# **Mueller Engineered Clips & Insulators**

**OVER 300 VARIETIES IN-STOCK AND READY FOR IMMEDIATE GLOBAL SHIPMENT** 



# GUARANTEED RUGGED, DURABLE & RELIABLE

Mueller's engineered clip designs feature heavy-gauge body, spring and rivet materials. Firm springs and sharp teeth yield clips with a strong "bite and hold" Competitive clips typically found in the market are less robust, poorly stamped, and inconsistently assembled. They often have a shorter life, requiring more frequent replacement. Mueller clips have been tested to 1 million cycles and are designed to last. No shortcuts or cost-saving tricks are used here. Not all clip insulators are the same. Mueller's insulators are specifically designed to fit the clip. Ill-fitting insulators can lead to electrical shocks or difficult clip operation. Mueller clips are offered in steel (plated with a choice of materials), 100% stainless steel, and copper. Over 300 varieties of clips and insulators are in-stock, and ready for immediate global shipment.

#### **Reference Chart for Popular Clips & Insulator Styles**

AMPS	JAW OPENING	WIRE ATTACHMENT	USE WITH INSULATOR	WIRE AWG	PLATING	CLIP NUMBER
5	3/16"	Crimp / Solder	BU-32*	20-24	Nickel	BU-30
5	3/16"	Crimp / Solder	BU-31*	18-24	Nickel	BU-30BL
5	3/16"	Crimp / Solder	BU-32*	20-24	Solid Copper	BU-30C
5	3/16"	Threaded	BU-31*	NA	Nickel	BU-30TBO
- 5	7/32"	Crimp / Solder	BU-36*	20-24	Nickel	BU-34
5	7/32"	Crimp / Solder	BU-36*	20-24	Copper	BU-34C
5	5/16"	Crimp / Solder	BU-47*	16-22	Zinc	BU-45
5	5/16"	Crimp / Solder	BU-72*	16-20	Nickel	BU-70
5	5/16"	Crimp / Screw	BU-72*	16-20	Nickel	BU-70S
- 5	5/16"	Crimp / Screw	BU-87*	14-20	Zinc	BU-85
- 5	1"	Crimp / Screw	JP-8681-*	Up to 10	Nickel / Silver	JP-25182
5	1"	Crimp / Screw	JP-8681-*	Up to 10	Nickel / Silver	JP-33699
5	1"	Crimp / Screw	JP-8681-*	Up to 10	Nickel / Silver	JP-33674
5	1"	Crimp / Screw	JP-8681-*	Up to 10	Nickel / Silver	JP-8078
5	1"	Crimp / Screw	JP-8681-*	Up to 10	Nickel / Silver	JP-8099
5	1"	Crimp / Screw	JP-8681-*	Up to 10	Nickel / Silver	JP-8783
10	1/4"	Crimp / Screw	Insulated	14-20	Nickel	BU-63
10	1/4"	Crimp / Screw	Insulated	14-20	Solid Copper	BU-63C
10	17/64"	Plug-On	Insulated	NA	Nickel	BU-651-*
10	5/16"	Crimp / Screw	BU-47*	16-22	Solid Copper	BU-45C
10	5/16"	Crimp / Solder / Plug-on	BU-62*	14-20	Nickel	BU-60
10	5/16"	Crimp / Solder / Plug-on	BU-62*	14-20	Solid Copper	BU-60C
10	5/16"	Crimp / Screw	Insul. Barrel	14-20	Solid Copper	BU-60CHS
10	5/16"	Crimp / Screw	BU-62*	14-20	Solid Copper	BU-60CS
10	5/16"	Crimp / Solder	Insul. Barrel	14-20	Nickel	BU-60H
10	5/16"	Crimp / Screw	Insul. Barrel	14-20	Nickel	BU-60HS
10	5/16"	Pin / Prod Tip	Insul. Barrel	NA	Nickel	BU-60HPR
10	5/16"	Pin / Prod Tip	BU-62*	NA	Nickel	BU-60PR2
10	5/16"	Crimp / Screw	BU-62*	14-20	Nickel	BU-60S
10	5/16"	Threaded	BU-62*	NA	Nickel	BU-60TBO
10	5/16"	Crimp / Solder	BU-62*	14-20	Nickel	BU-60U
10	5/16"	Crimp / Solder / Plug-On		14-20	Stainless Steel	BU-60X
10	5/16"	Pin / Prod Tip	BU-62*	NA	Nickel	BU-61
10	5/16"	Crimp / Solder	BU-72*	16-20	Copper	BU-70C
10	5/16"	Crimp / Screw	BU-72*	16-20	Copper	BU-70CS
10	5/16"	Screw	Insulated	NA	Gold	BU-75K
10	5/16"	Crimp / Screw	BU-87*	14-20	Solid Copper	BU-85C
10	7/16"	Crimp / Screw	BU-49*	14-20	Zinc	BU-55

