File E28476
Project 4788932328

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REPORT

on

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

Tyco Electronics Corp
MIDDLETOWN, PA, US

DESCRIPTION

PRODUCT COVERED:

USR, CNR Component Connector –

Series SDL2.5 water proof connector, plug housing Cat. Nos. 2321918-2, 2321918-3, 2321918-4, 2321918-5, 2321918-6 with Contact 2321921-1.

Series SDL2.5 water proof connector, plug housing Cat. Nos. 2443729-x (where x=2,3,4,5 or 6) with contact 2321921-1.

Series SDL2.5 water proof connector, free hanging receptacle housing Cat. Nos. 2321924-2, 2321924-3, 2321924-4, 2321924-5, 2321924-6 with Contact 2321928-1.

Series SDL2.5 water proof connector free hanging cap housing Cat. Nos. 2443725-x (where X=2,3,4,5 or 6) with contact 2443728-1.

Series SDL2.5 water proof connector, panel mount receptacle housing Cat. Nos. 2321926-2, x, 2321926-4, 2321926-5, 2321926-6 with Contact 2321928-1.

Series SDL2.5 water proof connector, panel mount cap housing Cat. Nos. 2443727-X (where x=2,3,4,5 or 6) with contact 2443728-1.

Series SDL 2.5 water proof connector, plug housing, twist n lock Cat. Nos. 2366251-4, 2366250-4

Series SDL 2.5 water proof connector, cap housing Cat. No. 2366249-4

GENERAL:

These devices are multiple connectors intended for factory assembly on copper wire sizes as indicated in Ratings table below where the acceptability of combinations is determined by UL LLC. The devices are identified as follows:

USR indicates investigation to United States Standards as referenced in the Test Record.

CNR indicates investigation to Canadian National Standards as referenced in the Test Record.

RATINGS:

Housing Cat. Nos	Contact Cat. Nos	Voltage Vac/dc	Ampere (A)	Wire Size (AWG)
2321918-2	2321921-1	250	2	26
			3	22-24
2321918-3	2321921-1	250	2	26
			3	22-24
2321918-4	2321921-1	250	2	26
			3	22-24
2321918-5	2321921-1	250	2	26
			3	22-24
2321918-6	2321921-1	250	2	26
			3	22-24
2321924-2	2321928-1	250	2	26
			3	22-24
2321924-3	2321928-1	250	2	26
			3	22-24
2321924-4	2321928-1	250	2	26
			3	22-24
2321924-5	2321928-1	250	2	26
			3	22-24
2321924-6	2321928-1	250	2	26
			3	22-24
2321926-2	2321928-1	250	2	26
			3	22-24
2321926-3	2321928-1	250	2	26
			3	22-24
2321926-4	2321928-1	250	2	26
			3	22-24
2321926-5	2321928-1	250	2	26
			3	22-24
2321926-6	2321928-1	250	2	26
			3	22-24
2366249-4	2321928-1	250	2.5	22
2366250-4	2321921-1	250	2.5	22
2366251-4	2321921-1	250	2.5	22
2443725-X	**2443728-1**	**250**	**3**	**22-24**
2443727-X			**2**	**26**
2443729-X	**2321921-1**	**250**	**3**	**22-24**
			2	**26**

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

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 and recorded temperature (adjusted to 25°C ambient) values tabulated below:

Cat Nos.	Wire Size, AWG	Current, A	Maximum Temperature °C		Represent Cat. Nos.
			Rise	Recorded Temperature	
2321918-6 with contact 2321921-1	24	3	17.3	42.3	2321918-2, 2321918-3, 2321918-4, 2321918-5 with contact 2321921-1
2321924-6 with contact 2321928-1	24	3	18.4	43.4	2321924-2, 2321924-3, 2321924-4, 2321924-5, 2321926-2, 2321926-3, 2321926-4, 2321926-5, 2321926-6 with Contact 2321928-1
2321918-6 with contact 2321921-1	26	2	5.4	30.4	2321918-2, 2321918-3, 2321918-4, 2321918-5 with contact 2321921-1
2321924-6 with contact 2321928-1	26	2	5.4	30.4	2321924-2, 2321924-3, 2321924-4, 2321924-5, 2321926-2, 2321926-3, 2321926-4, 2321926-5, 2321926-6 with Contact 2321928-1
2366249-4 with contact 2321928-1 mated with 2366250-4 with contact 2321921-1	**22**	**2.5**	**15.02**	**40.02**	**2366251-4 with contact 2321921-1**

Table Con’t

Cat Nos.	Wire Size, AWG	Current, A	Maximum Temperature °C		Represent Cat. Nos.
			Rise	Recorded Temperature	
2443727 (6 positions) mated with 2443729	24	3	15.6	39.2	2443725
2443727 (6 positions) mated with 2443729	26	2	9.1	32.5	2443725

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.

