Refer to page 40 for Battery Contact Layout & Mounting Details

- Mounts securely to the PC board with advanced Snap-In design for thru hole mounting
- Reliable spring tension assures low contact resistance
- Low profile, economical design
- Retains battery securely to withstand shock and vibration



MATERIAL: Spring Steel, Tin-Nickel Plate

"AAAA" · "A27"

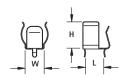


FIG. 1

"AAA" · "N" · "A23" · "AA" · "CR2"

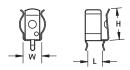


FIG. 2

"A" · "17500" · "18350" · "18650" · "20700" · "21700"

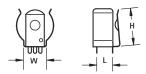


FIG. 3

CAT. NO.	FIG.	BATTERY Size	BATTERY Diameter	Н	L	W
51	1	"AAAA" • "A27"	.300350 (7.6 - 8.9)	.320 (8.1)	.194 (4.9)	.226 (5.7)
82	2	"AAA" • "N" • "A23"	.375460 (9.5 - 11.7)	.525 (13.3)	.228 (5.8)	.296 (7.5)
52*	2	"AA" • "CR2"	No Ears	.525 (13.3)	.228 (5.8)	.250 (6.4)*
92	2	"AA" • "CR2"	.531665 (13.5 - 16.9)	.593 (15.1)	.228 (5.8)	.369 (9.4)
2915**	2	"AA" • "CR2"	.531665 (13.5 - 16.9)	.593 (15.1)	.228 (5.8)	.375 (9.5)
54	3	"A" • 17500 • 18350 • 18650	.630 - 748 (16.0 - 19.0)	.653 (16.6)	.300 (7.6)	.438 (11.1)
247	3	20700 • 21700	.787827 (20.0 - 21.0)	.703 (17.9)	.378 (9.6)	.516 (13.1)

<sup>\*</sup> No Ears to hold battery

# **SURFACE MOUNT (SMT) BATTERY CLIPS/CONTACTS**



Refer to page 39 for Battery Contact Layout & Mounting Details

### AVAILABLE ON TAPE AND REEL

- Flow-Hole SMT solder tail design for increased joint strength
- Tin-Nickel plating is ideal for lead free, high temperature soldering
- Matte Tin Plate for lower soldering temperatures ideal where other temperature sensitive components are being used

MATERIAL: Spring Steel, Tin-Nickel Plate





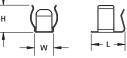


FIG. 4

"AAA" · "N" · "A23" · "AA" · "CR2"

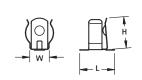


FIG. 5

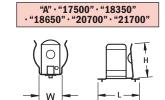


FIG. 6

TIN-NICI	KEL PLATE	MATTE 1	IN PLATE						
CAT. NO. BULK	ON TAPE & REEL	CAT. NO. BULK	ON TAPE & REEL	FIG.	BATTERY Size	BATTERY Diameter	Н	L	W
50	50TR	550	550TR	4	"AAAA"• "A27"	.300350 (7.6 - 8.9)	.320 (8.1)	.400 (10.2)	.226 (5.7)
55	55TR	555	555TR	5	"AAA" • "N" • "A23"	.375460 (9.5 - 11.7)	.498 (12.7)	.671 (17.0)	.296 (7.5)
56*	56TR	556	556TR	5	"AA" • "CR2"	No Ears	.396 (10.1)	.613 (15.6)	.250 (6.4)*
53	53TR	553	553TR	5	"AA" • "CR2"	.531665 (13.5 - 16.9)	.593 (15.1)	.662 (16.8)	.369 (9.4)
57*	57TR	557	557TR	5	"AA" • "CR2"	No Ears	.466 (11.87)	.613 (15.6)	.250 (6.4)*
254	254TR			6	"A" • 17500 • 18350 • 18650	.630 - 748 (16.0 - 19.0)	.653 (16.6)	.783 (19.9)	.438 (11.1)
246	246TR	_	_	6	20700 • 21700	.787827 (20.0 - 21.0)	.703 (17.9)	.969 (24.6)	.516 (13.1)

<sup>\*</sup> No Ears to hold battery

Tel (516) 328-7500 • Fax (516) 328-1080 (800) 221-5510 • kec@keyelco.com PC BATTERY CLIPS

