

REVISIONS					
P	LTR	DESCRIPTION	DATE	DWN	APVD
	EI	REVISED (ECR-16-009129)	23.JUN.'16	SJ	HG
	F	REVISED (ECR-17-008875)	02NOV2017	SJ	KT
	FI	REVISED (ECR-18-009554)	09.JUL'18	EW	YJ
	G	REVISED (ECR-21-002339)	24FEB2021	CH	YJ

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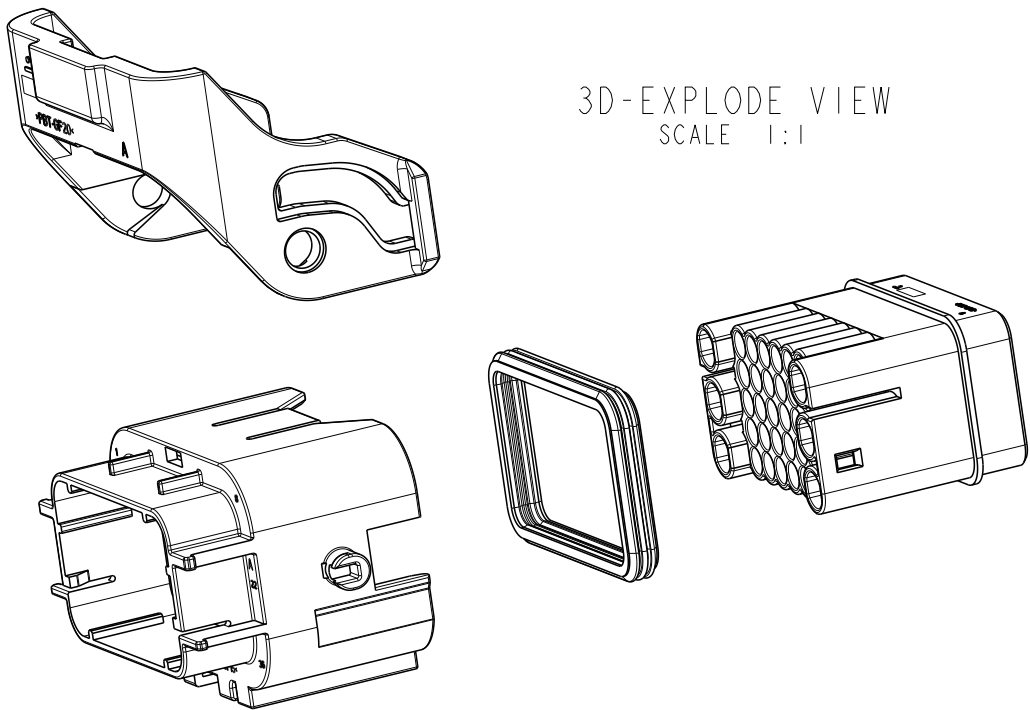