Mold Stress testing was performed at 115 °C for 7 hours with acceptable results.(Insulating Material A)

Mold Stress testing was performed at 140 °C for 7 hours with acceptable results.(Insulating Material B) **except for Models 2443725, 2443729 ad 2443727 which the test was conducted at 115C for 7 hours with acceptable results.**

Mold Stress testing was performed at 115 °C for 7 hours with acceptable results.(Insulating Material C)

Cat. No.	Insulating Material (#)	Measured Minimum Thickness	Flame Class	HWI	HAI	RTI Elec	Max Operating Temp, ^{0}C
2321918-2	A or B	0.40 mm	V-0	-	-	130	105
2321918-3	A or B	0.40 mm	V-0	-	-	130	105
2321918-4	A or B	0.40 mm	V-0	-	-	130	105
2321918-5	A or B	0.40 mm	V-0	-	-	130	105
2321918-6	A or B	0.40 mm	V-0	-	-	130	105
2321924-2	A or B	0.40 mm	V-0	-	-	130	105
2321924-3	A or B	0.40 mm	V-0	-	-	130	105
2321924-4	A or B	0.40 mm	V-0	-	-	130	105
2321924-5	A or B	0.40 mm	V-0	-	-	130	105
2321924-6	A or B	0.40 mm	V-0	-	-	130	105
2321926-2	A or B	0.40 mm	V-0	-	-	130	105
2321926-3	A or B	0.40 mm	V-0	-	-	130	105
2321926-4	A or B	0.40 mm	V-0	-	-	130	105
2321926-5	A or B	0.40 mm	V-0	-	-	130	105
2321926-6	A or B	0.40 mm	V-0	-	-	130	105
2366249-4	C	0.60 mm	V-0	0	0	130	105
2366250-4	C	0.60 mm	V-0	0	0	130	105
2366251-4	C	0.60 mm	V-0	0	0	130	105
2443725-X	**B**	**0.50 mm**	**V-0**	**-**	**-**	**130**	**105**
2443727-X	**B**	**0.50 mm**	**V-0**	**-**	**-**	**130**	**105**
2443729-X	**B**	**0.40 mm**	**V-0**	**-**	**-**	**130**	**105**

*

Note:

(#) – Code for Insulating Body Material.

A. Tyco RM 2136682.
1. Dielectric strength (kV/mm): 20
2. CTI: 0

B. Tyco RM 705999.
1. Dielectric strength (kV/mm): 8
2. CTI: 1

C. Tyco RM 2136700
1. Dielectric strength (kV/mm): 17
2. CTI: 2

Miscellaneous

4. The enclosure of the device has live parts that may be exposed to user contact when the connector is energized. The device is suitable for use only within an acceptable enclosure.

Mating Connectors

5. These devices have only been assessed for use with specific types of connectors within their product family. They have not been assessed to operate with any other similar devices from any other manufacturer.

Cat Nos.	Mating Connector Cat Nos.
Housing 2321918-2, 2321918-3, 2321918-4, 2321918-5, 2321918-6 with Contact 2321921-1	Housing 2321924-2, 2321924-3, 2321924-4, 2321924-5, 2321924-6 with Contact 2321928-1
	Housing 2321926-2, 2321926-3, 2321926-4, 2321926-5, 2321926-6 with Contact 2321928-1
Housing 2366249-4 with contact 2321928-1	**Housing 2366250-4, 2366251-4 with contact 2321921-1**

Terminations

6. The crimp contacts as tabulated below are intended for crimp termination on stranded copper conductor using the tooling shown as tabulated below (for information purposes only).

Cat. No.	Wire Size, AWG	Crimp Tool
2321921-1	22-26	ILL. 8
2321928-1	22-26	ILL. 8

7. The water proof capability shall be determined in the end-use equipment.