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Project 98ME14918

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REPORT

on

COMPONENT - CONNECTORS FOR USE IN DATA, SIGNAL, CONTROL
AND POWER APPLICATIONS

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Harrisburg, PA

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DESCRIPTION

PRODUCT COVERED:

USR, CNR Component Connectors - Mini-CT Connectors Series

GENERAL:

These devices are multi-pole connectors employing contacts of the solder, crimp and pressure-connection termination type for use with printed circuit boards, ribbon cable and discrete wire where the acceptability of the combination is determined by Underwriters Laboratories Inc.

The above series may be identified as follows:

Contact Termination	Wire Size (AWG)	Max Voltage Volts AC/DC	Max Current Amps
Crimp Termination	24	Less than 30 V@ (#)	3
Crimp Termination	26	Less than 30 V@ (#)	2.5
Mass Termination	26	Less than 30 V@	2
Crimp Termination	28	Less than 30 V@ (#)	1.5
	28	Less than 30 V@ (#)	1

@: promote to 56V for Page 7, Item 2, Horizontal Single Row series only.

(#): promote to 125V for page 8, item 1, Receptacle Crimp Connector only.

USR - Indicates investigation to United States Standards UL 1977.

CNR - Indicates investigation to Canadian National Standard C22.2 No. **182.3**.

ENGINEERING CONSIDERATIONS (NOT FOR UL REPRESENTATIVE USE):

Use - For use only in complete equipment where the acceptability of the combination is determined by Underwriters Laboratories Inc.

Conditions of Acceptability - In order to be judged acceptable as component of electrical equipment, the following conditions should be met.

1. These devices should be used only where they will not interrupt the current.

* 2. These mass terminated devices have been investigated for a current of 2.0 Amperes carried by each pole, when using 26 AWG wire, with a maximum temperature rise of 21.3 degrees C.

* These crimp terminated devices have been investigated for a current of 2.5 Amperes carried by each pole, when using 26 AWG wire, with a maximum temperature rise of 22.1 degrees C.

* 3. These mass terminated devices have been investigated for a current of 1.0 Ampere carried by each pole, when using 28 AWG wire, with a maximum temperature rise of 8.9 degrees C.

* These crimp terminated devices have been investigated for a current of 1.5 Amperes carried by each pole, when using 26 AWG wire, with a maximum temperature rise of 10.3 degrees C.

4. The suitability of the mounting means shall be determined in the end use.

5. The electrical and mechanical suitability of the wiring terminals *shall be determined in the end use.

6. The placement of these devices within the equipment enclosure should be such that spacings between the live parts and the equipment are suitable for the particular application.

7. The suitability of the minimum 0.3 mm (0.012 in) spacings between live parts of opposite polarity (including adjacent poses) and between live parts and exposed dead-metal parts shall be determined in the end use.

8. The electrical and mechanical contact between the connector and the printed circuit board is to be judged in the end-use equipment.

9. The electrical and mechanical contact between the connector and the ribbon cable is to be judged in the end-use equipment.

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10. The suitability of the insulating materials used in the molded bodies shall be judged in the end-use equipment.

11. The operating temperature of these devices should not exceed the temperature rating of the insulating materials. These materials may be used interchangeably at a maximum temperature of 65°C.

12. These crimp terminated devices have been investigated for a current of 3.0 Amperes carried by each pole, when using 24 AWG wire, with a maximum temperature rise of 25.8 degrees C.

13. The factory assembled contacts have been subjected to the Conductor Secureness test from UL 1977, the Standard for Component Connectors for Use in Data, Signal, Control and Power Applications, and CSA C22.2 No. 182.3 -M1987 Special Use Attachment Plugs, Receptacles and Connectors. They were subjected to testing at the maximum tensile forces indicated when wired by the connector manufacturer on the following wire ranges. These values are to be reviewed to determine whether they are sufficient to represent actual forces exerted on the connection in the end-use equipment.

<u>Part No.</u>	<u>Wire Range (AWG)</u>	<u>Tensile Force (lb)</u>
353907-1	24, 26	8
353907-1	28	6.4