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REPORT

on

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

Tyco Electronics Corp  
Middletown, PA

Recognized Company: Tyco Electronics Corp

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## DESCRIPTION

## PRODUCT COVERED:

USR - Component Connector, Series 92 ohm STRADA Whisper 3.9 mm Pair-in-Row (PiR) connectors.

**USR - Component Connector, Series 92 ohm STRADA Whisper Absolute 3.9 mm Pair-in-Row (PiR) connectors, Cat. Nos. 1-2344120-2, 2-2344120-2, 3-2344120-2, 1-2344120-1, 3-2344120-1**

**USR - Component Connector, Series 92 ohm STRADA Whisper Absolute R/A 3.9 mm Pair-in-Row (PiR) connectors Cat. Nos. 2351132-1, 2351132-2, 2354719-1, 2361931-1, 2361931-2, 2350979-1, 2350979-2**

USR - Component Connector, Series 85 ohm and 100 ohm STRADA Whisper 3.9 mm Pair-in-Column (PiC) connectors.

**USR - Component Connector, Series 92 ohm STRADA Whisper Absolute 3.9 mm Pair-in-Column (PiC) connector, Cat. No. 1-2357309-5, 2-2357309-5, 1645808-1, 1645808-2**

**USR - Component Connector, Series 92 ohm STRADA Whisper Absolute R/A 3.9 mm Pair-in-Column (PiC) connectors, Cat. No. 1645786-1, 1645786-2.**

**USR - Component Connector, Series 92 ohm STRADA Whisper Absolute R/A DPO 3.9 mm Pair-in-Column (PiC) connectors, Cat. Nos. 1645803-1, 1645803-2, 1645811-1, 1645811-2.**

Cat. Nos. 2187462-1, 2290124, 2290124-1, 2290123, 2-2290123-1, 2-2290123-2, 2-2290123-3, 2-2290123-4, 2-2290123-5, 2-2290123-6, 2289432, 2-2289432-1, 2-2289432-2, 2-2289432-3, 2-2289432-4, 2-2289432-5, 2287840, 2287840-1, 2287840-2, 2287840-3, 2287840-4, 2287840-5, 2299261, 2299261-1, 2299261-2, 2299261-3, 2299261-4, 2299261-5, 2187231-1, 2274515, 2274515-1, 2274515-2, 2274515-3, 2274515-4, 2274515-5, 2274515-6, 2274515-7, 2274515-8, 2274515-9, 2302026, 2-2302026-1, 2-2302026-2, 2-2302026-3, 2-2302026-4, 2-2302026-5, 2304617, 2-2304617-1, 2-2304617-2, 2-2304617-3, 2-2304617-4, 2-2304617-5, 2-2304617-6, 2-2304617-7, 2-2304617-8, 2-2304617-9, 2187690, 2187690-1, 1934221-1, 2274497-1, 2274497-2, 2274288, 2274288-1, 2227304, 2227304-1, 2227305, 2227305-1, 2274022, 2274022-1

USR - Component Connector, Series STRADA Whisper R Pair-in-Row (PIR) connector

Cat. Nos. 2329739, 2329739-1

USR, CNR - Component Connector, Series STRADA Whisper R/A DPO Adapter Assembly.

Cat. Nos. 2274518, 2274518-1, 2304069, 2304069-1, 2299040, 2299040-1

## 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.

Disconnecting Use - see Sec Gen for required marking

## RATINGS:

No electrical ratings assigned.

