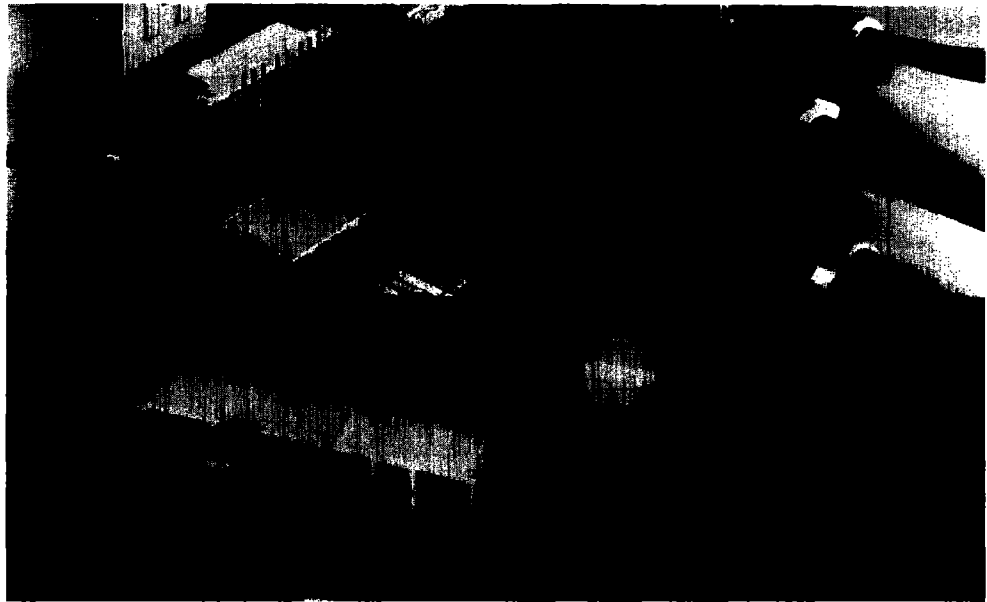


070 Series

METRIC

Product Facts

- Small yet durable wire-to-wire and wire-to-board connectors
- Housing lance design
- Contacts have no lance to tangle with one another, making handling easier
- Consist of plug and cap connectors for wire termination and cap housing assembly for horizontal and vertical mounting on the printed circuit board
- Receptacle contact has a leaf with contacting points protected by a box-shaped shroud; highly resistant to damage from outside
- Both plug and cap housings have an integral double-lock mechanism, on the wire side
- Board-mount cap housing assembly available in two types: vertical mount and horizontal mount, preloaded with posted tab contacts
- Mark II plug connector is also available which has a double-lock plate assembled into the body
- Hybrid type connector (wire-to-wire) is also available with signal and power circuits mixed within one housing



AMP 070 Series MULTILOCK Connectors are a miniaturized high-density wire-to-wire and wire-to-board connector.

The connectors consist of a plug housing with receptacle contacts and a cap housing with tab contacts for wire termination, and a cap housing assembly which can be mounted onto the printed circuit board either vertically or horizontally.

The plug and cap connectors for wire termination are of housing lance design. The receptacle and tab contacts used in these connectors have no lance and therefore there is no possibility of contact lances tangling with one another or of contact lances being deformed.

Contacts are of crimp, snap-in type. The receptacle contact has a leaf with contacting points protected by a box-shaped shroud. It is strong and highly resistant to damage from outside.

Both the plug and cap housings have an integral double-lock mechanism for positive contact loading. Despite their small size, the housings are durable and dependable, and prevent contacts from being damaged by rocking at mating/unmating.

For the plug housing, there is a MARK II version which has a two-piece type double-lock plate embedded into the body.

This Mark II plug housing uses the same receptacle contacts, and same mating cap housing, as the conventional standard plug housing.