10	AMPS	JAW OPENING	WIRE ATTACHMENT	USE WITH INSULATOR	WIRE AWG	PLATING	CLIP NUMBER
10	10	7/16"	Crimp / Screw	BU-74*	14-20	Zinc	BU-95
10	10	1/2"	Crimp / Screw	BU-49*	14-20	Zinc	BU-48B
15         3/4"         Crimp / Solder         Insulated         Up to 12         Nickel         BU-40A-*           20         17/64"         Plug-On         Insulated         NA         Nickel         BU-40S-*           20         1/2"         Crimp / Screw         BU-49*         14-20         Solid Copper         BU-48C           20         1/2"         Crimp / Screw         BU-49*         14-18         Solid Copper         BU-50C           20         1/2"         Crimp / Screw         BU-29/90*         Up to 12         Zinc         BU-51C           20         5/8"         Crimp / Screw         BU-29/90*         Up to 12         Zinc         JP-5869-B           20         5/8"         Crimp / Screw         BU-29/90*         Up to 12         Zinc         JP-5869-B           20         5/8"         Crimp / Screw         BU-29/90*         Up to 12         Zinc         JP-5869-B           20         3/4"         Crimp / Screw         BU-29/90*         Up to 12         Xinckel         BU-40C-*           20         3/4"         Crimp / Screw         BU-26         Up to 12         Xinckel         BU-65-*           20         3/4"         Plug-On         Insulated         NA	10	1/2"	Crimp	BU-49*	14-20	Zinc	BU-48B2E
20	10	1/2"	Solder	None	NA	Gold	BU-78K
20	15	3/4"	Crimp / Solder	Insulated	Up to 12	Nickel	BU-40A-*
12"   Crimp / Screw   BU-49"   14-18   Solid Copper   BU-50C	20	17/64"	Plug-On	Insulated	NA	Nickel	BU-652-*
20	20	1/2"	Crimp / Screw	BU-49*	14-20	Solid Copper	BU-48C
20   5/8"   Crimp / Screw   BU-29/90*   Up to 12   Zinc   BU-27	20	1/2"	Crimp / Screw	BU-49*	14-18	Solid Copper	BU-50C
20   5/8"   Crimp / Screw   BU-29/90*   Up to 12   Zinc   JP-5869-B	20	1/2"	Crimp / Screw	BU-49*	14-18	Solid Copper	BU-51C
20   5/8"   Crimp / Screw   BU-29/90*   Up to 12   Zinc   JP-5869-C	20	5/8"	Crimp / Screw	BU-29/90*	Up to 12		BU-27
20   3/4"   Crimp / Solder   Insulated   Up to 12   Nickel   BU-40C-*	20	5/8"	Crimp / Screw	BU-29/90*	Up to 12	Zinc	JP-5869-B
20	20	5/8"	Crimp / Screw	BU-29/90*	Up to 12	Zinc	JP-5869-C
25   3/4"   Crimp / Screw   BU-26*   Up to 10   Zinc   BU-24APN/APS     30   3/4"   Plug-on   Insulated   NA   Nickel   BU-65-*     40   5/8"   Crimp / Screw   BU-29/90*   Up to 12   Solid Copper   BU-27C     40   5/8"   Crimp / Screw   BU-29/90*   Up to 12   Solid Copper   BU-27C     40   5/8"   Crimp / Screw   BU-29/90*   Up to 12   Solid Copper   BU-27CG     40   5/8"   Crimp / Screw   BU-29/90*   Up to 12   Solid Copper   BU-27CGW     40   3/4"   Crimp / Screw   BU-28*   Up to 10   Zinc   BU-25CGW     40   3/4"   Crimp / Screw   BU-28*   Up to 10   Zinc   BU-21APN/APS     50   11/16"   Crimp / Screw   BU-28*   Up to 10   Copper   BU-46A-*     75   3/4"   Crimp / Solder   Insulated   Up to 10   Solid Copper   BU-46C-*     75   11/8"   Crimp / Solder   Insulated   Up to 10   Solid Copper   BU-46C-*     100   11/16"   Lug   BU-23*   Up to 8   Solid Copper   BU-46C-*     100   15/8"   Lug   BU-13*   Up to 3/0   Zinc   BU-11APN/APS     200   19/16"   Crimp / Solder   Insulated   Up to 10   Copper   BU-41APN/APS     200   15/8"   Lug   BU-13*   Up to 3/0   Solid Copper   BU-41APN/APS     200   15/8"   Lug   Insulated   Up to 0   Copper   BU-41APN/APS     200   15/8"   Lug   Insulated   Up to 0   Copper   BU-11CPN/CPS     300   11/2"   Lug   Insulated   Up to 0   Copper   BU-11CPN/CPS     300   11/2"   Lug   Insulated   Up to 0   Copper   BU-11CPN/CPS     300   11/2"   Lug   Insulated   Up to 0   Copper   BU-11CPN/CPS     300   3/4"   Crimp / Solder   Crimp / Solder   Up to 0   Copper   BU-11CPN/CPS     300   3/4"   Crimp / Solder   Crimp / Solder   Up to 0   Copper   BU-11CPN/CPS     300   3/4"   Crimp / Solder   Up to 0   Copper   BU-11CPN/CPS     300   3/4"   Crimp / Solder   Up to 0   Copper   BU-11CPN/CPS     300   3/4"   Crimp / Solder   Crimp / Solder   Up to 0   Copper   BU-102B-*	20	3/4"	Crimp / Solder	Insulated	Up to 12	Nickel	BU-40C-*
30   3/4"   Plug-on   Insulated   NA   Nickel   BU-65-*	20	1"	Plug-On	Insulated	NA	Nickel	BU-654-*
30   51/64"   Plug-On   Insulated   NA   Nickel   BU-656-*	25	3/4"	Crimp / Screw	BU-26*	Up to 10	Zinc	BU-24APN/APS
40   5/8"   Crimp / Screw   BU-29/90*   Up to 12   Solid Copper   BU-27C	30	3/4"	Plug-on	Insulated	NA	Nickel	BU-65-*
40   5/8"   Crimp / Screw   BU-29/90"   Up to 12   Solid Copper   BU-27CG	30	51/64"	Plug-On	Insulated	NA	Nickel	BU-656-*
40   5/8"   Crimp / Screw   BU-29/90*   Up to 12   Solid Copper   BU-27CGW	40	5/8"	Crimp / Screw	BU-29/90*	Up to 12	Solid Copper	BU-27C
40   3/4"   Crimp / Screw   BU-26*   Up to 10   Zinc   BU-25*	40	5/8"	Crimp / Screw	BU-29/90*	Up to 12	Solid Copper	BU-27CG
50         1 1/16"         Crimp / Screw         BU-23*         Up to 8         Zinc         BU-21APN/APS           50         1 1/8"         Crimp / Solder         Insulated         Up to 10         Copper         BU-46A-*           75         3/4"         Crimp / Screw         BU-26*         Up to 10         Solid Copper         BU-25C           75         1 1/8"         Crimp / Solder         Insulated         Up to 10         Solid Copper         BU-46C-*           100         1 1/16"         Lug         BU-23*         Up to 8         Solid Copper         BU-21CPN/CPS           100         1 5/8"         Lug         BU-13*         Up to 3/0         Zinc         BU-11APN/APS           200         1 9/16"         Crimp / Solder         Insulated         Up to 3/0         Solid Copper         BU-41A-*           200         1 5/8"         Lug         BU-13*         Up to 3/0         Solid Copper         BU-11APN/APS           300         1 1/2"         Lug         Insulated         Up to 0         Copper         BU-102B-*	40	5/8"	Crimp / Screw	BU-29/90*	Up to 12	Solid Copper	BU-27CGW
