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REPORT

on

COMPONENT - CONNECTORS FOR USE IN DATA, SIGNAL,
CONTROL AND POWER APPLICATIONS

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Harrisburg, PA

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DESCRIPTION

PRODUCT COVERED:

Component Connectors, Series Multi-Beam XL and Multi-Beam XLE Connectors.

GENERAL:

These devices are multi-pole connectors having a max of 27 power contacts and 84 signal contacts, intended for factory assembly onto printed wiring boards.

ELECTRICAL RATING (Current Interrupting)for Multi-Beam XL Series Only:

Contact Type	Power Contact	Signal Contact
Multi beam	20 A, 12 VDC	1 A, 12 V
Multi beam	50 A, 60 Vac	-
Multi beam	8 A, 265 V ac	-
Dual beam	20 A, 12 V dc	-
Dual Beam	8 A, 265 V ac	-
Disconnect Only	Power Contact	
Multi Beam	60 A 600 V ac	

ENGINEERING CONSIDERATIONS (NOT FOR UL REPRESENTATIVE USE):

Use - For use only with 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.

Interruption of Current:

The power multi beam contacts and dual beam contacts for the Multi-Beam XL Series devices have been investigated for the interruption of current by connecting and disconnecting the mating plug in accordance with the Overload, Temperature and Resistance to Arcing Test sequence in UL 1977, the Standard for Component Connectors for Use in Data, Signal, Control and Power Applications, First Edition at a test potential of 12 V dc, 30 A (representing 12 V dc, 20 A rating), and at a test potential of 265 V ac, 12A (representing 265 V ac, 8 A rating).

The signal contacts for these devices have not been tested for interrupting the flow of current by connecting or disconnecting the mating connector.

The Multi-Beam XLE Series devices have not been tested for interrupting the flow of current by connecting or disconnecting the mating connector.

Current-Carrying Capability and Current Ratings:

The Multi-Beam XLE Series devices have not been investigated for current carrying capability.

The Multi-Beam XL series devices have been subjected to the Temperature Test with the rated currents and maximum temperature rise values tabulated below. The conductors terminated by the device and other associated components are to be reviewed in the end-use to determine whether the temperature rise from the connector exceeds their maximum operating temperature ratings.

Contact	Current (Amps)	Maximum Temperature Rise (°C)	Maximum Temperature, °C Recorded
Power Multi beam (20 position)	30	18.5	-
Signal Multi beam	1	14.8	-
Power Multi beam (1 position)	48	11	-
Signal Multi beam (1 position)	3	20	-
Power Multi beam (5 position)	30	29.8	-
Power Multi beam (6 position)	15	36.8	-
Power Multi beam (6 position)	30	56.2	-
Power Multi beam (6 position)	45	83	-
Dual beam	20	19.5	-
Dual beam	8	5.1	-
Power Multi beam (4 position)	60	23.7	-
Power Multi beam (12 positions)	50	-	111.7

SPACING AND VOLTAGE RATINGS:

The Multi-Beam XL Series devices may be used at potentials not exceeding 250 V for the signal contacts and 600 V for the power contacts. **Dielectric Withstand testing has not been conducted.**

Dielectric Withstand testing at 1200Vac was conducted on the Multi Beam XL Series 4 pole (power) device.

Dielectric Withstand testing at 1120Vac was conducted on the Multi Beam XL Series (12 position) connector.

INSULATING MATERIALS:

The operating temperature of these devices should not exceed the temperature rating of the insulating material, 120°C.

TERMINATIONS:

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

CONTACT:

The electrical and mechanical contact between the connector and the printed wiring board is to be judged in the end-use equipment.

MOUNTING:

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.

OPERATING TEMPERATURE:

The operating temperature of these devices should not exceed the temperature rating of the insulating materials employed.