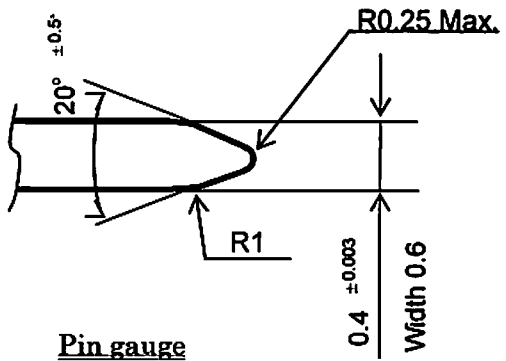
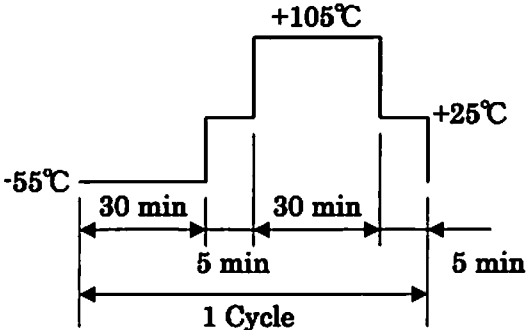


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|--|---|---|----------------|------------------|--|
| HONDA TSUSHIN KOGYO CO., LTD. TOKYO JAPAN | | Date | Jan. 8 ,2008 | | |
| Product Specification 1.27mm Spacing PCS-E type connector | | Approved by | Checked by | Written by | |
| | | <i>S. Furusawa</i> | <i>T. Sato</i> | <i>T. Kawano</i> | |
| | | S. Furusawa | T. Sato | T. Kawano | |
| Connector part No. | | | | | |
| Type | | Part No. | | | |
| Male connector | | PCS-E() PM() | | | |
| Female connector | | PCS-E() F()+ | | | |
| Backshell | | PCS-E() L() (Just to be used for latch retention force testing) | | | |
| Specification | | | | | |
| No. | Item | Specification | | | |
| 1 | Current Rating | 1 amp D.C. maximum per contact | | | |
| 2 | Voltage Rating | 250 volts A.C. (r.m.s.) | | | |
| 3 | Operating Temperature | -55°C~+105°C | | | |
| 4 | Storage Temperature | -55°C~+105°C | | | |
| 5 | Humidity | 85%Rh maximum | | | |
| 6 | Insulation Resistance | When tested in accordance with method 302 of MIL-STD-202F, Test condition B, insulation resistance shall be a minimum of 100MΩ at 500volts 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 750 volts A.C. (r.m.s.) for a minute. | | | |
| 8 | Contact Resistance | When tested in accordance with method 3002.1 of MIL-STD-1344, contact resistance shall not exceed 35mΩ without conductor resistance. | | | |
| 9 | Female Contact Insertion and Pulling Force (Individual) | <p>○ Insertion Force : The force required to insert test gauge into contact shall not exceed 1.5 N .</p> <p>○ Pulling Force : The force required to pull test gauge from contact shall not be less than 0.3N .</p>  <p style="text-align: center;"><u>Pin gauge</u></p> | | | |