<sup>\*\*</sup> Heavy Duty Clip; .015 (.38) thick material

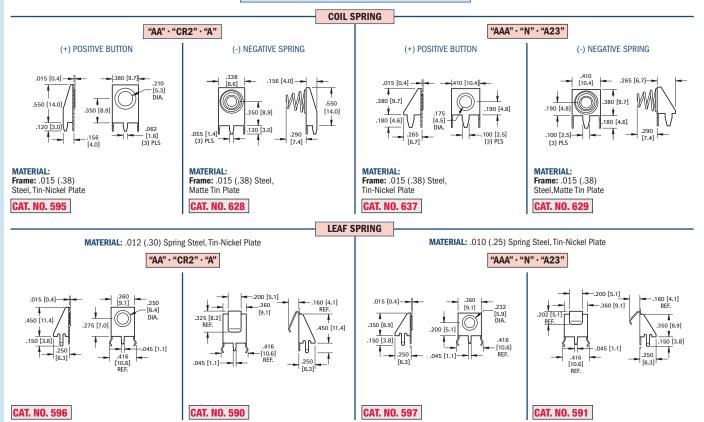
### PC BUTTON & SPRING CONTACTS



- · Space saving design installs directly onto the PC board
- Suitable for .062 (1.57) to .093 (2.36) PC boards
- · Reliable spring tension assures low contact resistance
- · Ideal for self-contained battery compartments



Refer to page 40 for Battery Contact Layout & Mounting Details



### SURFACE MOUNT LEAF-SPRING CONTACTS

### AVAILABLE ON TAPE AND REEL

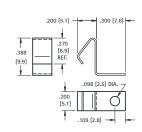
- Economical & reliable contacts are ideal for surface mount applications • Unique spring tension contacts adjust to variations in battery length
- Reliable spring tension contacts assure low contact resistance
- SMT solder tail with "flow-hole" design for increased joint strength



"AA" · "CR2" ·"A" · "9V"

Refer to page 39 for Battery Contact Layout & Mounting Details





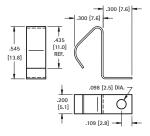
"AAA" · "AAAA" · "A23" · "N"

MATERIAL: .010 (.25) Spring Steel

TIN-NICK	EL PLATE	MATTE T	IN PLATE
CAT. NO.	ON TAPE	CAT. NO.	ON TAPE
BULK	& REEL	BULK	& REEL
5230	5230TR	5330	5330TR

Tape and Reel Spec's: 24mm wide; 12mm pitch; 13 inch reel (400 pieces per reel)





MATERIAL: .010 (.25) Spring Steel

TIN-NICK	EL PLATE	MATTE T	IN PLATE
CAT. NO.	ON TAPE	CAT. NO.	ON TAPE
BULK	& REEL	BULK	& REEL
5231	5231TR	5331	5331TR

Tape and Reel Spec's: 32mm wide; 16mm pitch; 13 inch reel (250 pieces per reel)



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- · Reliable spring tension assure low contact resistance and dependable connection
- · Symmetrical design allows these contacts to function both as a positive and negative contacts
- · Economical and reliable contacts

MATERIAL: .012 (.30) Stainless Steel

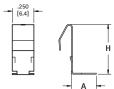
- · Designed for direct placement onto PCB, no wire leads required
- Unique spring tension adjusts to variations in battery length
- · Stainless Steel contacts provide superior corrosion resistance

Refer to pages 39 & 41 for Battery Contact Layout & Mounting Details

### SURFACE MOUNT

### **LEAF SPRING**

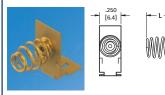




Finish: Gold Plate (Flash)

CAT. NO.	BATTERY Size	Н	A
1020-1	"AAA"	.435 (11.1)	.250 (6.4)
1016-1	"AA"	.578 (14.9)	.289 (7.3)

### **COIL SPRING**



CAT.	. E	BATTERY Size	Н	L	A
1076	· <b>2</b>	"AAA"	.435 (11.1)	.325 (8.3)	.250 (6.4)
1088-	· <b>2</b>	"AA"	.578 (14.9)	.313 (8.0)	.289 (7.3)

### BUTTON CONTACT





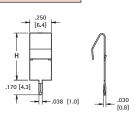
Finish: Gold Plate (Flash)