The cap housing assembly for board mounting is available in two types, vertical mount and horizontal mount. To this 070 Series MULTILOCK Connectors a hybrid type wire-to-wire connector containing a mixture of signal circuits (070 Series) and power circuits in one housing has now been added. Standard 070 Series contacts are used for signal circuits, while 250 Series contacts without latch are used for power circuits.

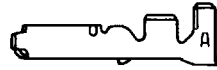
 6
Blade-Type Connectors
MULTILOCK Connectors

METRIC

070 Series

(Continued)

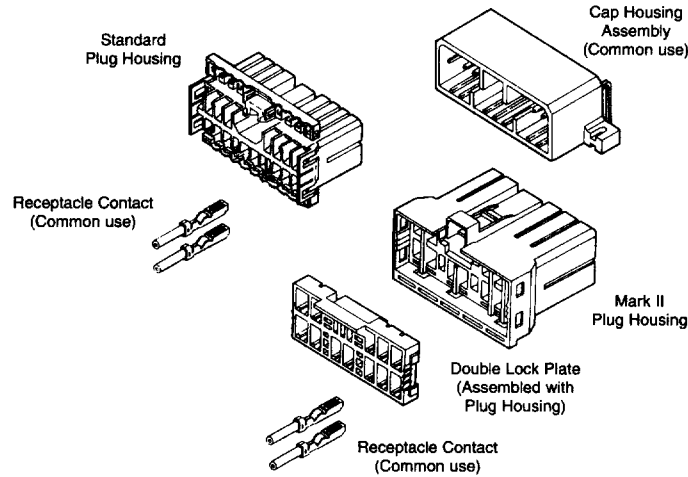
Receptacle Contacts (For Plug Housing)



Wire Range AWG	Wire Ins. mm ²	Wire Ins. Diameter	Finish	Part No. of Receptacle Contact				Hand Tool Part No.
				Strip Form		Loose Piece		
				Brass	Phos. Brz.	Brass	Phos. Brz.	
24-22	0.2-0.35	1.2-2.0 .047-.079	Pre-Tinned	173630-1 ¹	173630-6	175026-1	175026-6	911799-2
			Sel. Gold	173630-2	173630-7	175026-2	175026-7	58528-1
20-16	0.5-1.25	2.0-2.6 .079-.102	Pre-Tinned	173631-1 ¹	173631-6 ¹	175027-1	175027-6	911788-2
			Sel. Gold	173631-2	173631-7	175027-2	175027-7	58521-1

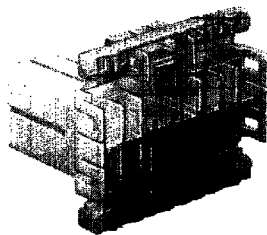
¹US produced product, available upon request.

Connector Components



6
Blade-Type Connectors
MULTILOCK Connectors

Standard Plug Housings (Wire-to-Wire)

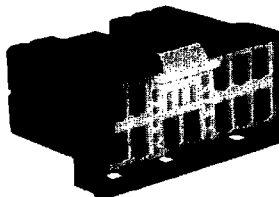


Note: 12 Pos. Housing Dim. (Typ.)—31.90 [1.26] L x 21.60 [.850] W x 25.00 [.984] H

No. of Pos.	Housing Color	Row	Plug Housing Part No.
2	White	1	174463-1
3	White	1	174921-1
4	White	1	174922-1
6	White	1	174923-1
	White	2	174468-1
8	White	2	173850-1
	Green	2	173850-4
10	White	1	174464-1
	White	2	174465-1
12	White	2	173851-1
14	White	2	173852-1
18	White	2	173853-1
20	White	2	174952-1

Note: For possible additional housing color variations, please check customer drawings.

