

File E28476  
Project 10CA22023

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REPORT

on

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

TYCO ELECTRONICS CORP  
HARRISBURG PA

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   and Report

DESCRIPTION

PRODUCT COVERED:

USR - Component Connectors - Fastin-Faston Connector Series and Triac Connector Series, Cat. No. 521831-2.

**USR - Component Connectors - Fastin-Faston Connector Series, Cat No. 1969383-2.**

USR/CNR - Component Connectors - Fastin-Faston Connector Series, Cat Nos. 1971637-1, 1971739-1, 2232525-1, and 2825162-1.

GENERAL:

These devices are multi-pole connectors employing contacts of the solder tail and crimp termination type for use with discrete wires before factory assembly into housings, for use within electrical appliance enclosures.

USR indicates investigation to United States Standards, UL 1977.

CNR indicates investigation to Canadian National Standards, C22.2 No. 182.3.

0.187 contacts are for use in housing Cat. No. 521001.

0.250 contacts are for use in housing Cat. Nos. 521000, 521002, 521003, 521004, 521040, 521831, 521831-2, 520987 and 1738485-1.

0.250 tab contact Cat. No. 880636 is for use in housing Cat. No. 880309.

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 have not been tested for current-carrying capability with the exception of Cat. No. 1738485-1 with tab Cat. No. 42460-1 which has been investigated for a current of 15 A carried by each pole with a maximum temperature of 53.4°C and Cat. No. 1971637-1 with tab Cat. No. 42460-1 with 18 AWG which has been investigated for a current of 7 A carried by each pole with a maximum temperature of 41.3°C.

Cat. No. 880309 with tab Cat. No. 880636 with 14 AWG has been investigated for a current of 16 A carried by each pole with a maximum temperature of 63°C.

Cat. No. 880309 with tab Cat. No. 880636 with 16 AWG has been investigated for a current of 13 A carried by each pole with a maximum temperature of 46.8°C.

Cat. No. 880309 with tab Cat. No. 880636 with 18 AWG has been investigated for a current of 11 A carried by each pole with a maximum temperature of 46.1°C.



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

4. The electrical and mechanical suitability of the wiring terminals shall be determined in the end use. The following devices have been evaluated for Conductor Secureness testing.

Part No.	Wire Range (AWG)	Tensile Force (lb)
42460-1	14 - 18	20
293041-1,-2	18 - 22	20/8
1742291	14, 16	20
62553-1,-3,-4	18, 22	20/8
1742800-1	14, 18	20
880636-1,-2,-3	14 - 18	20

5. 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.

6. The suitability of the spacings between adjacent poles and the associated voltage rating shall be determined in the end-use. Dielectric testing has not been performed except for Cat. No. 1738485-1 with tab Cat. No. 42460-1 which has been investigated for a Dielectric Withstand Test voltage of 2000 V. Cat. No. 880309 with tab Cat. No. 880636 has been investigated for a Dielectric Withstand Test voltage of 1480 Vac. **Cat. No. 1969383-2 with terminals Part No. 62553 and 1742800-1 has been investigated for a Dielectric Withstand Test voltage of 1500 VAC.**

7. The electrical and mechanical contact between the connector and the discrete wire is to be judged in the end-use equipment.

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

9. 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 85°C, except for Cat. Nos. 1969248-1, 1969346-1, and 1971637-1 which can be used at a maximum temperature of 95°C, and Cat. No. 521289-1 which can be used at a maximum temperature of 115°C.

10. Terminations - Contacts 62555-1,-3,-4 and 1742800-1 are intended for crimp termination on stranded copper conductor with the following tooling:

CONTACT CAT. NO.	APPLICATOR #	CRIMPER #	ANVIL #
62553-1,-3,-4	687982-2	1-456406-6	4-240655-3
1742800-1	1531059-1	456407-4	6-1633383-6

11. Housing Cat. Nos. 1969346-1, 1969411-1 is intended for for use with .250 Series tab terminals as shown in Ill. 44. Housing, Cat. Nos. 2232525-1, 2825162-1 are intended for use with contacts, Cat. Nos. 1742800-1 and 62553-x.

12. Housing Cat. No. 521831-2 has not been evaluated for any electrical properties.