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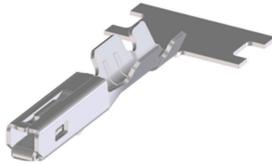
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| DOCUMENT NUMBER: PS-33012-002 | CREATED / REVISED BY: B.Jennings | CHECKED BY: A.Dhir | APPROVED BY: B.Moser |

MX150 RECEPTACLE AND BLADE TERMINALS

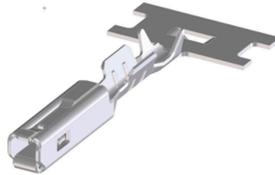
1.0 SCOPE

This Product Specification covers the MX150 Receptacle and Blade terminals crimped to an array of wires utilizing crimp technology.

2.0 PRODUCT DESCRIPTION



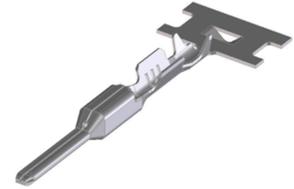
Receptacle Terminal



Receptacle ISO grip, M3 Terminal



Blade Terminal



Blade ISO grip, M3 Terminal

2.1 PRODUCT NAME AND ATTRIBUTES

| Terminal Family | Gender | Sealing | Plating | Grip Code | Special Characteristics | Current Rating |
|-----------------|------------|----------|---------|-----------|----------------------------------|----------------|
| MX150 | Receptacle | Mat Seal | Sn | 22 | High Performance Sn | 12.5A |
| MX150 | Receptacle | Mat Seal | Au | 22 | High Performance Au | 12.5A |
| MX150 | Receptacle | Mat Seal | Ag | 22 | High Performance Ag | 12.5A |
| MX150 | Receptacle | Mat Seal | Sn | 18 | High Performance Sn | 16.5A |
| MX150 | Receptacle | Mat Seal | Au | 18 | High Performance Au | 16.5A |
| MX150 | Receptacle | Mat Seal | Ag | 18 | High Performance Ag | 16.5A |
| MX150 | Receptacle | Mat Seal | Sn | 14 | High Performance Sn | 22A |
| MX150 | Receptacle | Mat Seal | Au | 14 | High Performance Au | 22A |
| MX150 | Receptacle | Mat Seal | Ag | 14 | High Performance Ag | 22A |
| MX150 | Receptacle | Mat Seal | Sn | M3 | High Performance Sn ISO Grip | 12.5A |
| MX150 | Receptacle | Mat Seal | Au | M3 | High Performance Au ISO Grip | 12.5A |
| MX150 | Receptacle | Mat Seal | Ag | M3 | High Performance Ag ISO Grip | 12.5A |
| MX150 | Receptacle | Mat Seal | Sn | M3 | Standard performance Sn ISO Grip | 12.5A |
| MX150 | Receptacle | Unsealed | Sn | 22 | High Performance Sn | 12.5A |
| MX150 | Receptacle | Unsealed | Au | 22 | High Performance Au | 12.5A |
| MX150 | Receptacle | Unsealed | Ag | 22 | High Performance Ag | 12.5A |
| MX150 | Receptacle | Unsealed | Sn | 18 | High Performance Sn | 16.5A |
| MX150 | Receptacle | Unsealed | Au | 18 | High Performance Au | 16.5A |
| MX150 | Receptacle | Unsealed | Ag | 18 | High Performance Ag | 16.5A |
| MX150 | Receptacle | Unsealed | Sn | 14 | High Performance Sn | 22A |
| MX150 | Receptacle | Unsealed | Au | 14 | High Performance Au | 22A |
| MX150 | Receptacle | Unsealed | Ag | 14 | High Performance Ag | 22A |
| MX150 | Blade* | Mat Seal | Sn | 22 | High Performance Sn | 12.5A |
| MX150 | Blade* | Mat Seal | Au | 22 | High Performance Au | 12.5A |
| MX150 | Blade* | Mat Seal | Ag | 22 | High Performance Ag | 12.5A |
| MX150 | Blade* | Mat Seal | Sn | 18 | High Performance Sn | 17A |
| MX150 | Blade* | Mat Seal | Au | 18 | High Performance Au | 17A |
| MX150 | Blade* | Mat Seal | Ag | 18 | High Performance Ag | 17A |
| MX150 | Blade* | Mat Seal | Sn | 14 | High Performance Sn | 22A |

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|-------|--------|----------|----|----|----------------------------------|-------|
| MX150 | Blade* | Mat Seal | Au | 14 | High Performance Au | 22A |
| MX150 | Blade* | Mat Seal | Ag | 14 | High Performance Ag | 22A |
| MX150 | Blade* | Mat Seal | Sn | M3 | High Performance Sn ISO Grip | 12.5A |
| MX150 | Blade* | Mat Seal | Au | M3 | High Performance Au ISO Grip | 12.5A |
| MX150 | Blade* | Mat Seal | Ag | M3 | High Performance Ag ISO Grip | 12.5A |
| MX150 | Blade* | Mat Seal | Sn | M3 | Standard performance Sn ISO Grip | 12.5A |

*Also applicable for unsealed application

2.2 DIMENSIONS, MATERIALS, PLATINGS AND MARKINGS

All dimensions, terminal materials, plating descriptions and ID locations can be found on the applicable sales drawing.