50         1 1/8"         Crimp / Solder         Insulated         Up to 10         Copper         BU-46A-*           75         3/4"         Crimp / Screw         BU-26*         Up to 10         Solid Copper         BU-25C           75         1 1/8"         Crimp / Solder         Insulated         Up to 10         Solid Copper         BU-46C-*           100         1 1/16"         Lug         BU-23*         Up to 8         Solid Copper         BU-21CPN/CPS           100         1 5/8"         Lug         BU-13*         Up to 3/0         Zinc         BU-11APN/APS           200         1 9/16"         Crimp / Solder         Insulated         Up to 1         Copper         BU-41A-*           200         1 5/8"         Lug         BU-13*         Up to 3/0         Solid Copper         BU-11CPN/CPS           300         1 1/2"         Lug         Insulated         Up to 0         Copper         BU-102B-*	40	3/4"	Crimp / Screw	BU-26*	Up to 10	Zinc	BU-25
75         3/4"         Crimp / Screw         BU-26*         Up to 10         Solid Copper         BU-25C           75         1 1/8"         Crimp / Solder         Insulated         Up to 10         Solid Copper         BU-46C-*           100         1 1/16"         Lug         BU-23*         Up to 8         Solid Copper         BU-1CPN/CPS           100         1 5/8"         Lug         BU-13*         Up to 3/0         Zinc         BU-11APN/APS           200         1 9/16"         Crimp / Solder         Insulated         Up to 1         Copper         BU-41A-*           200         1 5/8"         Lug         BU-13*         Up to 3/0         Solid Copper         BU-11CPN/CPS           300         1 1/2"         Lug         Insulated         Up to 0         Copper         BU-102B-*	50	1 1/16"	Crimp / Screw	BU-23*	Up to 8	Zinc	BU-21APN/APS
75         1 1/8"         Crimp / Solder         Insulated         Up to 10         Solid Copper         BU-46C-*           100         1 1/16"         Lug         BU-23*         Up to 8         Solid Copper         BU-21CPN/CPS           100         1 5/8"         Lug         BU-13*         Up to 3/0         Zinc         BU-11APN/APS           200         1 9/16"         Crimp / Solder         Insulated         Up to 1         Copper         BU-41A-*           200         1 5/8"         Lug         BU-13*         Up to 3/0         Solid Copper         BU-14A-*           300         1 1/2"         Lug         Insulated         Up to 0         Copper         BU-102B-*	50	1 1/8"	Crimp / Solder	Insulated	Up to 10	Copper	BU-46A-*
100         1 1/16"         Lug         BU-23*         Up to 8         Solid Copper         BU-21CPN/CPS           100         1 5/8"         Lug         BU-13*         Up to 3/0         Zinc         BU-11APN/APS           200         1 9/16"         Crimp / Solder         Insulated         Up to 1         Copper         BU-41A-*           200         1 5/8"         Lug         BU-13*         Up to 3/0         Solid Copper         BU-11CPN/CPS           300         1 1/2"         Lug         Insulated         Up to 0         Copper         BU-102B-*	75	3/4"	Crimp / Screw	BU-26*	Up to 10	Solid Copper	BU-25C
100         1 5/8"         Lug         BU-13*         Up to 3/0         Zinc         BU-11APN/APS           200         1 9/16"         Crimp / Solder         Insulated         Up to 1         Copper         BU-41A-*           200         1 5/8"         Lug         BU-13*         Up to 3/0         Solid Copper         BU-11CPN/CPS           300         1 1/2"         Lug         Insulated         Up to 0         Copper         BU-102B-*	75	1 1/8"	Crimp / Solder	Insulated	Up to 10	Solid Copper	BU-46C-*
200         1 9/16"         Crimp / Solder         Insulated         Up to 1         Copper         BU-41A-*           200         1 5/8"         Lug         BU-13*         Up to 3/0         Solid Copper         BU-11CPN/CPS           300         1 1/2"         Lug         Insulated         Up to 0         Copper         BU-102B-*	100	1 1/16"	Lug	BU-23*	Up to 8	Solid Copper	BU-21CPN/CPS
200         1 5/8"         Lug         BU-13*         Up to 3/0         Solid Copper         BU-11CPN/CPS           300         1 1/2"         Lug         Insulated         Up to 0         Copper         BU-102B-*	100	1 5/8"	Lug	BU-13*	Up to 3/0	Zinc	BU-11APN/APS
300 1 1/2" Lug Insulated Up to 0 Copper BU-102B-*	200	1 9/16"	Crimp / Solder	Insulated	Up to 1	Copper	BU-41A-*
	200	1 5/8"	Lug	BU-13*	Up to 3/0	Solid Copper	BU-11CPN/CPS
	300	1 1/2"	Lug	Insulated	Up to 0	Copper	BU-102B-*
300 1 1/2" Lug Insulated Up to 0 Copper BU-102BK-*	300	1 1/2"	Lug	Insulated	Up to 0	Copper	BU-102BK-*
300 1 13/16" Lug BU-35* Up to 300MCM Solid Copper BU-33C	300	1 13/16"	Lug	BU-35*	Up to 300MCM	Solid Copper	BU-33C
400 1 1/2" Lug Insulated Up to 0 Copper BU-102W-*	400	1 1/2"	Lug	Insulated	Up to 0	Copper	BU-102W-*
400 1 1/2" Crimp Insulated Up to 1 Copper Jaws BU-X15400-*	400	1 1/2"	Crimp	Insulated	Up to 1	Copper Jaws	BU-X15400-*
400 1 9/16" Crimp / Solder Insulated Up to 1 Solid Copper BU-41C-*	400	1 9/16"	Crimp / Solder	Insulated	Up to 1	Solid Copper	BU-41C-*

