File E28476
Project 03ME02239

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REPORT

on

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

Tyco Electronics Corporation
Harrisburg, PA

DESCRIPTION

PRODUCT COVERED:

USR, CNR Component Connectors - Duoplug 2.5 MK II Connector Series, DUOPLUG 2.5 Mark II side locking Connector Series.

GENERAL:

These devices are multi-pole headers and attachment plugs employing contacts of the solder and insulation displacement type for use with printed circuit boards and wires where the acceptability of the combinations is determined by Underwriters Laboratories Inc.

ELECTRICAL RATING:

USR, CNR – 2 A, 250 V (Selectively Loaded Contacts).

USR, CNR – 2 A, 63 V (Fully Loaded Contacts).

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 only in or with 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 been investigated for a current of 2 Amperes carried by each pole (Fully Loaded), when wired with 22 AWG, with a maximum temperature rise of 5.9°C.

These devices have been investigated for a current of 2 Amperes carried by each pole (Selectively Loaded, when wired with 22 AWG, with a maximum temperature rise of 4.5°C.

These devices have been investigated for a current of 2 Amperes carried by each pole (Fully Loaded), when wired with 24 AWG, with a maximum temperature rise of 7.4°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.

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 adjacent poles of a fully loaded connector may be used at potentials not exceeding 63 Volts based on the results of a Dielectric Withstand Test which was performed at 1126 V.

The adjacent poles of a selectively loaded connector may be used at potentials not exceeding 250 Volts based on the results of a Dielectric Withstand Test which was performed at 1500 V.

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

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

* 9. **.These connectors employ insulating materials with properties as tabulated below at the minimum thickness employed in the connector housing, the suitability of the insulating materials based on the documented values shall be determined in the end-use application. Note the values specified in the table when multiple materials are indicated represent the minimum values for the group of materials.**
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Cat. No.	Insulating Material (#)	Measured Minimum Thickness (mm)	Flame Class	HWI	HAI	RTI Elec	Max Operating Temp, ^{0}C
x-1534796-x, x-1534797-x, x-1534798-x, x-1534799-x, x-1740501-x, x-1740154-x, x-1740918-x	A, B, C	0.38	V-2	3	0	130	130
x-2306286-x x-2304525-x x-2304526-x x-2304527-x x-2304528-x x-2306287-x	B, C	0.38	V-0	0	0	130	130

(#) – Code for Insulating Body Material.

A. Tyco RM No. 2136227, 1573161.
1. Dielectric strength (kV/mm): --
2. CTI: 2

B. Tyco RM No. 2136488.
1. Dielectric strength (kV/mm): 8
2. CTI: 1

C. Tyco RM No. 705999.
1. Dielectric strength (kV/mm): 8
2. CTI: 1

* 10. The operating temperature of these devices should not exceed the temperature ratings of the insulating materials.