CAT. NO.	BATTERY SIZE	Н
1076-1	"AAA"	.395 (10.0)
1088-1	"AA"	.545 (13.8)

### THRU HOLE MOUNT

### **LEAF SPRING**



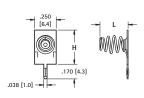


Finish: Tin-Nickel Plate

CAT. NO.	BATTERY SIZE	Н
1021-1	"AAA"	.405 (10.3)
1017-1	"AA"	.545 (13.8)

### **COIL SPRING**

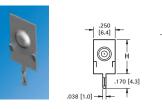




Finish: Tin-Nickel Plate

CAT. NO.	BATTERY SIZE	Н	L
1075-2	"AAA"	.395 (10.0)	.326 (8.3)
1087-2	"AA"	.545 (13.8)	.313 (8.0)

### BUTTON CONTACT



Finish: Tin-Nickel Plate

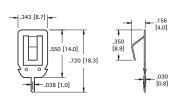
"AA" · "A" · "17500" · "18350" · "18650" · "C" · "D"

CAT. NO.	BATTERY SIZE	Н	A
1075-1	"AAA"	.435 (11.1)	.250 (6.4)
1087-1	"AA"	.578 (14.9)	.289 (7.3)

### "AAA" · "N" · "AA" · "CR2" · "A"







Solder Lug

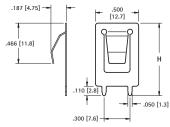
.156 [4.0] .070 [1.8] DIA.

Finish: Tin-Nickel Plate

CAT. NO. 1107-1

# CAT. NO. 108-2



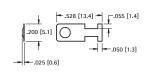


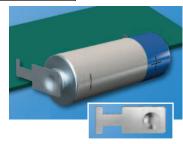
MATERIAL: .012 (.30) Spring Steel, Nickel Plate

	. ( /	
CAT.		BATTERY
NO.	(H) Height	REFERENCE
109-2	.840 (21.3)	"AA" • "A" • "17500" • "18350" • "18650"• "C"
109-3	1.000 (25.4)	"20700" • "21700" • "D"

### "AAA" · "AAAA" · "N" · "12V"

"Off-Board" edge mounting design frees up valuable board space





CAT. NO. 230-1

MATERIAL: .008 (.20) Spring Steel, Nickel Plate

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# LIDE-IN PC MOUNT CONTACTS

- .040 [1.02]

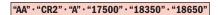
### Downloaded from Arrow.com.

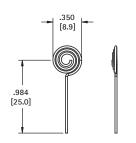
# 15

- Economical and reliable contacts
- Designed for direct placement onto PCB, no wire leads required
- · Unique spring tension adjusts to variations in battery length
- · Reliable spring tension assure low contact resistance and dependable connection



Refer to page 41 for Battery Contact Layout & Mounting Details

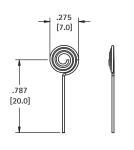




CAT. NO. 242

MATERIAL: .024 (.60) Music Wire,

"AAAA" - "A23" - "A27" - "AAA" - "N"

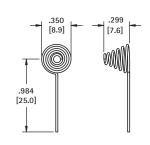


CAT. NO. 179

PC COIL SPRING CONTACTS

MATERIAL: .024 (.60) Music Wire, Nickel Plate

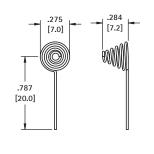
### "AA" · "CR2" · "A" · "17500" · "18350" · "18650"



CAT. NO. 243

MATERIAL: .024 (.60) Music Wire,

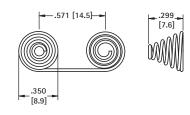
### "AAAA" · "A23" · "A27" · "AAA" · "N"



CAT. NO. 180

MATERIAL: .024 (.60) Music Wire, Nickel Plate

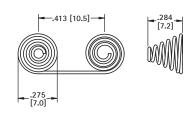
"AA"



**CAT. NO. 244** 

MATERIAL: .024 (.60) Music Wire,

"AAA"

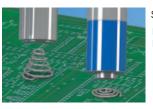


CAT. NO. 181

MATERIAL: .024 (.60) Music Wire, Nickel Plate

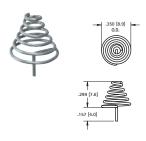
### **BATTERY SPRING CONTACTS**

### THRU-HOLE MOUNT - "AA" · "CR2"



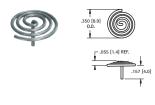
Solders directly to PCB, no wiring required MATERIAL: .024 (.60) Dia Spring Steel, Nickel Plate

### NEGATIVE



**CAT. NO. 240** 

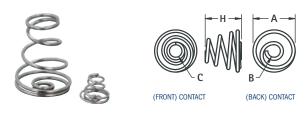
### POSITIVE



**CAT. NO. 241** 

### **RIVET MOUNT**

Easy to assemble with eyelets or rivets. Refer to page 146.