TO ORDER PRODUCTS IN VARIOUS
LENGTHS & COLORS USE THIS KEY TO
PROVIDE THE CORRECT PART NUMBER

BU - 00000 - \*

\*COLOR KEY: 0=BLACK 2=RED 4=YELLOW 5=GREEN 6=BLUE 9=WHITE



Mueller clips are the industry standard. Our design reflects 100+ years of innovation and improvement. Mueller clips assure teeth that bite, springs that hold, plating that lasts and insulators that protect.

# Model # BU-30/BU-30C/BU-30X

# **Miniature Alligator**

Solder or crimp connection. Jaw opens 0.188" (4.8 mm) max

Material: nickel-plated steel (BU-30) or solid copper (BU-30C) or 304SS (BU-30X)

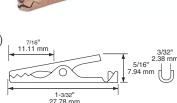
**Length:** 1.1" (27.78mm) **Federal** CID AA59466-001

5 Amps

**Spec:** (BU-30C)

Rating:

Uses insulator BU-32-\*



# Model # BU-30TBO

# Miniature Alligator with Threaded Barrel

6-32 threaded steel barrel connection Jaw opens 0.188" (4.8 mm) max

Material: nickel-plated

steel

**Length:** 1.5" (38.75mm)

**Rating:** 5 Amps
Uses insulator BU-31-\*



#### Model # BU-32-\*

# **Insulator for Miniature Alligator**

Protective flexible vinyl insulator for 30, 30C, 30X

Material: PVC

**Length:** 1.63" (41.28mm)

\*Std. -0 Black.

Colors: -2 Red.

·2 Kea,

-4 Yellow,

-5 Green,

-6 Blue,

-9 White

# Model # BU-31-\*

# Insulator for Mini Alligator Barrel/Threaded Barrel

Protective flexible vinyl insulator for 30BL, 30TBO

Material: PVC

**Length:** 1.63" (41.28mm)

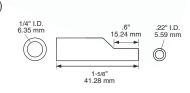
\*Std. -0 Black, Colors: -2 Red.

-4 Yellow.

4 fellow,

-5 Green,

-6 Blue, -9 White



# Model # BU-30BL

Solder or crimp connection

# **Miniature Alligator with Barrel**

Jaw opens 0.188" (4.8 mm) max

Material: nickel-plated steel Length: 1.25" (31.75mm)

**Rating:** 5 Amps
Uses insulator BU-31-\*

17/16"
11.11 mm
1/8" I.D.
3.17 mm
7.94 mm
31.75 mm

1-7/32" 30.95 mm

# Model # BU-34/BU-34C/BU-34X

# Micro-Alligator

Solder or crimp connection

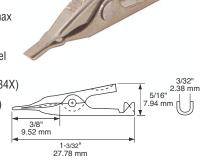
Jaw opens 0.22" (5.6 mm) max Nose width .07" (1.7 mm)

Material: nickel-plated steel (BU-34) or solid copper (BU-34C) or 304SS (BU-34X)

**Length:** 1.09" (27.78mm)

Rating: 5 Amps

Uses insulator BU-36-\*





# **Insulator for Micro Alligator**

Protective flexible vinyl insulator for 34, 34C, 34X

Material: PVC

Lenath: 1.22" (30.95mm)

\*Std. -0 Black, Colors:

-2 Red, -4 Yellow,

-5 Green.

-6 Blue.

-9 White

# Model # BU-60PR2 Probe Tip Alligator Clip

Accepts standard .080" (2mm)probe tip or test probe tip

Jaw opens 0.31" (7.9 mm) max

Material: nickel-plated

steel

1.97" (50mm) Length:

Rating: 10 Amps

Use insulator BU-62-\* or BU-72-\*

Also available is Model #BU-60PR1 which accepts

5/8" 15.88 mm

1-31/32<sup>t</sup> 50 mm

a .125" (3.1mm) Probe



3/4" 19.05 mm

# Model # BU-60/BU-60C/BU-60X

# Alligator Clip with Barrel

Compatible with all shrouded, unshrouded, or retractable 0.16" (4mm) banana plugs

Solder or crimp connection

Jaw opens 0.31" (7.9 mm) max

Material: nickel-plated steel

(BU-60), solid copper (BU-60C), 304 stainless steel (BU-60X)

Length: 1.97" (50mm) Rating: 10 Amps

Uses insulator BU-62-\* or BU-72-\*

# Model # BU-60TBO

# Threaded Barrel Alligator Clip

8-32 threaded barrel connection Jaw opens 0.31" (7.9 mm) max

Material: nickel-plated steel

Length: 2.13" (53.97mm)

Rating: 10 Amps

Uses insulator BU-62-\* or BU-72-



& INSULATORS

# Model # BU-60S/BU-60CS\*

# **Alligator Clip with Screw**

Compatible with all shrouded. unshrouded, or retractable 0.16" (4mm) banana plugs

6-40 screw connection

Jaw opens 0.31" (7.9 mm) max

Material: nickel-plated steel

(BU-60S) or solid copper (BU-60CS)

Length: 1.97" (50mm)

Federal Spec CID AA59466-002 (BU-60CS)

Rating: 10 Amps

Uses insulator BU-62-\* or BU-72-\*

# Model # BU-60U

## Alligator Clip

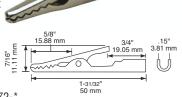
Solder or crimp connection Jaw opens 0.31" (7.9 mm) max

Material: nickel-plated

steel

Length: 1.97" (50mm)

Rating: 10 Amps Uses insulator BU-62-\* or BU-72-\*





# Color Key 0 Black 2 Red 4 Yellow 5 Green 6 Blue 9 White

# Model # BU-61

# Alligator Clip with Cage Spring Barrel

Cage spring connection accepts standard prode needle (0.080 dia.)

