



# COMPONENT NEWS

PREPRODUCTION ENGINEERING

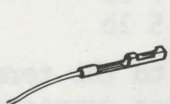
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COMPILED BY PRODUCT RELIABILITY INFORMATION NO. 102 DATE 4-8-69

## CRIMP-TO-WIRE CONNECTORS

*COMPONENT NEWS* #95 (17 Dec 1968) provided some information about the crimp-to-wire connectors for our 0.025-inch square-pin system. The following provides additional information and updates the information in that issue. Presently three crimp-to-wire connector families are available for use on 0.025-inch square pins.



The FIRST FAMILY is a miniature terminal for use only with an insulating connector holder (PN's 352-0161-00 through 352-0169-00) and only if 0.100 inch between adjacent pin centerlines is required. It is to be used with pin terminal 131-0608-00 if the pin is not required to have a 90° bend. Length and part numbers of pins with 90° bends depends upon the distance from the circuit board to the bend. This connector connects the wire coaxial with the center of the terminal pin. Family characteristics are as follows:

<u>Connector Part Number</u>	<u>Recommended Wires for Crimping</u>
131-0707-00	22 AWG thru 26 AWG Braid, 50Ω cable (175-0284-00, 175-0469-00 & 175-1020-00)
131-0708-00	28 AWG thru 32 AWG Center conductor, 50Ω cable (PN's listed above)
131-0760-00	Deleted

Insertion Force — 8 oz. typical

Withdrawal Force — 6 oz. typical

Assembly (connector and holder) height from board surface to wire bend: 0.650 inch min.

Remaining parameters — see *COMPONENT NEWS* #95.



The SECOND FAMILY has a more rugged and longer crimp-to-wire connector than described previously. It may be used uninsulated or with an insulating connector holder (PN's 352-0197-00 thru 352-0206-00). Pin terminal 131-0589-00 is used if the pin is not formed in a 90° bend. The connector holder will require that the pins lie on 0.0150-inch centerlines; uninsulated use will require a 0.200-inch or greater pin spacing. This connector connects the wire coaxially with the centerline of the terminal pin. Family characteristics are as follows:

<u>Connector Part Number</u>	<u>Recommended Wires for Crimping</u>
131-0792-00	18 AWG and 20 AWG Braid, 93Ω cable (175-0055-00 & 175-1043-00)
131-0621-00	22 AWG thru 26 AWG Braid, 50Ω cable (175-0284-00, 175-0469-00 & 175-1020-00)
131-0622-00	28 AWG thru 32 AWG Center conductor, 50Ω cable (PN's listed above) Center conductor, 93Ω cable (PN's listed above)

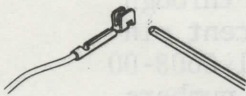
Insertion Force - Average 10 pieces, 1.1 lb/connector.

Withdrawal Force - Average 10 pieces, 0.75 lb/connector.

Height from board surface to wire bend = 0.750 inch min., uninsulated.

Continuous current carrying capability and minimum force to remove wire from crimp:

<u>Connector Part Number</u>	<u>Wire Size, AWG</u>	<u>Max. Current</u>	<u>Crimp Tensile Strength</u>
131-0792-00	18	7.5A	37.5 lb
	20	6.5A	32.5 lb
131-0621-00	22	6.0A	19.5 lb
	26	4.5A	7.5 lb
131-0622-00	28		4.7 lb
	32		1.5 lb



The THIRD FAMILY has a connector that attaches the wire to the terminal pin orthogonally to the centerline of the pin. These connectors are designed to be used with an insulating support for the crimp region of the connector. Crimp support part numbers are 351-0155-00 for circuit-board-mounted pin terminals and 358-0329-00 for chassis-mounted feedthru terminals. The minimum pin-terminal and feedthru-terminal spacing is 0.150 inch, centerline to centerline. Additional family characteristics are as follows:

<u>Connector Part Number</u>	<u>Recommended Wires for Crimping</u>
131-0740-00	18 AWG and 20 AWG Braid, 93 $\Omega$ cable (175-0055-000 & 175-1043-00)
131-0512-00	22 AWG thru 26 AWG Braid, 50 $\Omega$ cable (175-0284-00, 175-0469-00 & 175-1020-00)
131-0755-00	28 AWG thru 32 AWG Center conductor, 50 $\Omega$ cable (PN's listed above)

Approximate length of pin occupied by connectors:

0.160 inch, 1st connector in crimp support

0.260 inch, 2 connectors in crimp support

This connector family is presently undergoing a redesign of the contact area. Remaining characteristics will be published upon completion of the redesign evaluation. For further information of evaluation of a special configuration, contact me at Ext 414.

-Gary Virgin

#### COMPONENT CROSS-REFERENCE LISTS

Lists of potentiometer and electrolytic capacitors, divided into various categories and arranged in order of value, have been prepared and sent to Printing. They should be ready for distribution about April 7. Those who have need for either or both of these lists should call Ruby Evenson, Ext 413.

For additional information on capacitors, call Joe Yuen or Don Thiessen, Ext 7264. For potentiometers, call Louis Mahn or Larry Hudetz, Ext 302.

-Louis Mahn