

File E28476  
Project 76ME5647

July 27, 1976  
**Revised:** February 16, 2023

REPORT

on

**\*Component Connectors for Use in Data, Signal, Control and Power Applications**  
AMP, Inc.  
Harrisburg, Pennsylvania

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DESCRIPTION

PRODUCT COVERED:

Component - 250 Series FASTIN-FASTON.

USR, CNR Connectors, Cat. Nos. 2-172131-X and 2-172132-Y (where X can be 1 or 5 and Y can be 1, 2, 4, or 5) , **2-626541-0, 1-626065-2, 1-880298-1, 1-180907-6, 1-626064-2, 880310-8.**

USR, CNR Connectors, Cat. Nos. 2297438-3, 2297440-3.

GENERAL:

These devices are mating multi-pole receptacles and attachment plugs, factory assembled on wire leads, for use within an electrical appliance enclosure where the acceptability of the combination is determined by UL LLC.

USR - Products designated USR have been investigated using US requirements as noted in the Test Record.

CNR - Products designated CNR have been investigated using Canadian requirements as noted in the Test Record.

ENGINEERING CONSIDERATIONS (NOT FOR UL REPRESENTATIVE USE):

Use - For use in complete equipment where the acceptability of the combination is determined by UL LLC.

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

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

2. The current carried by each pole shall be judged under the requirements applicable to the electrical equipment in which the devices are used with respect to operating temperatures.

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

\* 4. **Devices rated 250 V or less, shall have a minimum spacing of 3/64 in. between adjacent poles.** The adjacent or alternate poles shall be spaced 1/8 in. apart **for devices rated greater than 250 V, up to 600 V max. Spacings may be smaller if a device complies with dielectric testing at rated voltage.**

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5. The factory assembled contacts have been investigated for the following wire ranges:

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Part No.	Wire Range (AWG)	{Tensile Force (lb)}
170151	14-18	20
170153	14-18	20
170092	14-18	20
170108	14-18	20
170193	14-18	20
170194	14-18	20
170195	14-18	20
170196	14-18	20
170032	20	8
170032	14-18	20
170258	12,14	20
170340-1, -3	20	10
170340-1, -3	14-18	25
170341-1, -3	12	35
170341-1, -3	14	25
170349-1, -2	20	10
170349-1, -2	22	8
170384	20,22	8
170342-1, -2	14	25
170342-1, -2	20	10
170258-1, -2	12	35
170258-1, -2	14	25
170384-1, -2	20	10
170384-1, -2	22	8

Cat. No.	Wire Range (AWG)	Tensile Force (lbf)
880636-1, representing 880636-2	16 - 14	20, 25
880688-1, representing 880688-2	20 - 18	10, 20
881719-1, representing 881719-2	20 - 18	10, 20
626094-2, representing 626094-1	20 - 18	10, 20
626095-1, representing 626095-2	16 - 14	20, 25
626328-1, representing 626328-2	12 - 10	35, 40
735212-1, representing 735212-2	22 - 18	8, 20
735222-1, representing 735222-2	16	20
880634-1, representing 880634-5	20 - 16	10, 20
880635-5	16	20
881504-5	22 - 20	8, 10
881507-5, Representing 881507-1, 881507-9	20 - 16	10, 20

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

7. The insulating materials used for these devices and their related max temperature indices are tabulated in Insulating Materials portion of this report. These materials may be used interchangeably at a max temperature of 105°C.

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## Mating Connectors

8. These devices have only been assessed for use with specific types of connectors within their product family. They have not been assessed to operate with any other similar devices from any other manufacturer.

Part. Nos.	Mating part. Nos.
Housing 2232877, 2297440 with contact 170258, 170032, 170384	Housing 2232878, 2297438 with contact 170341, 170340, 170349
Housing 2-172131-X with contact 170340-1, -2, 170341-1, -2, 170349-1, -2	Housing 2-172132-Y with contact 170342-1, -2, 170258-1, -2, 170384-1, -2
<b>Housing 2297440-3 with contact, 170032-1</b>	<b>Housing 2297438-3 with contact, 170340-1</b>

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9. These devices have been subjected to the US and Canadian Temperature test as per UL 1977 and CSA C22.2 No. 182.3 with the rated currents and maximum temperature rise and recorded temperature (adjusted to 25°C ambient) values tabulated below:

Cat. No.	Wire Size, AWG	Current, A	Maximum Temperature °C	
			Rise	Recorded Temperature
2-172131-X with terminal 170349-1, -2	22	2	3.4	28.4
2-172131-X with terminal 170349-1, -2	20	4	8.6	33.6
2-172131-X with terminal 170340-1, -2	20	4	5.0	30.0
2-172131-X with terminal 170340-1, -2	18	7	10.4	35.4
2-172131-X with terminal 170340-1, -2	16	10	19.7	44.7
2-172131-X with terminal 170341-1, -2	14	15	25.8	50.8
2-172132-Y with terminal 170384-1, -2	22	2	3.1	28.1
2-172132-Y with terminal 170384-1, -2	20	4	7.6	32.6
2-172132-Y with terminal 170342-1, -2	20	4	4.8	29.8
2-172132-Y with terminal 170342-1, -2	18	7	10.6	35.6
2-172132-Y with terminal 170342-1, -2	16	10	20.2	45.2
2-172132-Y with terminal 170258-1, -2	14	15	24.3	49.3

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10. These devices have been subjected to the US Temperature test as per UL 1977 with the rated currents and maximum temperature rise and recorded temperature (adjusted to 25°C ambient) values tabulated below:

Cat. No.	Wire Size, AWG	Current, A	Maximum Temperature °C	
			Rise	Recorded Temperature
2-172131-X with terminal 170340-1, -2	14	15	33.2	58.2
2-172131-X with terminal 170341-1, -2	12	20	42.4	67.4
2-172132-Y with terminal 170384-1, -2	14	15	31.9	56.9
2-172132-Y with terminal 170384-1, -2	12	20	44.7	69.7

11. These devices have not been subjected to the Canadian Temperature test as per CSA C22.2 No. 182.3 and therefore have not been assigned a current rating for Canadian Recognition:

Cat. No.	CNR Electrical Ratings
2-172131-X with terminal 170340-1, -2	No electrical ratings
2-172131-X with terminal 170341-1, -2	No electrical ratings
2-172132-Y with terminal 170384-1, -2	No electrical ratings
2-172132-Y with terminal 170384-1, -2	No electrical ratings

12. Unless otherwise noted in a ratings table, products designated CNR have been dielectric tested at 500 V.

13. Unless otherwise noted in a ratings table, connectors covered under this report do not have voltage or current ratings.