE AND REEL**

**7.9 mm**

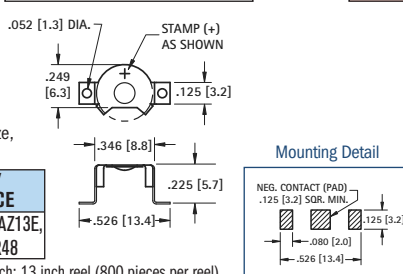


Surface Mount

**MATERIAL:** .010 (.25) Phosphor Bronze, Gold Plate (Flash)


CAT. NO.	ON TAPE BULK & REEL	BATTERY REFERENCE
2988	2988TR	Size 13, DA13, AZ13E, 393, SR754, SR48

Tape & Reel Spec's: 24mm wide; 12mm pitch; 13 inch reel (800 pieces per reel)



Mounting Detail

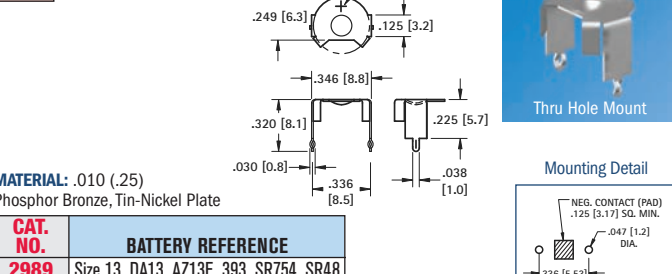
**7.9 mm**



Thru Hole Mount

**MATERIAL:** .010 (.25) Phosphor Bronze, Tin-Nickel Plate


CAT. NO.	BATTERY REFERENCE
2989	Size 13, DA13, AZ13E, 393, SR754, SR48



Mounting Detail

**AVAILABLE ON TAPE AND REEL**

**9 - 10 mm**

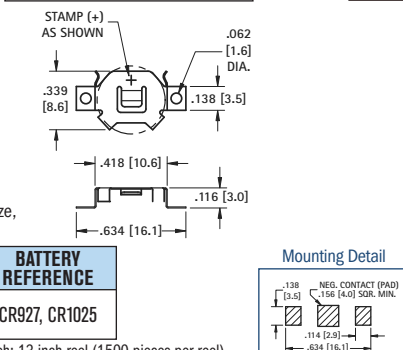


Surface Mount

**MATERIAL:** .006 (.15) Phosphor Bronze, Tin-Nickel Plate


CAT. NO.	ON TAPE BULK & REEL	FINISH	BATTERY REFERENCE
3030	3030TR	Tin-Nickel	CR927, CR1025
3050	3050TR	Matte Tin	

Tape & Reel Spec's: 24mm wide; 12mm pitch; 13 inch reel (1500 pieces per reel)