CAT. NO.	Н	A	В	C	MATERIAL	CELL Size
211	.290 (7.4)	.335 (8.5)	.100 (2.5)	.140 (3.6)	.025 (.64) Dia. Spring Steel, Nickel Plate	"2/3 A" • "AA"
211-C	.550 (14.0)	.490 (12.4)	.118 (3.0)	.256 (6.5)	.040 (1.0) Dia. Spring Steel, Nickel Plate	"C"
211-D	.850 (21.6)	.650 (16.5)	.162 (4.1)	.300 (7.6)	.040 (1.0) Dia. Spring Steel, Nickel Plate	"D"

# BATTERY CONTACTS FOR MOLDED CASES

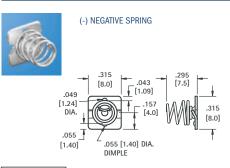
- Economical and reliable contacts are ideal for molded cases with self-contained battery compartments
- "Solder Tab" design for either wire lead or PC mounting
- Unique spring contacts adjust to variations in battery lengths
- Reliable spring contacts assure low contact resistance and a dependable connection
- Space saving, economical, excellent mechanical construction

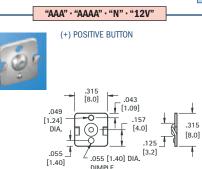


Refer to page 42 for Battery Contact Layout & Mounting Details

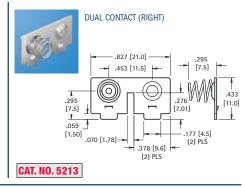
### MATERIAL:

Plate: .020 (.51) Steel, Nickel Plate Spring: Spring Steel, Nickel Plate





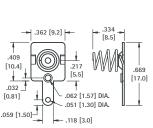
DIMPLE



### CAT. NO. 5203

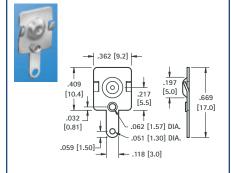
(-) NEGATIVE SPRING WITH TAB



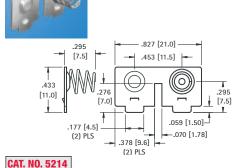


(+) POSITIVE BUTTON WITH TAB

CAT. NO. 5225







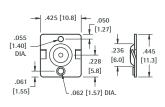
CAT. NO. 5226

"AA" · "CR2" · "A" · "17500" · "18350" · "18650"



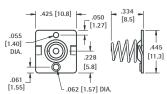
CAT. NO. 5204



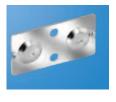


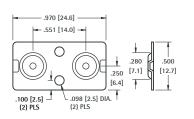
"AA"

(-) NEGATIVE SPRING



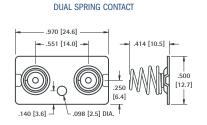
CAT. NO. 5224





**DUAL BUTTON CONTACT** 

CAT. NO. 5202



CAT. NO. 5228

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CAT. NO. 5227

### **SPRING & BUTTON CONTACTS**



- Economical and reliable contacts are ideal for molded cases with self contained battery compartments
- "Solder Tab" design for either wire lead or PC mounting
- Unique spring contacts adjust to variations in battery lengths
- · Reliable spring contacts assure low contact resistance and a dependable connection
- · Space saving, economical, excellent mechanical construction

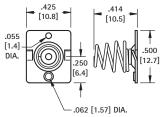
MATERIAL:

Plate: .020 (.51) Steel, Nickel Plate Spring: Spring Steel, Nickel Plate

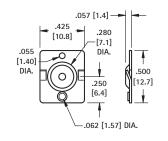
### Refer to page 42 for Battery Contact Layout & Mounting Details "AA" · "CR2" · "A" · "17500" · "18350" · "18650"