## 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

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 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

3. 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, °C
Recpt. Ass'y. 12 Pair, 6 Column, Pair-in-Row STRADA Whisper	A	0.17 mm	(+) -	(++) -	(++) -	240 (++)	130
	B	0.17 mm	(+) -	(++) 4	(++) 0	130 (++)	130
	C	0.17 mm	(+) -	(++) -	(++) -	130 (++)	130
Header Ass'y. 12 Pair, 6 Column, Midplane, 100 ohm, Pair-in-Row STRADA Whisper	A	0.17 mm	(+) -	(++) -	(++) -	240 (++)	130
	B	0.17 mm	(+) -	(++) 4	(++) 0	130 (++)	130
	C	0.17 mm	(+) -	(++) -	(++) -	130 (++)	130
Receptacle Pair-in-row, 92 Ohm	H	0.17 mm	(+) -	(++) -	(++) -	130 (++)	130
Series STRADA Whisper R/A DPO Adapter Assembly	D	0.17 mm	(+) -	(++) -	(++) -	130 (++)	130

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Series 92 ohm STRADA Whisper Absolute 3.9 mm Pair-in-Row (PiR)	D	0.17 mm	(+)	-	-	130 (++)	130
	J	0.17 mm	(+)	-	-	130 (++)	130
Series 92 ohm STRADA Whisper Absolute 3.9 mm Pair-in- Column (PiC)	D	0.17 mm	(+)	-	-	130 (++)	130
	J	0.17 mm	(+)	-	-	130 (++)	130
Series 92 ohm STRADA Whisper Absolute R/A DPO 3.9 mm Pair-in- Column (PiC)	D	0.17 mm	(+)	-	-	130 (++)	130
	K	0.17 mm	V-0	-	-	130	130
Series 92 ohm STRADA Whisper Absolute R/A 3.9 mm Pair-in- Column (PiC)	J	0.17 mm	(+)	-	-	130 (++)	130
	A	0.17 mm	(+)	-	-	240 (++)	130
	K	0.17 mm	V-0	-	-	130	130
	D	0.17 mm	(+)	-	-	130 (++)	130
Series 92 ohm STRADA Whisper Absolute R/A 3.9 mm Pair-in-Row (PiR)	I	0.17 mm	V-0	4	0	130	130
	K	0.17 mm	V-0	-	-	130	130
	L	0.17 mm	(+)	-	-	130 (++)	130

NOTE: Front housing and organizers made from (A), Overmolded lead frames made from (B). The plated ground shells are made from (C).

85 ohm STRADA Whisper, Pair-in-Column

Receptacle Ground Shields	B	0.28 mm	(+) -	(++) -	(++) -	240 (++)	130
Receptacle Ground Shields	G	0.28	V-0	-	-	130	130
Receptacle Overmolded Leadframe	C	0.28 mm	(+) -	(++) -	(++) -	240 (++)	130
Header Housing	D	0.28 mm	(+) -	(++) -	(++) -	130 (++)	130
Receptacle Organizer	E	0.28 mm	(+) -	(++) -	(++) -	130 (++)	130
Receptacle Front Housing	F	0.28 mm	(+) -	(++) -	(++) -	130 (++)	130

Continued:

92 ohm STRADA Whisper, Pair-in-Row

Receptacle Ground Shields	B	0.17 mm	(+) -	(++) -	(++) -	130 (++)	130
Header Housing	H	0.17 mm	(+) -	(++) -	(++) -	130 (++)	130
Receptacle Organizer	A	0.17 mm	(+) -	(++) -	(++) -	130 (++)	130
Receptacle Front Housing	E	0.17 mm	(+) -	(++) -	(++) -	130 (++)	130

100 ohm STRADA Whisper, Pair-in-Column

Receptacle Ground Shields	B	0.28 mm	(+) -	(++) -	(++) -	240 (++)	130
Receptacle Ground Shields	G	0.28	V-0	-	-	130	130
Receptacle Overmolded Leadframe	C	0.28 mm	(+) -	(++) -	(++) -	240 (++)	130
Header Housing	D	0.28 mm	(+) -	(++) -	(++) -	130 (++)	130
Receptacle Organizer	A	0.28 mm	(+) -	(++) -	(++) -	240 (++)	130
Receptacle Front Housing	F	0.28 mm	(+) -	(++) -	(++) -	130 (++)	130