Mounting Detail

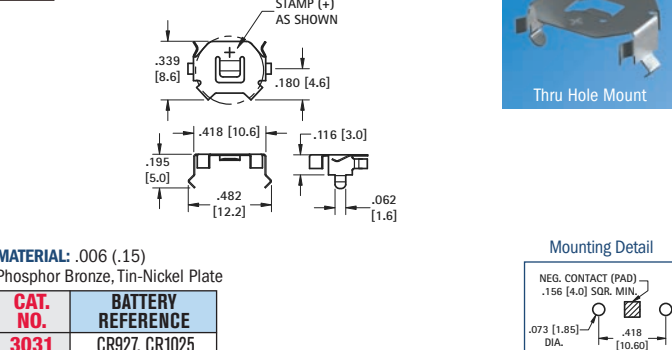
**9 - 10 mm**



Thru Hole Mount

**MATERIAL:** .006 (.15) Phosphor Bronze, Tin-Nickel Plate


CAT. NO.	BATTERY REFERENCE
3031	CR927, CR1025



Mounting Detail

**AVAILABLE ON TAPE AND REEL**

**11.6 mm**

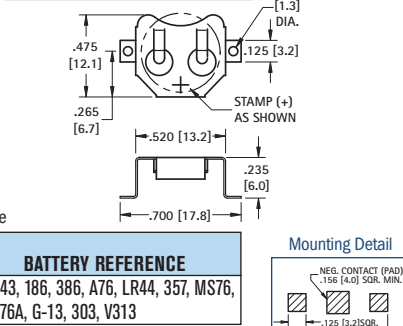


Surface Mount

**MATERIAL:** .010 (.25) Phosphor Bronze


CAT. NO.	ON TAPE BULK & REEL	FINISH	BATTERY REFERENCE
2996	2996TR	Tin-Nickel	SR43, 186, 386, A76, LR44, 357, MS76, 3096
3096	3096TR	Matte Tin	PX76A, G-13, 303, V313

Tape & Reel Spec's: 32mm wide; 16mm pitch; 13 inch reel (600 pieces per reel)



Mounting Detail

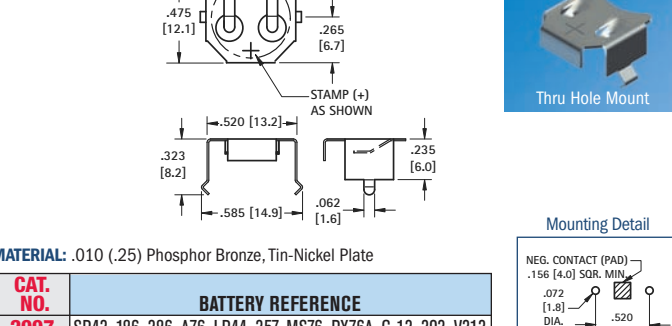
**11.6 mm**



Thru Hole Mount

**MATERIAL:** .010 (.25) Phosphor Bronze, Tin-Nickel Plate

CAT. NO.	BATTERY REFERENCE
2997	SR43, 186, 386, A76, LR44, 357, MS76, PX76A, G-13, 303, V313



Mounting Detail

4 mm to 12 mm BUTTON CELL RETAINERS

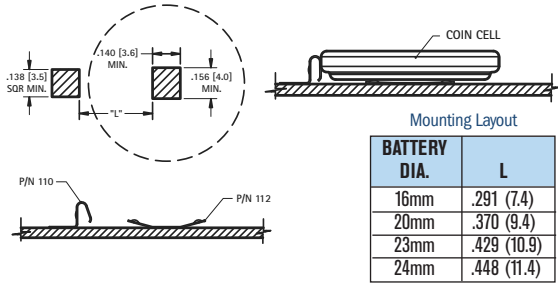
## SURFACE MOUNT (SMT) COIN CELL ENCLOSURE CONTACTS



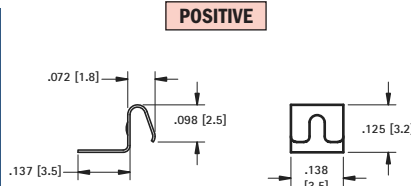
- Contacts for Enclosure cases with self contained battery compartments
- Design facilitates easy battery access, removal & installation
- Suitable for industrial and consumer product applications
- Spring contacts adjust to variations in battery diameter for a dependable connection
- Positive and Negative contacts can be used as a design pair or individually on a PCB
- Accommodates cell diameters from 16mm to 30mm

**MATERIAL:** .006 (.15) Stainless steel, Gold plate (flash)

AVAILABLE ON TAPE AND REEL

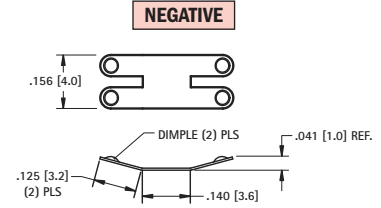


BATTERY DIA.	L
16mm	.291 (7.4)
20mm	.370 (9.4)
23mm	.429 (10.9)
24mm	.448 (11.4)



