## LEOCO CORPORATION | PRODUCTION SPECIFICATION | No. **REV** S-96-3950

## 3950 Series and 3951 Series Connector

This product specification contains the test method, the general performance and requirements for interconntection system connector.

Test Method & Condition

With 3950 series socket, 3951 series header and 3953 series terminal.

1. Construction and dimensions shall be in accordance with the referenced drawings. 产品结构和尺寸依据所提供的产品图面.

2. Characteristics 特性:

Item

Current rating 额定电流: 7A AC,DC Voltage rating 额定电压: 250V AC,DC Temperature rating 额定温度: -40℃ ~ +105℃

Applicable wire 适用线材: conductor construction size #18 ~ #26

3. Electrical performance 电气特性: Description

	内容	测试方法与条件	需求
3-1	Contact Resistance 接触阻抗	It should be tested in accordance with method EIA-364-23	Initial: $20 \text{ m}\Omega$ max. After environmental Test: $40 \text{ m}\Omega$ max.
3-2	Insulation Resistance 绝缘阻抗	It should be tested in accordance with Method EIA-364-21	Initial: $1000M\Omega$ min. After humidity test 500 M $\Omega$ min.
3-3	Dielectric Withstanding Voltage 耐电压	Unmated connectors shall be tested in Accordance with method EIA-364-20 when the AC 1500 V rms for one minute applied between adjacent contacts.	No evidence of break Down and flashover
4. Me	echanical Performance	机械特性:	
Item	Description 内容	Test Method & Condition 测试方法与条件	Requirement 需 求
4-1	Crimp Tensile Strength 铆合张力强度	Pulling load shall be applied between Correctly crimped contact and wire at a constant speed. Pulling speed: 25 mm / minute.	AWG #18: 10.0 kgf min. AWG #20: 6.0 kgf min. AWG #22: 4.0 kgf min. AWG #24: 2.5 kgf min. AWG #26: 1.5 kgf min.
4-2	Contact Insertion Force 接触插入力	The force required to insert a contact into a housing. Inserting speed: 25 mm / minute.	1.6kgf max.
4-3	Contact removal Force 接触拨出力	Crimped contact mounted in a housing shall be pulled in an alignment at a constant speed of 25 mm / minute.	2.0 Kgf min.
4-4	Post Retention Force 保持力	The end of a post shall be pushed in a perpendicular to base housing at a constant speed of 25 mm / minute.	2.0 kgf min.
4-5	Housing lock strength	Pulling load shall be applied to the housing in the direction that the housing separates from the header at a constant speed of 25mm/minute	2 poles:1.5 kgf min 3~12 poles:5.0 Kgf min
4-6	Insertion Force 插入力	Housing with contact mating header at a constant speed of 25 mm / minute.	See parameters 6

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Requirement

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Item	Description 内容	Test Method & Condition 测试方法与条件	Requirement 需 求		
4-7	Withdrawal Force 拨出力	Housing with contact mating header, Pull out from header at speed 25 mm / minute.	See parameters 6		
4-8	Durability 耐久性	It should be tested in accordance with method EIA-364-09. Connector shall be subjected to 100 cycles of insertion and withdrawal	No defects. Contact resistance shall be $20m\Omega$ max		
4-9	Vibration 振动性	The socket mated PCB shall be vibrated in accordance with method EIA-364-28. There shall be no current discontinuity longer—than 1 microsecond during the test.  Frequency: 10-55-10 Hz / min.  Amplitude: 1.52mm  Period: 2 hours for each direction	No evidence of loosening of parts or electric discontinuity. Contact resistance less than twice of initial.		
5. Envir	onmental Performa	nce 环境特性:			
Item	Description 内容	Test Method & Condition 测试方法与条件	Requirement 需 求		
5-1	Humidity 耐湿性	The unmated connector shall be tested in accordance with method EIA-364-31. Temperature: 40±2 °C Humidity: 90 ~ 95 % (RH) Period: 96 hours.	NO damage. Contact resistance less Than twice of initial. Insulation resistance: t paragraph 3-2. Dielectric withstanding voltage: to paragraph 3-		al. nce: to nding
5-2	Thermal Shock 热冲击测试	one cycle consists of: -25°C for 30 minutes. +105°C for 30 minutes. Times of cycle:25 cycle.	No damage. Contact resistance less than twice of initial Insulation resistance :to paragraph.3-2. Dielectric withstanding voltage :to paragraph 3-3.		ce :to lectric
5-3	Salt Spray 盐雾试验	Connector shall be tested in accordance with method EIA-364-26 Temperature: 35±2 °C Density: 5 % in weight. Period: 24 hours.	NO damage. Contact resistance less than twice of initial.		
5-4	Solderability 着锡性	Connector termination ends shall be checked for solderability in accordance with method EIA-364-52. Solder temperature: 245±5 °C	NO damage. Minimum: 95 % of immersed area.		

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Item	Description 内容	Test Method & Condition 测试方法与条件	Requirement 需 求			
5-5	Resistance to Soldering Heat 焊接耐热性	Specimen shall be mounted on PCB. Solder temperature: 255±5 °C Immersion period: 5±0.5 sec.	NO damage and deformation.			

## 6.Mating force and unmating force 插拔力:

Unit :Kgf

Number	Mating Force	Unmating Force(min.)				
of circuits	Initial max.	Initial	6th	30th	60th	
2	2.25	0.60	0.35	0.30	0.20	
3	3.22	0.80	0.48	0.43	0.33	
4	4.08	1.10	0.72	0.67	0.57	
5	4.85	1.50	1.05	1.00	0.90	
6	5.78	1.50	1.10	0.95	0.82	
7	6.61	1.60	1.25	1.00	0.84	
8	7.44	1.70	1.40	1.05	0.86	
9	8.27	1.80	1.55	1.10	0.88	
10	9.00	2.00	1.80	1.15	1.00	
11	9.83	2.00	1.85	1.20	0.92	
12	10.66	2.10	2.00	1.25	0.94	

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