Jaw opens 0.31" (7.9 mm) max

Material: nickel-plated steel clip, nickel-plated brass

insert, gold plated beryllium copper cage spring

**Length:** 2.03" (51.59mm) **Rating:** 10 Amps

Uses insulator BU-62-\* or BU-72-\*

# Model # BU-60HS-\*/BU-60CHS-\*

# Alligator Clip with Acetate Handle and Screw

Compatible with all unshrouded, or retractable 0.16" (4mm) banana plugs Jaw opens 0.31" (7.9 mm) max

Material: (BU-60HS-\*) nickel-plated steel

or (BU-60CHS-\*) solid copper clip

**Length:** 2.34" (59.53mm) **\*Std.** -0 Black. -2 Red.

**Colors:** -4 Yellow, -5 Green, -6 Blue, -9 White **Federal** AA59466-003 (red), (BU-6CHS-2) **Spec:** AA59466-016 (black), (BU-60CHS-0)

Rating: 10 Amps



Model # BU-62-\*

# **Insulator for Alligator Clips**

Protective flexible vinyl insulator for 60, 60C, 60CS, 60PR2, 60S, 60TB0, 60U, 60X and 61

Material: PVC Length: 2.03" (51.59mm) \*Std. -0 Black

\*Std. -0 Black, Colors: -2 Red,

-4 Yellow, -5 Green, -6 Blue, -9 White





2-15/64" 56.75 mm

# Model # BU-60HPR-\*

# Probe Tip Alligator Clip with Acetate Handle

Accepts standard probe tip or test probe tip

Material: nickel-plated steel clip
Length: 2.23" (56.75mm)

\*Std. -0 Black, -2 Red,
Colors: -4 Yellow, -5 Green,

-6 Blue, -9 White

Rating: 10 Amps



2-11/32" 59.53 mm  $(\bigcirc)$ 

THREAD

# Model # BU-60H-\*

# **Alligator Clip with Acetate Handle**

Compatible with all unshrouded, or retractable 0.16" (4mm) banana plugs

Jaw opens 0.31" (7.9 mm) max

**Material:** nickel-plated steel clip; **Length:** 2.23" (56.75mm)

\*Std. -0 Black,

Colors: -2 Red, -4 Yellow, -5 Green, -6 Blue, -9 White

Rating: 10 Amps

# Model # BU-63-\*/BU-63C-\*

# **Insulated Alligator Clip**

BU-63-\* same as BU-60S and includes a skin-tight, two-piece, flexible insulator BU-63C-\* same as BU-60CS and includes a skin-tight, two piece, flexible insulator

Compatible with all shrouded, unshrouded, or retractable 0.16" (4mm) banana plugs

**Material:** nickel-plated steel (BU-63-\*) or solid copper (BU-63C-\*)

Length: 2.25" (57.15mm)

\*Std. -0 Black, -2 Red,
Colors: -4 Yellow,-5 Green,

-6 Blue, -9 White

2-1/4" 57.15 mm 5.16 mm



Rating: 10 Amps

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# Model # BU-70/BU-70C

# **Alligator Clip**

Solder or crimp connection Jaw opens 0.313" (7.9 mm) max

Material: nickel-plated steel

> (BU-70) or (BU-70C) solid copper

Length: 1.69" (42.86mm)

Rating: 5 Amps (BU-70) or 10 Amps (BU-70C)

1-11/16" 42.86 mm

Uses insulator BU-72-\*

# Model # BU-85/BU-85C

# Crocodile Clip

Crimp or screw connection Jaw opens 0.313" (7.9 mm) max Nesting teeth provide solid contact

along entire length of jaw

Material: (BU-85) zinc-plated steel or (BU-85C) solid copper

Length: 2.125" (53.97mm)

Federal Spec: AA59466-005 (BU-85C)

5 Amps (BU-85) or 10 Amps (BU-85C)

Uses insulator BU-87-\*

# Model # BU-70S/BU-70CS

# **Alligator Clip with Screw**

6-40 screw or crimp connection Jaw opens 0.313" (7.9 mm) max

(BU-70S) nickel-plated steel or (BU-70CS) solid copper

Length: 1.69" (42.86mm)

**Federal** AA59466-0017 Spec: (BU-70CS)

5 Amps (BU-70S) or 10 Amps (BU-70CS) Rating:

Uses insulator BU-72-\*

# Model # BU-87-\*

## **Insulator for Crocodile Clip**

Protective flexible vinyl insulator for 85, 85C

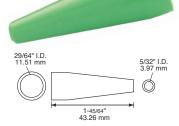
Material: **PVC** 

Length: 1.7" (43.26mm) \*Std. -0 Black.

-2 Red, -4 Yellow, Colors:

-5 Green, -6 Blue,

-9 White



THREAD 6-40 UNF

2-1/8" 53.97 mm

# Model # BU-72-\*

# **Insulator for Alligator Clip**

Protective flexible vinyl insulator for 70, 70C, 70CS, 70S, 60, 60C, 60S, 60CS, 60X

Material: PVC

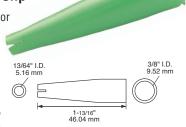
Length: 1.81" (46.04mm)

\*Std. -0 Black,

Colors: -2 Red, -4 Yellow,

-5 Green, -6 Blue,

-9 White



# Model # BU-651-\*

# Small Safety Alligator Clip

Compatible with all unshrouded, or retractable 0.16" (4mm) banana plugs

Jaw opens 0.27" (7 mm) max Material: nickel-plated steel

clip, glass-filled nylon housing

Length: 2.24" (57mm) \*Std. -0 Black, Colors: -2 Red

Rating: 300 V Category II or 150 Category III

10 Amps, IEC 1010 Compliant

& INSULATORS



# CLIPS & INSULATORS

#### **Color Key** Black 2 Red 4 Yellow 5 Green 6 Blue 9 White

# Model # BU-652-\*

# **Small Safety Alligator Clip with Extended Banana Jack**

Compatible with all shrouded, unshrouded, or retractable 0.16" (4mm) banana plugs

Jaw opens 0.27" (7 mm) max

Material: nickel-plated steel clip, glass-filled nylon housing

3.24" (82mm) Lenath: \*Std. Colors -0 Black. -2 Red

Rating: 300 V Category II. or 150 V Category III.