CAT. NO. BULK	ON TAPE & REEL
110	110TR

**Tape & Reel Spec's:** 16mm wide; 8mm pitch; 13 inch reel (2000 pieces per reel)



CAT. NO. BULK	ON TAPE & REEL
112	112TR

**Tape & Reel Spec's:** 24mm wide; 8mm pitch; 13 inch reel (5000 pieces per reel)

## THRU-HOLE (THM) & SURFACE MOUNT (SMT) NEGATIVE BATTERY CONTACTS

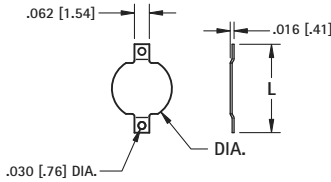
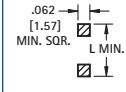
AVAILABLE ON TAPE AND REEL



**SMT COMPACT\***

- Assures proper contact

Pad Layout



**DWG. 1 MATERIAL:** .008 (.20) Brass

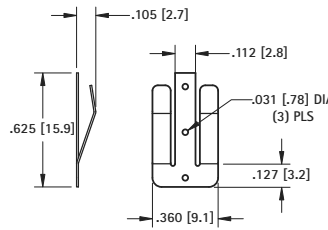
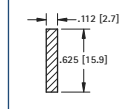
TIN-NICKEL PLATE		MATTE TIN PLATE		DWG.	L	DIA.	TAPE & REEL SPECS
CAT. NO. BULK	ON TAPE & REEL	CAT. NO. BULK	ON TAPE & REEL				
2991	2991TR	2981	2981TR	1	.368 (9.4)	.250 (6.4)	16mm wide, 8mm pitch, 1500/7 reel
2992	2992TR	2982	2982TR	1	.289 (7.4)	.186 (4.7)	16mm wide, 12mm pitch, 1000/7 reel
2993	2993TR	2983	2983TR	2	.625 (15.9)	-	24mm wide, 16mm pitch, 1000/13 reel



**SMT SPRING CONTACT\***

- Assures proper contact

Pad Layout

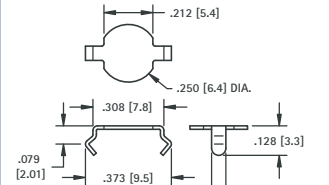


**DWG. 2 MATERIAL:** .010 (.25) Phosphor Bronze



**THM SNAP IN\***

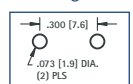
- Assures proper contact



**MATERIAL:** .008 (.20) Phosphor Bronze, Tin-Nickel Plate

**CAT. NO. 2990**

Mounting Detail



\*Note: Cannot be used with Cat. No. 3028, 3029, 3032, 3038, 3042, 3026, 3078.

## THRU-HOLE (THM) & SURFACE MOUNT (SMT) INSULATED RETAINERS



Surface Mount

AVAILABLE ON TAPE AND REEL

20mm CELLS

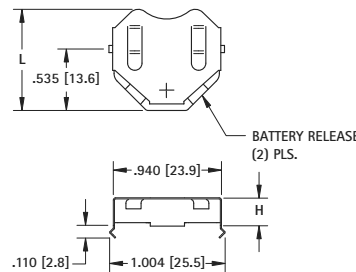
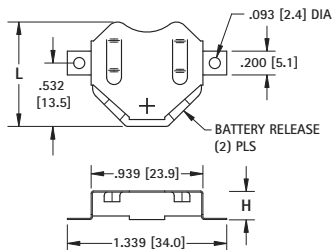
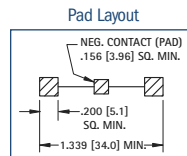
- Ideal for 6 volt or 3 volt applications
- Two coin cell batteries can be installed in series
- Plastic insulator prevents shorting of battery, within the holder, when installed improperly