| No. | Item | Specification | | | | | | | | | | | | | | | | | | |
|-------------|--|--|-------------|-----------------|------------------|----|----|---|----|----|----|----|----|----|----|----|----|----|----|----|
| 10 | Connector Insertion and Withdrawal Force (Overall) | <p>○ Insertion Force The force required to insert mating male connector into the female one shall not exceed the value in the below table.</p> <p>○ Withdrawal Force The force required to withdraw mated male connector from the female one shall not be less than the value in the below table.</p> <p style="text-align: right;">Unit : N</p> <table border="1" data-bbox="660 523 1313 773"> <thead> <tr> <th>No. of pos.</th> <th>Insertion Force</th> <th>Withdrawal Force</th> </tr> </thead> <tbody> <tr> <td>20</td> <td>25</td> <td>9</td> </tr> <tr> <td>28</td> <td>35</td> <td>13</td> </tr> <tr> <td>36</td> <td>45</td> <td>14</td> </tr> <tr> <td>50</td> <td>60</td> <td>24</td> </tr> <tr> <td>68</td> <td>85</td> <td>33</td> </tr> </tbody> </table> | No. of pos. | Insertion Force | Withdrawal Force | 20 | 25 | 9 | 28 | 35 | 13 | 36 | 45 | 14 | 50 | 60 | 24 | 68 | 85 | 33 |
| No. of pos. | Insertion Force | Withdrawal Force | | | | | | | | | | | | | | | | | | |
| 20 | 25 | 9 | | | | | | | | | | | | | | | | | | |
| 28 | 35 | 13 | | | | | | | | | | | | | | | | | | |
| 36 | 45 | 14 | | | | | | | | | | | | | | | | | | |
| 50 | 60 | 24 | | | | | | | | | | | | | | | | | | |
| 68 | 85 | 33 | | | | | | | | | | | | | | | | | | |
| 11 | Humidity | <p>When tested in accordance with method 103 of MIL-STD-202F, (Temperature: 40°C ± 2°C, Duration: 96 hours), there shall be no physical damage to the connectors. After the test, the insulation resistance shall be no less than 100 MΩ and there shall be no breakdown of insulation or flashover at 750 volts A.C. (r.m.s.) for a minute. The contact resistance shall not exceed 35mΩ as well.</p> | | | | | | | | | | | | | | | | | | |
| 12 | Thermal Shock | <p>When tested in accordance with method 107 of MIL-STD-202F, (10 cycles in the environment shown in below program), there shall be no physical damage to the connectors. After the test, the contact resistance shall not exceed 35mΩ.</p>  | | | | | | | | | | | | | | | | | | |
| 13 | Vibration | <p>When tested in accordance with method 204 of MIL-STD-202F, Test condition A (Frequency: 10 Hz to 500Hz, Acceleration: 147 m/s² peak, Magnitude: 1.52 mm), there shall be no physical damage to the connectors. During the test, there shall be no electrical discontinuity of the test circuit greater than 1 microsecond. (100 mA DC of current is applied to the circuit.) After the test, the contact resistance shall not exceed 35 mΩ.</p> | | | | | | | | | | | | | | | | | | |
| 14 | Physical Shock | <p>When tested in accordance with method 213 of MIL-STD-202F, Test condition A (Semi-sine wave, Acceleration: 490 m/s², Standard holding time: 6 msec.), there shall be no physical damage to the connectors. During the test, there shall be no electrical discontinuity of the test circuit greater than 1 microsecond. (100 mA DC of current is applied to the circuit.) After the test, the contact resistance shall not exceed 35 mΩ.</p> | | | | | | | | | | | | | | | | | | |

| No. | Item | Specification |
|-----|------------------------------------|--|
| 15 | Durability | When subjected to 500 cycles of insertion and withdrawal cycles at the rate of 600 cycles per hour, there shall be no evident physical damage to the connectors. After the test, the contact resistance shall not exceed 35 m Ω . |
| 16 | Salt Spray | When tested in accordance with method 101 of MIL-STD-202F, Test condition A, there shall be no any excessive corrosion on the every part of connectors. Concentration: 5% Temperature: 35°C Duration: 48hours After the test, the contact resistance shall not exceed 35m Ω . |
| 17 | Resistance to H ₂ S gas | When tested in accordance with JIS H 8502 10.2, there shall be no any excessive corrosion on the every part of connectors. Concentration: 3±1ppm Temperature: 40±1°C Duration: 48 hours After the test, the contact resistance shall not exceed 35m Ω . |
| 18 | Solvent Resistance | Connector shall be capable of being cleaned by alcohol or pure water. After the test, there shall be no evidence of swelling, cracking, dissolving or any other defects. |
| 19 | Solderability | When tested in accordance with method I of JIS C 5033, (Solder temperature: 245±5°C, Duration: 5 sec.) , contact termination area (only solder cup type connector) should be at least 95% covered by continuous new solder coating. |
| 20 | Solder Heat | When tested in accordance with method I of JIS C 5034, Test condition A, there shall be no damage to the female connector (only solder cup type connector). ○Soldering Solder iron temperature: 350°C±10°C Duration: 5 seconds |
| 21 | Latch Retention Force | When mated female connector with a backshell which has latch mechanism is pulled from the male connector, latch retention force shall be no less than 98N. |
| 22 | High Temperature Life | When tested in accordance with method 108A of MIL-STD-202F, there shall be no physical damage to the connectors. After the test, the contact resistance shall not exceed 35m Ω . Temperature : +85°C Duration: 1000 hours |
| 23 | Cold Resistance | When tested in accordance with JIS C 5201 7.9, there shall be no physical damage to the connectors. After the test, the contact resistance shall not exceed 35m Ω . Temperature : -55°C Duration: 500 hours |