20 Amps, IEC 1010 Compliant

# Model # BU-45/BU-45C

# Pee-Wee Clip

Screw or crimp connection Jaw opens 0.31" (7.9 mm) max

Material: (BU-45) zinc-plated steel

or (BU-45C) solid copper Length: 1.53" (38.89mm) CID AA59466-006 Federal

Spec: (BU-45C)

Rating: 5 Amps (BU-45) or 10 Amps (BU-45C)

Uses insulator BU-47-\*





# **Large Safety Alligator Clip**

Compatible with all shrouded, unshrouded, or retractable 0.16" (4mm) banana plugs

Jaw opens 0.75" (19 mm) max

Material: nickel-plated steel clip, glass-filled nylon housing

3.23" (82.04mm) Length:

\*Std. -0 Black,

Colors: -2 Red, -4 Yellow, -5 Green, -6 Blue Rating: 1000 V, 30 Amps, IEC 1010 Compliant

**UL** Listed

# Model # BU-47-\*

# **Insulator for Pee-Wee Clip**

Protective flexible vinyl insulator for 45, 45C

Material: PVC

Length: 2.02" (51.2 mm)

\*Std. -0 Black, Colors: -2 Red.

> -4 Yellow, -5 Green,

> -6 Blue.

-9 White



# Model # BU-110-\*

#### **Fully Insulated Mini Clip**

Compatible with all shrouded, unshrouded, or retractable .016" (4mm) banana plugs. Jaw opens 0.31" (7.9mm)

**Material:** Nickel plated steel & nylon

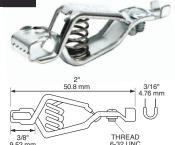
Length: 1.65" (42mm) \*Std. Colors: -0 Black, -2 Red Rating: 300V, 6 Amps

# Model # BU-55

#### **Economy Clip**

Screw or crimp connection Jaw opens 0.44" (11.1 mm) max

zinc-plated steel Material: Length: 2" (50.8mm) Rating: 10 Amps Uses insulator BU-49-\*



# Model # BU-50C

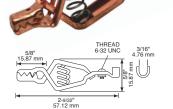
# Meter Testing Clip with Needle

Has a solid beryllium copper piercing needle in the top jaw. Jaw opens .5" (12.5mm)

Excellent for quick connection to insulated wire.

Material: Solid Copper Length: 2.28" (57.12mm) 20 Amps Rating:

Uses insulator BU-49-\*



# Model # BU-51C

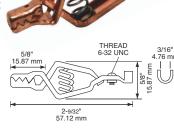
# **Meter Testing Clip**

Same as BU-50C except without insulation piercing needle

Jaw opens 0.5" (12.7 mm) max

Material: Solid copper Length: 2.28" (57.12mm)

20 Amps Rating: Uses insulator BU-49-\*



# & INSULATORS

# Model # BU-48B/BU-48C

# **Automotive Analyzer Clip**

Screw or crimp connection Jaw opens 0.5" (12.7 mm) max Teeth mesh on three sides of the jaw

Material: (BU-48B) zinc-plated steel

or (BU-48C) solid copper

**Length:** 2" (50.8mm) Federal CID AA59466-007

Spec: (BU-48C)

Rating: 10 Amps (BU-48B) or

20 Amps (BU-48C)

Uses insulator BU-49-\*





2" 50.8 mm

# Model # BU-49-\*

# Insulator for Automotive Analyzer Clip

Protective flexible vinyl insulator for 48B, 48B2E, 48C, 50C, 51C, 55, 95

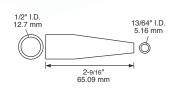
Material: PVC

Length: 2.56" (65.09mm)

\*Std. -0 Black, Colors: -2 Red,

> -4 Yellow, -5 Green,

-6 Blue. -9 White



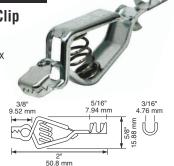
# Model # BU-48B2E

# **Automotive Analyzer Clip**

Double crimp connection Jaw opens 0.5" (12.7 mm) max

zinc-plated steel Material: Length: 2" (50.8mm) Rating: 10 Amps

Uses insulator BU-49-\*



# Model # BU-27/BU-27C

# General Purpose Clip

Crimp or screw connection; Jaw opens 0.625" (16 mm) max

(BU-27) zinc-plated steel Material:

or (BU-27C) solid copper

Length: 2.44" (61.9mm) **Federal** CID AA59466-008

Spec: (BU-27C)

Rating: 20 Amps (BU-27) or 40 Amps (BU-27C)

Uses insulator BU-29-\* or BU-90-\*







#### **Color Key** Black 2 Red 4 Yellow 5 Green 6 Blue 9 White

# Model # BU-27CG/BU-27CGW

# **Geophone Clip**

Crimp or screw connection; Jaw opens 0.625" (16 mm) max;

Curved jaws clip on to seismograph rings

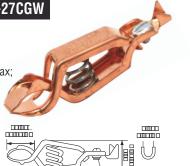
Material: solid copper;

Spring: steel

2.4" (61.1mm) Length: Rating: 40 Amps

Uses insulator BU-29-\*

or BU-90-\*



# Model # BU-24APN/BU-24APS

# **Heavy Duty Clip**

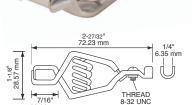
Crimp or screw connection; Jaw opens 0.75" (19 mm) max; clip unmarked (BU-24APN) and marked positive (BU-24APS)

Material: zinc-plated steel;

Spring: steel

2.84" (72.23mm) Length:

Rating: 25 Amps Uses insulator BU-26-\*



# Model # BU-29-\*

# **Insulator for General Purpose/Geophone Clips**

Protective flexible vinyl insulator for 27, 27C, 27CG, 27CGW

PVC Material:

Length: 3.5" (88.9mm)

\*Std. -0 Black, Colors: -2 Red,

-4 Yellow, -5 Green,

-6 Blue, -9 White

# Model # BU-25/BU-25C

# Automotive Clip

Crimp or screw connection; Jaw opens 0.75" (19 mm) max; teeth mesh on three sides of the jaw

zinc-plated steel (BU-25) Material:

or solid copper (BU-25C);

Spring: steel

Length: 3" (72.6mm)

Federal Spec: CID AA59466-009

(BU-25C)

40 Amps (BU-25) or 75 Amps (BU-25C) Rating:

Uses insulator BU-26-\*

# Model # BU-90-\*

# Insulator for General Purpose/Geophone Clips

Protective flexible vinyl insulator for 27, 27C, 27CG and 27CGW Accepts larger wires or cables

than BU-29-\*

Colors:

Material: PVC

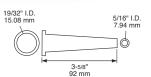
Length: 3.375" (92mm) \*Std. -0 Black.

