

HONDA TSUSHIN KOGYO CO.,LTD. TOKYO JAPAN	SHEET	1 OF 4
	DATE	SEP24.2002

PRODUCT SPECIFICATION  PCR-E TYPE CONNECTOR  1.27mm SPACING BOARD TO CABLE CONNECTOR.	APPROVED BY	CHECKED BY	WRITTEN BY
	<i>S. Furusawa</i>	<i>K. Homma</i>	<i>T. Kawano</i>
	S. FURUSAWA	K. HOMMA	T. KAWANO

CONNECTOR PART NO.				
	△	MAR.31.2003	T.K	RoHS
	△	JUL.7.2003	T.K	Change Thermal Shock Temperature
	LTR.	DATE	BY	REV.DESCRPT

PCR-E TYPE FEMALE CONNECTOR

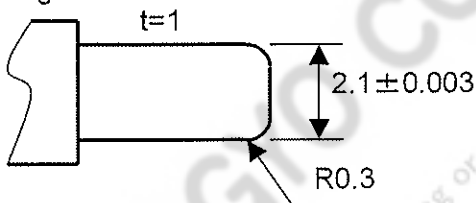
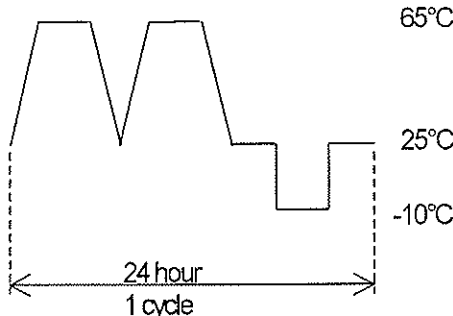
- PCR-E(F) + △
- PCR-E(DF) +
- PCR-E(DSFB) +
- PCR-E(DSF) +
- PCR-E(SFS) +

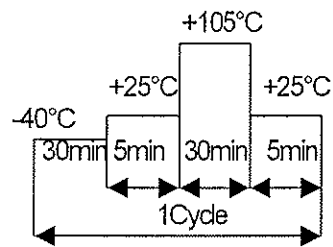
PCR-E TYPE MALE CONNECTOR

- PCR-E(MD) + △
- PCR-E(LMD) +
- PCR-E(PM) +

CHARACTERISTICS

No.	ITEM	SPECIFICATION
1	Current rating	1 Ampere DC maximum per contact
2	Voltage rating	250 Volts AC(r.m.s.)
3	Operating temperature	-55 °C ~ +105 °C
4	Storage temperature	-55 °C ~ +105 °C
5	Humidity	85 %RH maximum

No.	ITEM	SPECIFICATION																								
6	Insulation resistance	When tested in accordance with method 302 of MIL-STD-202F, the insulation resistance shall be a minimum of 1000 MΩ at 250 volts D.C..																								
7	Dielectric withstanding voltage	When tested in accordance with method 301 of MIL-STD-202F, there shall be no breakdown of insulation or flashover at 500 volts AC (r.m.s.) for a minute.																								
8	Contact resistance	When tested in accordance with method 307 of MIL-STD-202F, the contact resistance shall not exceed 35 mΩ including the conductor resistance.																								
9	Female contact insertion and pulling force (Individual)	Using steel gauge. (Fig-1) Insertion Force : 2.9 N maximum. Pulling Force : 0.3N minimum.  Fig-1 Profile of steel pin gauge																								
10	Connector insertion and withdrawal force (Overall)	Unit: N																								
		<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 15%;">No. of Pos.</th> <th style="width: 10%;">20</th> <th style="width: 10%;">28</th> <th style="width: 10%;">36</th> <th style="width: 10%;">50</th> <th style="width: 10%;">68</th> <th style="width: 10%;">80</th> <th style="width: 10%;">96</th> </tr> </thead> <tbody> <tr> <td>Insertion Force (MAX.)</td> <td>44.1</td> <td>50.0</td> <td>55.9</td> <td>66.6</td> <td>79.4</td> <td>88.2</td> <td>100.0</td> </tr> <tr> <td>Withdraw Force (MIN.)</td> <td>5.9</td> <td>7.8</td> <td>9.8</td> <td>14.7</td> <td>19.6</td> <td>22.5</td> <td>29.4</td> </tr> </tbody> </table>	No. of Pos.	20	28	36	50	68	80	96	Insertion Force (MAX.)	44.1	50.0	55.9	66.6	79.4	88.2	100.0	Withdraw Force (MIN.)	5.9	7.8	9.8	14.7	19.6	22.5	29.4
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11	Humidity (Steady state)	When tested in accordance with method 106 of MIL-STD-202F method (as shown below), there shall not be evidence of cracking of insulator or other physical damage to the connector. After the test, the insulation resistance shall not be less than 500 MΩ at 250 volts D.C., there shall not be breakdown of insulation or flashover at 500 volts A.C. (r.m.s.) for a minute. ⚠ The contact resistance shall not exceed 35 mΩ.  Humidity: 90% to 98% Number of cycles: 10																								

