

Terminals and Splices

AMP POSITIVE LOCK* Connectors <Mark I/II>

The POSITIVE LOCK Connectors are wire-to-tab termination connectors designed to provide fast connect / disconnect and positive locking capabilities using a combination of specially designed receptacles and a housing that accommodates them. In the past, the methods of connection with tabs and receptacles often presented difficulties in wire termination because of their inherent high insertion and withdrawal forces making productivity extremely low.

With these uniquely designed AMP POSITIVE LOCK Connectors, the insertion and withdrawal forces are exceedingly low and as a result, assembling operation is greatly facilitated and cost reduced.

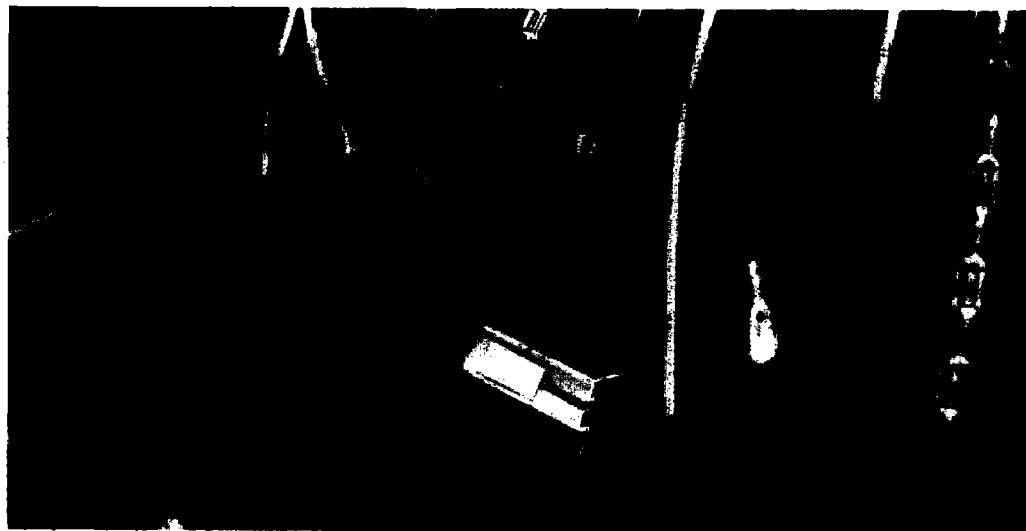
This feature of low insertion and withdrawal forces not only helps prevent damage of tabs and other parts during the assembling of equipment but also protect operators from injuries as were often experienced in old days. Moreover, despite the low insertion force, the connectors are guaranteed of high electrical performance due to thorough consideration given to the contact surface design.

Fast Connect / Disconnect and Positive Locking Capabilities

The receptacle is so designed that the mating tab can be inserted smoothly as the receptacle's spring lever is depressed. When the tab is completely inserted, the spring lever returns back to its original position and the boss on the tab fits into the tab hole and locks firmly.

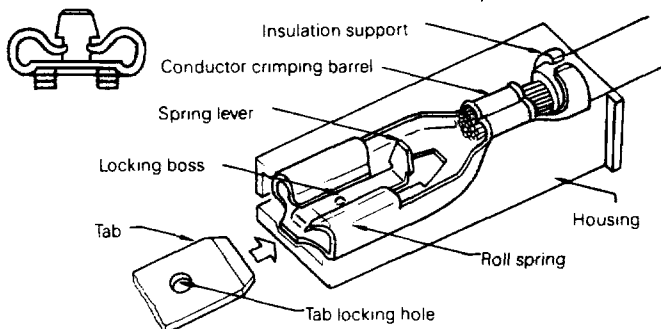
In this state, even if wire is pulled, it cannot be pulled out easily.

To extract, hold the housing and pull it out. The spring lever butts against the inside wall of the housing, lock is released and wire can be pulled off easily.



Receptacle Terminal

Mark II Commercial Type Conn.
(Shown for reference only)



Confirmation of Tab Insertion

When the tab is inserted into the receptacle, there is a clear sound of click which enables confirmation of tab insertion. Halfmating is thus prevented.

Good Electrical Contact

The receptacle and the tab are held in surface-to-surface contact, ensuring extremely good electrical contact.

Loading of Receptacle Terminals in Housing

The terminated receptacle terminals can be loaded in the housing by hand easily. When loaded, the terminals are retained in the housing firmly by a housing lance mechanism.

Types of Connectors

The POSITIVE LOCK connectors are available in two types, according to the configurations of receptacle terminals :

Mark I / Mark II EX Series

Mark I

One-and 2 positions. For the 2-position Mark I, one position uses POSITIVE LOCK terminal and the other position 250 Series FASTON receptacle.

Mark II

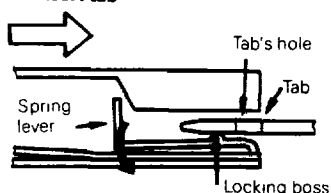
Commercial Type—
110 Series(1-and 3-positions)
187 Series(1-, 2-, 3-and 4-positions)
250 Series(1-, 2-and 4-positions and Flag type)
For TRIAC use (3-position)
Heavy Duty Type—
250 Series(1-and 2-positions)
For shield beam use—
(312 Series 3-position)

EX Series

These are terminals used without a housing. When necessary, a sleeve is available that can be applied after a terminal is terminated. Also, there are a heat-resistant version of terminal that can be used without insulation and EX II Series which is loaded into the housing after termination.

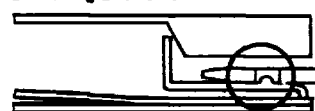
Locking Mechanism (Mark II Commercial Type Connector)

1. Insert tab



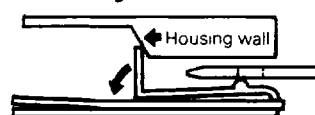
Spring lever is depressed as tab is inserted.

2. Mating and lock



When tab is inserted through, spring lever returns to original position and locking boss fits in tab's hole.

3. Extracting



Hold housing and pull wire. Spring lever butts against the slanting wall of housing and locked tab is disengaged.



When tab is extracted, spring lever returns to original position by spring action.

**POSITIVE LOCK Connector
Instruction Sheet: IS-094J**

**Terminals and Splices
AMP POSITIVE LOCK
Applicable Safety Standard**

The safety standards listed on the right are applied to specific part numbers. For confirmation of approval, contact our Sales Department by indicating the part number (s) in question. Please note that there are instances where the standards differ from AMP's performance specifications.

<Mark I >

UL File No.E28476
(Recognized Component)

Voltage Rating:
As par requirements of equipment used.

Current Rating:
As par requirements of equipment used.

CSA Report No.LR7189

Voltage Rating: 250V

Current Rating:
AWG #20=4A
AWG #18=7A
AWG #16=10A
AWG #14=15A
AWG #12=20A
AWG #10=24A

VDE License No.3184

Voltage Rating:
250V AC / 300V DC

Current Rating:
AWG #20=5A
AWG #14=15A
AWG #12= 20A
AWG #10=25A

Temperature Rating:80°C

Insulation Groove : B

IP Protection : IP00

<Mark II >

UL File No.E28476
(Recognized Component)

Voltage Rating:
As par requirements of equipment used.

Current Rating:
As par requirements of equipment used.

CSA Report No.LR7189

Voltage Rating: 250V

Current Rating:
AWG #24=1.5A
AWG #22=3A
AWG #20=4A
AWG #18=7A
AWG #16=10A
AWG #14=15A
AWG #12=20A
AWG #10=24A

VDE License No.3184

Voltage Rating:
250V AC / 300V DC

Current Rating:
AWG #24=2.5A
AWG #22=3A
AWG #20=5A
AWG #18=7A
AWG #16=12A
AWG #14=15A
AWG #12=20A
AWG #10=25A

Temperature Rating: 80°C

Insulation Groove : B

IP Protection : IP00

<EX Series >

UL File No.66717
(Recognized Component)

Voltage Rating:
As par requirements of equipment used.

Current Rating:
As par requirements of equipment used.

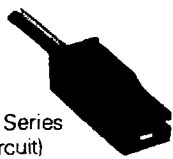
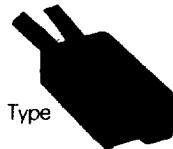
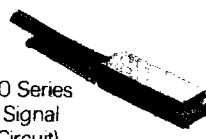
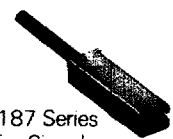
CSA Report No.LR7189

Voltage Rating:
As par requirements of equipment used.

Current Rating:
As par requirements of equipment used.

Terminals and Splices AMP POSITIVE LOCK Connectors <Mark I/II> Product Introduction

1

Connector	Type	Descriptions	No. of Cir.	Configuration
Mark I	Heavy-duty	250 Series	1	 
		250 Series/FASTON* Mixed Type	2	
Mark II	Commercial	110 Series for Signal Circuit	1 3	  
		187 Series for Signal Circuit	1 2	
		187 Series for Signal Circuit with Polarizing Guide	2	
		187 Series for Signal Circuit with Locking Feature	1	
		187 Series for Signal Circuit for Micro Switch	2 3	
		187 Series for Signal Circuit 15mm Centerline	2	
		187 Series for Timer	4	
		187 Series for Power Relay	4	
		250 Series	1 2 4	
		250 Series Flag Style	1	
		Connector for Triac (Uses a mixture of 187/ 250 Series)	3	
		250 Series Low Profile Type	1	
		250 Series	1	
		250 Series Double Lock Type	1	
		250 Series/FASTON Mixture Parallel Type	2	
		250 Series/FASTON Mixture "T" Type	2	
		250 Series/FASTON Mixture Double Lock "T" Type	2	
		312 Series for Sealed Beam	3	
		312 Series for Sealed Beam Flag Style	3	

Terminals and Splices AMP POSITIVE LOCK Connectors (Mark I)

Performance Data

Insulation Resistance:

100M Ω min.

