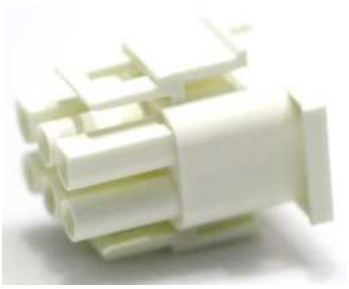
molex **PRODUCT SPECIFICATION**

.084 / (.13) DIAMETER SERIES MLX GLOW WIRE COMPATIBLE

WTW CONNECTOR SYSTEM

(HOT TIN-PLATED TERMINALS ONLY)

Receptacle Cap	Plug Housing
	
Series: 36644	Series: 36643

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REVISION:	ECM INFORMATION:	TITLE:	SHEET No.
B	EC No: 621730 DATE: 8/6/2019	PRODUCT SPECIFICATION FOR .084/(2.13) DIAMETER SERIES MLX GLOW WIRE COMPATIBLE WTW CONNECTOR SYSTEM	1 of 8

DOCUMENT NUMBER:	DOC TYPE:	DOC PART:	CREATED / REVISED BY:	CHECKED BY:	APPROVED BY:
PS-36644-001	PS	001	MBN02	SMAHAJANSHET	NCSR

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1.0 SCOPE

This specification covers the 0.250-inch (6.35mm) centerline tin plated connector series terminated to 14 to 20 AWG wire using crimp technology.

2.0 PRODUCT DESCRIPTION

2.1 DESCRIPTION, SERIES NUMBER, AND LINKS

DESCRIPTION	SERIES NUMBER
Receptacle Housing	36644
Plug Housing	36643

2.2 DIMENSIONS, MATERIALS, PLATINGS

Refer SD-36644-001, SD-36643-001.

2.3 ENVIRONMENTAL CONFORMANCE

To find product compliance information:
a. Go to molex.com
b. Enter the part number in the search field.
c. At the bottom of the page go to “Environmental” to see compliance status.

2.4 SAFETY AGENCY LISTINGS

UL File Number: E29179

3.0 APPLICABLE DOCUMENTS AND SPECIFICATION

3.1 MOLEX DOCUMENTS

Molex Quality Crimping Handbook Order No. 63800-0029
Molex Moisture Technical Advisory AS-45499-001
Molex Package Handling Specification 454990100-PK
ATS – Application Tooling Specification*

**Application Tooling Specification for terminals is not provided in this document. ATS for terminals can be available from respective terminal part number page in Molex.com*

3.2 INDUSTRY DOCUMENTS

UL-60950-1
IEC/EN 61984
MIL-STD-1344

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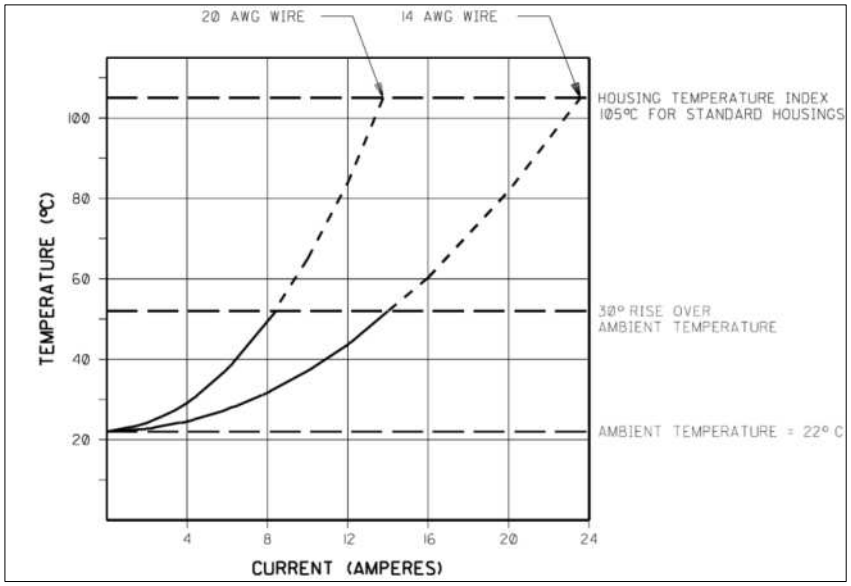
4.0 ELECTRICAL PERFORMANCE RATINGS