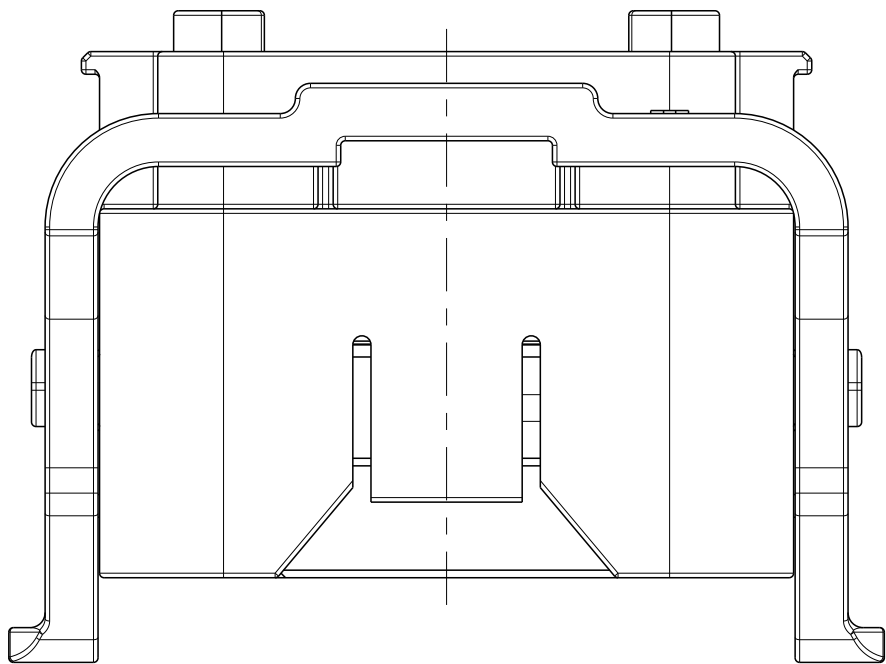
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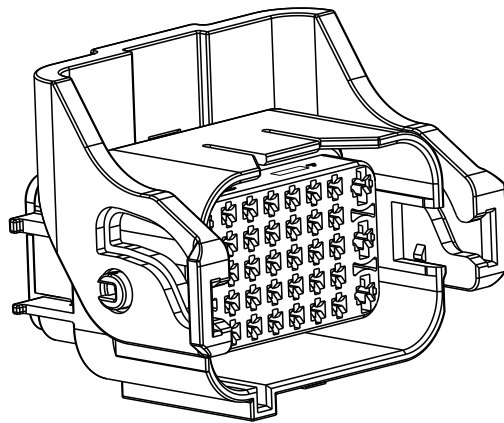
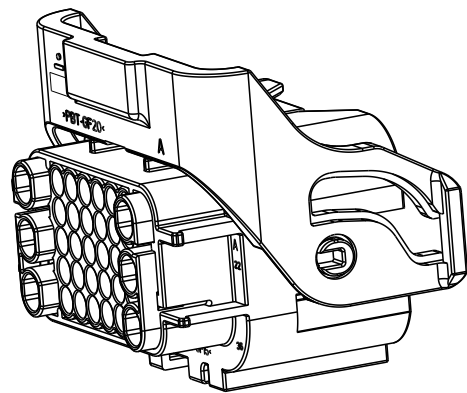
