

## DESCRIPTION

## PRODUCT COVERED:

**USR** Component-Connector, HSM Series Connectors.

**USR, CNR** Component-Connector **HF, HSS, HN.D, HD, HVT, TWINAX, KX** and **KX.VT** Series Connectors.

## GENERAL:

These devices are multi-pin connectors employing contacts of the crimp type termination and are intended to be factory assembled to stranded copper conductors where the acceptability of combinations is determined by Underwriters Laboratories Inc.

**USR** - Indicates investigation to United States Standards UL 1977, First Edition.

**CNR** - Indicates investigation to Canadian National Standards C22.2 No. 182.3-M1987.

## ENGINEERING CONSIDERATIONS (NOT FOR UL REPRESENTATIVE USE):

Use - For use only in 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 current.

\* 2. The **HSM** devices have not been subjected to the Temperature Test in UL 1977, the Standard for Component Connectors for Use in Data, Signal, Control and Power Applications and as a result do not have an assigned current rating.

The following devices have been subjected to the Temperature Test in UL 1977, the Standard for Component Connectors for Use in Data, Signal, Control and Power Applications with the results as tabulated below:

	<u>Series</u>	<u>Wire Size</u>	<u>Current (A)</u>	<u>Max Temp (C)</u>	<u>Max Temp Rise (C)</u>
USR, CNR	HF	6 mm <sup>2</sup>	35	53.8	28.8
USR, CNR	HF	50 mm <sup>2</sup>	100	47.8	22.8
USR, CNR	HSS	0.16 mm <sup>2</sup>	27	55.0	30.0
USR, CNR	HSS	2.5 mm <sup>2</sup>	57	54.3	29.3
USR, CNR	HN.D	0.14 mm <sup>2</sup>	4.5	53.5	28.5
USR, CNR	HN.D	2.5 mm <sup>2</sup>	10	39.6	14.6

USR, CNR	HD	24 AWG	4.75	53.8	28.8
USR, CNR	HD	14 AWG	10	46.4	21.4
USR, CNR	HVT	0.14 mm2	3.5	52.7	27.7
USR, CNR	HVT	4.0 mm2	14	52.1	27.1
USR, CNR	TWINAX	0.14 mm2	3.25	54.5	29.5
USR, CNR	TWINAX	2.5 mm2	16	46.4	21.4

3. The suitability of the mounting means shall be determined in the end-use.

4. The placement of these devices within the equipment enclosure should be such that spacings between the live parts and the equipment are suitable for the particular application.

5. The suitability of the 2.1 mm (0.083 in) spacings between live parts of opposite polarity (including adjacent poles) and between live parts and dead-metal parts shall be determined in the end-use equipment. Dielectric testing has not been performed.

6. The need to provide additional mounting hardware to mechanically secure the connector to the printed wiring board is to be determined in the end-use.

7. The insulating materials used in these devices comply with the requirements of UL 1977, the Standard for Component Connectors for Use in Data, Signal, Control and Power Applications.

8. The factory assembled contacts have been subjected to the Conductor Secureness Test from UL 1977, the Standard for Component Connectors for Use in Data, Signal, Control and Power Applications, at the max tensile forces indicated when wired by the connector manufacturer on the following wire ranges. These values are to be reviewed to determine whether they are sufficient to represent actual forces exerted on the connection in the end-use equipment.

<u>Part No.</u>	<u>Wire Range (AWG)</u>	<u>Tensile Force (lb)</u>
1-1105050	26	4
1-1105051	26	4
2-1105050	20	10
2-1105051	20	10
3-1105050	18	20
3-1105051	18	20
4-1105050	16	22.5
4-1105051	16	22.5
5-1105050	14	32.6
5-1105051	14	32.6
1-1105250	18	20
1-1105251	18	20
2-1105250	16	22.5
2-1105251	16	22.5

<u>Part No.</u>	<u>Wire Range (mm2)</u>	<u>Tensile Force (lb)</u>
3-1105050	14	32.6
3-1105051	14	32.6
4-1105050	12	38.9
4-1105051	12	38.9
5-1105250	10	40
5-1105251	10	40
6-1105250	8	43.8
6-1105251	8	43.8
0-1110948-1	6	20
0-1110949-1	6 - 50	20
1-1105000-3	0.56	8
1-1105001-3	0.35	8
1-1105050-1	0.14	2
1-1105051-1	0.14	3.5
1-1105150-1	2.5	20
1-1105151-1	2.5	20
1-1105250-1	0.75	8
1-1105000-3	1.5	20
5-1105050-1	2.5	20
5-1105051-1	2.5	20
5-1105150-1	16	20
5-1105300-1	4	20
5-1105301-1	4	20
6-1105250-1	10	20
6-1105300-1	0.4	2.3
6-1105301-1	0.4	2.9

9. The printed wiring board terminals have not been evaluated for mechanical secureness. The construction of the connector is to be reviewed when it is assembled to the particular printed wiring board used in the end-use application.

10. These devices employ leads which are not suitable for field wiring.