Total Resistance:

3m Ω max. (Initial)

6m Ω max. (Final)

Operating Temperature:

-40 ~ +105°C (for 1 Circuit)

-40 ~ +130°C (for 2 Circuits)

Terminal Locking Force:

10kg min.

Connector Insertion Extraction Force:

0.6 ~ 4kg (for 1 Circuit)

1 ~ 5kg (for 2 Circuits)

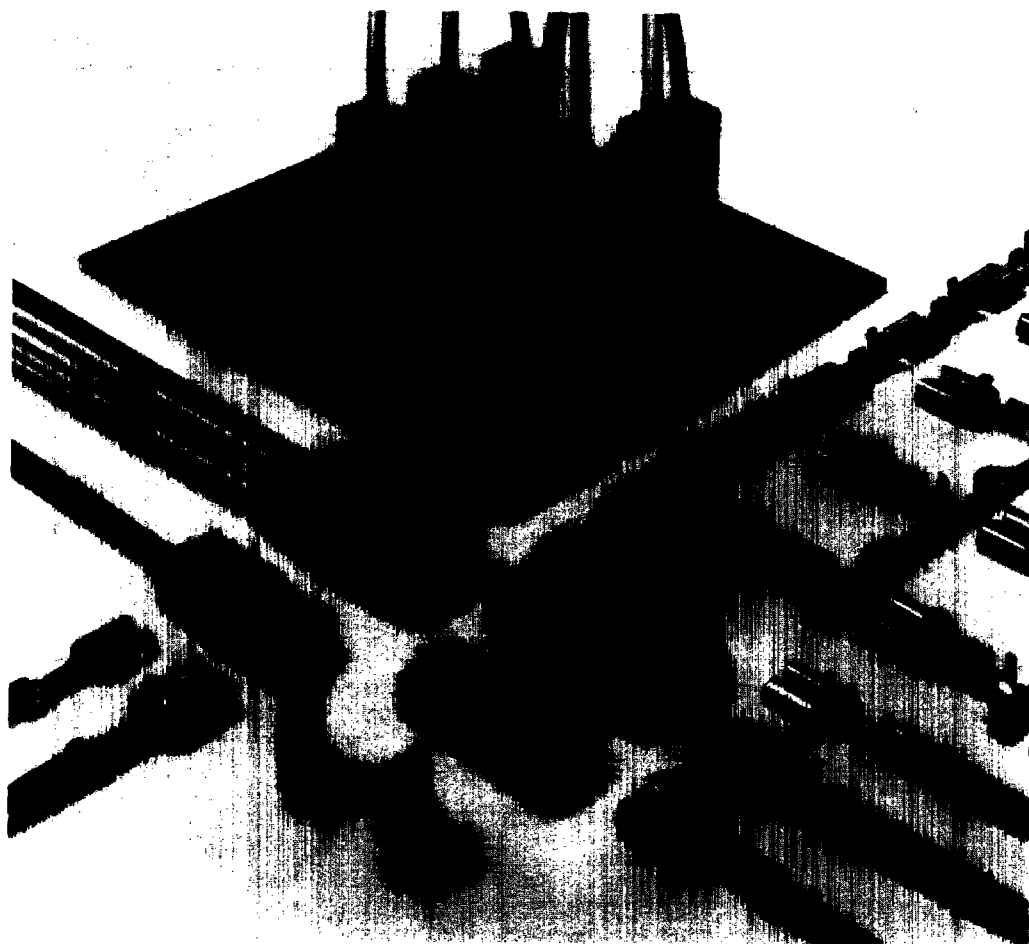
Dielectric Withstanding Voltage:

1,800 VAC for one minute

Product Specifications:

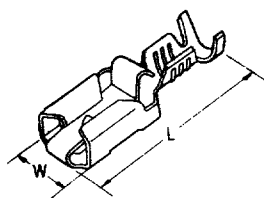
108 - 5113 (for 1 Circuit)

108 - 5114 (for 2 Circuits)



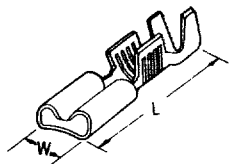
250 Series POSITIVE LOCK Receptacle Terminals

Acceptable Tab Width: 6.35mm



250 Series FASTON Receptacle Terminals

Acceptable Tab Width: 6.35mm



Wire Range		Insulation Diameter	Dimensions		Material and Finish	Part No. of Terminal	
AWG	mm ²		L	W		S.T.	L.P.
20-14	0.50 ~ 2.27	2.2 ~ 3.1	22.3	7.4	Brass	170233-1	170266-1
					Tin plated brass	170233-2	170266-2
12-10	3.08 ~ 5.27	3.8 ~ 4.9	22.3	7.4	Brass	170234-1	170266-1
					Tin plated brass	170234-2	170266-2

Board Thickness: 0.4mm. Hand Tool Part No. : 755342-1 (372J) (AWG20-14), 723712-1 (for AWG12-10)

Wire Range		Insulation Diameter	Dimensions		Material and Finish	Part No. of Terminal (S.T.)
AWG	mm ²		L	W		
20-14	0.50 ~ 2.27	2.2 ~ 3.4	19.2	7.5	Brass	170032-2
					Tin plated brass	170032-5
14-12	2.00 ~ 3.37	2.9 ~ 3.8	19.2	7.5	Brass	170258-1
					Tin plated brass	170258-2

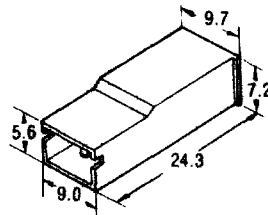
Board Thickness: 0.3mm.

Terminals and Splices AMP POSITIVE LOCK Connectors (Mark I)

Housing

Material:

Heat Resistance 66 Nylon



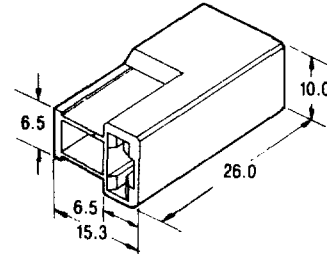
For 1 Circuit Part No.:

171809-1 (Natural)

171809-2 (Black)

171809-3 (Brown)

Consult our Sales Dept. for other housing colors.



For 2 Circuits Part No.:

171810-1 (Natural)

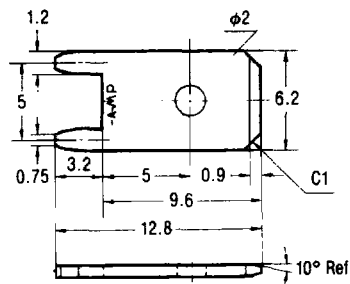
171810-2 (Black)

171810-3 (Brown)

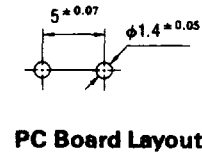
250 Series Tab for PC Board Mount

Material and Finish:

Tin plated brass
(Mate with one position connector only)

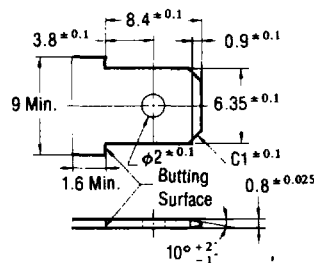


Part No.: 170267-1

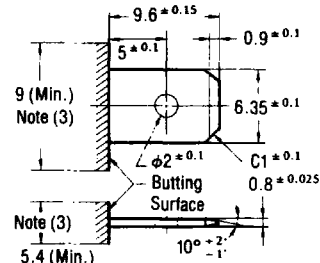


PC Board Layout

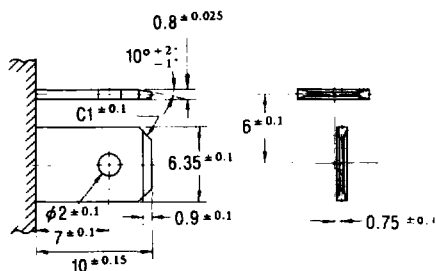
Reference Dimension of Tab



When using tab shoulder for butting. (For 1 Circuit)



When using resin etc., for butting. (For 1 Circuit)



Tab for mating with 2 Circuits Connector.

Notes:

- (1) In fabricating tabs, make sure that burring and warping do not occur.
 - (2) When operating temperature exceeds 107°C, tab must be electroplated with tin (Plating thickness: 3.8μmin.)
 - (3) When molding in tab with resin, etc., the dimension of its butting surface must be 9mm min. wide and 5.4mm min. deep to ensure that the Positive Lock Connector housing butts against the surface.
- Note (3) applies to 1- Circuit connector only.
Note (1) and (2) apply to 1 and 2 Circuits connectors.

Terminals and Splices AMP POSITIVE LOCK[®] Connectors (Mark II)

**Performance Data****Insulation Resistance:**

1000M Ω min.