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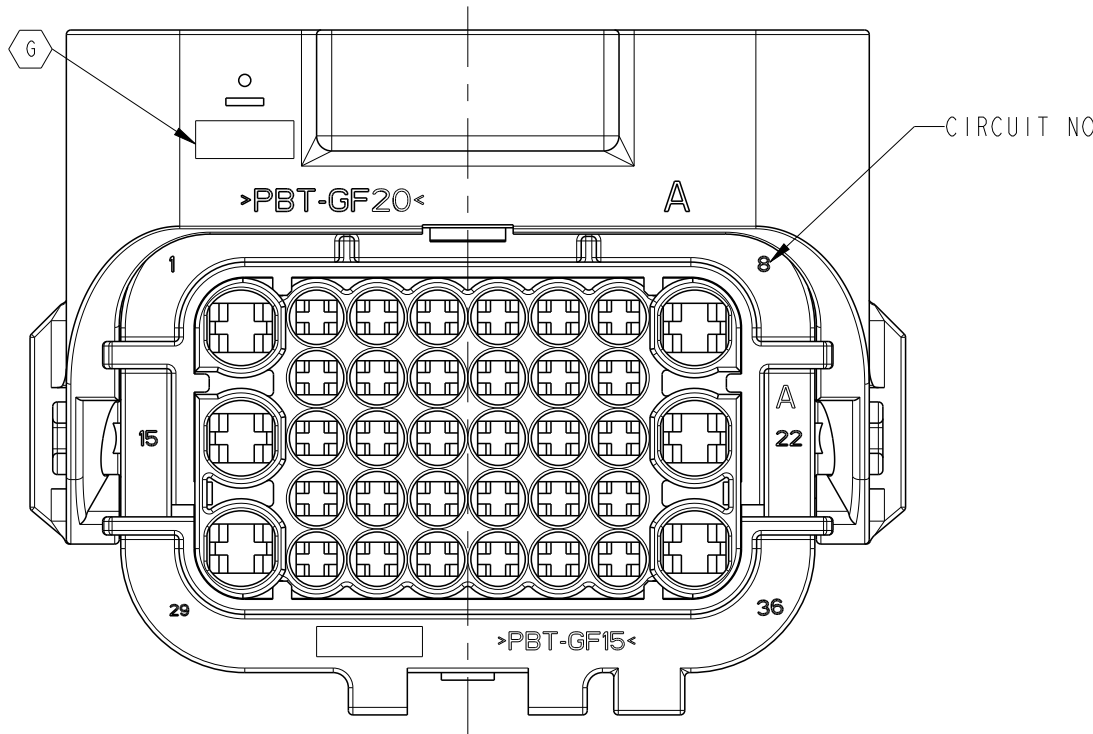
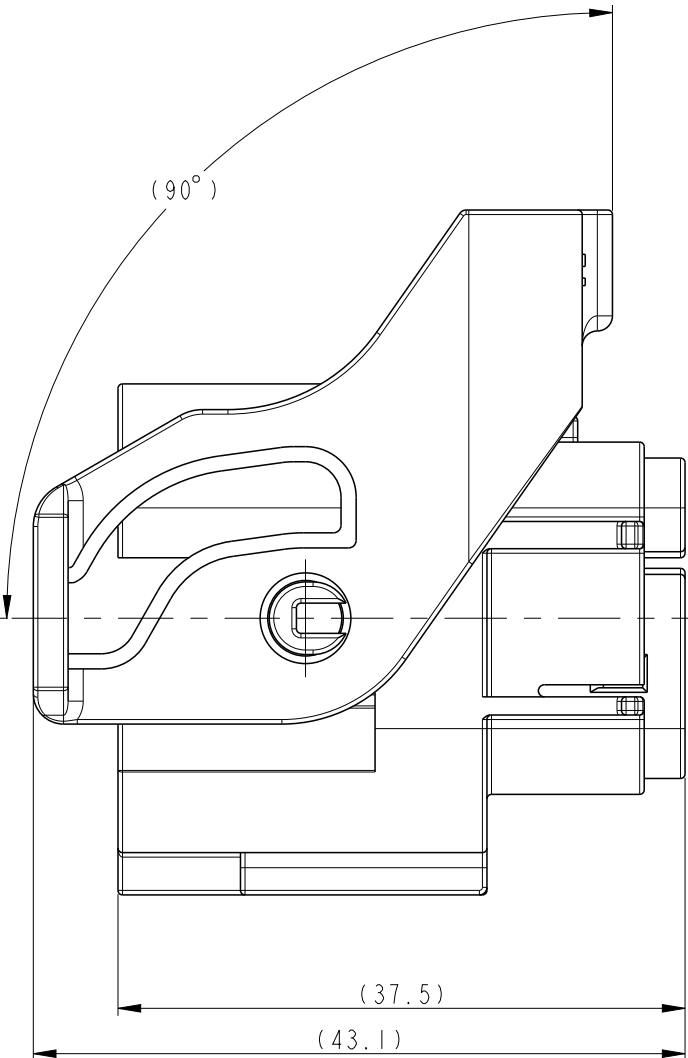
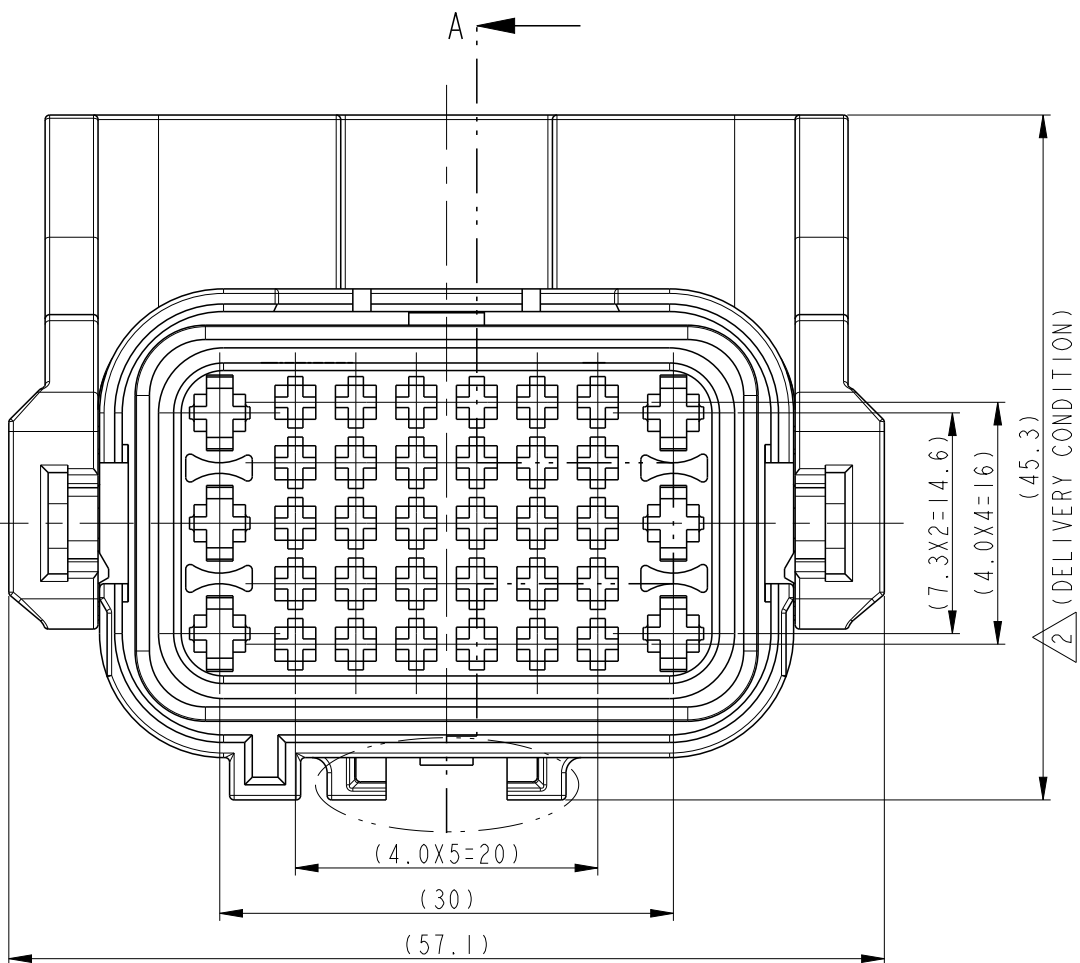