- Low profile
- Battery release ports for easy battery replacement
- Refer to pages 7 & 9 for a complete offering of coin cell retainers

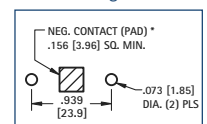
**MATERIAL:** Contacts: .010 (.25) Phosphor Bronze Insulator: High Temperature, Nylon 46, UL Rated 94V-0



Thru Hole Mount



Mounting Detail



Surface Mount						BATTERY REFERENCE				Thru Hole Mount			
Tin-Nickel Plate			Matte Tin Plate			L	H	6 VOLT (2) CELLS	3 VOLT (1) CELL	L	H	Tin-Nickel Plate	
CAT. NO. LOOSE*	CAT. NO. BULK	ON TAPE & REEL	CAT. NO. LOOSE*	CAT. NO. BULK	ON TAPE & REEL							CAT. NO. LOOSE*	CAT. NO. BULK
3020-2	3020	3020TR	3070-2	3070	3070TR	.890 (22.6)	.156 (4.0)	2012, 2016	2020, 2025	.890 (22.6)	.156 (4.0)	3021-2	3021
3022-2	3022	3022TR	3072-2	3072	3072TR	.877 (22.3)	.240 (6.1)	2020, 2025	2032	.877 (22.3)	.240 (6.1)	3023-2	3023
3024-2	3024	3024TR	3074-2	3074	3074TR	.877 (22.3)	.295 (7.5)	2032	Not Applicable	.877 (22.3)	.295 (7.5)	3025-2	3025

\* Supplied Unassembled

**Tape & Reel Spec's:** 56mm wide; 28mm pitch; 13 inch reel: **3020TR, 3070TR** 400 pieces per reel; **3022TR, 3072TR** 250 pieces per reel; **3024TR, 3074TR** 250 pieces per reel

# THRU HOLE (THM) & SURFACE MOUNT (SMT) COIN CELL RETAINERS

- Compatible with all wave and reflow operations
- Solder tails located outside of retainer body which facilitates visual inspection of the solder joints
- Flow-hole solder tail designed for increased joint strength
- Compatible with most vacuum and mechanical pick & place assembly systems

- Matte Tin Plate for lower soldering temperatures ideal where other temperature sensitive components are being used
- Tin-Nickel plated retainers are ideal for lead free, high temperature soldering applications
- All conductive polystyrene carrier tape meets ANSI/EIA-481 standards

## SURFACE MOUNT (SMT)

AVAILABLE ON TAPE AND REEL

- All conductive polystyrene carrier tape meets ANSI/EIA-481 standards

MATERIAL: .010 (.25) Phosphor Bronze

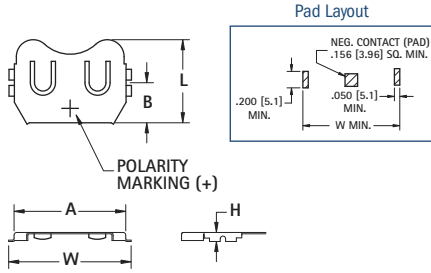
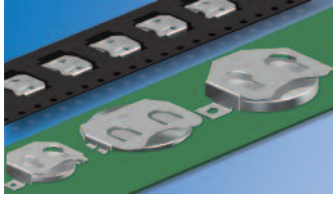


FIG. 1 - Ultra Low

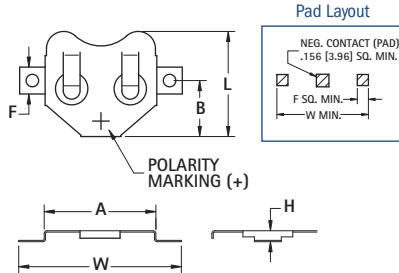


FIG. 2 - Compact

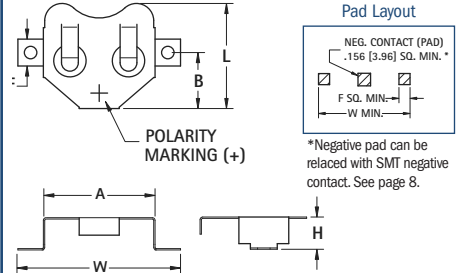
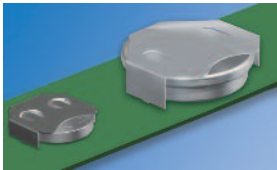


