CERTIFICATE OF COMPLIANCE

Certificate Number 20140514-E28476

Report Reference E28476-20061021

Issue Date 2014-MAY-14

Issued to: TYCO ELECTRONICS CORP

2901 FULLING MILL RD

MIDDLETOWN PA 17057-3170

This is to certify that representative samples of

Component – Connectors For Use In Data, Signal Control

and Power Applications

See addendum page

Have been investigated by UL in accordance with the

Standard(s) indicated on this Certificate.

Standard(s) for Safety: UL 1977 - Component Connectors for Use in Data, Signal,

Control and Power Applications

Additional Information: See the UL Online Certifications Directory at

www.ul.com/database for additional information

Only those products bearing the UL Recognized Component Mark should be considered as being covered by UL's Recognition and Follow-Up Service.

The UL Recognized Component Mark generally consists of the manufacturer's identification and catalog number, model number or other product designation as specified under "Marking" for the particular Recognition as published in the appropriate UL Directory. As a supplementary means of identifying products that have been produced under UL's Component Recognition Program, UL's Recognized Component Mark: ¶N, may be used in conjunction with the required Recognized Marks. The Recognized Component Mark is required when specified in the UL Directory preceding the recognitions or under "Markings" for the individual recognitions.

Recognized components are incomplete in certain constructional features or restricted in performance capabilities and are intended for use as components of complete equipment submitted for investigation rather than for direct separate installation in the field. The final acceptance of the component is dependent upon its installation and use in complete equipment submitted to UL LLC.

Look for the UL Recognized Component Mark on the product.

William R. Carney, Director, North American Certification Programs

UL LLC

William R. Carrey

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(UL)

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This is to certify that representative samples of the product as specified on this certificate were tested according to the current UL requirements.

Component Connector, Series Model(s) DTM, followed by 13 or 15, followed by 2, 3, 4, 6, 08, or 12, followed by P or S. May be followed by suffixes denoting minor variations.

William R. Carry

William R. Carney, Director, North American Certification Programs

UL LLC

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File E28476 Service Request: 1181364

October 21, 2006

REPORT

on

TYCO ELECTRONICS CORP MIDDLETOWN, PA

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DESCRIPTION

PRODUCT COVERED:

USR Component Connector, Series Model(s) DTM, followed by 13 or 15, followed by 2, 3, 4, 6, 08, or 12, followed by P or S. May be followed by suffixes denoting minor variations.

GENERAL:

These devices are multi-pole connectors intended for factory assembly soldered to PWB where the acceptability of combinations is determined by Underwriters Laboratories Inc. The devices are identified as follows:

* USR indicates investigation to United States Standards, UL 1977.

RATINGS:

| Series | Type Contact | Amperage | Voltage, |
|--------|------------------|----------|----------|
| | | | Vac |
| DTM | PWB solder tails | 7.5 | 250 |

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 have not been tested for interrupting the flow of current by connecting or disconnecting the mating connector. These devices should be used only where they will not interrupt the flow of current.
 - 2. The current rating was determined based upon similarity to same construction, except for solder connectors.

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- 3. These devices may be used at potentials not exceeding $250\ V$ based on Dielectric Voltage-Withstand testing conducted at $1500\ V$ ac.
- 4. The operating temperature of these devices should not exceed the temperature ratings of the insulating materials, a maximum temperature of 65°C when employing plastic TE Proprietary Information
- 5. Mold Stress Relief testing was conducted at a temperature of 75°C when employing plastic TE Proprietary Information
- 6. These devices 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. Please note the values specified in the table when multiple materials are indicated represent the minimum values for the group of materials.

| Cat. No. | Insulating Material (#) | Measured Minimum Thickness | Flame Class | HWI | HAI | RTI Elec | Max Operating Temp, ⁰ C |
|-------------|-------------------------|----------------------------------|----------------|------|------|-------------|--|
| DTM housing | A | 0.5 mm | (+) | (++) | (++) | 120 | 65 |
| DTM Housing | В | 0.5 mm | V-0 | 0 | 0 | 140 | 125 |

Note:

- (#) Code for Insulating Body Material.
- (+): Thickness is less than the minimum Recognized material thickness, as such no assigned Flame class. UL 746C (12mm) (20mm) Flammability test conducted.
- (++): These PLCs are based on the minimum Recognized material thickness.
- A. TE Proprietary Information
 - 1. Dielectric strength (kV/mm): -
 - 2. CTI: -
- B. TE Proprietary Information
 - 1. Dielectric strength (kV/mm): 23
 - 2. CTI: 2

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Nomenclature - The Series are designated as follows:

DTM Series Example

Example: \underline{DTM} $\underline{13}$ - $\underline{3}$ \underline{S} \underline{V}

I: - Series Prefix DTM only

II: - Type Enclosure

13 - Receptacle right angle and outlets (Female)

15 - Receptacle (Female)+ outlet

III: - Number of Contacts, maybe 2, 3, 4, 6, 08, or 12.

IV: - Contact Type
 P - Pin

 $\mbox{V:}$ - Polarizing position (if applicable, 08 & 12 Only) And /or minor order variations not affecting construction as described herein.