3D-EXPLODE VIEW
SCALE 1:1

- NOTES.
1. GENERAL TOLERANCE IS ± 0.3 , $\pm 3^\circ$
 2. CONDITION OF DELIVERY
 3. APPLIED CAP ASS'Y P/N : X-1743062-X
APPLIED WIRE COVER P/N : X-1743064-X
 4. APPLIED RECEPTACLE CONTACT P/N : TABLE 1
 5. APPLIED WIRE SEAL P/N : TABLE 2



3D-VIEW
SCALE 1:1



勝特力電材超市-龍山店 886-3-5773766
勝特力電材超市-光復店 886-3-5729570
勝特力电子(上海) 86-21-34970699
勝特力电子(深圳) 86-755-83298787
<http://www.100y.com.tw>

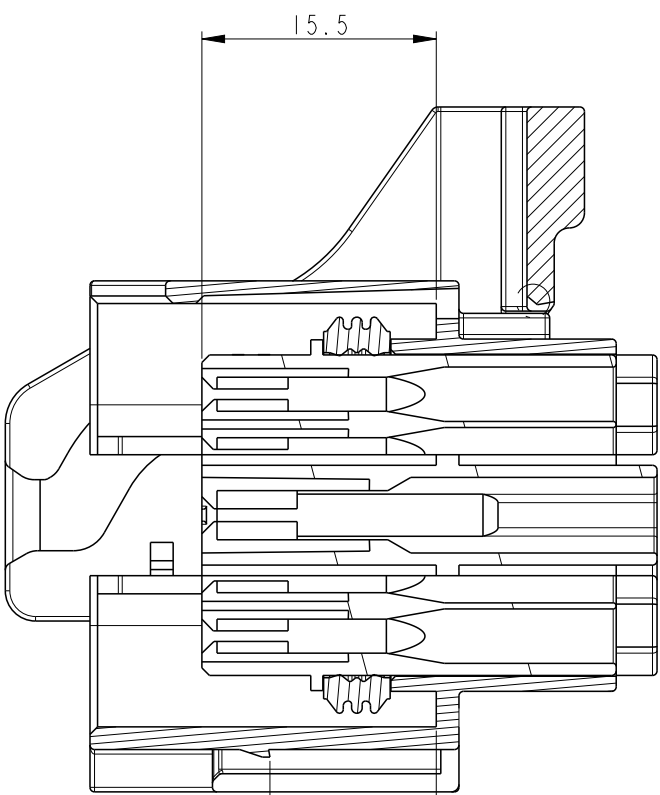
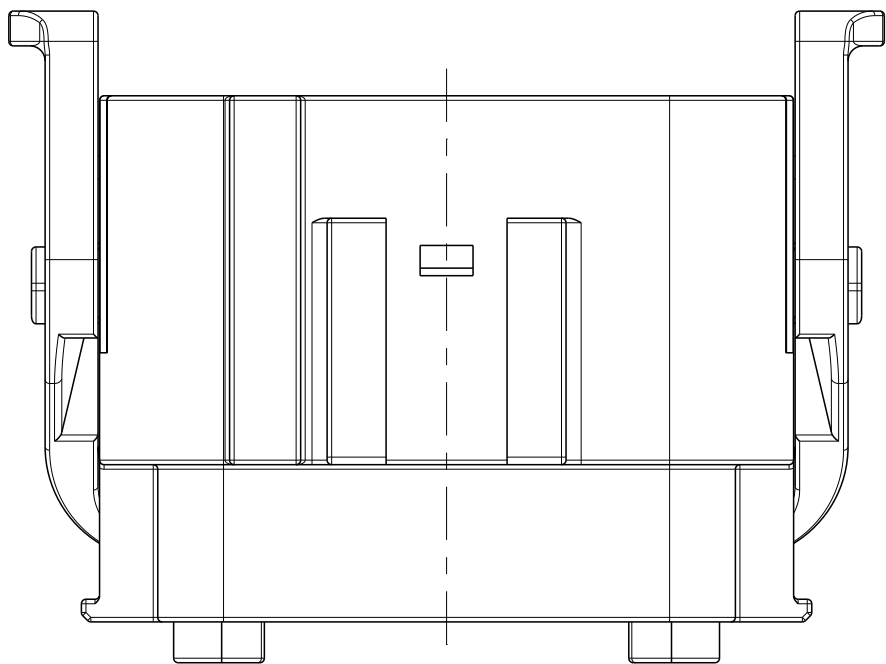
<TABLE 1>

TYPE	Part No.	WIRE SIZE (mm ²)	FINISH
MTII	0-962875-1	0.25 ~ 0.5	CuSn4
	0-962875-3		CuSn4(GOLD)
	0-962876-1	0.5 ~ 1.0	CuSn4
	0-962876-3		CuSn4(GOLD)
JPT	0-927770-3	0.5 ~ 0.85	CuSn4
	2-927770-1		CuSn4(GOLD)
	0-927766-3	1.25 ~ 2.0	CuSn4
	2-927766-1		CuSn4(GOLD)

<TABLE 2>

TYPE	Part No.	WIRE INSULATION DIAMETER(mm)	COLOR
MTII	964971-1	1.2 ~ 1.6	RED
	963530-1	1.7 ~ 1.9	GRAY
	963531-1	CAVITY PLUG	WHITE
	828904-1	1.2 ~ 2.1	BLUE
JPT	828905-1	2.2 ~ 3.0	WHITE
	828922-1	CAVITY PLUG	NATURAL