Total Resistance:

3m Ω max. (Initial)

6m Ω max. (Final)

Operating Temperature:

-40 ~ +105°C

Terminal Locking Force:

(187) 6kg min. (Initial)

5kg min. (Final)

(250) 8kg min. (Initial)

7kg min. (Final)

Connector Insertion Force:

(187) 3kg max. (per circuit)

(250) 3.5kg max. (per circuit)

Connector Extraction Force:

0.6kg min. (per circuit)

Dielectric Withstanding**Voltage**

2,000 VAC (for one minute)

Product Specifications:

108—5252(110)

108—5126(187)

108—5338(187 wire-to-wire)

108—5127(250)

Application Specifications:

114—5120(110)

114—5041(187)

114—5042(250)

Instruction Sheet:

(all positive lock) IS-094J

IS-425J(110)

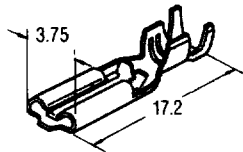
Terminals and Splices AMT POSITIVE LOCK Connectors(Mark II)/ Commercial Type 110 Series(Straight-type)

Receptacle Terminals

Applicable Tab Width:

2.79mm

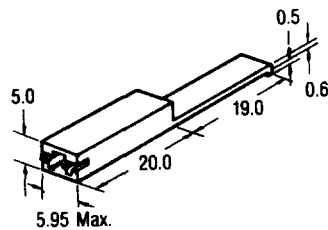
Material: Pre-Tin Brass



Receptacle Housing

Applicable contact

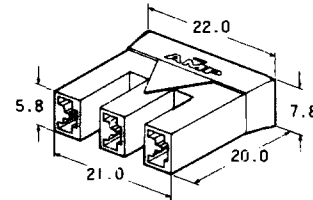
Part No.: 175411, 174777



For 1 Circuit

Material: UL94V-2 rated, 66 Nylon

Part No.: 174779-1(Natural)



For 3 Circuit

Material: UL94V-0 rated, 66 Nylon

Part No.: 178832-1 (Natural)

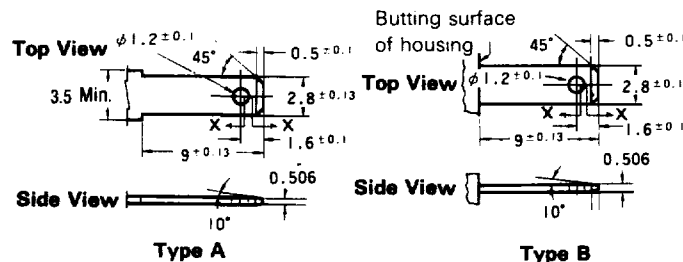
178832-4 (Yellow)

178832-6 (Blue)

178832-7 (Red)

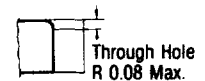
Tab Dimension For Signal Circuit

For 1 Circuit

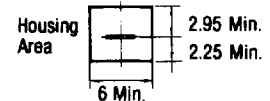


(When using tab shoulder for butting) (When using resin, etc., for butting)

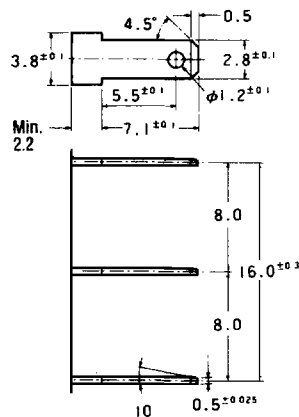
Sagging of the tab's hole must not exceed 0.08mm.



Section X-X



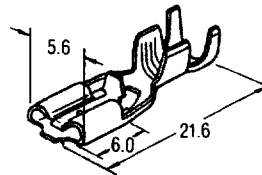
For 3 circuit



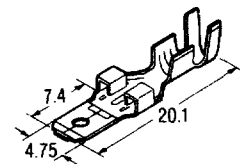
Housing Outline

Terminals and Splices AMT POSITIVE LOCK Connectors (Mark II)/ Commercial Type 187 Series (Straight-type)

Terminals



Receptacle



Tab

Wire Range		Insulation Diameter	Material&Finish	Part No. of Terminals		Part No. of Hand Tool
AWG #	mm ²			Receptacle S.T.*	Tab L.P. S.T.	
24-20	0.22~ 0.53	1.5 ~ 2.7	Pre-Tin Brass	170324-1	170330-1	753898-1
			Phos. Bronze/ Nickel Plated	170324-2	170330-2	
			Pre-Tin Phos. Bronze	170324-3	—	
20-16	0.51~ 1.38	1.9 ~ 3.4	Pre-Tin Brass	170325-1	170331-1	753899-1
			Phos. Bronze/ Nickel Plated	170325-2	170331-2	
			Pre-Tin Phos. Bronze	170325-3	—	
18-14	0.70~ 2.08	One wire 2.1~ 3.6 Two wire 5.5(max.)**	Pre-Tin Brass	170326-1***	170332-1***	753786-1

*Air feed Applicator Should be Used.

Extraction Tool Part No.: 724659-1(1S-106J)

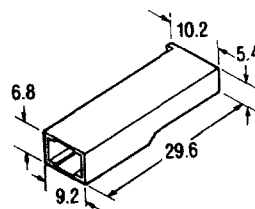
**External Diameter of a wire 1.6 ~ 3.1mm.

*** : 753816-1(1S-237J)

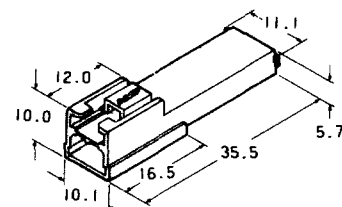
Tab Housings

Applicable Terminal
Part No.: 175179

Material:
UL94V-0 rated, 66 Nylon



For 1 Circuit (Free Hanging)
Part No.:176448-1(Natural)
176448-6(Blue)
Mating Receptacle Housing
Part No.:173974- □



For 1 Circuit (Junction Type, with
locking)
Part No.:179182-1(Natural)
179182-6(Blue)
179182-9(Black)
Mating Receptacle Housing
Part No.:179183- □

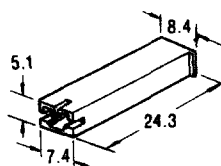
Receptacle Housing

Applicable Terminal
Part No.: 170324

170325

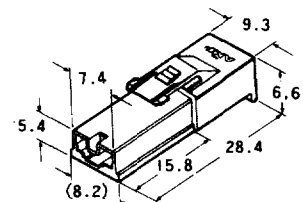
170326

Material:
See columns right.



For 1 Circuit
Material:UL94V-2 rated,
66 Nylon
Part No :172074-1(Natural)
172074-2(Black)
172074-4(Yellow)
172074-5(Green)
172074-6(Blue)
172074-7(Red)

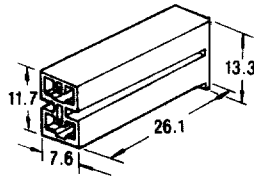
Material:UL94V-0 rated,
66 Nylon
Part No.:173974-1(Natural)
173974-2(Black)
173974-4(Yellow)
173974-5(Green)
173974-6(Blue)
173974-7(Red)
Mating Tab Housing
Part No.: 176448- □



For 1 Circuit (Junction type,
with locking)
Material:UL94V-2 rated,
66 Nylon
Part No.:179183-1(Natural)
179183-6(Blue)
179183-9(Black)
Mating Tab Housing
Part No.: 179182- □

Terminals and Splices **AMT POSITIVE LOCK Connectors (Mark II)/ Commercial Type** **187 Series (Straight-type)**

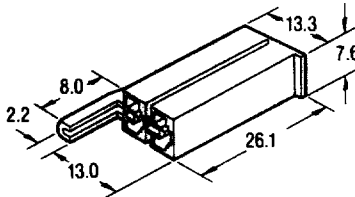
Receptacle Housings



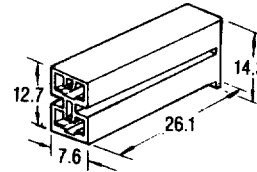
For 2 Circuits(6 mm Pitch)
Material:UL94V-2 rated, 66 Nylon
Part No.:172210-1(Natural)
172210-2(Black)
172210-4(Yellow)
172210-5(Green)
172210-6(Blue)

Material:UL94V-0 rated, 66 Nylon
Part No.:1-172210-1(Natural)
1-172210-2(Black)
1-172210-4(Yellow)
1-172210-5(Green)
1-172210-6(Blue)
1-172210-7(Red)

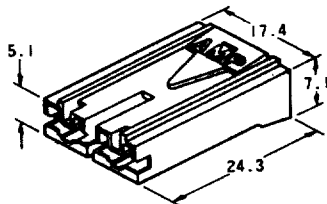
For 2 Circuits(6 mm Pitch, with Polarized Guide)
Material:UL94V-2 rated, 66 Nylon
Part No.:174587-1(Natural)
174587-4(Yellow)



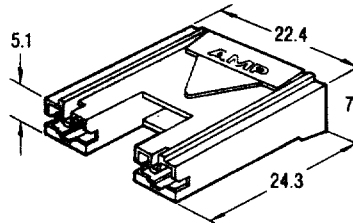
Material:UL94V-0 rated, 66 Nylon
Part No.:1-174587-1(Natural)
1-174587-4(Yellow)
1-174587-5(Green)
1-174587-6(Blue)
1-174587-7(Red)



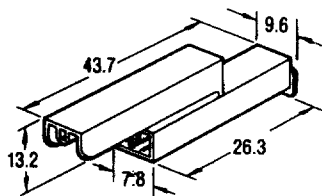
For 2 Circuits(7 mm Pitch)
Material:UL94V-2 rated, 66 Nylon
Part No.:175578-1(Natural)
175578-2(Black)
175578-4(Yellow)
175578-5(Green)
175578-6(Blue)
Material:UL94V-0 rated, 66 Nylon
Part No.:1-175578-1(Natural)
1-175578-2(Black)
1-175578-4(Yellow)
1-175578-5(Green)
1-175578-6(Blue)
1-175578-7(Red)



