JOINT 180P (60P+60P+60P) CONNECTOR

1. Scope

1.1 Content

This specification defines the test method for Joint 180P connector and terminal.

1.2 Qualification

When testing the named products, the following specified specifications and standards shall be used.
All tests have to be done using the applicable inspection plan and product.

2. Applicable Documents

The following documents, if they are referred inside this document, are part of this specification.
In case of conflict between the requirements of this specification and the product drawing or in conflict between the requirements of this specification and the referenced documents, this specification has precedence

2.1 TE Connectivity Documents

A. 109-1: General Requirements for Test specifications.

B. Customer Drawings

2005402	025 60P Plug
2005405	180P Joint Block

C. 114-61030 Application spec for 025 Terminal

3. Requirements

No.	Items	Characteristics			Remarks
1	Appearance	No harmful crack, rust, burr, damage, deformation, discoloration etc.			
2	Connector engage and disengage force	18kgf or less			
3	Reverse insertion between housings	It shall not be incorrectly inserted by applying force of 20kgf			
4	Reverse insertion between terminal and housing	2.4kgf or more			
5	Engage force between terminal and housing	1.5kgf or less			
6	Housing locking strength	8kgf or more			
7	Lock release force	Force on release force point of lock part shall be 6kgf or less			
8	Terminal retention force	6kgf or more at secondary locking condition			
9	Terminal engage and disengage force	Engage force: 0.1~0.5kgf, Disengage force: 0.1~0.5kgf			
10	Voltage drop	Division	Initial	After endurance	
		025	10 mV/A or less	20 mV/A or less	
11	Insulation resistance	Division	Initial	After endurance	
		Non-waterproof	100MΩ or more	100MΩ or more	
12	Leakage current	Division	Initial	After endurance	
		Non-waterproof	10 μA or less	10μA or less	
13	High voltage test	There shall be no insulation break.			
14	Temperature rise	Division	After endurance		
		General Connector	40℃ or less		
15	Instant short circuit	There shall be no 10μs or more instant short circuit.			

< Table 1 >

No.	Items	Characteristics	Remarks
16	Overcurrent cycle test	See Requirement No: 3.1 / 3.10 / 3.14 @ Basic current: 2.4A	
17	Cold temperature test	See Requirement No: 3.1 / 3.10 / 3.11 / 3.12 / 3.14	
18	Cold and hot temperature shock test	See Requirement No: 3.1 / 3.10	
19	High temperature test	See Requirement No: 3.1 / 3.10	
20	Temperature Humidity test	See Requirement No: 3.1 / 3.10 / 3.11 / 3.12	
21	Dust test	See Requirement No: 3.10	
22	Ozone test	See Requirement No: 3.1 / 3.10	
23	Sulfur gas test	See Requirement No: 3.1 / 3.10	
24	Complex environment endurance test	See Requirement No: 3.1 / 3.10 / 3.14 / 3.15	

< Table 2 >

4. Test conditions

4.1 Specimen

Unless there is specific mention, initial sample should use for the test specimen, and test specimen shall be 5EA or more for each cavity. However, if performance is expected to be clearly satisfactory ever by applying load to the same specimen in turn, it is possible to apply multiple test items to the same specimen. In such case, performance shall be satisfied with each item.

4.2 Laboratory condition

Perform each test at designated temperature and humidity. And control humidity at designated absorption ratio for the connector which uses absorbent resin housing.

Temperature: 25 ± 5 ℃, Humidity: 60 ± 20%