



The product described in this document has not been fully tested to ensure conformance to the requirements outlined below. Therefore, TE Connectivity (TE) makes no representation or warranty, express or implied, that the product will comply with these requirements. Further, TE may change these requirements based on the results of additional testing and evaluation. Contact TE Engineering for further details.

JPT INJECTOR 2P PLUG ASS'Y

1. SCOPE

1.1. Content

This specification covers the requirements for product performance, test methods and quality assurance provisions of JPT Injector 2P Plug ASS'Y

1.2. Qualification

When tests are performed on the subject product line, procedures specified in Figure 1 shall be used. All inspections shall be performed using the applicable inspection plan and product drawing.

1.3. Qualification Test Results

Successful qualification testing on the subject product line has not been completed. The Qualification Test Report number will be issued upon successful qualification testing.

2. APPLICABLE DOCUMENTS AND FORMS

The following documents and forms constitute a part of this specification to the extent specified herein. Unless otherwise indicated, the latest edition of the document applies.

2.1. TE Documents

- 936139: Customer Drawing (JPT INJECTOR PLUG ASS'Y)

3. REQUIREMENTS

3.1. Design and Construction

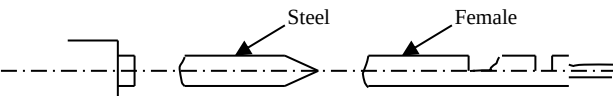
Product shall be of the design, construction, materials and physical dimensions specified on the applicable product drawing.

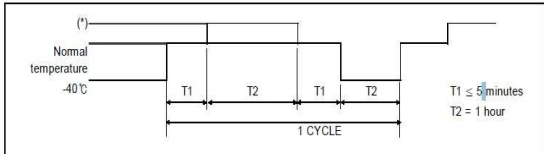
3.2. Ratings

Voltage	Temperature	Humidity
12V DC	25±5°C	65±20%

3.3. Test Requirements and Procedures Summary

Unless otherwise specified, all tests shall be performed at ambient environmental conditions.

TEST DESCRIPTION	REQUIREMENT		PROCEDURE												
Appearance	No crack, damage, distortion are permitted		Using sense of sight and touch.												
CONN engage and disengage force	Max 10.0kgf and less		Measure force by inserting and disengaging the connector with terminal assembled at constant 100 mm/min speed. However, remove lock part when measuring disengage force.												
Reverse insertion between housings	It shall not be incorrectly inserted by applying force of 20kgf.		Insert the housing with terminal by pushing it in reverse direction with applying 20kgf.												
Reverse insertion between terminal and housing	Min 5kgf or more		Crimp cable of maximum size on terminal and then, insert it into housing by the end of insulation												
Strength of HSG lock	Min 10kgf or less		Combine housing only, fix the one side of housing in completely locked condition, and extend the other side in axial direction and 30 angle direction at a constant speed of 50mm/min. Then measure weight when lock structure is disengaged or destroyed.												
Terminal retention force	Min 6kgf		Fix the housing after inserting crimped terminals. Extend one line of cable in axial direction at a speed of 50mm/min at a position 50~100mm away from crimped part, and measure weight when terminal is disengaged from the housing.												
Terminal engage and disengage force (kgf)	Engage	0.3~1.5kgf	As shown in figure 4-3, engage and disengage male terminal or steel gauge into or from female terminal at 50 mm/min speed. 												
	Disengage	0.15~1.5kgf													
Voltage Drop	Max 3mV/A		Measure the circuit voltage drop (V) by sending voltage and current described in the table5-1 with terminal combined on the connector. Then calculate a voltage drop (VD) in terminal by subtracting cable resistance (L) from the circuit voltage drop (V). 1) HARNESS versus UNIT: $VD = V(L3+L4)$ <table border="1"> <thead> <tr> <th>Application</th><th>Open voltage</th><th>Short circuit current</th><th>Division</th></tr> </thead> <tbody> <tr> <td>Signal circuit</td><td>$20 \pm 5 \text{ mV}$</td><td>10 mA</td><td>ECU, Sensor</td></tr> <tr> <td>Power circuit</td><td>13 V</td><td>1 A</td><td>Other than the above</td></tr> </tbody> </table> <Table5-1>	Application	Open voltage	Short circuit current	Division	Signal circuit	$20 \pm 5 \text{ mV}$	10 mA	ECU, Sensor	Power circuit	13 V	1 A	Other than the above
Application	Open voltage	Short circuit current	Division												
Signal circuit	$20 \pm 5 \text{ mV}$	10 mA	ECU, Sensor												
Power circuit	13 V	1 A	Other than the above												
Cold and hot temperature shock test	Appearance	No crack, damage, distortion are permitted	Engage and disengage Connector with terminal assembled 10 times with hands, this repeats 200 CYCLE by below test condition. (ENG ROOM : 120°C, ENG ROOM except : 80°C)												
	Voltage Drop	Max 10mV/A													
	Sealing	Min 0.5kgf/cm ²													

				
Waterproof Test	Appearance	No crack, damage, distortion are permitted		Make combined connectors engaged and disengaged 10 times by hands, and leave it in combined state at 120 °C ambient temperature for 40 minutes and then spray water of normal temperature for 2 minutes according to S2 of JIS D0203. Repeat 48 cycles of this. * JIS D0203 S2 condition: attach specimen at 400mm distance from the waterproof pipe with water spray hole or water discharge hole and rotate waterproof pipe 23 times per minute around the axis.
	Insulation Resistance	Min 100 MΩ	Between terminals and housing surface	
	Current Leakage	Max 100 μA		
	Sealing	Min 0.5kgf/cm ²		

3.4. Applied Part No List

TE Part no	Description
936139-1	JPT INJECTOR PLUG ASS'Y