STRADA Whisper R, Pair-in-Row

Receptacle Front Housing	E	0.17 mm	(+) -	(++) -	(++) -	130 (++)	130
Receptacle Leadframe Overmold	I	0.20 mm	V-0	(++) 4	(++) 0	130 (++)	130
Receptacle Organizer	I	0.13 mm	V-0	(++) 4	(++) 0	130 (++)	130

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Cat. No.	Part	Insulating Material (#)	Measured Minimum Thickness	Flame Class	HWI	HAI	RTI Elec	Max Operating Temp, 0C
Series 92 ohm STRADA Whisper Absolute 3.9 mm Pair-in-Row (PiR)	Housing Conductive Insert	D	0.17 mm	(+)	-	-	130 (++)	130
	Housing	J	0.17 mm	(+)	-	-	130 (++)	130
Series 92 ohm STRADA Whisper Absolute 3.9 mm Pair-in-Column (PiC)	Housing Conductive Insert	D	0.17 mm	(+)	-	-	130 (++)	130
	Housing	J	0.17 mm	(+)	-	-	130 (++)	130
Series 92 ohm STRADA Whisper Absolute R/A DPO 3.9 mm Pair-in-Column (PiC)	Front Housing Shroud, Front Housing Conductive Insert, Organizer	D	0.17 mm	(+)	-	-	130 (++)	130
		A	0.17 mm	(+)	-	-	240 (++)	130
	Lead Frame Overmold	K	0.17 mm	V-0	-	-	130	130
Series 92 ohm STRADA Whisper Absolute R/A 3.9 mm Pair-in-Column (PiC)	Front Housing	J	0.17 mm	(+)	-	-	130 (++)	130
	Front Housing Conductive Insert	A	0.17 mm	(+)	-	-	240 (++)	130
	Lead Frame Overmold	K	0.17 mm	V-0	-	-	130	130
	Organizer	D	0.17 mm	(+)	-	-	130 (++)	130



Cat. No.	Part	Insulating Material (#)	Measured Minimum Thickness	Flame Class	HWI	HAI	RTI Elec	Max Operating Temp, °C
Series 92 ohm STRADA Whisper Absolute R/A 3.9 mm Pair-in-Row (PiR)	Lead Frame Overmold	I	0.17 mm	V-0	4	0	130	130
	Front Housing	K	0.17 mm	V-0	-	-	130	130
	Front Housing Conductive Insert, Lead Frame Overmold Organizer	L	0.17 mm	(+)	-	-	130 (++)	130

(#) - Code for Insulating Body Material.

(+): Thickness is less than the minimum Recognized material thickness, as such no assigned Flame class.

(++): These PLCs are based on the minimum Recognized material thickness.

- A. TE RM# 1573751  
 1. Dielectric strength (kV/mm): 45  
 2. CTI: 3
- B. TE RM# 704967  
 1. Dielectric strength (kV/mm): -  
 2. CTI: 4
- C. TE RM# 704949  
 1. Dielectric strength (kV/mm): -

2. CTI: -
- D. TE RM# 1573013  
1. Dielectric strength (kV/mm): -  
2. CTI: -
- E. TE RM# 1573892  
1. Dielectric strength (kV/mm): -  
2. CTI: - 3
- F. TE RM# 2136395  
1. Dielectric strength (kV/mm): - 49  
2. CTI: -
- G. TE RM# 1573300, Black  
1. Dielectric strength (kV/mm): - 27  
2. CTI: 3
- H. TE RM# 2316740, Black  
1. Dielectric strength (kv/mm): -  
2. CTI: -
- I. TE RM# 1573140, Black  
1. Dielectric strength (kv/mm): -  
2. CTI: 3
- J. TE RM# 2136648, Black**  
1. Dielectric strength (kv/mm):-  
2. CTI:
- K. TE RM# 2136962, Black**  
1. Dielectric strength (kv/mm):-  
2. CTI:
- L. TE RM# 2136937, Black**  
1. Dielectric strength (kv/mm): 39  
2. CTI: 3