

File E28476  
Project 96ME13252

April 25, 1996  
**Revised: January 5, 2023**

REPORT

on

**COMPONENT - Connectors for Use in Data, Signal, Control and Power Applications**

AMP Inc.  
Harrisburg, PA

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DESCRIPTION

PRODUCT COVERED:

USR Component Connectors - 2.5 mm Signal Double Lock Connectors.

USR Component Connectors -  
2.5 mm Signal Double Lock Connectors, Header, cat. No. 917728-1.  
5.0 mm Signal Double Lock Connectors, Header, cat. No. 353205-1.

2.5 mm Signal Double Lock Connectors, Plug,  
Housing cat. No. 5-917692-1 mate with terminal PN 917683, 917684.  
Housing cat. No. 5-917687-1 mate with terminal PN 917683, 917684.

2.5 mm Signal Double Lock Connectors, Cap,  
Housing cat. No. 5-316092-1 mate with terminal PN 917764, 917765.  
Housing cat. No. 5-316087-1 mate with terminal PN 917764, 917765.

**2.5mm Signal Double Lock Connectors,**  
**Cat. Nos. 2333402-1, 2333402-4, 2333402-6, 917686-1, 917686-2, 917686-4,**  
**917686-5, 917686-6, 917686-9, 917687-1, 917687-4, 917687-6, 917687-9, 917688-**  
**1, 917688-2, 917688-4, 917688-6, 917688-9, 917689-1, 917689-2, 917689-**  
**6, 917690-1, 917690-2, 917690-6, 917690-9, 917691-1, 917691-2, 917691-4,**  
**917691-9, 917692-1, 917693-1, 917693-2, 917693-4, 917694-1, 917694-2, 917694-**  
**4, 917695-1, 917696-1, 917696-2, 917696-6, 917697-1, 917697-2, 1746063-1,**  
**1746063-2, 1-353557-1, 1-353557-9,**

**Cat. Nos. 316086-1, 316086-2, 316086-4, 316086-6, 316086-9, 316087-1, 316087-**  
**4, 316087-9, 316088-1, 316088-2, 316088-4, 316088-9, 316089-1, 316089-2,**  
**316090-1, 316091-1, 316091-9, 316092-1, 316094-1, 316094-2, 316094-4**

**Cat. Nos. 917894-1, 917894-6, 917895-1, 917895-2, 917895-6, 917895-9, 917896-**  
**1, 917897-1, 917897-2, 917898-1, 917899-1, 917899-4, 3-917899-1, 3-917899-2,**  
**917900-1, 316221-1, 316221-2, 316221-4, 316221-5, 316221-6, 316221-9, 316222-**  
**1, 316222-2, 316223-1, 316224-1, 316225-1, 316226-1, 316227-1**

**Cat. Nos. 8-1318989-1, 1318990-1, 1318990-2, 8-1318990-1, 8-1318990-2,**  
**1318991-1, 8-1318991-1, 1318992-1, 8-1318992-1, 8-1318992-2, 1318993-1,**  
**1318993-4, 1318993-9, 8-1318993-1, 8-1318993-4, 8-1318993-9, 1318994-1,**  
**1318994-2, 8-1318994-1, 8-1318994-2, 8-1318995-1, 8-1318995-2, 8-1318996-1, 8-**  
**1318996-2, 8-1318996-4, 8-1318997-1, 1318998-1, 1318998-2, 8-1318998-1, 8-**  
**1318998-2, 1318999-1, 1318999-2, 8-1318999-1, 8-1318999-2, 1376000-1, 1376000-**  
**2, 8-1376000-1, 8-1376000-2, 1376001-1, 1376001-9, 8-1376001-1, 8-1376001-9,**  
**917780-1, 917780-2, 2-917780-1, 2-917780-2, 2-917780-9, 917781-1, 917781-2,**  
**917781-9, 1-917781-1, 2-917781-1, 2-917781-2, 2-917781-9, 917782-1, 917782-4**  
**2-917782-4, 2-917782-9, 917783-1, 917783-2, 2-917783-1, 2-917783-2, 917784-1,**  
**917784-9, 2-917784-1, 2-917784-2, 2-917784-9, 917785-1, 917785-2, 917785-4, 2-**  
**917785-1, 2-1917785-4, 917786-1, 917786-6, 917787-1, 917787-2, 2-917787-1,**  
**917788-1, 2-917788-1, 917789-1, 2-917789-1, 917790-1, 917790-2, 917790-6, 2-**

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Cat. Nos. Continued:

917790-1, 917791-1, 917791-2, 2-917791-1, 917722-1, 917722-2, 917722-4,  
917722-5, 917722-6, 917722-9, 2-917722-1, 2-917722-2, 2-917722-4, 2-917722-5,  
2-917722-6, 2-917722-9, 917723-1, 917723-4, 2-917723-1, 917724-1, 917724-2,  
917724-4, 917724-6, 917724-9, 2-917724-1, 2-219924-1, 917725-1, 917725-6, 2-  
917725-1, 917726-1, 917726-4, 917726-6, 2-917726-1, 2-917726-4, 2-917726-6,  
917727-1, 917727-2, 2-917727-1, 917728-1, 2-917728-1, 917729-1, 917729-2, 2-  
917729-1, 917730-1, 917730-2, 2-917730-1, 917731-1, 2-917731-1, 917732-1,  
917732-6, 2-917732-1, 917733-1, 917733-2, 2-917733-1, 353205-1, 353205-2,  
353489-1, 1318366-1, 1318913-1.