NO.	COLOR/FINISH	MATERIAL	DESCRIPTION	Q'TY			
4	-	SILICONE	INNER SEAL	I	I	I	I
3	GRAY (RAL 7004)	PBT-GF20	LEVER HSG	I	I	-	I
	BLACK (RAL 9011)	PBT-GF20		-	-	I	-
2	DARK GRAY (RAL 7012)	PBT-GF15	MAIN BODY PLUG HSG	-	-	-	I
	BLACK (RAL 9011)	PBT-GF15		-	I	I	-
	NATURAL	PBT-GF15		I	-	-	-
1	BLACK (RAL 9011)	PBT-GF15	FRONT PLUG HSG	I	I	I	I



SECTION A-A

THIS DRAWING IS A CONTROLLED DOCUMENT.		DWN YD.LEE	TE Connectivity		
		CHK BM JANG			
		APVD CS.LEE			
		PRODUCT SPEC			
DIMENSIONS: mm		APPLICATION SPEC		NAME PLUG ASS'Y FOR MTII JPT SLD 36P	
TOLERANCES UNLESS OTHERWISE SPECIFIED:		WEIGHT -		SIZE A2	
0 PLC ±		CUSTOMER DRAWING		CAGE CODE 00779	
1 PLC ±				DRAWING NO C-1743059	
2 PLC ±				RESTRICTED TO -	
3 PLC ±				SCALE 2:1	
4 PLC ±				SHEET 1 OF 1	
ANGLES ±				REV G	
FINISH ±					
SEE TABLE					



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.

MT-2/JPT SLD Connector

1. SCOPE

1.1. Content

This specification covers the requirements for product performance, test methods and quality assurance provisions of MT-2/JPT SLD Connector.

1.2. Qualification

When tests are performed on the subject product line, procedures specified 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

- 1743059: Customer Drawing (MT-II/JPT SLD 36P PLUG ASSY)
- 1743350: Customer Drawing (MT-II/JPT SLD 16P PLUG ASSY)
- 1897009: Customer Drawing (MT-II/JPT SLD 26P PLUG ASSY)
- 2188667: Customer Drawing (MT-II/JPT SLD 20P PLUG ASSY)

3. REQUIREMENTS

3.1. Design and Construction

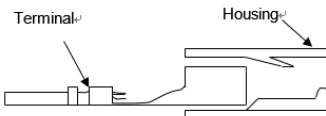
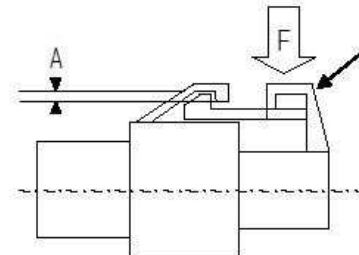
Product shall be of the design, construction, materials and physical dimensions specified on the applicable product drawing.

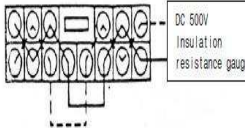
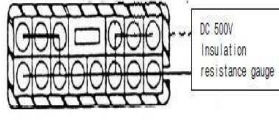
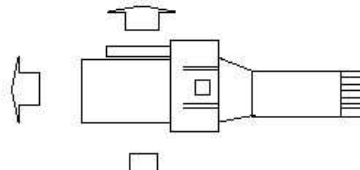
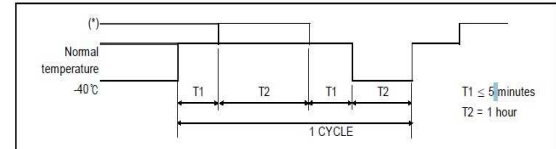
3.2. Ratings

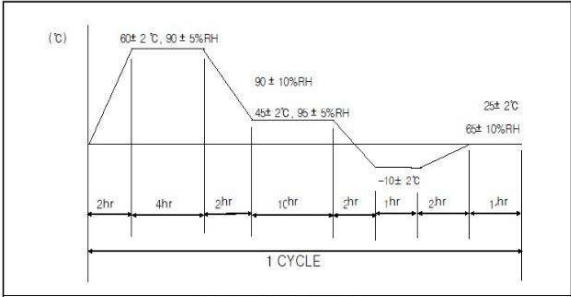
Voltage	Temperature	Humidity
12V DC	25±5°C	60±20%