2.3 FEATURES AND BENEFITS

- High performance copper alloy
- One piece terminal design
- Molex cavity compatible
- High current carrying capability
- Validated to USCAR-21 crimp performance requirements across a wide array of wires
- Validated to USCAR-2 terminal performance requirements

3.0 APPLICABLE DOCUMENTS AND SPECIFICATIONS

| Description | Document Number | |
|-----------------------------------|-----------------|--------------|
| | Receptacle | Blade |
| Sales Drawing | SD-33012-002 | SD-33000-001 |
| Application Specification (Crimp) | AS-33012-002 | AS-33000-001 |
| Packaging Specification | PK-31300-516 | |

4.0 SAFETY AGENCY APPROVALS

| Agency | Approval Status |
|--------------------------|------------------------|
| CSA File Number | Not Applicable |
| TUV License number | Not Applicable |
| UL File Number | Not Applicable |
| IMDS | Available upon request |
| Environmental Compliance | Available on molex.com |

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5.0 RATINGS / PERFORMANCE / VALIDATION

5.1 ELECTRICAL

| Item | Description | Condition | Rating |
|-------|-------------------|-----------------------------------|---|
| 5.1.1 | Operating Voltage | Applied voltage during operation | 14 Volts DC Maximum |
| 5.1.2 | Crimp Resistance | Post environment crimp resistance | Change in crimp resistance \leq 0.33m Ω or \leq 0.55m Ω crimp resistance. |

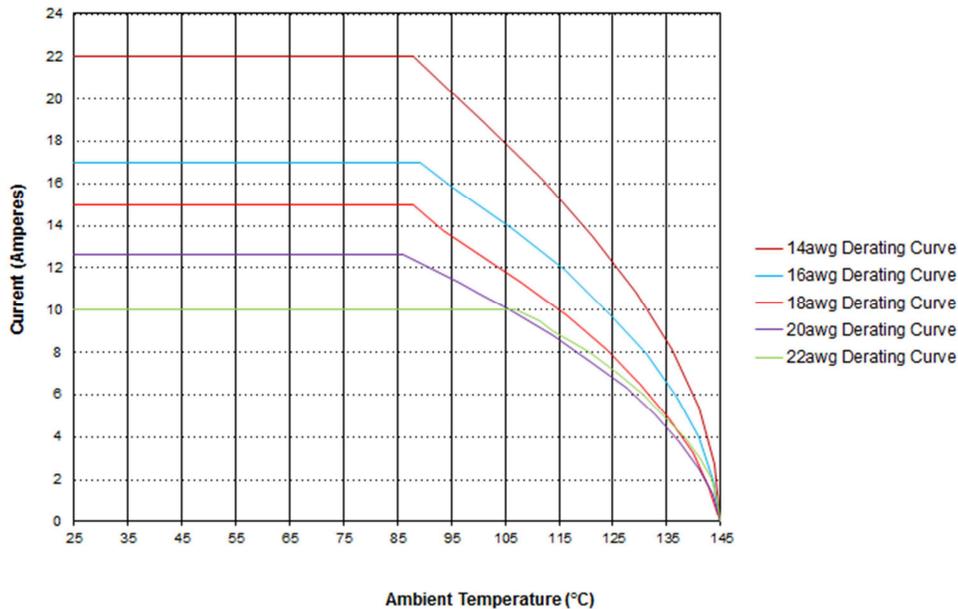
5.1.3 TERMINAL CURRENT DERATING CURVES

This test is used to determine the maximum test current at which a terminal system can operate in a room temperature environment before excessive thermal degradation and/or resistance begins to occur. Temperature Rise (Y axis) vs. Current (X axis) shall be plotted for each applicable conductor size.

CAUTION: These graphs are NOT to be used for actual terminal application in a vehicle. This test is conducted on terminals alone, thus eliminating the variation that may be introduced by variations in the heat dissipating characteristics of differing connector housing designs and sizes. This test cannot establish the Maximum Current Capability of a specific terminal application. For specific applications, several factors other than current load must be considered (see SAE/USCAR-2 appendix F for more information).