GENERAL:

These devices are multi-pole connectors employing contacts of the solder and crimp termination type for use with discrete wire cable and printed circuit boards.

\*

Rating -

Cat. Nos.	Voltage V		Ampere (A)	Conductor Sizes, AWG, str
917728-1	Full loaded	50 VAC	3	20
	Full loaded		2.5	22
	Full loaded		2.2	24
	Full loaded		2	26
353205-1	Selectively loaded	250 VAC	5	20

Housing Cat. Nos.	Terminal Cat. Nos.	Voltage V		Ampere (A)	Conductor Sizes, AWG, str
5-917692-1	917683	Fully loaded	50 VAC	3	20
5-917687-1	917683, 917684	Fully loaded		2.5	22
	917684	Fully loaded		2.2	24
	917684	Fully loaded		2	26
5-917692-1 5-917687-1	917683	Selectively loaded	250 VAC	5	20

Housing Cat. Nos.	Terminal Cat. Nos.	Voltage Vac/Vdc		Ampere (A)	Conductor Sizes, AWG, str
5-316092-1	917764	Fully loaded	50 VAC	3	20
5-316087-1	917764, 917765	Fully loaded		2.5	22
	917765	Fully loaded		2.2	24
	917765	Fully loaded		2	26

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Housing Cat. Nos.	Terminal Cat. Nos.	Voltage Vac/Vdc		Ampere (A)	Conductor Sizes, AWG, str
2333402, 917686, 917687, 917688,	917683	Fully loaded	50 VAC	3	20
				2.5	22
917688, 917689, 917690, 917691, 917692, 917693, 917694, 917695, 917696, 917697, 1746063, 1-353557-x, 917894 917895, 917896, 917897, 917898, 917899, 917900, 316221, 316222, 316223, 316224, 316225, 316226, 316227, 1318989, 1318990, 1318991, 1318992, 1318993, 1318994, 1318995, 1318996, 1318997, 1318998, 1318999, 1376000, 1376001,	917684	Fully loaded		2.2	24
				2	26

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316086-x, 316087-x, 316088-x, 316089-x, 316090-x, 316091-x, 316092-x, 316094-x	917764	Fully loaded	50 VAC	3	20	
				2.5	22	
	917765	Fully loaded		2.2	24	
				2	26	
917780, 917781, 917782, 917783, 917784, 917785, 917786, 917787, 917788, 917789, 917790, 917791, 917722, 917723, 917724, 917725, 917726, 917727, 917728, 917729, 917730, 917731, 917732, 917733,	solder	Fully Loaded	50Vac	3	20	
				2.5	22	
				2.2	24	
				2	26	
	353205, 353489, 1318366, 1318913,	Solder	Fully loaded	250V	5	20AWG

Disconnecting Use - see Sec Gen for required marking

## 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 a 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 devices except for models as tabulated below have not been tested for current-carrying capability.

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

Cat Nos.	Wire size AWG	Current, A	Maximum Temperature °C		Represent cat. Nos.
			Rise	Recorded Temperature	
917728-1 (fully loaded)	26	3	21.7	46.7	-
Housing PN 5-917692-1 assembly with terminal PN 917684-1 (fully loaded)	26	3	26.4	51.4	Housing PN 5-917692-1 assembly with terminal PN 917683, 917684
housing PN 5-316092-1 assembly with terminal PN 917765-1 (fully loaded)	26	3	24.7	49.7	Housing PN 5-316092-1 assembly with terminal PN 917765, 917764;  Housing PN 5-316087-1 assembly with terminal PN 917765, 917764

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Cat Nos.	Wire size AWG	Current, A	Maximum Temperature °C		Represent cat. Nos.
			Rise	Recorded Temperature	
917728-1 (selectively loaded)	20	5	18.3	43.3	353205-1
Housing PN 5-917692-1 assembly with terminal PN 917683-1 (selectively loaded)	20	5	16.4	41.4	Housing PN 5-917692-1 assembly with terminal PN 917683;  Housing PN 5-917687-1 assembly with terminal PN 917683

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

4. 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.

5. The suitability of the min 1.5 mm (0.059 in) spacings between live parts of opposite polarity (including adjacent poles) and between live parts and exposed dead metal parts shall be determined in the end use.

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

7. The factory assembled contacts have been investigated for the following wire ranges and maximum tensile forces.

Part No.	Wire Range (AWG)	Tensile Force (lb)
917764	20, 22	8
917765	22, 24	8
917765	26	6.2
917683	20, 22	8
917684	22, 24	8
917684	26	6.6

8. Optional accessories such as lock plates have not been evaluated and should be judged in the end-use application.

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

\* 10. The operating temperature of these devices should not exceed the temperature ratings of the insulating materials. These materials may be used interchangeably at a maximum temperature of 105°C.