

**Wire to Board Connectors  
AMP 040 Series MULTILOCK\* Connectors (Mark II)**

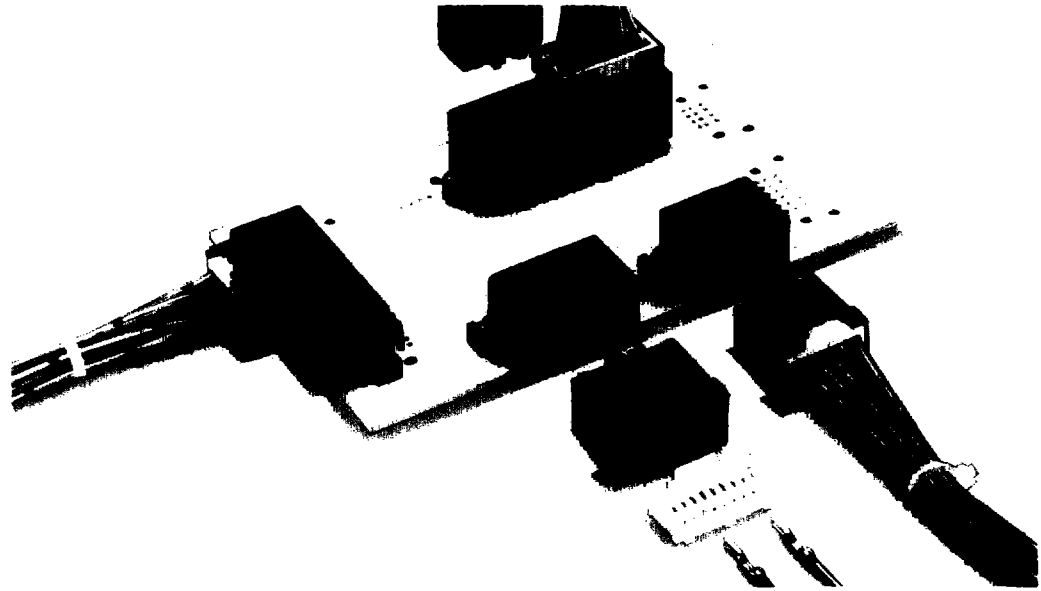
**Features**

- Small yet durable wire-to board connectors.
- 35% smaller in volume ratio than conventional connectors of similar design.
- High-density wiring connectors with contacts on 2.5mm centerline.
- Adopt housing lance design; no contact lance and no tangling of contacts with one another.
- Easy to handle.
- Consist of plug housing, receptacle contacts and board-mount cap housing (vertical mounting or horizontal mounting).
- Receptacle contacts for wire termination has a spring encased in a box-shaped enclosure for protection against damage from outside.
- Plug housing is loaded with a two-piece double-lock plate to ensure the loading of contacts. With detecting functions for contact loading, the plate is capable of preventing contacts from being loaded halfway.
- Board-mount cap housing assembly is available in two styles; vertical mounting and horizontal mounting. Both preloaded with posted tab contacts.

**Product specification:**  
108-5281

**Application specification:**  
114-5094

**Instruction sheet:**  
CM-475J



AMP 040 Series MULTILOCK Connectors (Mark II) are small yet durable and easy-to-handle wire-to-board connectors. The plug housing for wire termination has an integral two-piece type double-lock plate, which, having detecting functions on contact loading, prevents contacts from being loaded halfway and provides post-loading connector stability. As with the standard type, these connectors are of housing lance design and consequently, there is no possibility of contacts becoming tangled with one another.

The connector consists of the following components:

- Plug housing (for wire termination):  
8, 12, 16 and 20 positions
- Cap housing assembly (mounted on board vertically):  
36 positions
- Cap housing assembly (mounted on board horizontally):  
8, 12, 16, 20, 28 and 36 positions

- Receptacle contacts (for plug housing)  
The receptacle contacts are identical with those used on the standard type connector, having many outstanding features. The plug housing has a built-in double-lock plate. When assembling, insert wire-crimped contacts into all positions through the housing fully by depressing the top and bottom of the housing. Contacts are now locked into the housing, completing the connector assembly which resists

scoping of contacts at mating/unmating and provides durability and reliability.

