## CERTIFICATE OF COMPLIANCE

Certificate Number 20150310-E28476

Report Reference E28476-20150305

Issue Date 2015-MARCH-10

Issued to: TYCO ELECTRONICS CORP

2901 FULLING MILL RD

**MIDDLETOWN PA 17057-3170** 

This is to certify that COMPONENT - CONNECTORS FOR USE IN DATA representative samples of SIGNAL, CONTROL AND POWER APPLICATIONS

USR, CNR Component Connector, CDFP I/O module, Cat.

No. 2274233-1

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 and CAN/CSA C22.2 No.

182.3-M1987

Additional Information: See the UL Online Certifications Directory at

www.ul.com/database for additional information

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

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 Certification Mark on the product.

D. 100

UL LLC

Any information and documentation involving UL Mark services are provided on behalf of UL LLC (UL) or any authorized licensee of UL. For questions, please contact a local UL Customer Service Representative at <a href="https://dx.com/about/blocations/">https://dx.com/about/blocations/</a>



File E28476 Project 4786824925

March 05, 2015

REPORT

on

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

Tyco Electronics Corp Middletown, PA

Copyright © 2015 UL LLC

UL LLC authorizes the above named company to reproduce this Report only for purposes as described in the Conclusion. The Report should be reproduced in its entirety; however to protect confidential product information, the Construction Details Descriptive pages may be excluded.

File E28476

Vol. 85 Issued: 2015-03-05 Sec. 5 Page 1 and Report

DESCRIPTION

PRODUCT COVERED:

USR, CNR Component Connector, CDFP I/O module, Cat. No. 2274233-1

GENERAL:

These devices are multi-pole connectors intended for factory assembly on printed wiring boards where the acceptability of combinations is determined by UL LLC. The devices are identified as follows:

USR indicates investigation to United States Standards, UL 1977.

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

RATINGS:

Type 0 - No electrical Ratings

Disconnecting Use - see Sec Gen for required marking

TECHNICAL CONSIDERATIONS (NOT FOR FIELD REPRESENTATIVE'S USE):

Use - For use only in or with complete equipment where the acceptability of the combination is determined by UL LLC.

Conditions of Acceptability - The following are among the considerations to be made when evaluating the device in the end-use product.

Interruption of Current

These devices are not suitable for interrupting the flow of current by connecting or disconnecting the mating connector.

Current-Carrying Capability and Current Ratings

These devices have not been subjected to the Temperature test and as a result do not have an assigned current rating. The device's current carrying capability is to be reviewed in the end-use by measuring temperatures on the connector housing and/or terminals when current is flowing through the connector under conditions of normal use.

Insulating Materials

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.

ULS-01977-ECBT2-Description-2002

Form Issued: 2002-10-10 Form Revised: 2014-11-07

Form Page 1

Copyright © 2012 UL LLC

Only those products bearing the UL Mark should be considered as being covered by UL.

Sec. 5 Page 2 Issued: 2015-03-05 Vol. 85 File E28476

and Report

Cat. No. 2274233-1	Insulating Material (#)	Measured Minimum Thickness	Flame Class	HWI	HAI	RTI Elec	Max Operating Temp, <sup>0</sup> C
Housing	A	0.55	V-0	3	4	240	130
Chicklet	В	0.75				130	130

## Note:

- (#) Code for Insulating Body Material.
- TYCO RM No. 704105 Α.
  - 1. Dielectric strength (kV/mm): 21
  - 2. CTI: 3
- TYCO RM No. 704949 В.
  - 1. Dielectric strength (kV/mm): --
  - 2. CTI: --