4.1 VOLTAGE

600 VOLTS

4.2 CURRENT AND APPLICABLE WIRES

14 to 20 AWG wire – Outside Insulation Diameter 0.130-inch (3030mm) Maximum



Temperature vs Current for Brass Terminals in Five Circuit Housings. All five circuits carry the indicated Current. (values above the 30°c rise are extrapolated)

4.3 TEMPERATURE

Operating Temperature Range (includes T-Rise from applied current): - 55°C to + 105°C

4.4 GLOW WIRE SERIES

36644, 36643

5.0 QUALIFICATION

Laboratory condition, sample selection and test sequences are in accordance with MIL-STD-1344.

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6.0 PERFORMANCE

6.1 ELECTRICAL PERFORMANCE

ITEM	DESCRIPTION	TEST CONDITION	REQUIREMENT
6.1.1	Contact Resistance (Low Level)	Mate connectors with a maximum voltage of 20 mV and a current of 100 mA (MIL-STD-1344A, METHOD 3004.1)	3.5 milli ohms MAXIMUM (initial)
6.1.2	Insulation Resistance	Mate connectors with a voltage of 500 VDC between adjacent terminals (MIL-STD-1344A, METHOD 3003.1)	1000 Mega ohms MINIMUM
6.1.3	Dielectric Strength	Mate connectors with a voltage of 2200 V AC for 1 minute between adjacent terminals (MIL-STD-1344A, METHOD 3001.1)	No breakdown.
6.1.4	Temperature Rise	Mate connectors and Measure the contact temperature rise at the rated current load (IEC STD. 512-3)	Maximum Temperature of the Terminal over ambient of 30° C (See Sheet 4)

6.2 MECHANICAL PERFORMANCE

ITEM	DESCRIPTION	TEST CONDITION	REQUIREMENT
6.2.1	Wire Pullout Force (Axial)	Apply an axial pullout force on the wire at a rate of 1±1/4 inch per minute (25±6 mm per minute) (MIL-STD-1344A METHOD 2003.1).	Awg: 14, 20 — Pullout Force: 50 lbf, 14 lbf

6.3 ENVIRONMENTAL PERFORMANCE

ITEM	DESCRIPTION	TEST CONDITION	REQUIREMENT
6.3.1	Thermal Shock	Mate connectors exposed for 25 cycles of: Temperature / Duration -55 +0/-3 °C / 30 minutes 85 +3/0 °C / 30 minutes (MIL-STD-1344A METHOD 1003.1) (TEST CONDITION A-1)	Appearance: No Damage Contact Resistance: 5.0 milliohm Maximum Dielectric strength: 2200 V AC for 1 minute

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Individual Tests
Wire Pullout force (Axial)

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7.0 PACKAGING

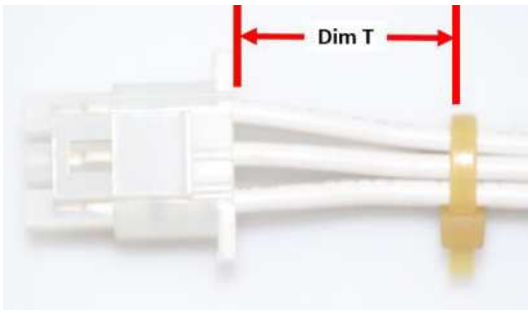
Parts shall be packaging to protect the parts from damage during standard shipping, storage, and handling. Refer Molex.com specific part number webpage to get the exact packaging document for that item.

8.0 SHELF LIFE

Tin Plated Terminals will have shelf life of 18 months from the date of manufactured.

