



PRODUCT SPECIFICATION

PRODUCT SPECIFICATION FOR SHIELDED PLUG EXCEEDING CAT. 5E W.E. TYPE SYSTEM

1.0 SCOPE

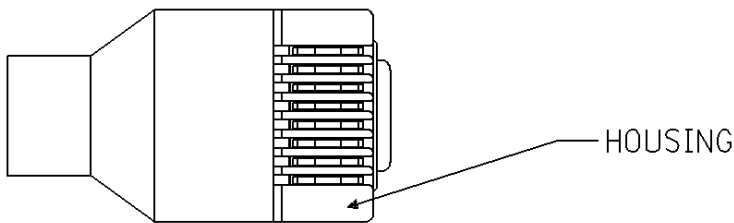
This Product Specification covers the MOLEX shielded W.E. type product line which comprises a shield plug (male) and a jack (female) I/O type connector. This system is fully shielded to provide EMI/RFI protection to assist the end user in complying with the FCC regulations. Where applicable, tests are in accordance with, or in excess of, all requirements specified in REA Bulletin 345-81, PE-76.

2.0 PRODUCT DESCRIPTION

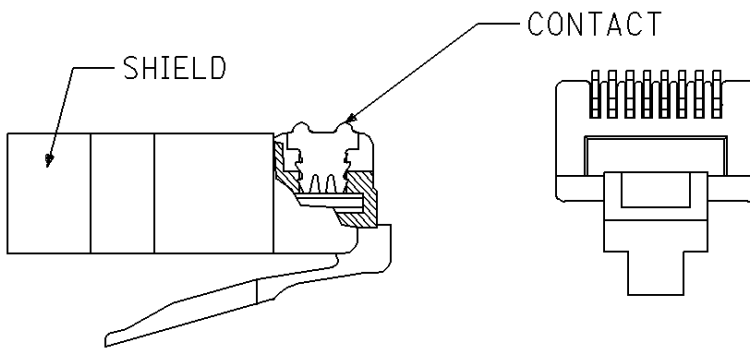
2.1 PRODUCT NAME AND SERIES NUMBER(S)

2.2

Shielded plug 95043-****



TOP VIEW



SIDE VIEW

FRONT VIEW

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2.3 DIMENSIONS, MATERIALS, PLATINGS AND MARKINGS

Plugs and jacks shall comply with the mechanical specification as in Part 68, Subpart F of the FCC rules and Regulations.

See the appropriate Sales Drawings for information on materials, plating and markings

2.4 APPLICABLE WIRES

See appropriate Application Specification AS-95043

3.0 APPLICABLE DOCUMENTS AND SPECIFICATIONS

See the appropriate Sales Drawing and the other sections of this specification for the necessary referenced documents and specifications.

4.0 RATINGS

4.1 VOLTAGE

125 Volts AC (RMS) / DC

4.2 CURRENT

1.5 Amps

4.3 TEMPERATURE

Operating: -40°C to + 60°C

Nonoperating: -40°C to + 60°C

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5.0 PERFORMANCE

5.1 ELECTRICAL REQUIREMENTS

ITEM	DESCRIPTION	TEST CONDITION	REQUIREMENT
1	Initial Contact Resistance (Low Level)	Mate connectors: apply a maximum voltage of 20 mV and a maximum current of 100 mA. (Measurement locations in Section 7.0)	20 milliohms MAXIMUM [initial]
2	Input to Output d.c. Resistance	Mated connectors. Connection points: Cable termination to cable termination.	Signal Contacts: 200 milliohms max. Screen: 100 milliohms max.
3	Initial Termination Resistance (Contact to Wire)	Unmate connectors: apply a maximum voltage of 20 mV and a maximum current of 100 mA.	Contact to Wire: 40 milliohms max. [initial]
4	Insulation Resistance	Unmate & unmount connectors: apply a voltage of 500 VDC between adjacent terminals and between terminals to ground.	500 Megohms MINIMUM
5	Dielectric Withstanding Voltage	Unmate connectors: apply a voltage of 1000 VAC for 1 minute between adjacent terminals and between terminals to ground.	No breakdown
6	Temperature Rise (via Current Cycling)	Mate connectors: measure the temperature rise at the rated current after: 96 hours (45 minutes ON and 15 minutes OFF per hour).	Temperature rise: +30°C MAXIMUM

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5.2 MECHANICAL REQUIREMENTS

ITEM	DESCRIPTION	TEST CONDITION	REQUIREMENT
7	Connector Insertion and Withdrawal Forces	Insert and withdraw a plug at a rate of 25 ± 6 mm ($1 \pm \frac{1}{4}$ inch) per minute.	20 N (4.5 lbf) MAXIMUM insertion force
8	Latch Retention Force in Housing	Axial pullout force on the plug in the jack with 44.5 N/s (10 lbf/s)	50 N (11 lbs) for 60sec \pm 5sec MINIMUM retention force
9	Durability	Mate connectors up to 750 cycles at a maximum rate of 10 cycles per minute prior to Environmental Tests.	10 milliohms MAXIMUM (change from initial)
10	Vibration (Random)	Mate connectors Amplitude: 1.50 mm (.060") peak to peak Sweep: 10-55-10 Hz in one minute Duration: 2 hours in each X-Y-Z axis.	10 milliohms MAXIMUM (change from initial) & Discontinuity < 1 microsecond
11	Shock (Mechanical)	Mate connectors and shock at 50 g's with $\frac{1}{2}$ sine wave (11 milliseconds) shocks in the $\pm X, \pm Y, \pm Z$ axes (18 shocks total).	10 milliohms MAXIMUM (change from initial) & Discontinuity < 1 microsecond
12	Wire Pullout Force (Axial)	Apply an axial pullout force on the wire at a rate of 25 ± 6 mm ($1 \pm \frac{1}{4}$ inch).	Minimum value: 75% of tensile strength of the wire