-2 Red.

-4 Yellow, -5 Green,

-6 Blue, -9 White





# Model # BU-26-\*

# **Insulator for Automotive Clip**

Protective flexible vinyl insulator for

24A. 25. 25C

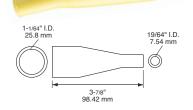
Material: PVC

Length: 3.88" (98.4 mm)

\*Std. -0 Black, Colors: -2 Red.

-4 Yellow, -5 Green,

-6 Blue, -9 White



76.2 mm

THREAD

# Model # BU-21APN/BU-21APS/BU-21CPN/BU-21CPS

**Heavy Duty Clip for Battery and Test Work** 

Crimp or screw connection; copper version (21C) equipped with removable copper lug; Jaw opens 1.06" (27 mm) max; clip unmarked (BU-21APN/CPN)

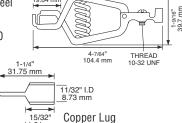
and marked positive (BU-21APS/CPS) Material: zinc-plated steel (21A)

or solid copper (21C); Spring: steel **Length:** 4.11" (104.4mm)

Federal Spec: CID AA59466-010 (BU-21CPN)

Rating: 50 Amps (21A) or

100 Amps (21C) Uses insulator BU-23-\*



# Model # BU-23-\*

# **Insulator for Heavy Duty Battery Test Clip**

Protective flexible vinyl insulator for 21A, 21C

Material: PVC

Length: 5" (127mm) \*Std. -0 Black, Colors:

-2 Red. -4 Yellow,

-5 Green, -6 Blue, -9 White



# Model # BU-13-\*

# **Insulator for Heavy Duty Clip**

Protective flexible vinyl insulator for 11A, 11C

Material: PVC

Lenath: 6.8" (173mm) \*Std. -0 Black, -2 Red, Colors: -4 Yellow, -5 Green,

-6 Blue, -9 White



Model # BU-33C

# Welding Clip "BIG BRUTE"

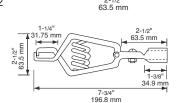
Lug connection

Jaw opens 1.81" (46 mm) max

Material: solid copper 7.75" (196.8mm) Length:

Federal Spec: CID AA59466-012 Rating: 300 Amps

Uses insulator BU-35-\*



5/8" I.D

# Model # BU-11APN/BU-11APS/BU-11CPN/BU-11CPS

# **Heavy Duty Clip for Grounding Applications**

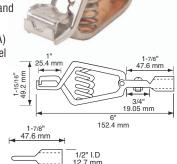
BU-11 series clips have a lug connection Jaw opens 1.625" (41.3 mm) max Clip unmarked (BU-11APN/CPN) and marked positive (BU-11APS/CPS)

Material: zinc-plated steel (11A) or solid copper (11C); Spring: steel

Length: 6" (152.4 mm) Federal CID AA59466-011 Spec: (BU-11CPN) Rating:

100 Amps (11A) or 200 Amps (11C)

Uses insulator BU-13-\*



# Model # BU-35-\*

# **Insulator for Welding Clip** Protective flexible vinyl insulator for 33C

Material: **PVC** 8.75" (222mm) Length:

\*Std. -0 Black, Colors: -2 Red,





#### **Color Key** Black 2 Red 4 Yellow 5 Green 6 Blue 9 White

# **CLIPS** & INSULATORS

# Model # BU-58

# **Grounding Clamp**

Attaches to pipe up to 1 3/8" outer diameter

Material: zinc-plated steel Length: 2.31" (58.75mm)

Rating: 50 Amps



# Model # BU-46PR-\*

# Insulator for Miniature Plier-Type Clip

Protective flexible vinyl insulator

for BU-46

Material: **PVC** 

Lenath: 1.7" (43.18mm) \*Std. -0 Black, Colors: -2 Red.



# Model # BU-40A-\*/BU-40C-\*

# Micro Plier-Type Clip

Solder or crimp connection Jaw opens 0.75" (19 mm) max

(BU-40A) nickel-plated steel Material:

or (BU-40C) solid copper

2.3" (58mm) Length: \*Std. -0 Black, Colors: -2 Red.

15 Amps (BU-40A), Rating:

20 Amps (BU-40C)

# Model # BU-41A-\*/BU-41APN/BU-41C-\*/BU-41CPN

# Plier-Type Clip

Jaw opens 1.625" (41.3 mm) max Locks on to both side and top mounted

battery terminals

copper-plated steel (BU-41A) Material:

> or solid copper (BU-41C), PVC insulator (BU-43PR-\*)

6" (152mm) Lenath:

\*Std. Insulator (BU-43PR-\*) Colors: in -0 Black, -2 Red,

-4 Yellow, -5 Green,

-6 Blue, -9 White

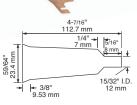
Federal CID AA59466-014 Spec: BU-41-CPS-VZZZ-2 (red) and

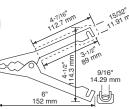
CID AA59466-015.

BU-41CPN-VZZZ-0 (black)

Rating: 200 Amps (41A) or

400 Amps (41C)





# Model # BU-46A-\*/BU-46C-\*/BU-46X

# Miniature Plier-Type Clip

Solder or crimp connection Jaw opens 1.125" (28.6 mm) max

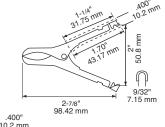
Material: copper-plated steel (BU-46A)

or solid copper (BU-46C), 304SS (BU-46X)

PVC insulator (BU-46PR-\*) Length: 2.88" (98.42mm) \*Std. Insulator (BU-46PR-\*)

Colors: in -0 Black, -2 Red Rating: 50 Amps (46A) or

75 Amps (46C)



# Model # BU-43PR-\*

# Insulator Pair for Plier-Type Clip

Protective flexible vinvl insulator

for BU-41

Material: PVC

Length: 4.4" (112.73mm)

\*Std. -0 Black,

Colors: -2 Red, -4 Yellow, -5 Green, -6 Blue, -9 White

# Model # BU-102B-\*/BU-102BK-\*

# **Insulated Battery Clip**

Solder lug connection. Fully insulated clip with serrated jaws; BU-102BK-\* has Kelvinized isolated jaws and no copper shunt