**Performance Data**

**Low level resistance and overall resistance:**

10mΩ (initial)  
20mΩ (final)

**Insulation resistance:**  
100MΩ 500V DC

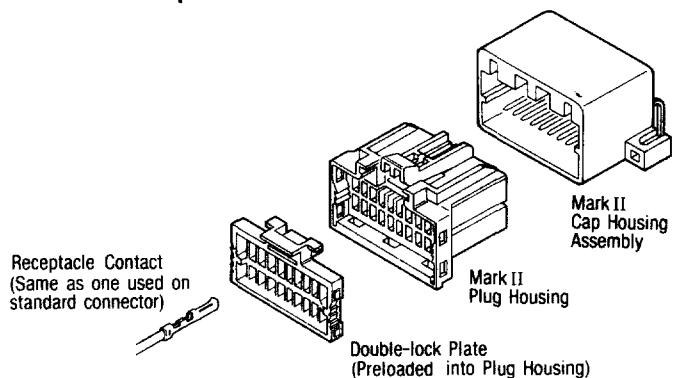
**Dielectric withstanding voltage:**

1000V AC/one minute

**Contact retention:**  
10kg min.

**Operating temperature:**  
-30~+105°C

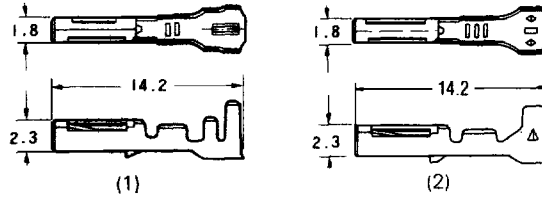
**Connector Components:**



## Wire to Board Connectors AMP 040 Series MULTILOCK Connectors (Mark II)

### Receptacle Contacts (For Plug Housing)

**Material and Finish:**  
KLF-5, Pretinned or selective gold plated

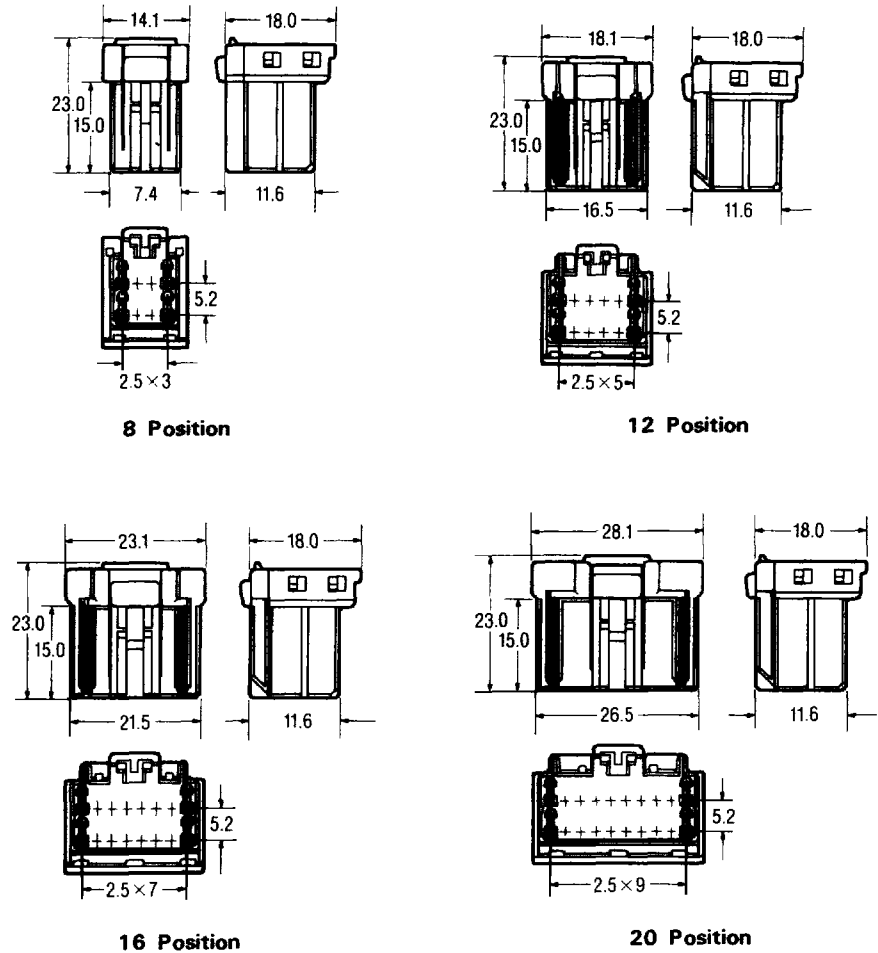