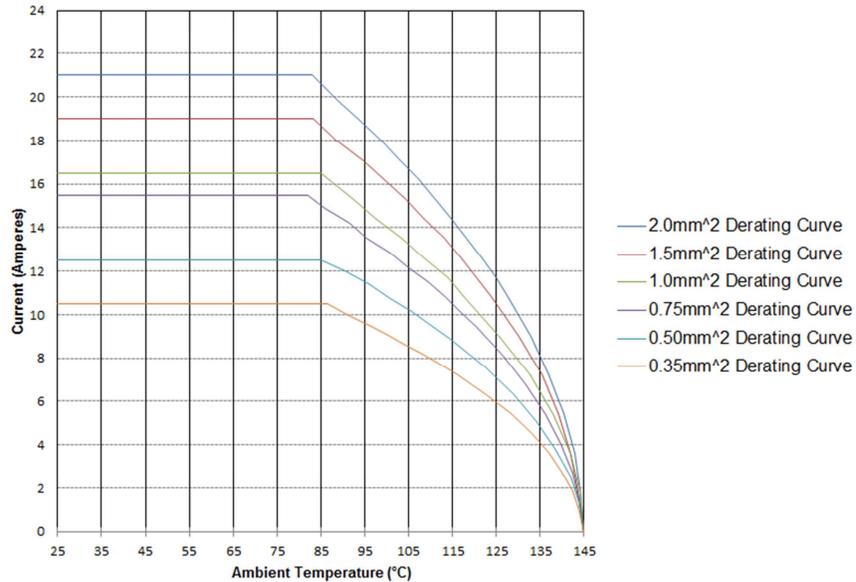
5.1.3.1 SAE WIRES TERMINAL

USCAR DERATING CURVE
Current Carrying Capacity Curve
MX150 Receptacle to Blade, 14awg to 22awg
USCAR-2 Rev 4 Section 5.3.3



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5.1.3.2 ISO WIRES TERMINAL
USCAR DERATING CURVE
Current Carrying Capacity Curve
MX150 Receptacle to Blade, 2.0mm² to 0.35mm²
USCAR-2 Rev. 5 Section 5.3.3.



5.2 TEMPERATURE

Sn Plated Terminal

Non-operating temperature: - 40°C to +125°C

Operating temperature: - 40°C to +125°C

Au & Ag Sn Plated Terminals

Non-operating temperature: - 40°C to +155°C

Operating temperature: - 40°C to +155°C

****For terminal validation information contact your Molex Sales Engineer**

****For connector system level performance see related product specification**

6.0 PACKAGING

Parts are packaged to protect against damage during handling, transit and storage. Please refer to PK-31300-516 reel wind direction. Terminals on reels should be stored in original packaging until ready for use. Storage temperature is recommended between 65 and 95°F (18 and 35°C) and storage humidity at less than 85% relative humidity. Under these conditions Molex recommended shelf life is 12 months from manufacturing date on terminal reel.

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7.0 GAGES AND FIXTURES

Gages and Fixtures are referenced in the appropriate control plans of the receptacle terminals. For terminal electrical checking, please refer to the related connector application specification.

8.0 OTHER INFORMATION / MISCELLANEOUS

MOLEX REPRESENTS AND WARRANTS TO BUYER FOR A PERIOD OF ONE (1) YEAR FROM THE DATE OF DELIVERY OF THE PRODUCTS THAT:

- 1) THE PRODUCTS SHALL CONFORM TO THE MOLEX SPECIFICATIONS FOR THE PRODUCTS IN FORCE AT THE DATE OF DELIVERY OF THE PRODUCTS TO BUYER, AND
- 2) THE PRODUCTS SHALL BE FREE FROM DEFECTS IN MATERIALS AND MANUFACTURING.

EXCEPT AS EXPRESSLY PROVIDED ABOVE, MOLEX MAKES NO WARRANTY, EXPRESS OR IMPLIED, REGARDING THE PRODUCTS. ALL IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF FITNESS FOR A PARTICULAR PURPOSE, ARE HEREBY DISCLAIMED. IN ADDITION, MOLEX EXPRESSLY DISCLAIMS ANY WARRANTY OBLIGATIONS IN THOSE INSTANCES WHERE THE FAILURES RESULTED FROM THE MODIFICATION OF THE PRODUCTS BY BUYER OR ITS CUSTOMERS, IMPROPER HANDLING, USE OR INSTALLATION OF THE PRODUCTS BY BUYER OR ITS CUSTOMERS, OR ANY OTHER CAUSE BEYOND THE CONTROL OF MOLEX.

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