Mark II Plug Housings (Wire-to-Wire)

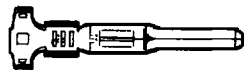


Note: 12 Pos. Housing Dim. (Typ.)—31.90 [1.26] L x 24.40 [.960] W x 16.50 [.650] H

No. of Pos.	Housing Color	Row	Plug Housing Part No.
8	Gray	2	176113-6
10	Gray	1	176115-6
		2	176114-6
12	Gray	2	176116-6
14	Gray	2	176117-6
18	Gray	2	176118-6
20	Gray	2	176119-6

Note: For possible additional housing color variations, please check customer drawing.

070 Series (Continued) Tab Contacts (For Cap Housings)



METRIC

Wire Range AWG	Wire Ins. mm ²	Wire Ins. Diameter	Finish	Part No. of Tab Contact				Hand Tool Part No.
				Strip Form		Loose Piece		
				Brass	Phos. Brz.	Brass	Phos. Brz.	
24-22	0.2-0.35	1.2-2.0 .047-.079	Pre-Tinned	173633-1	173633-2	175029-1	175029-2	911799-2
			Sel. Gold	—	173633-3	—	175029-3	
20-16	0.5-1.25	2.0-2.6 .079-.102	Pre-Tinned	173645-1	173645-2	175030-1	175030-2	911788-2
			Sel. Gold	—	173645-3	—	175030-3	

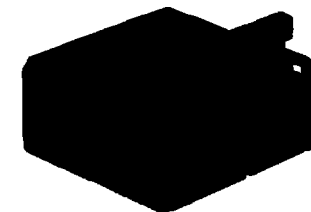
Cap Housings (Wire-to-Wire)

Note: 12 Pos. Housing Dim. (Typ.)—31.70 [1.25] L x 31.40 [1.24] W x 18.20 [.717] H

No. of Positions	Housing Color	Row	Cap Housing Part No.	
			Standard	Panel Mount
2	White	1	174460-1	1-178602-1
3	White	1	174928-1	—
4	White	1	174929-1	—
6	White	1	174930-1	—
		2	175657-1	—
8	White	2	174931-1	1-174937-1
10	White	2	174932-1	—
12	White	2	174933-1	—
14	White	2	174934-1	—
18	White	2	174935-1	—
20	White	2	174936-1	1-174938-1
30 ¹	White	2	—	1-174939-1

¹Mating Plug: 12 and 18 positions, (Split type)

Note: For possible additional housing color variations, please check customer drawing.



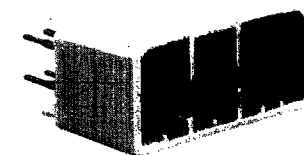
Cap Housing Assemblies Vertical Mount Type (For Pc Board Applications)

Note: 12 Pos. Housing Dim. (Typ.)—32.70 [1.29] L x 12.80 [.504] W x 23.50 [.925] H

No. of Positions	Housing Color	Row	Cap Housing Assembly Part Number
13	White	1	1-174953-1
16	White	1	1-174954-1
18	White	2	1-174955-1
12	White	2	1-174957-1
20	White	2	1-174960-1
30 ¹	White	2	1-174961-1

¹Mating Plug: 12 and 18 positions, (Split type)

Notes: 1. For possible additional plating and housing color variations, please check customer drawing.
2. Selectively loaded gold/tin caps available upon request.



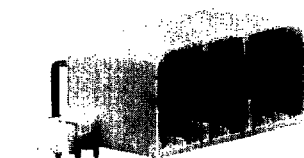
Cap Housing Assemblies Horizontal Mount Type (For Pc Board Applications)

Note: 12 Pos. Housing Dim. (Typ.)—46.30 [1.82] L x 25.50 [.984] W x 15.80 [.622] H

No. of Positions	Housing Color	Row	Cap Housing Assembly Part No.	Mating Plug Positions
3	White	1	175781-1	3
6	White	1	175783-1	6
8	Gray	2	173856-6 ¹	8
10	White	1	174467-1	10
12	White	2	173858-1 ¹	12
	White		173860-1 ¹	
14	Gray	2	173860-6 ¹	14
	White		173862-1	
18	Gray	2	173862-6 ¹	18
	White		175785-1	
20	White	2	175785-1	20
24	White	2	173864-1 ¹	10 and 14
30	White	2	173866-1	12 and 18
	Gray		173866-6 ¹	

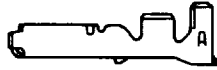
¹US produced product, available upon request.