FIG. 3 - Low Profile

TIN-NICKEL PLATE		MATTE TIN PLATE		FIG.	A	B	F	H	L	W	CELL DIA.	BATTERY REFERENCE	TAPE & REEL SPEC'S
CAT. NO. BULK	ON TAPE & REEL	CAT. NO. BULK	ON TAPE & REEL										
3000	3000TR	3080	3080TR	3	.520 (13.2)	.265 (6.7)	.125 (3.2)	.125 (3.2)	.475 (12.1)	.745 (18.9)	12mm	CR1216, BR1220, CL1225, SR1120, D381, 391, 191	32mm wide; 16mm pitch; 1000/reel
3012	3012TR	3092	3092TR	3	.664 (16.9)	.344 (8.7)	.125 (3.2)	.156 (4.0)	.594 (15.1)	.914 (23.2)	16mm	BR1612, CR1616, CR1620, DL1632	44mm wide; 24mm pitch; 600/reel
3028	3028TR	3038	3038TR	1	.831 (21.1)	.298 (7.6)	-	.067 (1.7)	.618 (15.7)	.911 (23.1)	20mm	BR2012, CR2012, DL2012	44mm wide; 24mm pitch; 1000/reel
3026	3026TR	3078	3078TR	2	.831 (21.1)	.416 (10.6)	.200 (5.1)	.085 (2.2)	.782 (19.9)	1.210 (30.7)	20mm	BR2016, CR2016, DL2016	44mm wide; 24mm pitch; 1000/reel
3034*	3034TR*	3044	3044TR	1	.835 (21.2)	.291 (7.4)	-	.160 (4.1)	.635 (16.1)	0.915 (23.1)	20mm	BR2016, DL2020, CR2025, CR2032	44mm wide; 24mm pitch; 1000/reel
3002	3002TR	3082	3082TR	3	.831 (21.1)	.416 (10.6)	.200 (5.1)	.156 (4.0)	.782 (19.9)	1.210 (30.7)	20mm	BR2016, DL2020, CR2025, CR2032	44mm wide; 24mm pitch; 500/reel
3004	3004TR	3084	3084TR	3	.939 (23.9)	.475 (12.1)	.200 (5.1)	.156 (4.0)	.832 (21.1)	1.339 (34.0)	23mm	BR2320, CL2325, CR2330, DL2335	56mm wide; 32mm pitch; 400/reel
3010	3010TR	3090	3090TR	3	.939 (23.9)	.475 (12.1)	.200 (5.1)	.240 (6.1)	.819 (20.8)	1.339 (34.0)	23mm	CR2354, DL2354	56mm wide; 32mm pitch; 200/reel
3032	3032TR	3042	3042TR	1	1.000 (25.4)	.313 (8.0)	-	.067 (1.7)	.681 (17.3)	1.080 (27.4)	24mm	BR2412, CR2412	44mm wide; 24mm pitch; 1000/reel
3006	3006TR	3086	3086TR	2	1.000 (25.4)	.506 (12.9)	.200 (5.1)	.156 (4.0)	.918 (23.3)	1.400 (35.6)	24mm	CR2430, DL2430	56mm wide; 32mm pitch; 400/reel
3008	3008TR	3088	3088TR	3	1.000 (25.4)	.506 (12.9)	.200 (5.1)	.230 (5.8)	.890 (22.6)	1.400 (35.6)	24mm	CR2450, DL2450	56mm wide; 32mm pitch; 200/reel