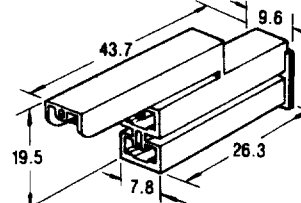
For 2 Circuits(10 mm Pitch)
Material:UL94V-0 rated, 66 Nylon
Part No.:179720-1(Natural)
179720-2(Black)
179720-4(Yellow)
179720-7(Red)



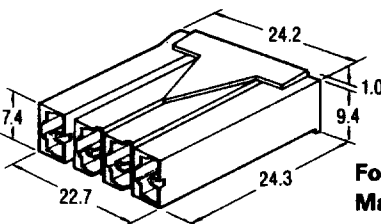
For 2 Circuits(15 mm Pitch, for electro-magnetic)
Material:UL94V-0 rated, 66 Nylon
Part No.:176498-1(Natural)
176498-2(Black)
176498-4(Yellow)
176498-6(Blue)



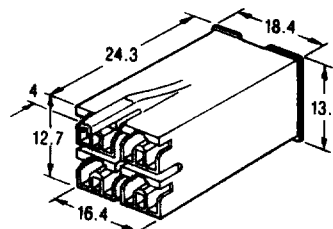
For 2 Circuits(for Micro-Switch)
Material:UL94V-2 rated, 66 Nylon
Part No.:174712-1(Natural)
174712-6(Blue)
Material:UL94V-0 rated, 66 Nylon
Part No.:1-174712-1(Natural)
1-174712-4(Yellow)
1-174712-6(Blue)
1-174712-7(Red)



For 3 Circuit (for Micro-Switch)
Material:UL94V-2 rated, 66 Nylon
Part No.:172075-1(Natural)
172075-4(Yellow)
172075-5(Green)
172075-6(Blue)
172075-7(Red)
Material:UL94V-0 rated, 66 Nylon
Part No.:1-172075-1(Natural)
1-172075-4(Yellow)
1-172075-5(Green)
1-172075-6(Blue)
1-172075-7(Red)



For 4 Circuit (for Timer)
Material:UL94V-0 rated, 66 Nylon
Part No.:174513(Natural)

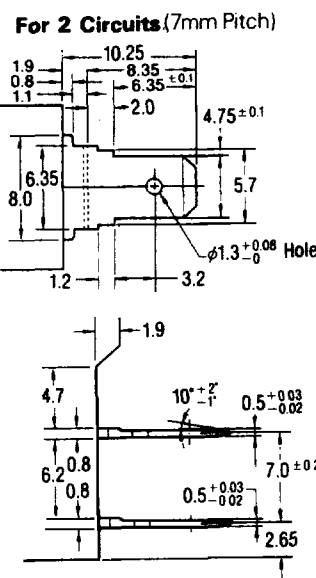
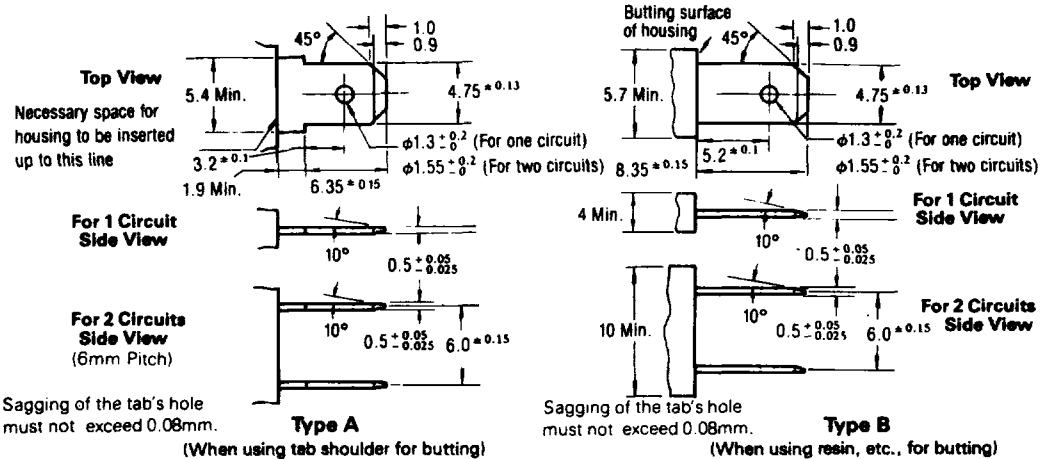


For 4 Circuits(for Power Relay)
Material:UL94V-2 rated, 66 Nylon
Part No.:173150-1(Natural)
173150-4(Yellow)
173150-7(Red)
Material:UL94V-0 rated, 66 Nylon
Part No.:1-173150-1(Natural)
1-173150-4(Yellow)
1-173150-6(Blue)
1-173150-7(Red)

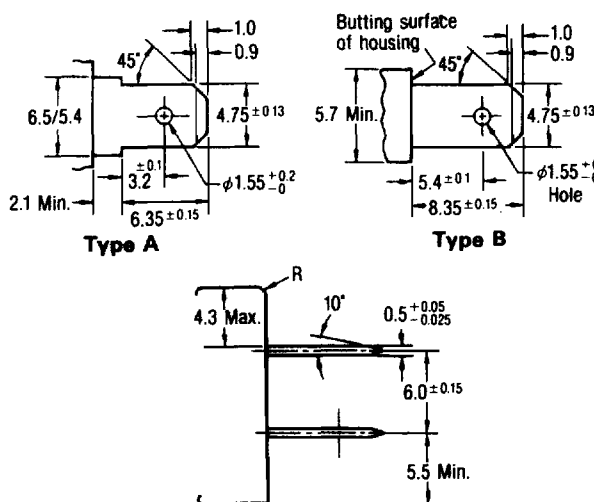
Terminals and Splices

AMP POSITIVE LOCK Connectors (MARK II)

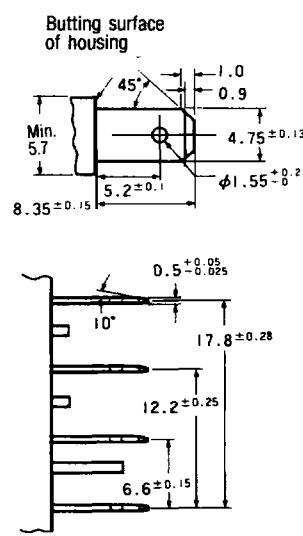
For 187 Series (For Signal Circuit) Mating Tab Dimension of Commercial Type



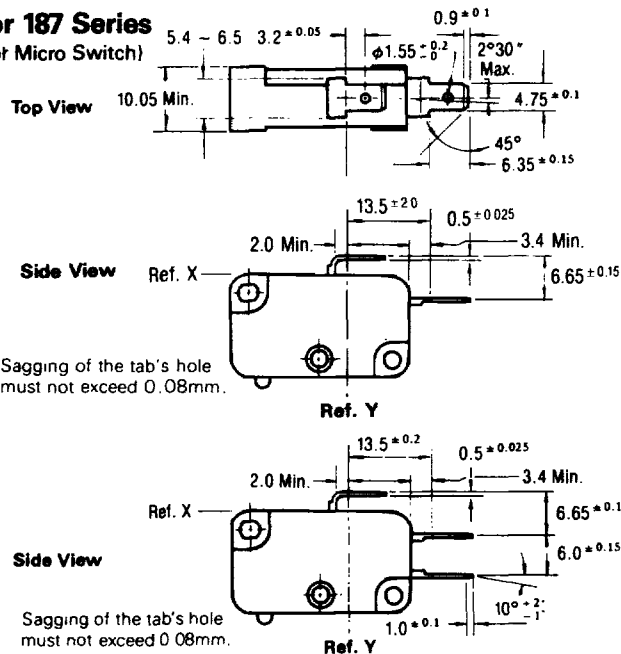
For 2 Circuits (With Polarized Guide)



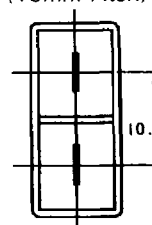
For 4 Circuits (Timer)



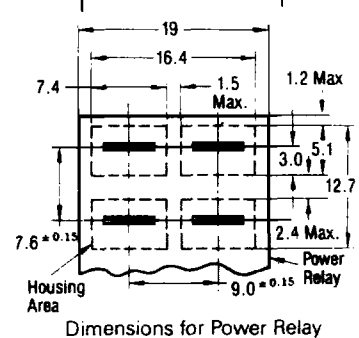
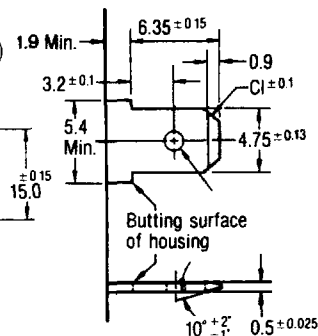
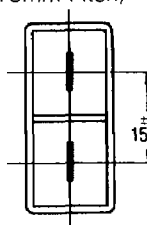
For 187 Series (For Micro Switch)



For 2 Circuits (10mm Pitch)



(15mm Pitch)



Terminals and Splices AMT POSITIVE LOCK Connectors(Mark II) / Commercial Type 250 Series

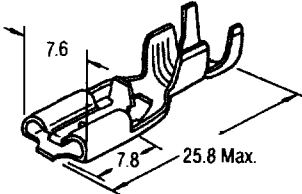
Straight-type

Receptacle Terminals

Applicable Tab Width:

6.35mm

Material: Pre-tin Brass



Receptacle Housings

Applicable contact

Part No.:170327

170328

170329

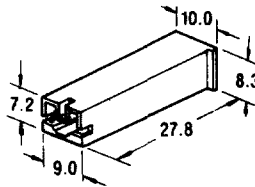
Wire Range		Insulation Diameter	Part No.		Part No. of Hand Tool
AWG#	mm ²		S.T.	L.P.	
22-18	0.31 ~ 0.89	1.5 ~ 3.1	170327 -1	170333 -1	755435 -1
18-10	0.76 ~ 2.09	2.2 ~ 3.4	170328 -1	170334 -1	755436 -1
14-10	1.75 ~ 5.4	3.0 ~ 5.1	170329 -1	170335 -1	See Note

*Air-feed Applicator should be used.

