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Project 88ME13417

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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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DESCRIPTION

PRODUCT COVERED:

USR/CNR - Component Connectors: Standard Timer Series Connectors Cat. Nos. 3-1241965-2, 4-1241965-2, 3-1241965-5, 3-1241965-7, 8-1241965-2, 1-1241965-4, 4-1241965-7, 2-1241965-4, 3-1241965-4, 5-1241965-5, 5-1241965-7, x-2295787-x, 0-2178600-2, 3-2178600-2, 4-2178600-2, 5-2178600-2 and 1241983 with prefixes 0- to 8- and suffixes -2 to -3.

USR - Component Connectors: Standard Timer Series Connectors
Cat. Nos. x-1241959-x, **2315717-x, 2322917-x, x-2322912-x, 4-1241965-4, 5-1241965-4, 9-1241961-7**, x-1241961-x, x-1241964-x, 2298443-x, x-1241981-x, x-928343-x, x-928344-x, x-964768-x and x-927742-x.

GENERAL:

These devices are multi-pole connectors employing contacts of the crimp termination type for use in electrical equipment where the acceptability of the combinations is determined by Underwriters Laboratories Inc. For specific catalog numbers see Pages 2A and 2B.

USR - Indicates investigation to United States Standards UL 1977.

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

ENGINEERING CONSIDERATIONS (NOT FOR INSPECTOR 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. Only the following devices have been tested for current-carrying capability. Cat. No. 3-1241965-2, 4-1241965-2, 0-2178600-2, 3-2178600-2, 4-2178600-2, 5-2178600-2 and 1241983 with prefixes 0- to 8- and suffixes -2 to -3 with contacts as described in the following table.

Contact	Conductor AWG	Current A
926984-1	22	3
964201-1	20	5
964202-1	18-14	6
927831-1	20	5
964203-1	18	7

*

Cat. No. 2825197-1 has been evaluated for the current carrying capability in housing 1241959-x with the following conductors and current.

Housing	Contact	Conductor Size	Current A	Temp. Rise
1241959-x	2825197-1	0.5mm ²	5	10.1°C
1241959-x	2825197-1	0.8mm ²	7	14.0°C
1241959-x	2825197-1	1.0 mm ²	10	26.4°C

2A. Contact Cat. No. 2825197-1 assembled with housing 2315717-x, 2322917-x, 2322912-2, 1-2322912-2, 2-2322912-2, 2322912-3, 4-1241965-4, 5-1241965-4, 9-1241961-7 has rating with the following conductors and current.

Contact	Conductor Size	Current A
2825197-1	0.5mm ²	5
2825197-1	0.8mm ²	7
2825197-1	1.0 mm ²	10

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

4. The acceptability of the grounding connection shall be determined by the end product use engineer.

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

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

Part No.	Wire Range (AWG)	Tensile Force (lb)
927837	16	20
964201	20-18	8/20
964202	18-14	20
964203	18-14	20
964204	16-12	20
926984	24-20	8
1241174	16	20
1241834	18	20
927831-1	20	8
2825197-1	0.5mm ²	8
2825197-1	0.8mm ²	20
2825197-1	1.0mm ²	20

7. 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.

8. The adjacent poles of all devices except Series 1241965, 2295787 and Series 1241983 may be used at potentials not exceeding 600 V based on the spacings requirements of Paragraph 12.1 of UL 498. Dielectric testing has not been performed.

Cat. Nos. 0-2178600-2, 3-2178600-2, 4-2178600-2 and 5-2178600-2 and Series 1241983 may be used at potentials not exceeding 220V AC as Dielectric testing has only been performed on Cat. No. 6-1241983-2 at 1440 V AC.

Series 1241965, 2295787 may be used at potentials not exceeding 220V AC as Dielectric testing has only been performed on Cat. No. 3-1241965-7, 4-1241965-7 at 1440 V AC.

Cat. No. 1241959-5 may be used at potentials not exceeding 250V. A dielectric withstand test has been conducted at 1500 Vac.

Cat. Nos. 2315717-x, 2322917-x, x-2322912-x, 4-1241965-4, 5-1241965-4, 9-1241961-7 may be used at potentials not exceeding 250V. A dielectric withstand test has been performed on Cat. Nos. 2315717-4, 2322917-4, 2322912-8 at 1500 Vac.

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

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 ratings of the insulating materials. These materials may be used interchangeably at a maximum temperature of 65°C except for Housing Series 2178029 with or without Prefix and Suffix which can be used at a maximum temperature of 120°C.

12. Housing Series 2178029 with or without Prefix and Suffix are molded in a thickness no less than 0.75mm and can employ any contact contained in this report. There are no assigned electrical ratings for this Housing.

Cat. No.	Description	Illustration No.
927740	Housing	1,7,8
928151	Housing	1,10
928423	Housing	1,19
928343	Housing	1,14,15
928344	Housing	1,16,17
927742	Housing	1
928309	Housing	1
293267	Housing	59
928230	Housing	1
928247	Housing	2,12,13
969484	Housing	5
927717	Housing	6
929043	Housing	9
928154	Housing	11
928345	Housing	18
928492	Housing	20,21
964016	Contact	22
964017	Contact	23
964663	Housing	24
964768	Housing	25
964829	Housing	26
966307	Housing	27
966308	Housing	28
966664	Housing	29
927837	Contact	31
964204	Contact	33
1241174	Contact	34
1241834	Contact	35
969484	Housing	36,37
1241983	Housing	38,50
1241959	Housing	40,50
1241981	Housing	41,42
964951	Housing	46
1241964	Housing	47
2298443	Housing	60
1987456	Housing	48
1241965	Housing	49, 57
1241980	Housing	49
964702	Housing	49
964983	Housing	49
964247	Housing	49
1703150	Housing	49
2178600	Housing	49

Cat. No.	Description	Illustration No.
1955422	Housing	49
1241817	Housing	50
1241961	Housing	50, 58
969484	Housing	50
926984	Contact	51
964201	Contact	52
964202	Contact	53
1355048	Contact	54
964203	Contact	55
5-2178029- 5,4-2178029- 4,2-2178029- 5,9-2178029- 3, 2178029- 3,2-2178029- 2,-2178029-2	Housing	56
2295787	Housing	61
2825197-1	Contact	62
2315717	Housing	63
2322917	Housing	63
9-1241961-7	Housing	63
2322912	Housing	64
4-1241965-4 5-1241965-4	Housing	64