Wire Range		Wire Ins. Diameter	Finish	Part No. of Receptacle Contact		Hand Tool No.	Crimp specifications
AWG	mm <sup>2</sup>			Strip Form	Loose Piece		
24-20	0.2-0.56	(1) 1.1-1.4	Pretinned	<b>175180-1</b>	—	—	114-5162
			Sel. gold	<b>175180-2</b>	—		
		(2) 1.4-2.0	Pretinned	<b>173681-1</b>	<b>175062-1</b>	911738-1 (IS-417J)	114-5094
			Sel. gold	<b>173681-2</b>	<b>175062-2</b>		

Extraction Tool No. 755430-1 (IS-288J)

### Plug Housings

**Material:** P. B. T.  
(See table for color)

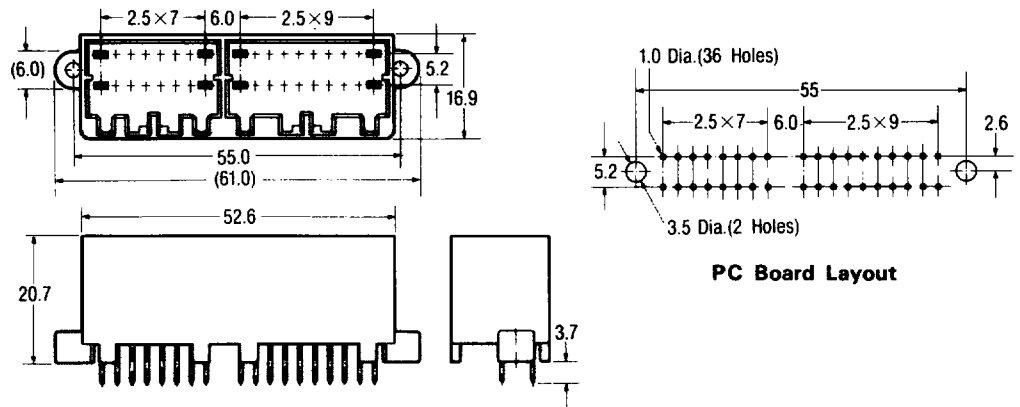


No. of Pos.	Housing Color	Plug Housing Part No.
8	Black	<b>175964-2</b>
12	Black	<b>175965-2</b>
16	Black	<b>175966-2</b>
20	Black	<b>175967-2</b>