Note: P / N 911775-1= #14(One), #20+{#16(Two), #20 X 2 +{#16(Three)

P / N 911776-1= #12 or #10(One)

Extraction Tool Part No.:724859-2(IS-106J)



For 1 Circuit

Material:94V-2 rated,

66 Nylon

Part No.:172076-1(Natural)

172076-2(Black)

172076-4(Yellow)

172076-5(Green)

172076-6(Blue)

172076-7(Red)

Material: UL94V-0 rated,

66 Nylon

Part No.:2-172076-1(Natural)

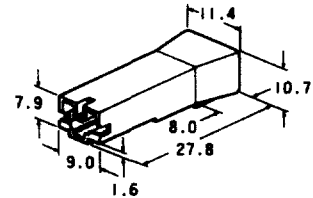
2-172076-2(Black)

2-172076-4(Yellow)

2-172076-5(Green)

2-172076-6(Blue)

2-172076-7(Red)



For 1 Circuit

Material:94V-0 rated,

66 Nylon

Part No.:177627-1(Natural)

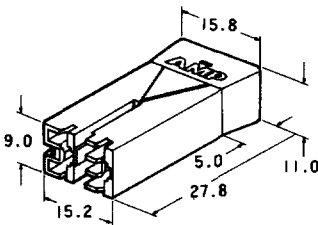
177627-4(Yellow)

177627-5(Green)

177627-6(Blue)

177627-7(Red)

177627-9(Black)



For 2 Circuit

Material: UL94V-0 rated,

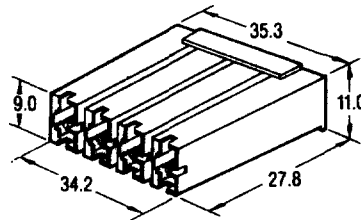
66Nylon

Part No.:178833-1(Natural)

178833-4(Yellow)

178833-6(Blue)

178833-7(Red)



For 4 Circuit

Material: UL94V-2 rated,

66 Nylon

Part No.:174429-1(Natural)

Flag Style

Receptacle Connectors

Product Specifications:

108-5162

Application Specifications:

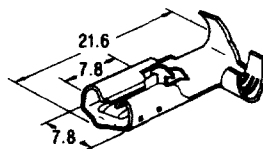
114-5070

Instruction Sheet :

IS-212J

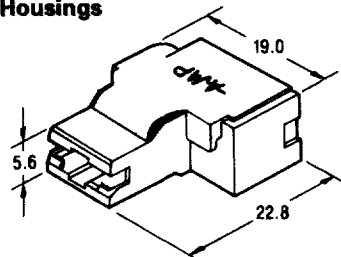
Terminals

Material: Pre-tin brass



Wire Range		Insulation Diameter	Part No.		Part No. of Hand Tool
AWG#	mm ²		S.T.	L.P.	
22-18	0.30 ~ 0.89	1.5 ~ 3.1	172761 -1	172762 -1	753814 -1
18-14	0.75 ~ 2.27	2.8 ~ 5.2	172763 -1	172764 -1	753780 -1
14-10	2.00 ~ 3.37		172765 -1	172766 -1	753815 -1

Housings



For 1 Circuit

Material:UL94V-2 rated,

66 Nylon

Part No.:172469-1(Natural)

172469-2(Blue)

172469-3(Yellow)

172469-4(Green)

172469-7(Red)

Material:UL94V-0 rated, 66 Nylon

Part No.:1-172469-1(Natural)

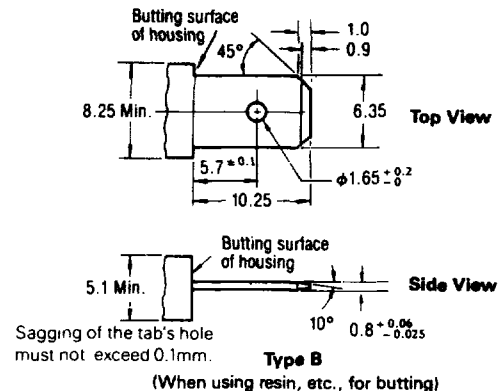
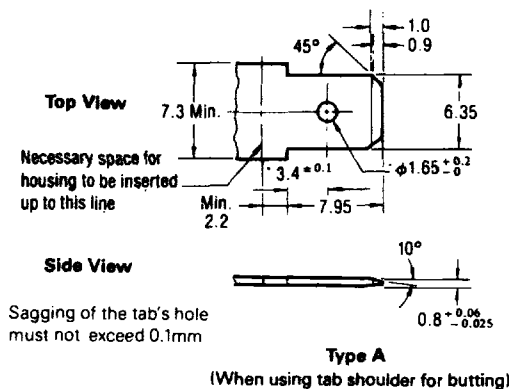
1-172469-2(Blue)

1-172469-3(Yellow)

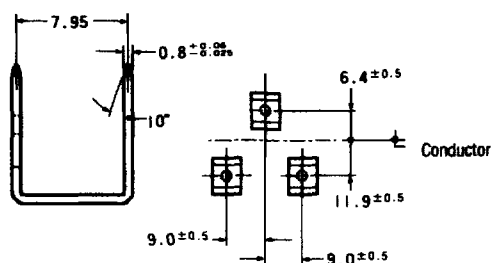
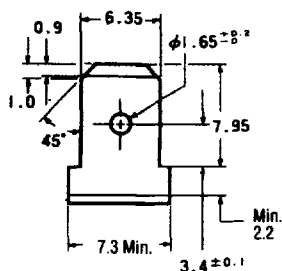
Terminals and Splices

AMT POSITIVE LOCK Connectors (Mark II) / Commercial Type 250 Series, Mating Tab Dimension and Triac Connectors

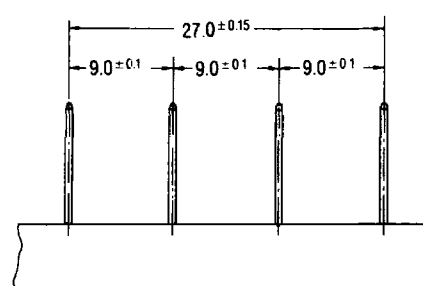
Mating Tab Dimension for 250 Series



For 2 Circuits

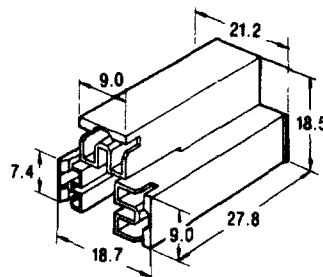


For 4 Circuits



Triac Connector Housings Applicable Terminals Part No.:

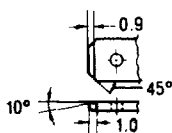
187 Series—One
250 Series—Two



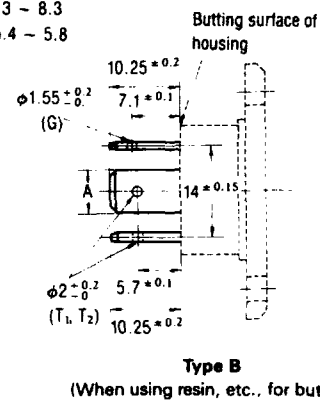
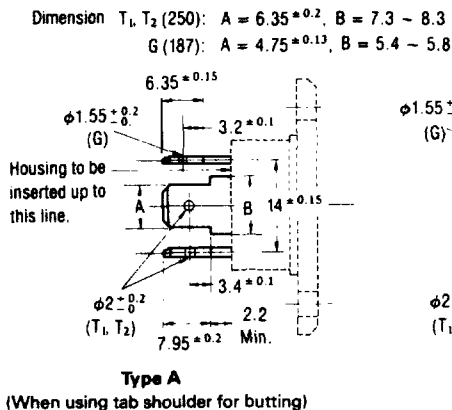
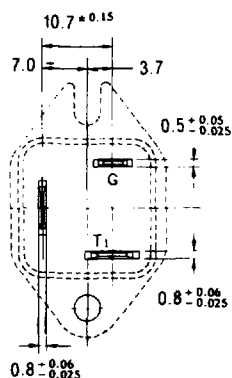
For 3 Circuit
Material: 94V-2 rated,
66 Nylon
Part No.: 172410-1 (Natural)

Material: 94V-0 rated,
66 Nylon
Part No.: 2-172410-1 (Natural)
2-172410-4 (Yellow)

Mating Tab Dimension for Triac Connector



Sagging of the tab's hole must not exceed 0.08mm for G tab (187 series)
0.1mm for T₁ & T₂ tab (250 series)



Terminals and Splices

AMP POSITIVE LOCK Connectors (Mark II)

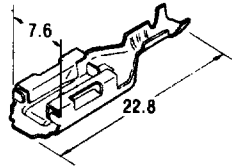
Heavy-duty Type

250 Series Receptacle Terminals

Acceptable Tab Width:
6.35mm

Material: Brass

Material: Brass



Wire Range		Insulation Diameter	Finish	Part Nos. of Rec. Terminal		Part Nos. of Hand Tool
AWG	mm ²			S.T.	L.P.	
22-20	0.3~0.56	1.5~2.4	None	170452-1	170453-1	752872-1
			Pre-tin	170452-2	170453-2	
18-14	0.75~2.27	2.2~3.4	None	170454-1	170455-1	752873-1
			Pre-tin	170454-2	170455-2	
12-10	3.08~5.27	3.6~5.0	None	170456-1	170457-1	752874-1
			Pre-tin	170456-2	—	