9.0 CABLE TIE AND / OR TWIST TIE LOCATION

CKT Size	Dim T Min.
2	22.18
3	32.27
4	42.35
6	22.18
9	32.27
12	42.23
15	52.31

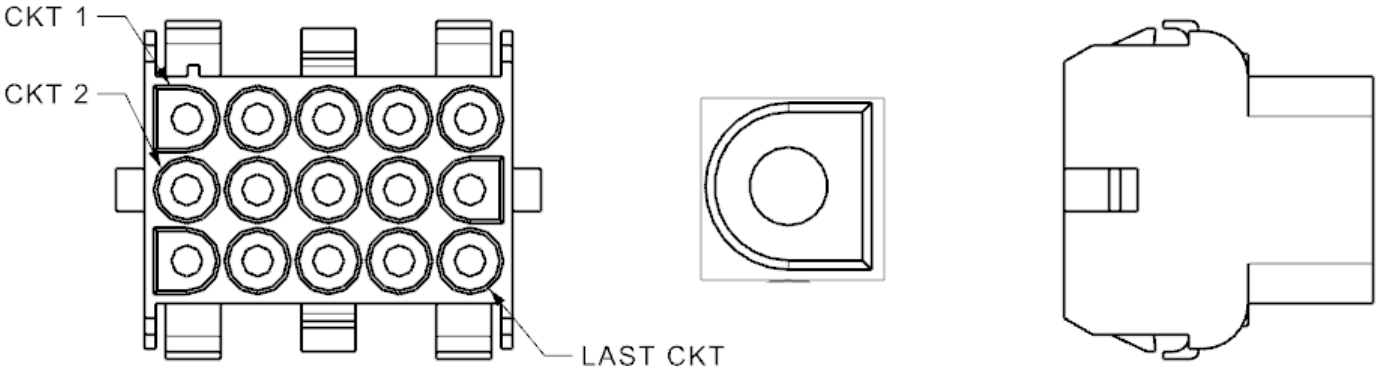


The “T” dimension defines a “free” length of wire, or a length of wire that is not subject to significant bias by external factors such as a wire tie, wire twisting, or other means of bending or deforming of the wires that repositions them from their natural relaxed state or location where they enter the housing. Wires are to be dressed in such a manner to allow the terminals to float freely in the pocket. This dimension is general recommendation and may need to be adjusted for different wire gauges and wire type and insulation thickness and insulation material.

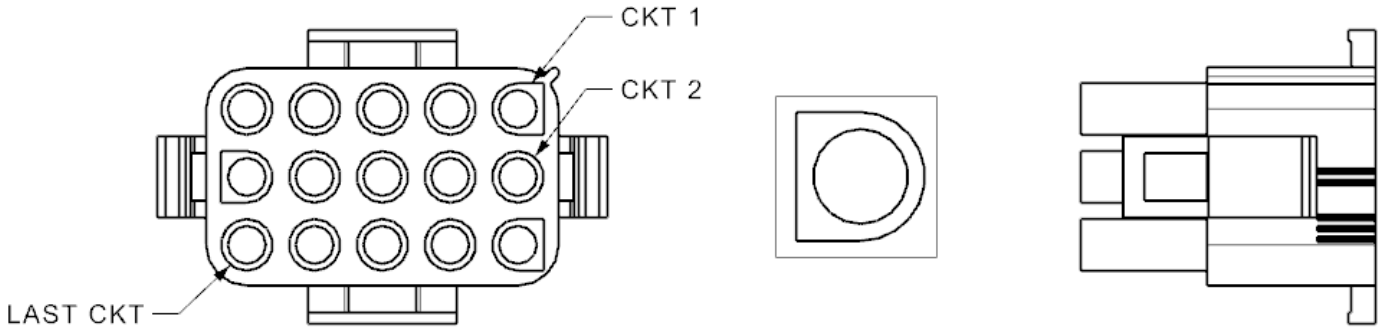
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10.0 POLARIZATION AND KEYING OPTIONS

10.1 Receptacle Housing (Series: 36644)



10.2 Plug Housing (Series: 36643)



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