\* Nickel Plate

## THRU HOLE MOUNT (THM)



- Snap-in legs maintain relative position during and after soldering
- Compatible with wave solder applications

MATERIAL: .010 (.25) Phosphor Bronze, Tin-Nickel Plate

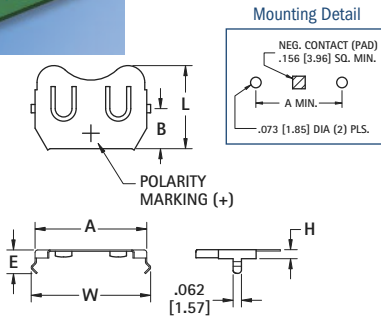


FIG. 4 - Ultra Low

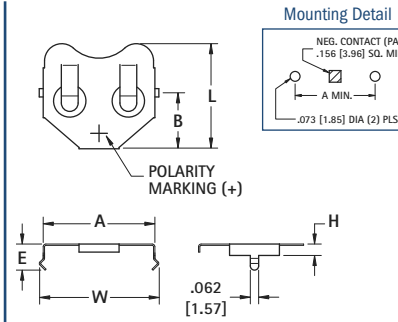


FIG. 5 - Compact

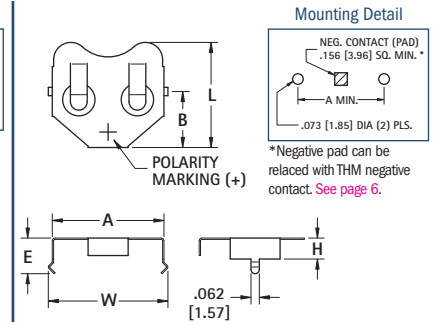


FIG. 6 - Low Profile

CAT. NO.	FIG.	A	B	E	H	L	W	CELL DIA.	BATTERY REFERENCE
3001	6	.520 (13.2)	.265 (6.7)	.210 (5.3)	.118 (3.0)	.475 (12.1)	.585 (14.9)	12mm	CR1216, BR1220, CL1225, SR1120, D381, 391, 191
3013	6	.664 (16.9)	.344 (8.7)	.265 (6.7)	.156 (4.0)	.594 (15.1)	.723 (18.4)	16mm	BR1616, CR1616, CR1620, CR1632
3029	4	.831 (21.1)	.298 (7.6)	.176 (4.5)	.067 (1.7)	.618 (15.7)	.890 (22.6)	20mm	BR2012, CR2012, DL2012
3027	5	.831 (21.1)	.416 (10.6)	.194 (4.9)	.085 (2.2)	.782 (19.9)	.890 (22.6)	20mm	BR2016, CR2016, DL2016
3003	6	.831 (21.1)	.416 (10.6)	.265 (6.7)	.156 (4.0)	.782 (19.9)	.890 (22.6)	20mm	BR2016, DL2020, CR2025, BR2325, CR0232
3005	6	.939 (23.9)	.475 (12.1)	.265 (6.7)	.156 (4.0)	.832 (21.1)	1.004 (25.5)	23mm	BR2320, CL2330, CR2320, BR2325, CR2325, DL2325
3011	6	.939 (23.9)	.475 (12.1)	.351 (8.9)	.240 (6.1)	.819 (20.8)	1.004 (25.5)	23mm	CR2354, DL2354
3007	5	1.000 (25.4)	.506 (12.9)	.265 (6.7)	.156 (4.0)	.918 (23.3)	1.055 (26.8)	24mm	CR2430, DL2430
3009	6	1.000 (25.4)	.505 (12.8)	.350 (8.9)	.230 (5.8)	.890 (22.6)	1.059 (26.9)	24mm	CR2450, DL2450
3039	6	1.000 (25.4)	.506 (12.9)	.450 (11.4)	.336 (8.5)	.890 (22.5)	1.059 (26.9)	24mm	CR2477, DL2477