**Wire to Board Connectors**  
**AMP 040 Series MULTILOCK Connectors (Mark II)**  
**PC Board Applications**

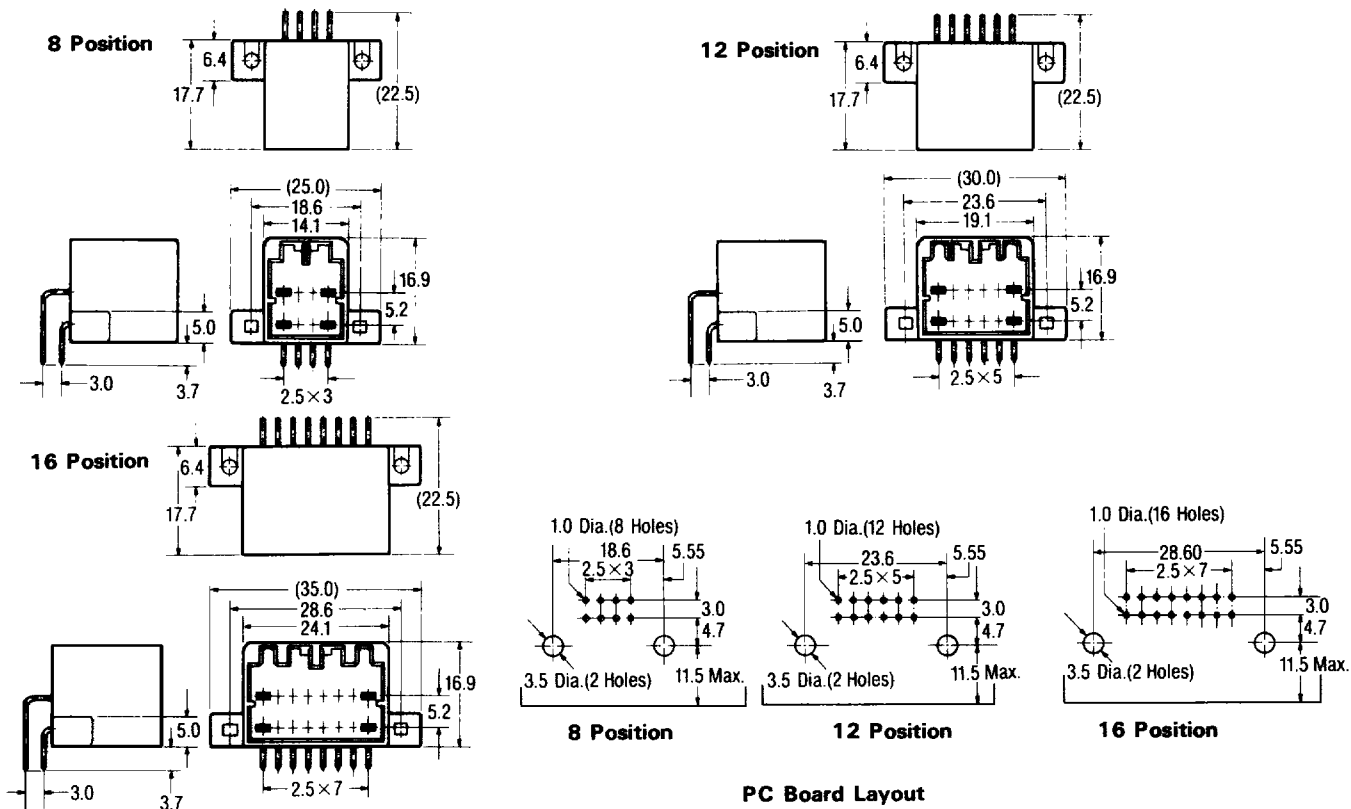
**Cap Housing Assemblies (36 pos.)/  
 Vertical Mount Type**

**Material and Finish:**  
 Housing—P. B. T.  
 (See table for color)  
 Contact—Brass, Pretinned



No. of Pos.	Housing Color	Cap Housing Assembly Part No.	Mating Plug Housing No. of Pos.
36	Black	175977-2	16, 20