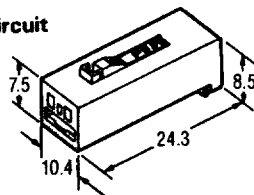
Extraction Tool Part No.: 724659-2

Application Spec.: 114-5060/Product Spec.: 108-5150/Instruction Sheet: CM-154J

250 Series Receptacle Housings

Material: 94V-2 rated, 66 Nylon

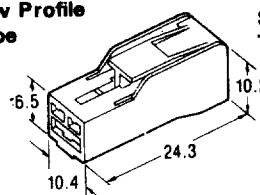
1 Circuit



Material: 94V-2 rated,
66 Nylon

Part No.: **174090-1**(Natural)
174090-2(Black)

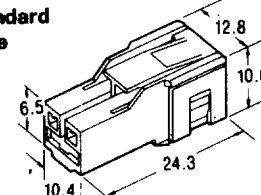
Low Profile Type



Material: 66 Nylon

Part No.: **172320-1**(Natural)
172320-2(Black)

Standard Type

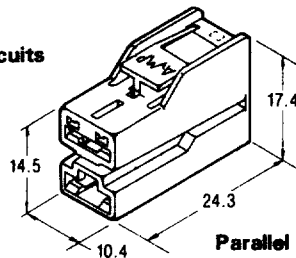


Material: 94V-2 rated,
66 Nylon

Part No.: **172863-2**(Black)

Double Lock Type

2 Circuits

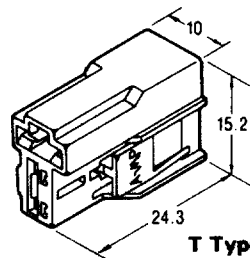


Material: 94V-2 rated,
66 Nylon

Part No.: **172433-1**(Natural)
172433-2(Black)

* Uses FASTON Receptacle terminal
P/N 170032 in circuit # II

Parallel Type

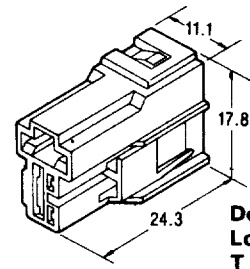


Material: 94V-0 rated,
66 Nylon

Part No.: **172434-1**(Natural)
172434-2(Black)

* Uses FASTON Receptacle terminal
P/N 170032 in circuit # I

T Type



Material: 94V-0 rated,
66 Nylon

Part No.: **172864-2**(Black)

* Uses FASTON Receptacle terminal
P/N 170032 in circuit # I

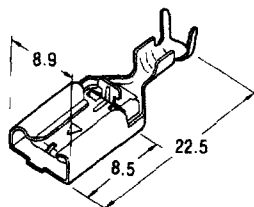
Double Lock T Type

Terminals and Splices **AMP POSITIVE LOCK Connectors (Mark II)** **Heavy-duty Type**

312 Series Connectors **for Sealed Beam**

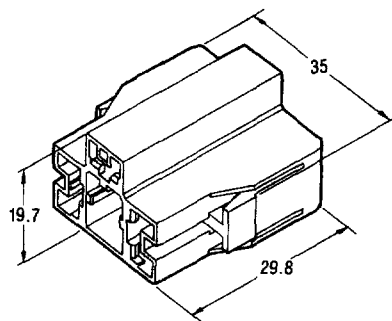
Product Specifications: 108-5131
 Instruction Sheet: CM-120J

Straight Type **Receptacle Terminal**



Acceptable Tab Width: 7.92mm
Wire Range: 0.5~2.0mm²
Insulation Diameter:
 2.2~3.4mm
Material: Tin plated brass
Part No.: 170381-1 (S.T.)
Application Spec.: 114-5047
Extraction Tool Part No.:
 724719-1 (IS-119J)

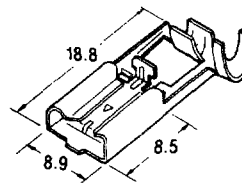
Receptacle Housing (for 3 Circuits)



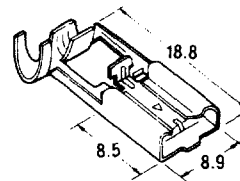
Part No.: 172236-1 (Natural)
 172236-2 (Black)
 172236-3 (Brown)
 172236-5 (Blue)
Applicable Terminal Part No.: 170381-1 (Three)

Flag Type **Receptacle Terminal**

Acceptable Tab Width: 7.92mm
Wire Range: 0.5~2.0mm²
Insulation Diameter:
 2.2~3.4mm (Standard Wire)
 1.3~1.8mm (Thin Wire)
Material: Tin plated brass
Application spec.: 114-5079 (For standard wire)
 114-5164 (For thin wire)
Extraction Tool Part No.: 724719-1 (IS-119J)

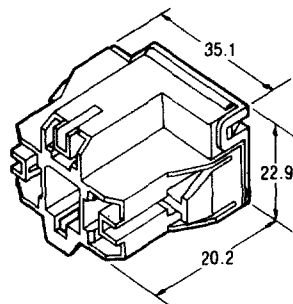


Flag Type (L)
Terminal Part No.: 172795-1
 (for standard wire / S.T.)
Terminal Part No.: 175278-1
 (for thin wire / S.T.)
Insulation Diameter: 1.3~1.8mm



Flag Type (R)
Terminal Part No.: 172796-1
 (for standard wire / S.T.)
Terminal Part No.: 175277-1
 (for thin wire / S.T.)
Insulation Diameter: 1.3~1.8mm

Receptacle Housing (for 3 Circuits)



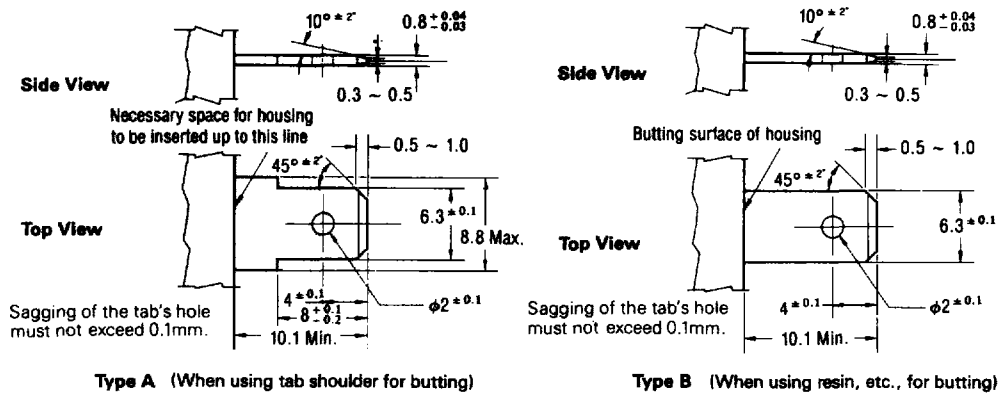
Material: 66 Nylon
Part No.: 172615-2 (Black)
 172615-3 (Brown)
 172615-4 (Green)
 172615-5 (Blue)
Applicable Terminal Part No.: 172795-1 or 175278-1 (Two) &
 172796-1 or 175277 (One)

Terminals and Splices

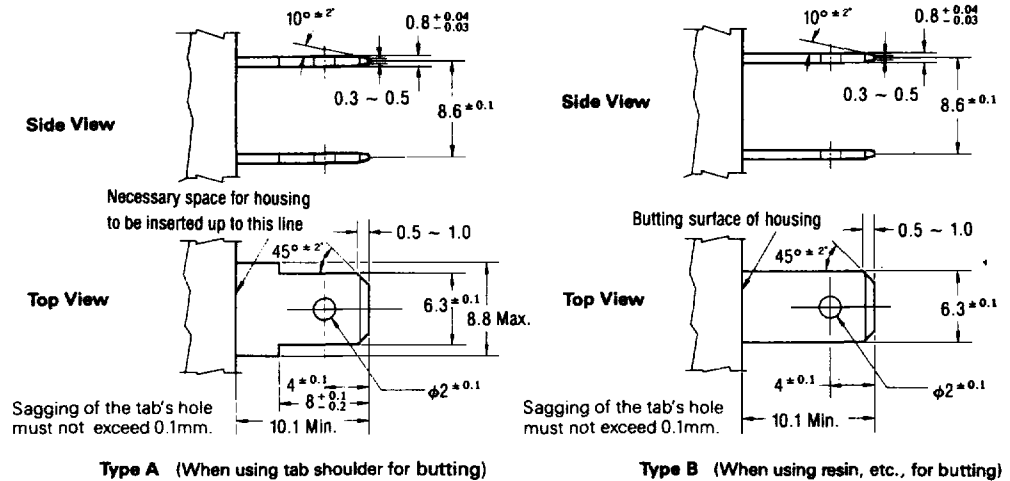
AMP POSITIVE LOCK Connectors (Mark II)

