

CERTIFICATE OF COMPLIANCE

Certificate Number 20120806-E28476
Report Reference E28476-20100318
Issue Date 2012-AUGUST-06

Issued to: TYCO ELECTRONICS CORP
2100 PAXTON ST
HARRISBURG PA 17111



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
CAN/CSA C22.2 No. 182.3-M1987 - Special Use Attachment Plugs, Receptacles and Connectors

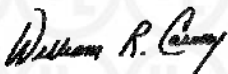
Additional Information: See the UL Online Certifications Directory at www.ul.com/database for additional information

Only those products bearing the UL Recognized Component Marks for the U.S. and Canada should be considered as being covered by UL's Recognition and Follow-Up Service and meeting the appropriate U.S. and Canadian requirements.

The UL Recognized Component Mark for the U.S. 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: , 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. The UL Recognized Component Mark for Canada consists of the UL Recognized Mark for Canada:  and 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.

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

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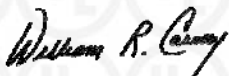
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This is to certify that representative samples of the product as specified on this certificate were tested according to the current UL requirements.

SlimSeal SSL Connectors, Part Nos. 2106135 and 2106136 each followed by a suffix number 2-4 which represents number of contact positions, or 0,1,5-9 which represents packaging or color variations. Part Nos. 2154852-1, 2154854-1.

SlimSeal SSL Connectors, Part Nos. 2106111, 2106112, 2106116, 2106117, 2106053 and 2106056 followed by a suffix number 0-9 which represents number of contact positions, packaging or color variations.



William R. Carney, Director, North American Certification Programs

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 www.ul.com/contactus



DESCRIPTION

PRODUCT COVERED:

USR, CNR, SlimSeal SSL Connectors, Part Nos. 2106135 and 2106136 each followed by a suffix number 2-4 which represents number of contact positions, or 0,1,5-9 which represents packaging or color variations. **Part Nos. 2154852-1, 2154854-1.**

USR, CNR, SlimSeal SSL Connectors, Part Nos. 2106111, 2106112, 2106116, 2106117, 2106053 and 2106056 followed by a suffix number 0-9 which represents number of contact positions, packaging or color variations.

GENERAL:

Part Nos. 2106135 and 2106136 are multi-pole connectors intended for factory assembly on Nos. 18-24 AWG stranded copper conductors where the acceptability of combinations is determined by Underwriters Laboratories Inc.

Part Nos. 2106111, 2106112, 2106116, 2106117, 2106053 and 2106056 are multi-pole connectors intended for mounting on a printed wiring board to accept Part Nos. 2106135 and 2106136.

USR indicates investigation to United States Standards, UL 1977.

CNR indicates investigation to the Canadian Standard, CSA C22.2 no. 182.3.

RATINGS:

Part No./Wire size, AWG	Current, A	Voltage, V
Part Nos. 2106135 and 2106136, 2154852-1 and 2154854-1 for use with Nos. 18-20 AWG	5	400 V ac or dc
Part Nos. 2106135 and 2106136, 2154852-1 and 2154854-1 for use with Nos. 22-24 AWG	3.5	400 V ac or dc
Part Nos. 2106111, 2106112, 2106116, 2106117, 2106053 and 2106056	5 Max.	400 V ac or dc

Part No. Explanation:

Part Nos.	Description
2106135-2	Plug Assembly, 2-position
2106135-3	Plug Assembly, 3-position
2106135-4	Plug Assembly, 4-position
2106136-2	Receptacle Assembly, 2-position
2106136-3	Receptacle Assembly, 3-position
2106136-4	Receptacle Assembly, 4-position
2106123-1	Receptacle Contact, 18 & 20 AWG, tin plated, on reel
2106123-2	Receptacle Contact, 18 & 20 AWG, tin plated, loose piece
1-2106123-1	Receptacle Contact, 22 & 24 AWG, tin plated, on reel