Notes: 1. For possible additional plating and housing color variations, please check customer drawing.
2. Selectively loaded gold/tin caps available upon request.

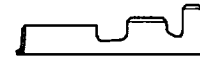
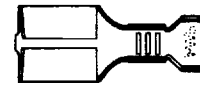


METRIC

070 Series
(Continued)
070/250 Series
Hybrid I/O
Receptacle Contact
(For Plug Housing)



070 Series

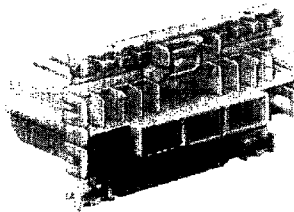


250 Series

Wire Range		Wire Ins. Diameter	Finish	Part No. of Receptacle Contact		
AWG	mm ²			070 Series (Strip Form)		250 Series (Strip Form)
				Brass	Phos. Brz.	Brass
24-22	0.2-0.35	1.2-2.0 .047-.079	Pre-Tinned	173630-1 ¹	173630-6	—
			Sel. Gold	173630-2	173630-7	—
20-16	0.5-1.25	2.0-2.6 .079-.102	Pre-Tinned	173631-1 ¹	173631-6 ¹	—
			Sel. Gold	173631-2	173631-7	—
22-20	0.3-0.5	1.5-2.2 .059-.087	—	—	—	170384-1
			Tin	—	—	170384-2
20-14	0.5-2.27	2.2-3.4 .087-.134	—	—	—	170032-2
			Tin	—	—	170032-5
14-12	2.0-3.37	2.9-3.8 .114-.150	—	—	—	170258-1
			Tin	—	—	170258-2

¹US produced product, available upon request.

Plug Housing



Note: 15 Pos. Housing Dim. (Typ.)—43.80 [1.72] L x 24.30 [.957] W x 12.40 [.488] H

No. of Positions	Housing Color	Row	Plug Housing Part No.
11	White	2	174925-1
13	White	2	174926-1
15	White	2	174927-1

Blade-Type Connectors
MULTILOCK Connectors

6

METRIC

070 Series

(Continued)

070/250 Series

Hybrid I/O

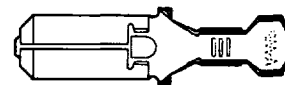
(Continued)

Tab Contact

(For Cap Housing)



070 Series



250 Series

Wire Range		Wire Ins. Diameter	Finish	Part No. of Tab Contact		
AWG	mm ²			070 Series (Strip Form)		250 Series (Strip Form)
				Brass	Phos. Brz.	Brass
24-22	0.2-0.35	1.2-2.0 .047-.079	Pre-Tinned	173633-1	173633-2	—
			Sel. Gold	—	173633-3	—
20-16	0.5-1.25	2.0-2.6 .079-.102	Pre-Tinned	173645-1	173645-2	—
			Sel. Gold	—	173645-3	—
22-20	0.3-0.5	1.5-2.2 .059-.087	—	—	—	170349-1
20-14	0.5-2.27	2.2-3.4 .087-.134	—	—	—	170340-1
			Pre-Tinned	—	—	170340-3
14-12	2.0-3.37	2.9-3.8 .114-.150	—	—	—	170341-1
			Pre-Tinned	—	—	170341-3

Cap Housings

Note: 11 Pos. Housing Dim. (Typ.)—39.60 [1.56] L x 35.50 [1.40] W x 16.60 [.654] H

No. of Positions	Housing Color	Row	Cap Housing Part No.
11	White	2	174940-1
13	White	2	174941-1
15	White	2	174942-1

Blade-Type Connectors
MULTILOCK Connectors