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 kgf and less	Measure force by inserting and disengaging the connector with terminal assembled at constant 50 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	5kgf or more	Crimp cable of maximum size on terminal and then, insert it into housing by the end of insulation.
Engage force between terminal and housing	1.5kgf or less	As shown in the following figure 4-1, measure the weight while inserting terminal into fixed housing at 50mm/min speed.  <p><Figure 4-1></p>
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.
HSG lock releasing force	Max 6kgf	Apply force (F) to lock releasing part, and measure weight on the point of A=0. However, cut connector and then perform test at the section in order to secure visibility.  <p><Figure 5-2></p>
Terminal retention force	060(MT-2) Min 5kgf 110(JPT) 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.
Voltage Drop	060(MT-2) Max 3mV/A 110(JPT) Max 5mV/A	Measure the circuit voltage drop (V) by sending voltage and current described in the table 5-1 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).

		<p>1) HARNESS versus UNIT: $VD = V(L3+L4)$</p> <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> <p><Table5-1></p>		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												
Insulation resistance	Min 250 MΩ	<p>Measure resistance between neighbor terminals (figure 5-6), and between terminal and housing surface (figure 5-7) with DC 500V insulation resistance gauge with connector combined.</p>   <p><Figure 5-6: Between neighboring terminals> <Figure 5-7: Between neighboring terminal and housing surface></p>													
High voltage test	No allowed insulation breakdown	<p>Measured by applying test potential of 1000 V AC between the adjacent contact between the contact and housing.</p>													
Twisting Test - Connector Engage and Disengage Endurance Test	Appearance	No crack, damage, distortion are permitted	<p>Apply 8kgf force on the end part of combined connector 10 times each in the (front, rear, left, right) directions perpendicular to axial direction.</p>												
	Max 10mV/A		<p>Make combine connectors engage and disengage at 100mm/min. Perform it 50 times. (Do not use locking device)</p>												
Cold temperature test	Appearance	No crack, damage, distortion are permitted	<p>Engage and disengage connector with terminal assembled 10 times with hands, and leave it in temperature chamber of -40°C for 120 hours. Make connector engaged and disengaged 5 times immediately, and drop it onto the concrete surface from 1m height 3 times in the direction of figure 6-1. (Voltage drop & Temperature rise test perform at normal temperature) :</p>  <p><Figure 6-1></p>												
	Insulation Resistance	Non-Sealed CONN' R : Min 100 MΩ													
	Current Leakage	Max 100 μA													
Cold and hot temperature shock test	Appearance	No crack, damage, distortion are permitted	<p>Engage and disengage Connector with terminal assembled 10 times with hands, this repeats 200 CYCLE by below test condition. (Sealed : 120°C, Non-Sealed : 80°C)</p> 												
	Voltage Drop	Max 10mV/A													
	Appearance	No crack, damage, distortion are permitted	<p>Engage and disengage connector with terminal assembled 10 times with hands, and leave it in combined state at the</p>												

High temperature test	Voltage Drop	Max 10mV/A		temperature chamber with 120°C for 300 hours. Then pick it out and leave it until it returns to normal temperature.
Temperature Humidity Test	Appearance	No crack, damage, distortion are permitted		Engage and disengage connector with terminal assembled 10 times with hands, and leave it at 25°C ambient temperature and 65% relative humidity for 25 hours. And perform 5 cycles of the method specified in figure 6-3
	Voltage Drop	Max 10mV/A		 < Figure 6-3 : Test pattern >
	Insulation Resistance	Min 100 MΩ	housing surface	
	Current Leakage	Max 100μA		
Dust Test	Voltage Drop	Max 10mV/A		Engage and disengage connector with terminal assembled 10 times with hands, and diffuse 1.5kg Portland cement(JIS R5210) with fan (or others) for 10 seconds per 15 minutes while maintaining 150mm distance from wall in the closed container of 900~1200mm length, width and height, with connector combined. After 1 hour, measure it.
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 40 minutes and then spray water of normal temperature for 20 minut according to S2 of JIS D0203. Repeat 48 cycles of this. * JIS D0203 S2 condition: attach specimen at 400mm distance from 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	housing surface	
	Current Leakage	Max 100 μA		
Oil and liquid test	Appearance	No crack, damage, distortion are permitted		Engage and disengage connector with terminal assembled 10 times with hands, and perform test each sample with connector combined. A. Immerse connector in combined state for 2 hours in mixed oil of 50± 2°C ENG oil (SAE10W) or equivalent oil and B. Immerse connector in combined state for1 hour in car gasoline (JIS K2202) at normal temperature, and then pick it out. C. Immerse connector in combined state for 1 hour in brake liquid (pure product) at normal temperature, and then pick it out. D. Immerse connector in combined state for 1 hour in 100% washer liquid (pure product) at normal temperature, and then pick it out. E. Immerse connector in combined state for 1 hour in 50% LLC (Long life coolant) at normal temperature, and then pick it out.
	Voltage Drop	Max 10mV/A		
Ozone Test	Appearance	No crack, damage, distortion are permitted		Engage and disengage Connector with terminal assembled 10 times with hands, and samples keep at 40°C and 50±5pphm