Mating Tab Dimension of Heavy-duty Type

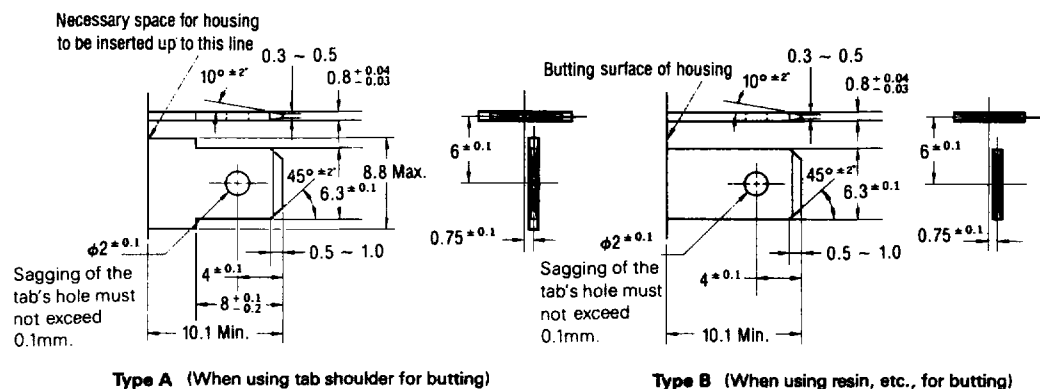
250 Series (for 1 Circuit)



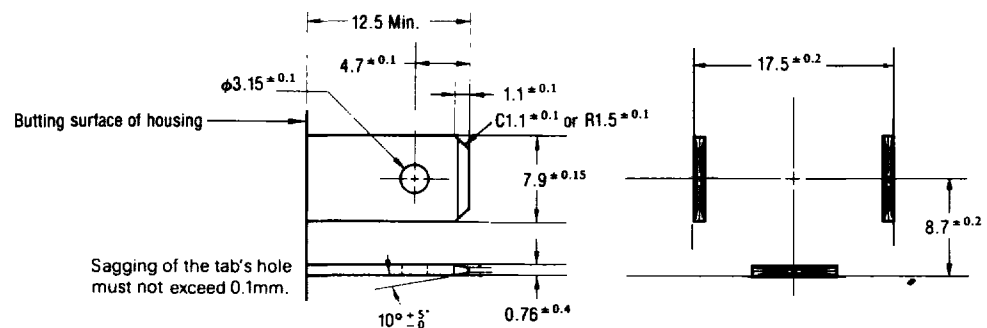
250 Series Parallel Type (for 2 Circuits)



250 Series T Type (for 2 Circuits)



For Sealed Beam (for 3 Circuits)



Terminals and Splices AMP POSITIVE LOCK* EX Series Receptacles

Features

- Low insertion force
(about half that of the FASTON receptacle)
- Low withdrawal force
- Compact design for spacesaving
- Can prevent half-mating
- Applicable to tabs of various specifications
- Designed and constructed in the way that when used bare, the terminal will not be entangled with the wire.
- 187 and 250 Series depending on the width of the mating tab. Straight type and flag type and available with each series.
- Can be crimped, two at a time, by the high-speed, fully automatic AMPOMATOR* machine.

Product Specifications:

- <187 Series / Straight Type >
108-5236
108-5257(for heat resistant)
- <187 Series / Flag Type >
108-5250
- <250 Series / Straight Type >
108-5251
108-5322(for heat resistant)
- <250 Series / Flag Type >
108-5254

Application Specifications:

- <187 Series / Straight Type >
114-5114
114-5125(for heat resistant)
- <187 Series / Flag Type >
114-5118
- <250 Series / Straight Type >
114-5119
114-5146(for heat resistant)
- <250 Series / Flag Type >
114-5122

Instruction Sheet : IS-391J

These receptacle terminals have been developed as an extension of the Low Insertion



Force AMP Positive Lock product line which has proven performance in tab / receptacle connections.

Compact in design, they are effective in saving space for installation. Like the popular AMP FASTON*receptacle terminals, this product is used without a housing. It is provided with an insulating sleeve which, acting as a housing, is assembled to the terminal after it has been crimped.

Also, there is a heatresistant terminal that can be used in environments of up to 300°C as a bare terminal. Accordingly, it can be used with tabs having the standard FASTON tab specification. It has a built-in lever for locking and releasing the tab, the height of which is designed to be not higher than the height of the curved portion of the receptacle where the mating tab is mated. Therefore, although not using a housing, there is no danger of the terminal being deformed during installation. The receptacle mates with the tab with its protrusion firmly

locking into the tab's hole. When mated, there is a clear click sound confirming the mated condition. Thus, there is no possibility of half-mating between the receptacle and the tab. To pull out the tab, push down the locking lever of the receptacle. The receptacle's protrusion locked into the tab's hole is released and the tab can be withdrawn easily with a little force. The following types are available with the receptacle and the insulation sleeve, depending on the width of the mating tab :

- 187 Series
Straight Type / Flag Type
 - 250 Series
Straight Type / Flag Type
- A new 250 Series EX II Connector has been developed that is used loaded in a housing after wire termination. Receptacles of this connector have tips that protrude from the housing, which facilitate confirmation of mating with tabs in narrow space. This EX II connector can also be used with bare terminals. Mating and unmating of tabs

can be done easily and without fail like other EX Series.

Performance Data

<187 Series>

Current rating: (AWG)
#26=2.0A / #24=2.5A
#22=3.0A / #20=5.0A
#18=7.0A / #16=12A
#14=15A

Voltage rating: 250V AC

Low level overall termination resistance:

3mΩ max. (Initial)
6mΩ max. (Final)

Operating temperature :
- 40 ~ + 200°C

Terminal locking force:
6kg min.

<250 Series>

Current rating: (AWG)
#22=3.0A / #20=5.0A
#18=7.0A / #16=12A
#14=15A / #12=20A
#10=25A

Voltage rating: 250V AC

Low level overall termination resistance:

3mΩ max. (Initial)
6mΩ max. (Final)

Operating temperature :
- 40 ~ + 300°C

Terminal locking force:
8kg min.

Terminals and Splices

AMP POSITIVE LOCK EX Series Receptacles

187 Series (Straight Type and Flag Type)

Straight Type

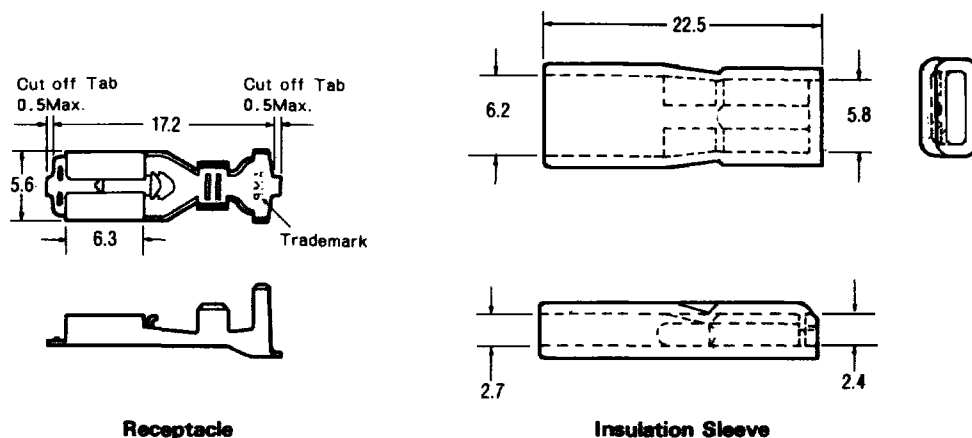
Material and Finish:

Receptacle—Pretin brass,
0.3mm thickness,
stainless steel for heat resistant

Sleeve—Soft PVC

UL94V-2 rated(Blue)

UL94V-0 rated(Yellow)



Wire Range AWG	Wire Ins. mm ²	Wire Ins. Dia.	Part Number of Receptacle		Part Number of Sleeve	Part Number of Hand Tool
			Strip Form	Loose Piece		
26-22	0.14~0.53	1.3~3.6	173722-1	173723-1	174737-1 (Blue)	911587-1
20-14	0.50~2.20	1.9~4.4	173724-1	173725-1	174737-2 (Yellow)	911588-1
For heat-resistant						
26-20	0.14~0.53	1.3~3.6	175032-1	—	—	—
20-14	0.50~2.20	1.9~4.4	175034-1	—	—	—

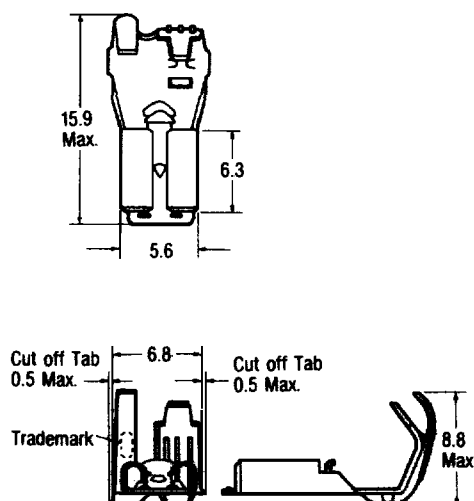
* Operating Temperature Range: -40 ~ +200°C (ambient temperature + temperature rise by current carrying)
Sleeve housing not used.