No	ITEM	SPECIFICATION
12	Thermal Shock	<p>When tested in accordance with method 107 of MIL-STD-202F (as shown below), there shall be no evidence of racking and crazing of the body, other physical damage to the connector. After the test, the contact resistance shall not exceed 35 mΩ.</p>  <p style="text-align: center;">Temperature : -40°C to 105°C <math>\Delta</math> Number of cycles : 10</p>
11	Vibration	<p>When tested in accordance with method 204 of MIL-STD-202F test condition B (as shown below), there shall be no physical and mechanical damage to the connector. Test method : Frequency range : 10Hz to 500Hz Full amplitude : 1.5mm Acceleration : 98m/s<sup>2</sup></p> <p>During vibration, there shall be no discontinuity of the test circuit greater than 1 μsec. (100 mA DC of current applied for the circuit.) and the contact resistance shall not exceed 35 mΩ.</p>
12	Shock	<p>When tested in accordance with method 213 of MIL-STD-202F test condition C (as shown below), there shall be no physical and mechanical damage to the connector. Test method : Peak acceleration : 490 m/s<sup>2</sup> Duration : 11ms Waveform : Half-sine pulse</p> <p>During the test, there shall be no discontinuity of the test circuit greater than 1 μsec. (100 mA DC of current applied for the circuit.) and the contact resistance shall not exceed 35 mΩ.</p>
13	Durability	<p>When subjected to 500 cycles of insertion and withdrawal with mating connector at the rate of 600 cycles per hour, there shall be no evidence damage to the connectors such as cracking. After test, the contact resistance shall not exceed 35 mΩ.</p>
14	Salt spray (Corrosion)	<p>When tested in accordance with method 101 of MIL-STD-202F test condition B (as shown below), there shall be no any excessive corrosion on connector. Test method : Temperature : 35°C Concentration : 5±1% Duration : 48hours</p> <p>After the test, the contact resistance shall not exceed 35 mΩ.</p>

No	ITEM	SPECIFICATION
15	Hydrogen Sulfided (H <sub>2</sub> S)	<p>When tested in accordance with JIS H 8502 (as shown below), there shall not be excessive corrosion on any part of connector.</p> <p>Test method : Concentration : 3±1ppm            Temperature : 40°C            Duration : 96hours</p> <p>After the test, the contact resistance shall not exceed 35 mΩ.</p>
16	Temperature life	<p>When tested in accordance with method 108 of MIL-STD-202F (as shown below), there shall be no evidence of cracking and crazing of the body, other physical damage to the connector.</p> <p>Test method : Temperature : 85±2°C            Duration : 500hours</p> <p>After the test, the contact resistance shall not exceed 35 mΩ.</p>
17	Resistance to cold	<p>When tested in accordance with method of JIS C 5402 (as shown below), there shall be no evidence of cracking and crazing of the body, other physical damage to the connector.</p> <p>Test method : Temperature : -40°C            Duration : 500hours</p> <p>After the test, the contact resistance shall not exceed 35 mΩ.</p>
18	Resistance to solvents	<p>When tested in accordance with method 215 of MIL-STD-202F, there shall be no change color of the connector cleaned by Ethyl-Alcohol, Trichloro Ethane.</p>
19	Solderability, wetting, solder bath method	<p>When tested in accordance with method 208 of MIL-STD-202F, the dipped surface coating more than 90%.</p> <p>Test method : Temperature of solder bath : 230±5°C            Immersion time : 5sec</p>
20	Resistance to soldering heat, solder iron method	<p>When tested in accordance with method 210 of MIL-STD-202F, there shall not be excessive thermal damage on connector.</p> <p>Test method : Temperature of solder bath : 350±5°C            Time : 3sec ▲</p>
21	Lock resistance	98N MIN.