(-) NEGATIVE SPRING



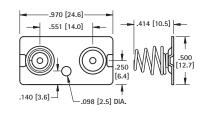


(+) POSITIVE BUTTON



DUAL CONTACT ("AA" ONLY)

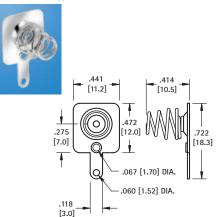




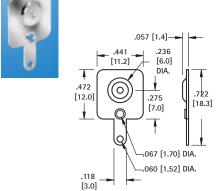
### CAT. NO. 5222

CAT. NO. 5201



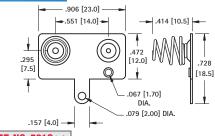


CAT. NO. 5221 (+) POSITIVE BUTTON WITH TAB



CAT. NO. 5212 Left or Right

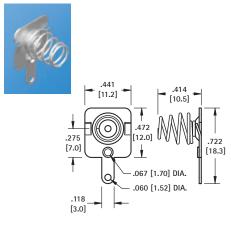




### CAT. NO. 5210 Left

CAT. NO. 5211 Right (Shown)

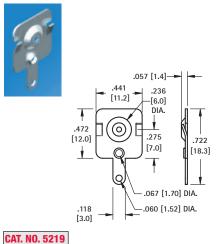
(-) NEGATIVE SPRING WITH TAB/LANCE



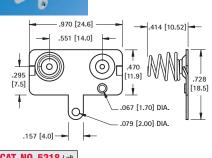
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(+) POSITIVE BUTTON WITH TAB/LANCE



DUAL CONTACT WITH TAB ("AA" ONLY)



CAT. NO. 5218 Left

CAT. NO. 5217 Right (Shown)

CAT. NO. 5223

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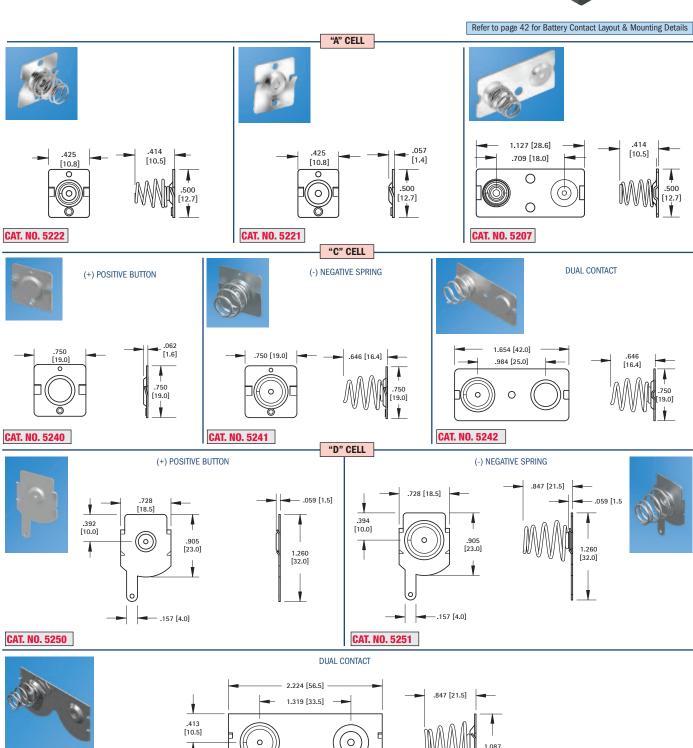
CAT. NO. 5220

### **SPRING & BUTTON CONTACTS**

- · Economical and reliable contacts are ideal for molded cases with self contained battery compartments
- "Spring Tab" design for either wire lead or PC mounting
- Unique spring contacts adjust to variations in battery lengths
- Reliable spring contacts assure low contact resistance and a dependable connection
- Space saving, economical, excellent mechanical construction

Plate: .020 (.51) Steel, Nickel Plate Spring: Spring Steel, Nickel Plate





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CAT. NO. 5253 Left CAT. NO. 5252 Right (Shown)

### **SNAP-ON CONTACTS**

- · Economical and reliable contacts are ideal for molded cases with self contained battery compartments
- · Solder "ear" to facilitate soldering of wire lead
- · Unique spring tension contact adjusts to variations in battery length
- · Reliable spring tension contacts assure low contact resistance
- Clips easily onto .060 (1.52) to .070 (1.78) wall
- · Sharp barbs securely anchor contact in place