Material: Housing: glass filled nylon; Jaw: copper; Spring: music wire,

zinc plated

Length: 6.5" (165mm) \*Std. -0 Black, -2 Red Colors: Rating: 300 Amps



# Model # BU-75K

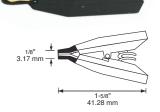
# **Kelvin Clip**

Screw connection. Jaw opens 0.313" (7.9 mm) max. Isolated jaws

Material: Silver/Gold tip contacts, nylon housing

Length: 1.625" (41.28mm)

Rating: 10 Amps



& INSULATORS

Model # BU-102W-\*

# **Insulated Welding Clip**

Solder lug connection. Fully insulated clip with serrated contact pad and braided copper shunt

Material: Housing: glass filled nylon;

Jaw: copper:

Spring: music wire,

zinc plated

Length: 6.5" (165mm)

\*Std. -0 Black. Colors: -2 Red Rating: 400 Amps



# Model # BU-78K

# **Kelvin Clip**

Solder connection. Jaw opens 0.5" (12 mm) max

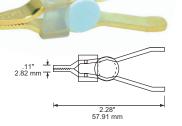
Isolated jaws

Material: Gold contacts

Length: 2.28" (57.91mm)

Rating: 10 Amps Wires run through channel in

thimbal and solder into holes under the silicone spring.



# Model # BU-X15400-\*

# **Epoxy Coated Battery Clip**

Solder/crimp connection. Jaw opens 1.50" (38.1 mm) max. Locks on to both side and top mounted battery terminals

Material: steel, epoxy coated clips with

copper plated jaws

Length: 6.75" (171.45mm) \*Std. Colors: -0 Black, -2 Red

Rating: 200 Amps



# Model # BU-P2240-\*

# Alligator Clip & Insulator, (10 Pack)

Ten Each of BU-60 Alligator Clips and BU-62-\* Insulators in a convenient bag

\*Std. Colors: -0 Black, -2 Red,





# Model # JP-25182-\*\*\*

# Small Angled Nose Telecom Clip with Bed of Nails

Mueller – J.S. Popper brand. Jaw opens 1.0" (25.4mm). Uses bed of nails to pierce insulation

**Material**: nickel-silver jaws; includes brass screw, brass nut, brass washer, and bronze star washer

**Length:** 2.34" (59.4mm)

Connection -N Without Hardware, -L With Loose Hardware,
Options: -J Banana Jack. -TJ Threaded Banana Jack

-S Nickel plated steel version of clip

# Model # JP-8099-\*\*\*

# Large Angled Nose Telecom Clip with Single Spike

Mueller – J.S. Popper brand Jaw opens 1.0" (25.4mm) Uses single spike to pierce insulation

**Material:** nickel-silver jaws; includes brass screw, brass nut, brass washer, and bronze star washer

**Length:** 2.34" (59.4mm)

**Connection** -N Without Hardware, -L With Loose Hardware, **Options:** -J Banana Jack, -TJ Threaded Banana Jack

# Model # JP-8078-\*\*\*

# Large Angled Nose Telecom Clip with Hex Screw Attached Single Spike

Mueller – J.S. Popper brand Jaw opens 1.0" (25.4mm) Uses single spike to pierce insulation

**Material:** nickel-silver jaws; includes brass screw, brass nut, brass washer, and bronze star washer

**Length:** 2.34" (59.4mm)

Connection -N Without Hardware, -L With Loose Hardware, Options: -J Banana Jack, -TJ Threaded Banana Jack



# Model # JP-8783-\*\*\*

# Large Angled Nose Telecom Clip with Bed of Nails and Single Spike

Mueller – J.S. Popper brand. Jaw opens 1.0" (25.4mm). Uses single spike and bed of nails to pierce insulation

Material: nickel-silver jaws; includes brass screw, brass nut, brass washer, and bronze star washer

**Length:** 2.61" (66.4mm)

Connection -N Without Hardware, -L With Loose Hardware,
Options: -J Banana Jack, -TJ Threaded Banana Jack
-S Nickel plated steel version of clip

# Model # JP-33699-\*\*\*

# Large Straight Nose Telecom Clip with Single Spike

Mueller – J.S. Popper brand. Jaw opens 1.0" (25.4mm)

Uses single spike to pierce insulation

Material: nickel-silver jaws; includes

brass screw, brass nut, brass washer, and bronze star washer

**Length:** 2.61" (66.4mm)

**Connection** -N Without Hardware, -L With Loose Hardware, **Options:** -J Banana Jack, -TJ Threaded Banana Jack

#### Model # JP-33674-\*\*\*

# Large Straight Nose Telecom Clip with Bed of Nails and Single Spike

Mueller – J.S. Popper brand. Jaw opens 1.0" (25.4mm) Uses single spike and bed of nails to pierce insulation

**Material:** nickel-silver jaws; includes brass screw, brass nut, brass washer, and bronze star washer

**Length:** 2.61" (66.4mm)

**Connection** -N Without Hardware, -L With Loose Hardware, **Options:** -J Banana Jack, -TJ Threaded Banana Jack

#### Model #JP-5869-B

# **Contact Clip with Bed of Nails**

Mueller – J.S. Popper brand Jaw opens 0.52" (13.2mm)

Uses bed of nails to pierce insulation

Material: Steel

**Length:** 2.4" (61.0mm)





# Model # JP-8681-\*

# **Insulator for Telecom Clips**

Mueller – J.S. Popper brand Protective flexible vinyl insulator for 25182, 8099, 8078, 8783, 33699, 33674

Material: PVC

**Length:** 2.4" (61.0mm)

\*Std. -0 Black, Colors: -2 Red,

-4 Yellow,

-5 Green, -6 Blue,

-9 White



# Model # JP-8681-C\*

# **Cut Insulator for Telecom Clips**

Mueller – J.S. Popper brand Protective flexible vinyl insulator for telecom clips with banana jack or threaded banana jack connections

Material: PVC

**Length:** 1.8" (45.7mm)

\*Std. -0 Black, Colors: -2 Red,

-4 Yellow,

-5 Green, -6 Blue,

-9 White