*

Part Nos.	Description
1-2106123-2	Receptacle Contact, 22 & 24 AWG, tin plated, loose piece
2106124-2	Tab Contact, 18 & 20 AWG, tin plated, on reel
2106124-9	Tab contact, 18 & 20 AWG, tin plated, loose piece
2-2106124-2	Tab Contact, 22 & 24 AWG, tin plated, on reel
2-2106124-7	Tab contact, 22 & 24 AWG, tin plated, loose piece
2106053-2, 2106116-2	Vertical SMT Header Assembly, tin plated posts, 2- position
2106053-4, 2106116-5	Vertical SMT Header Assembly, tin plated posts, 3-position
2106053-6, 2106116-8	Vertical SMT Header Assembly, tin plated posts, 4-position
2106112-2, 2106117-2	Vertical Through-Hole Header Assembly, tin plated posts, 2- position
2106112-4, 2106117-5	Vertical Through-Hole Header Assembly, tin plated posts, 3- position
2106112-6, 2106117-8	Vertical Through-Hole Header Assembly, tin plated posts, 4- position
2106056-2	Right Angle SMT Header Assembly, tin plated posts, 2- position
2106056-5	Right Angle SMT Header Assembly, tin plated posts, 3-position
2106056-8	Right Angle SMT Header Assembly, tin plated posts, 4-position
2106111-2	Right Angle Through-Hole Header Assembly, tin plated posts, 2- position
2106111-4	Right Angle Through-hole Header Assembly, tin plated posts, 3- position
2106111-6	Right Angle Through-hole Header Assembly, tin plated posts, 4- position
2154852-1	Receptacle Assembly, 1-position
2154854-1	Plug Assembly, 1-position

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 Underwriters Laboratories Inc.

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

Interruption of Current

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

Current-Carrying Capability and Current Ratings

2. These devices have been subjected to the Temperature test with the rated currents and maximum temperature rise values tabulated below.

Part Nos.	Current, A	Maximum Temperature Rise, °C
Part No.2106135-4_incorporating receptacle contact 1-2106123-1 mated with Part No. 2106136-4 incorporating tab contact 2-2106124-2 (representing Part Nos. 2154852-1 (receptacle assembly), 2154854-1 (plug assembly)).	3.5	13.2
Part No. 2106135-4 incorporating receptacle contact 2106123-1 mated to 2106053-4 (representing Part Nos. 2154852-1 (receptacle assembly), 2154854-1 (plug assembly)).	5	10.6
Part No. 2106135-4 incorporating receptacle contact 1-2106123-1 mated to 2106053-4	3.5	13.1

3. Series 2106135, 2106136, 2154852, 2154854 have been tested for an IP58 rating in accordance with IEC 60529 DEGREES OF PROTECTION REQUIRED BY ENCLOSURE - Edition 2.2 - Revision Date 2015/01/01.

Insulating Materials

4. 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, mm	Flame Class	HWI	HAI	RTI Elec	RTI Str	Max Operating Temp, °C
2106135-x, 2106136-x	A 702923	0.43	-	-	-	130	125	125
2154852-1 2154854-1	A 702923	0.75	-	-	-	130	125	125
2106111-x, 2106112-x, 2106116-x, 2106117-x, 2106053-x, 2106056-x	B 704934	0.43	-	-	-	240	240	125
2106135-x, 2106136-x	C 1573466	0.43	-	-	-	125	115	125
2154852-1 2154854-1	C 1573466	0.75	-	-	-	125	115	125

(#) - Code for Insulating Body Material.

A.

Tyco Electronics Plastic Raw Material 702923

1. Dielectric strength (kV/mm): 33
2. CTI: 2

B.

Tyco Electronics Plastic Raw Material 704934

1. Dielectric strength (kV/mm): 45
2. CTI: 3

C.

Tyco Electronics Plastic Raw Material 1573466

1. Dielectric strength (kV/mm): 25
2. CTI: 3

4. For models intended for connection to a printed circuit board, the suitability of the connection to the printed circuit board including any hold down means should be evaluated in the end application.