"AAA" · "N" · "A23" · "A27"

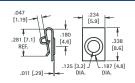
Refer to page 42 for Battery Contact Layout & Mounting Details





CAT. NO. 204

CAT. NO. 238



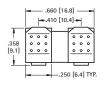
MATERIAL: .010 (.25) Spring Steel, Nickel Plate

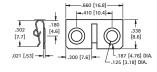
MATERIAL: .010 (.25) Stainless Steel, Nickel Plate

### "AAA"









CAT. NO. 202

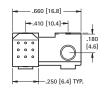
MATERIAL: .010 (.25) Spring Steel, Nickel Plate

**CAT. NO. 294** 

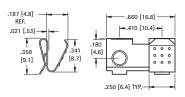
MATERIAL: .010 (.25) Stainless Steel, Nickel Plate











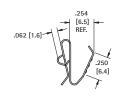
CAT. NO. 295

MATERIAL: .010 (.25) Spring Steel, Nickel Plate

CAT. NO. 296

MATERIAL: .010 (.25) Spring Steel, Nickel Plate

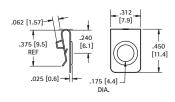






"AA"





**CAT. NO. 209** 

MATERIAL: 012 (.30) Spring Steel, Nickel Plate

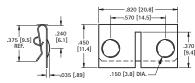
CAT. NO. 228 MATERIAL: 010 (.25) Stainless Steel, Nickel Plate



The (2) two leaf contacts are separate, allowing a divider between the batteries.

.250 [6.3] .055 [1.4] .461 -.570 [14.5]





CAT. NO. 288

MATERIAL: 012 (.30) Spring Steel, Nickel Plate

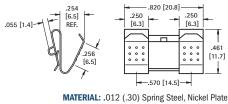
[6.5] .055 [1.4] [6.3] [6.3]

CAT. NO. 292



MATERIAL: 010 (.25) Stainless Steel, Nickel Plate

The (2) two leaf contacts are held together by a web. This design offers greater stability.



REF [6.3] .027 [0.7] .449 --.570 [14.5]-

CAT. NO. 210

**CAT. NO. 291** Right CAT. NO. 290 Left (shown)

MATERIAL: 012 (.30) Spring Steel, Nickel Plate

Tel (516) 328-7500 • Fax (516) 328-1080

KEYSTONE RoHS COMPLIANT - ISO 9001 CERTIFIED

### **SNAP-ON COIL SPRING CONTACTS**

"AAA"

- Ideal for applications that have a self contained battery compartment
- · Coil Springs will rebound after drop
- Reliable tension against battery help to assure low contact assistance

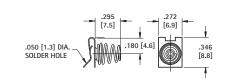
MATERIAL: Steel, Nickel Plate

· Sharp barbs securely anchor contact in place

• Clips easily over .060 (1.5) to 0.70 (1.8) wall · Long spring will accommodate variations in battery lengths

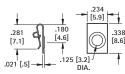
Refer to page 42 for Battery Contact Layout & Mounting Details



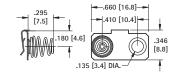


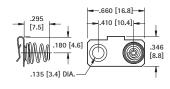


CAT. NO. 238



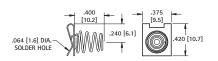
**CAT. NO. 267** 





CAT. NO. 299



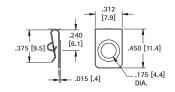




CAT. NO. 228

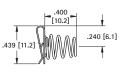
CAT. NO. 287

"AA"

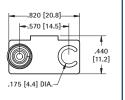


CAT. NO.289



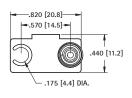


"AA" · "CR2" · "A" · "9V" · "17500" · "18350" · "18650"





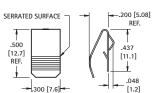


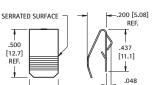


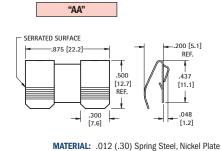
**CAT. NO. 297** 

CAT. NO. 293

### **SLIDE-IN MOUNT CONTACTS**



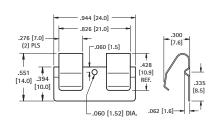




CAT. NO. 5205

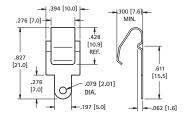
MATERIAL: .012 (.30) Spring Steel, Nickel Plate

