Product specification

1. Scope

This specification applies to the Pitch 2.54mm IDC connectors, specifying the product's performance indicators, test methods and test requirements.

Applicable Product Models: FID25411 series.

2. Applicable Standards

In the event of conflict between the requirements of this specification and the product drawing, the product drawing shall take precedence.

3. Parameter Range

Parameter Name	Value & Unit
Rated Current	1A AC(rms)/DC
Rated Voltage	250V AC(rms)/DC
Operating Temperature Range	-40 ℃ ~+105 ℃
Applicable wire	28 AWG

4. Appearance and Dimensions

4.1 Appearance：The product surface shall be free from defects, dirt, cracks and mechanical damage. Contacts shall be free from rust, oxidation or plating peeling.

4.2 Appearance and dimensions shall comply with the requirements of product drawings.

4.3 Exchangeable: Exchangeable with same specification products.

5. Materials

Component	Material Specification	Color
Housing	PBT (UL94V-0)	Black
Terminal	Copper Alloy(Gold flash)	-

6. Test Requirements and Procedures Summary

Serial No.	Item	Test Method	Technical Requirements
1	Examination of Product	Visual inspection	Meet the drawing requirements, no damage or abnormality in visual appearance
Electrical Requirement			
2	Dielectric Withstanding Voltage	Apply 500V AC(rms)for I minute and the leakage current shall not exceed 0.5mA to the adjacent terminal and ground of the mate connectors. (EIA-364-20A)	No flashover or insulation breakdown
3	Contact Resistance	A maximum voltage of 20mV and maximum current of 10mA are applied to the Mate connector.	Contact Resistance ≤20mΩ
4	Insulation Resistance	Mate applicable and apply 500V DC between adjacent terminal or ground.	Insulation Resistance ≥ 1000MΩ
Mechanical Characteristics			
5	Retention Force for Pin	Exerts a force on the pin end at a rate per Minute 25±3mm until the needle exit Seat pull-out force.	Retention Force ≥0.8Kgf/Pin
Environmental Performance			
6	Durability	Mate connectors up 30 cycles at a Maximum rate of 10 cycles per minute prior to environmental test. (EIA-364-09C)	Contact Resistance≤40mΩ;

7	Temperature	Mate connector measure the temperature rise of contact when the maximum rated current is passed. （EIA-364-70B）	△30℃ Max
8	Random Vibration	Mated connectors subjected to vibration conditions: 10~55~10Hz, amplitude 1.5mm, 2h per axis, urrent applied.	Appearance: No damage; Current Discontinuity ≤1ms; Contact Resistance≤40mΩ；
9	Shock	490m/s2{50G}，3 strokes in each X.Y.Z. axes. (EIA-364-27B)	Appearance: No damage; Current Discontinuity ≤1ms;Contact Resistance≤40mΩ；
10	Thermal Aging	Mate connector exposed to the condition of 105±2℃ for 96 hours；Then store at room temperature for 1 to 2 hours.	Appearance: No damage; Contact Resistance≤20mΩ;
11	Cold Resistance	Mate connector exposed to the condition of -40±2℃ for 96 hours；Then store at room temperature for 1 to 2 hours. (EIA-364-59A)	Appearance: No damage; Contact Resistance≤40mΩ;
12	Humidity-Temperature Cycle	Temperature (40±2) ℃, relative humidity 90~95% for 96 h; after the test. (EIA-364-31B)	Appearance: No damage; contact resistance≤40mΩ; insulation resistance≥1000MΩ; No flashover or insulation breakdown;
13	Temperature cycling	One cycle consists of -55±3℃ 30min,room temp 10-15min 85±3℃ 30min,room temp 10-15min Total cycle :5cycle. (EIA-364-32D)	Appearance: No damage; Contact Resistance≤40mΩ;

14	Salt Spray	Salt concentration: 5%, temperature: (35±2) ℃, test time: (24±2) h; after the test, rinse residual salt with clean water, wipe dry before measurement.	Appearance: no damage
15	Solder ability	Soldering Time：2±0.5 sec. Soldering Temperature：235±5℃	Area of Soldering ≥95%
16	Solder-Resistance	Soldering Time：3~5 sec. Solder Temperature：240 ℃ Max . （EIA-364-71B）	Appearance: no damage