**Cap Housing Assemblies/Horizontal Mount Type**



**Material and Finish:**  
 Housing—P. B. T.  
 Contact—Brass, pretinned  
 or selective gold plated  
 (See table)

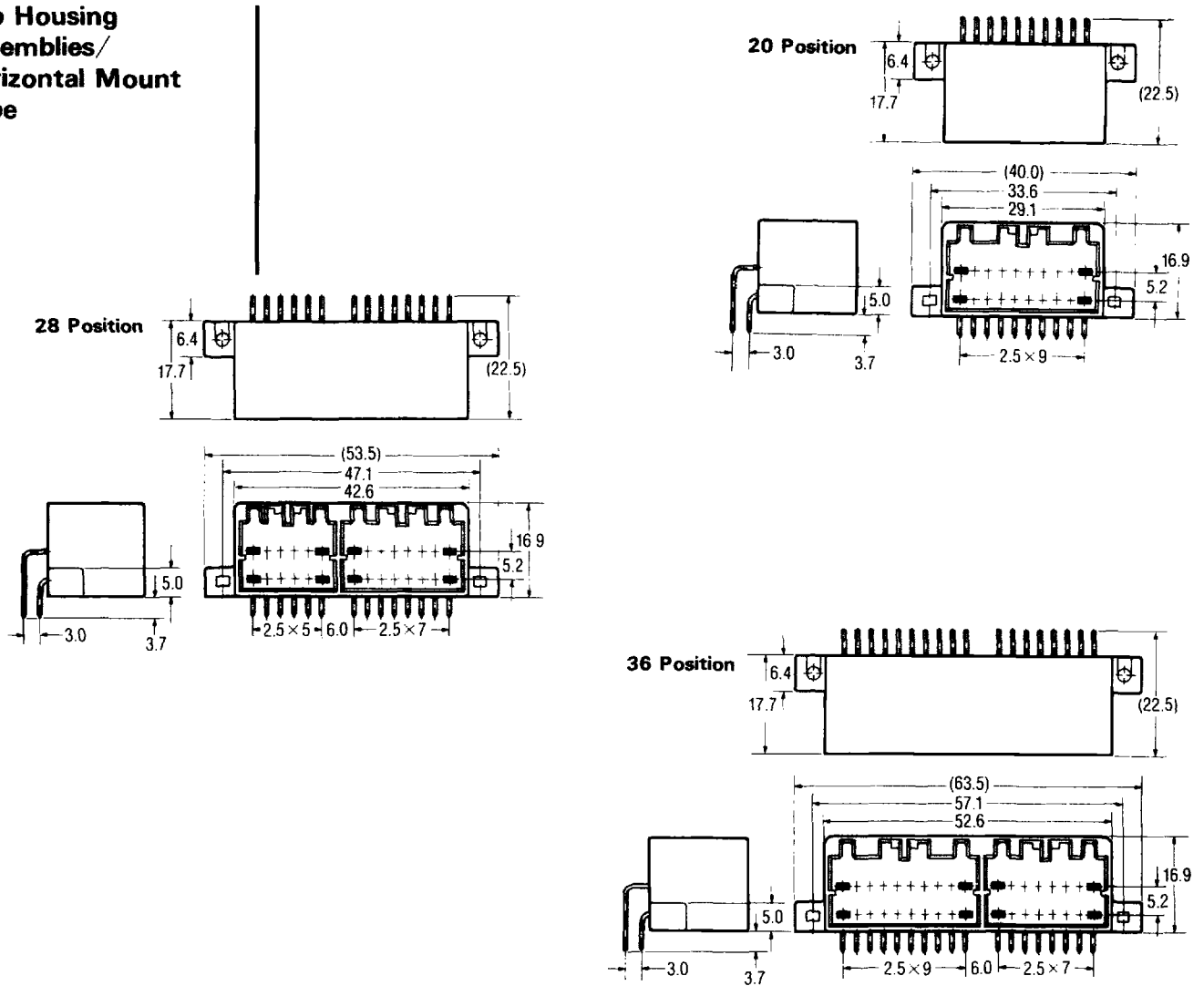
Note: Figure in □ before or after Part Number varies depending on material and color. For details, consult our Sales Department.

No. of Pos.	Cap Housing Assembly Part No.	Mating Plug Housing No. of Pos.
8	□-175973-2	8
12	□-175974-2	12
16	□-175615-2	16

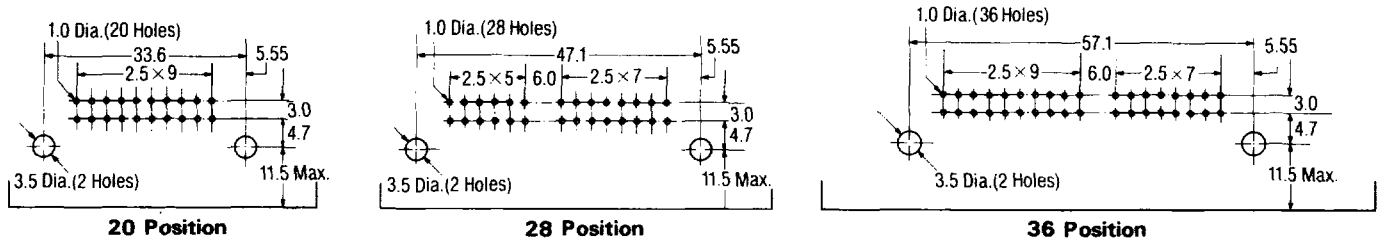


## Wire to Board Connectors AMP 040 Series MULTILOCK Connectors (Mark II) PC Board Applications

### Cap Housing Assemblies/ Horizontal Mount Type



### PC Board Layout



**Material and Finish:**  
Housing—P. B. T.

Note: Figure in □ before or after Part Number varies depending on material and color. For details, consult our Sales Department.

No. of Pos.	Cap Housing Assembly Part No.	Mating Plug Housing No. of Pos.
20	□-175975-2	20
28	□-175976-2	12, 16
36	□-174912-2	16, 20