	Voltage Drop	Max 10mV/A		Ozone for 100hour. Then pick connector out of chamber and dry it for 2hours or more.																									
Salt water test	Appearance	No crack, damage, distortion are permitted		Engage and disengage connector with terminal assembled 10 times with hands, and put it in 35℃ temperature regulation chamber, spray 5% salty water for 24 hours according to JIS Z2371, and, maintain room temperature without spray for 1 hour, Then repeat this four times. Then pick connector out of chamber and dry it at room temperature for 2 hours or more.																									
	Voltage Drop	Max 10mV/A																											
	Insulation Resistance	Min 100 MΩ	Between terminal s																										
			housing surface																										
	Current Leakage	Max 100μA																											
Complex environment endurance test	Appearance	No crack, damage, distortion are permitted		Engage and disengage connector with terminal assembled 10 times with hands, and leave it in combined state in the temperature chamber of 120℃ or 80℃ (follows table 7) for 48 hours. And then perform the following vibration test. Then measure instant short circuit according to the method of clause 4.16 for 4 hours for X, Y, Z each.																									
	Crimp Tensile Strength	1.25SQ (110)	Min 17kgf																										
		0.5SQ (060)	Min 9Kgf																										
		0.5SQ (250)	Min 9kgf																										
		2.5SQ (250)	Min 25kgf																										
	Voltage Drop	Max 10mV/A																											
	Temperature Rise	Max 40℃																											
	Instant short circuit	Max 10μs																											
		<table><tr><th>Division</th><th>Condition</th><th></th></tr><tr><td></td><td>Sine test</td><td>Random test</td></tr><tr><td>Ambient temperature/humidity</td><td colspan="2">120℃</td></tr><tr><td>Applied current</td><td colspan="2">Basic current (Connector electrodes in series.)</td></tr><tr><td>Current application cycle</td><td>120 CYCLE (45 minutes-ON, 15 minutes-OFF)</td><td>24 CYCLE (45 minutes-ON, 15 minutes-OFF)</td></tr><tr><td>Vibration acceleration</td><td>Table</td><td>Table</td></tr><tr><td>Frequency</td><td colspan="2">20Hz ~ 200Hz (sweep time: 3 minutes or less)</td></tr><tr><td>Vibration time</td><td>40 hours for X, Y, Z each</td><td>8 hours for X, Y, Z each</td></tr><tr><td>Connector attaching method</td><td>Test mode A, B, C</td><td>Test mode D, E, F</td></tr></table>			Division	Condition			Sine test	Random test	Ambient temperature/humidity	120℃		Applied current	Basic current (Connector electrodes in series.)		Current application cycle	120 CYCLE (45 minutes-ON, 15 minutes-OFF)	24 CYCLE (45 minutes-ON, 15 minutes-OFF)	Vibration acceleration	Table	Table	Frequency	20Hz ~ 200Hz (sweep time: 3 minutes or less)		Vibration time	40 hours for X, Y, Z each	8 hours for X, Y, Z each	Connector attaching method
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