** Mating tab is made of stainless steel.

Flag Type Receptacle Contact

Material and Finish:

Receptacle—Pretin brass,
0.3mm thickness



Wire Range AWG	Wire Ins. mm ²	Wire Ins. Dia.	Part Number of Receptacle (Strip Form)
22-16	0.30~1.42	1.7~4.32	175019-1

Terminals and Splices

AMP POSITIVE LOCK EX Series Receptacles

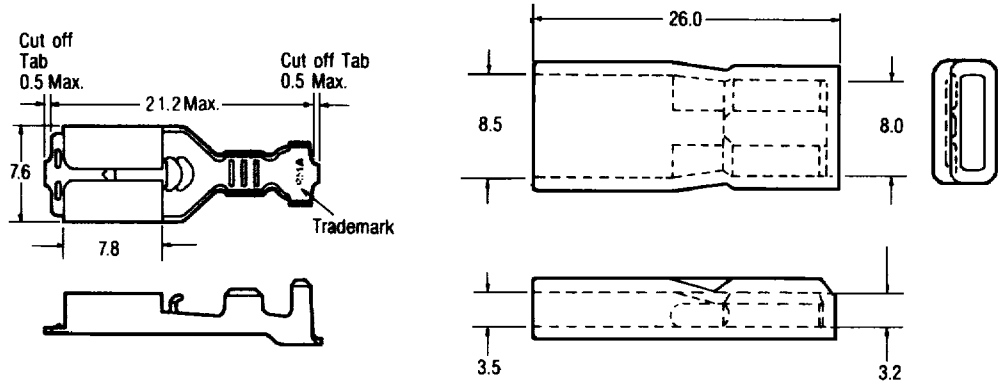
250 Series (Straight Type and Flag Type)

Straight Type

Material and Finish:

Receptacle—Pretin brass,
0.41mm thickness,
stainless steel for heat resistant

Sleeve—Soft PVC
UL94V-2 rated (Blue)
UL94V-0 rated (Yellow)



Receptacle

Insulation Sleeve

Wire Range		Wire Ins. Dia.	Part Number of Receptacle		Part Number of Sleeve	Part Number of Hand Tool
AWG	mm ²		Strip Form	Loose Piece		
22-18	0.31~0.89	1.5~3.1	175020-1	175021-1	174817-1 (Blue)	911589-1
18-14	0.75~2.09	2.2~3.4	175022-1	175023-1		911590-1
15-10	1.75~5.40	3.0~5.1	175024-1	—	174817-2 (Yellow)	—

For heat resistant*

18-14	0.76~2.09	2.2~3.4	175164-1	—	—	—
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* Operating Temperature Range: -40~+300°C (ambient temperature + temperature rise by current carrying)
Sleeve housing not used.

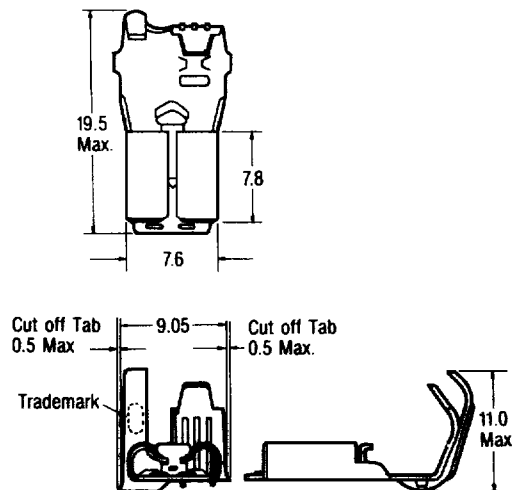
** Mating tab is made of stainless steel.

Flag Type

Receptacle Contact

Material and Finish:

Receptacle—Pretin brass,
0.41mm thickness



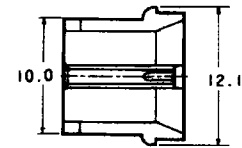
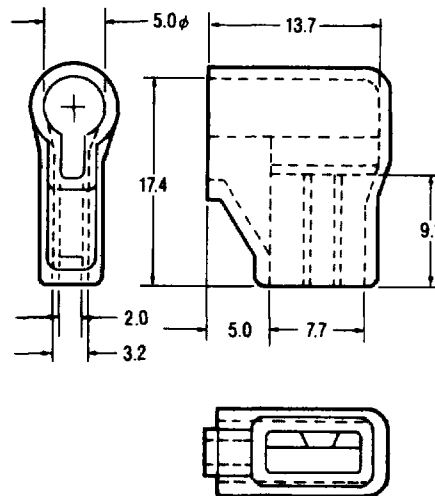
Wire Range		Wire Ins. Dia	Part Number of Receptacle (Strip Form)
AWG	mm ²		
18-12	0.75~3.37	2.8~5.3	175057-1
12-10	3.09~5.37	2.6~6.6	175178-1

Terminals and Splices **AMP POSITIVE LOCK EX Series Receptacles** **250 Series (Flag Type) and Mating Tab Dimension**

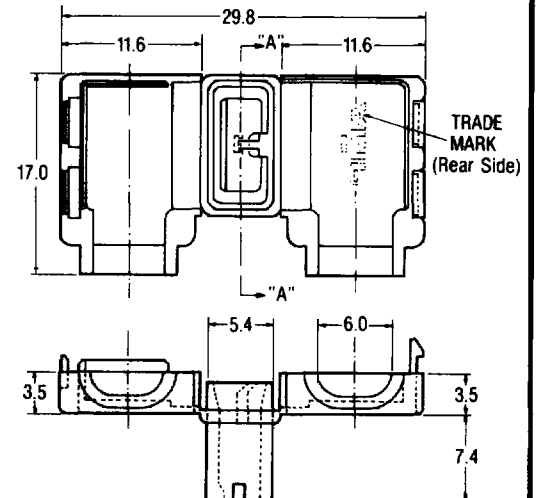
Flag Type Sleeve

Applicable Contact
Part No.: 175057-1

Insulation Sleeve



Section A-A

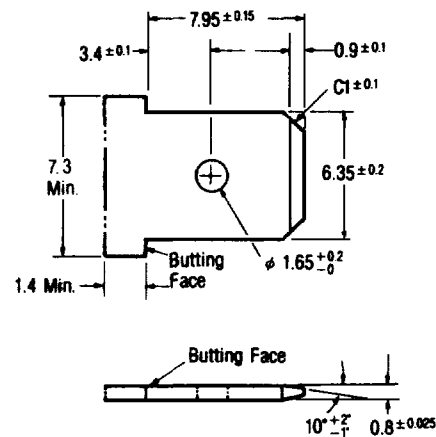


Sleeve Type

One Touch Sleeve

Type	Wire Ins. Dia.	Material (Color)	Part Number of Sleeve
Sleeve	2.8 ~ 5.3	Soft PVC, UL94V-2 rated (Blue)	174987-1
		Soft PVC, UL94V-0 rated (Yellow)	174987-2
One Touch Sleeve	2.8 ~ 4.2	6/6 Nylon, UL94V-2 rated (Natural)	176497-1
		6/6 Nylon, UL94V-0 rated (Natural)	1-176497-1

Mating Tab Dimension



Terminals and Splices AMP POSITIVE LOCK EX Series Receptacles 250 Series (Straight-type)

Terminals

Material & Finish :

Tin-plated brass

Product Specification :

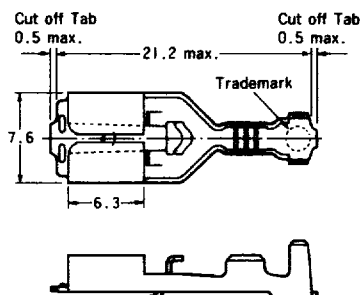
108-5437

Application Specification :

144-5195

Instruction Sheet :

411-5691



Wire Range		Wire Ins. Dia.	Part Number		Part Number of Hand Tool	Part Number of Applicators	
AWG#	mm ²		Strip	Loose Piece		Desk Top Type	For AL-15/40
22-18	0.31~ 0.89	1.5 ~ 3.1	179973-1	179988-1	234618-1	715803-2	715882-1
18-14	0.76~ 2.09	2.2 ~ 3.34	179974-1	179989-1	234619-1	715760-2	715881-1
15-10	1.75~ 5.4	3.0 ~ 4.3	179975-1	—	—	715802-2	715880-1

Housing (1-position)

Material: 94V-0 rated,
nylon

Part Number :

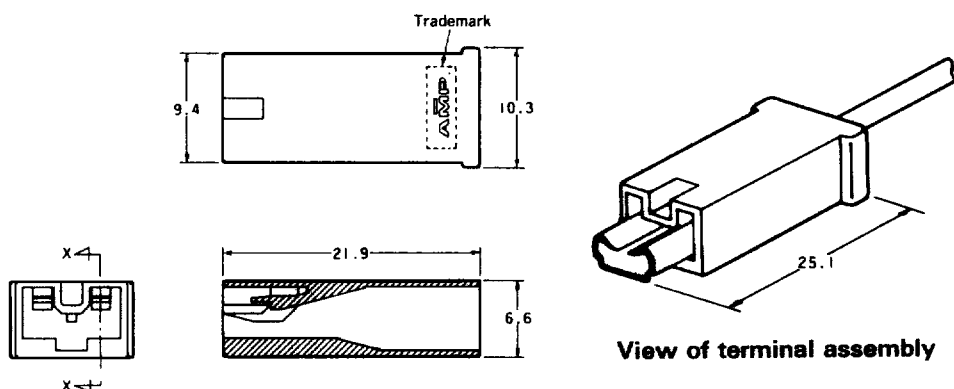
179970-1(natural)

179970-2(red)

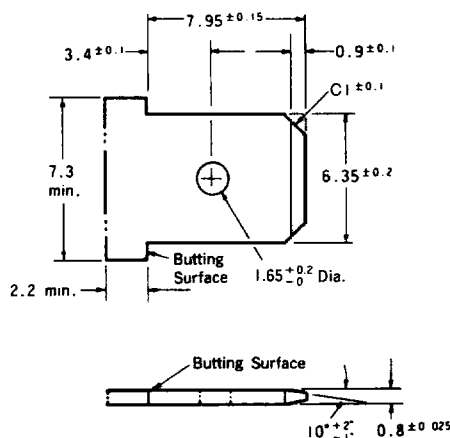
179970-4(yellow)

179970-6(blue)

179970-9(black)



Applicable Tab Dimetnion



This EX Series connectors can be used for many applications. For details, contact our Sales Department.