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5.3 ENVIRONMENTAL REQUIREMENTS

ITEM	DESCRIPTION	TEST CONDITION	REQUIREMENT						
13	Shock (Thermal)	Mate connectors; expose to 25 cycles of: <table border="1"> <tr> <td>Temperature °C</td> <td>Duration (Minutes)</td> </tr> <tr> <td>-40</td> <td>30</td> </tr> <tr> <td>+70</td> <td>30</td> </tr> </table> Recovery time: 2 hours	Temperature °C	Duration (Minutes)	-40	30	+70	30	10 milliohms MAXIMUM (change from initial) & Visual: No Damage
Temperature °C	Duration (Minutes)								
-40	30								
+70	30								
14	Thermal Aging	Mate connectors; expose to: 240 hours at 105 ± 2°C OR 500 hours at 85 ± 2°C	10 milliohms MAXIMUM (change from initial) & Visual: No Damage						
15	Humidity (Cyclic)	<p style="text-align: center;">1 CYCLE (24 HOURS)</p> <p style="text-align: center;">TEMPERATURE (°C)</p> <p style="text-align: center;">TIME (HOUR)</p> <p>Mate connectors: exposed for 2 cycles at 95% relative humidity. {Note: Remove surface moisture and air dry for 1 hour prior to measurements.}</p>	10 milliohms MAXIMUM (change from initial) & Dielectric Withstanding Voltage: No Breakdown at 500 VAC & Insulation Resistance: 1000 Megohms MINIMUM & Visual: No Damage						
16	Cold Resistance	Mate connectors: Duration: 96 hours; Temperature: -40 ± 3°C	10 milliohms MAXIMUM (change from initial) & Visual: No Damage						

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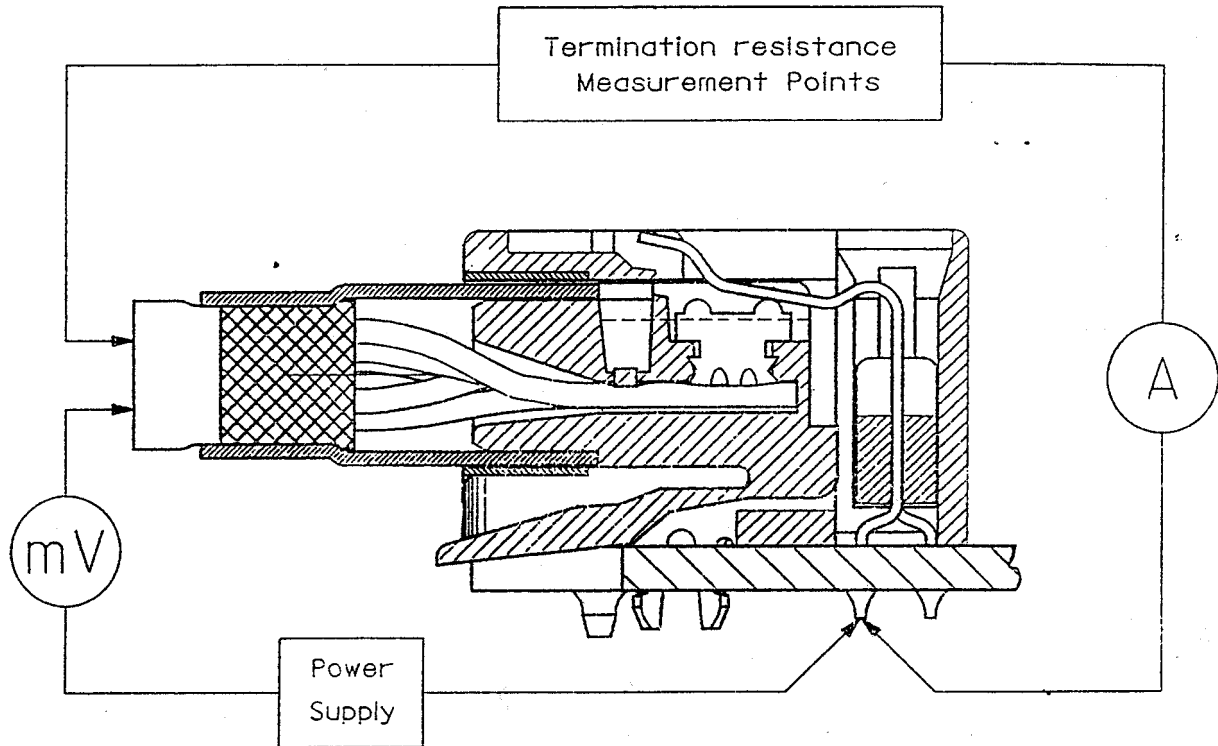
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6.0 PACKAGING

Parts shall be packaged to protect against damage during handling, transit and storage.

7.0 GAGES AND FIXTURES

Termination resistance measurement points



System resistance equals millivolt drop (mV) divided by test current (A) (Conductor resistance will be deducted from measurement.)

8.0 QUALITY ASSURANCE PROVISIONS

The applicable Molex inspection plan specifies the sampling acceptable quality level to be used. Dimensional and functional requirements shall be in accordance with applicable product drawings and this specification.

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