CAT. NO. 5206





CAT. NO. 5209



MATERIAL: .012 (.30) Phosphor Bronze, Nickel Plate

CAT. NO. 5208

MATERIAL: .012 (.30) Phosphor Bronze, Nickel Plate

Tel (516) 328-7500 • Fax (516) 328-1080

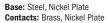
(800) 221-5510 • kec@keyelco.com

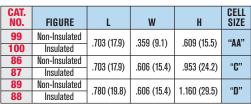
BATTERY CONTACTS FOR MOLDED CASES

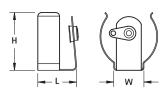
### "AA" · "C" · "D"

### Refer to page 41 for Battery Contact Layout & Mounting Details

- · Available with and without insulated contact
- Non-Insulated contact will ground battery connection
- · Insulated Contacts supplied with brass solder lug
- Ideal for creating custom battery holders









Insulated

### **ECONOMY CONTACTS**

"AA" · "C" · "D"

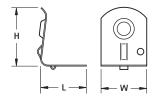


Non-Insulated

Refer to page 41 for Battery Contact Layout & Mounting Details

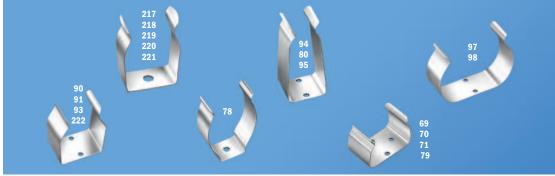
- Designed for mounting in self-contained, non-metallic battery compartments
- Reliable spring tension assures low contact resistance
- Recessed contact holds battery in place
- · All clips have anti-rotation tab

CAT. NO.	L	W	Н	CELL SIZE
206	.625 (15.9)	.375 (9.5)	.500 (12.7)	"AA"
207	.687 (17.4)	.375 (9.5)	.875 (22.2)	"C"
208	.750 (18.1)	.687 (17.5)	1.260 (32.0)	"D"



MATERIAL: .016 (.41) Spring Steel, Nickel Plate

### **ALUMINUM & STEEL CLIPS**



MATERIAL: Steel Clips: Spring Steel, Nickel Plate Aluminum Clips: 2024-T3

CAT. NO.	DESCRIPTION	MATERIAL		
"AAAA" Cell (7.5 - 8.5mm Dia)				
251	One cell	Steel		
"AAA" Cell (9.5 - 12mm Dia)				
90	One cell	Aluminum		
"AA	"AA", "CR2" Cell (13.5 - 17.0mm Dia)			
91	One cell	Aluminum		
69	Two Cell	Steel		
"A" Cell (16.0- 18.0mm Dia)				
70	Two Cell	Aluminum		

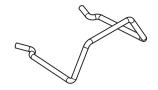
CAT. NO.	DESCRIPTION	MATERIAL		
Sub C Cell (22.0 - 23.0mm Dia)				
221	One cell	Steel		
C Cell (22.0 - 29.0mm Dia)				
222	One cell	Steel		
93	One cell	Aluminum		
97 Two Cell		Aluminum		
D Cell (30.0 - 35.0mm Dia)				
94	One cell	Aluminum		
78 One cell		Steel		
98 Two Cell		Aluminum		

CAT. NO.	DESCRIPTION	MATERIAL			
	NiCd Cell				
217	One cell, 35-38mm Dia.	Steel			
218	One cell, 36-43mm Dia.	Steel			
219	One cell, 51-64mm Dia.	Steel			
	9V Cell				
71	Horizontal, Low Profile	Steel			
79	Horizontal	Steel			
80	Vertical	Steel			
95	Vertical	Aluminum			
66	Horizontal, Lithium-Ion	Steel			

### **BATTERY RETAINER CLIPS**



- Prevents battery from loosening in battery holder
- Retainer clip slips on the ears of the battery holder clip



CAT. NO.	CELL	CAN BE USED With Cat. No.s
61	"AA", "CR2"	91, 92, 95, 99, 100, 2915
62	"C"	86, 87, 93, 222
63	"D"	78, 88, 89 94