

|                                                                                                                                                                                                                                |                             |                                                                                                                                                 |                           |                                                                                                                                                                                        |                                                        |            |
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| APPLICABLE STANDARD                                                                                                                                                                                                            |                             | USB2.0 SPECIFICATION AND MICRO-USB CABLE AND CONNECTORS SPECIFICATION.                                                                          |                           |                                                                                                                                                                                        |                                                        |            |
| RATING                                                                                                                                                                                                                         | OPERATING TEMPERATURE RANGE | -30°C TO +85°C                                                                                                                                  | STORAGE TEMPERATURE RANGE | -30°C TO +60 °C                                                                                                                                                                        |                                                        |            |
|                                                                                                                                                                                                                                | VOLTAGE                     | 30 V AC                                                                                                                                         | CURRENT                   | SIGNAL ONLY                                                                                                                                                                            | 1.0 A/pin                                              |            |
|                                                                                                                                                                                                                                |                             |                                                                                                                                                 |                           | POWER APPLY                                                                                                                                                                            | 1.8 A/pin (PIN No.1,No.5)<br>0.5 A/pin (PIN No.2-No.4) |            |
| SPECIFICATIONS                                                                                                                                                                                                                 |                             |                                                                                                                                                 |                           |                                                                                                                                                                                        |                                                        |            |
| ITEM                                                                                                                                                                                                                           |                             | TEST METHOD                                                                                                                                     |                           | REQUIREMENTS                                                                                                                                                                           | QT                                                     | AT         |
| CONSTRUCTION                                                                                                                                                                                                                   |                             |                                                                                                                                                 |                           |                                                                                                                                                                                        |                                                        |            |
| GENERAL EXAMINATION                                                                                                                                                                                                            |                             | VISUALLY AND BY MEASURING INSTRUMENT.                                                                                                           |                           | ACCORDING TO DRAWING.                                                                                                                                                                  | X                                                      | X          |
| MARKING                                                                                                                                                                                                                        |                             | CONFIRMED VISUALLY.                                                                                                                             |                           |                                                                                                                                                                                        | X                                                      | X          |
| ELECTRIC CHARACTERISTICS                                                                                                                                                                                                       |                             |                                                                                                                                                 |                           |                                                                                                                                                                                        |                                                        |            |
| CONTACT RESISTANCE                                                                                                                                                                                                             |                             | 100 mA (DC OR 1000 Hz).                                                                                                                         |                           | 30 mΩ MAX.                                                                                                                                                                             | X                                                      | X          |
| INSULATION RESISTANCE                                                                                                                                                                                                          |                             | 500 V DC.                                                                                                                                       |                           | 1000 MΩ MIN.                                                                                                                                                                           | X                                                      | X          |
| VOLTAGE PROOF                                                                                                                                                                                                                  |                             | 100 V AC FOR 1 min.                                                                                                                             |                           | NO FLASHOVER OR BREAKDOWN.                                                                                                                                                             | X                                                      | X          |
| CAPASITANCE                                                                                                                                                                                                                    |                             | MEASURE ADJACENT TWO CONTACTS AT 1000±10 Hz AC VOLTAGE.                                                                                         |                           | 2 pF MAX.                                                                                                                                                                              | X                                                      | —          |
| MECHANICAL CHARACTERISTICS                                                                                                                                                                                                     |                             |                                                                                                                                                 |                           |                                                                                                                                                                                        |                                                        |            |
| INSERTION AND WITHDRAWAL FORCES                                                                                                                                                                                                |                             | A MAXIMUM RATE OF 12.5 mm/min.<br>MEASURED BY APPLICABLE CONNECTOR.                                                                             |                           | INSERTION FORCE 35 N MAX.<br>WITHDRAWAL FORCE 8 N MIN.                                                                                                                                 | X                                                      | —          |
| MECHANICAL OPERATION                                                                                                                                                                                                           |                             | 10000 TIMES INSERTIONS AND EXTRACTIONS.<br>MATING SPEED<br>- MECHANICALLY OPERATED: 500 CYCLES / h<br>OR<br>- MANUALLY OPERATED: 200 CYCLES / h |                           | 1) CONTACT RESISTANCE: NO INCREASE OF MORE THAN 10 mΩ FROM INITIAL VALUE.<br>2) INSERTION FORCE 35 N MAX.<br>WITHDRAWAL FORCE 8 N MIN.<br>3) NO DAMAGE, CRACK AND LOOSENESS, OF PARTS. | X                                                      | —          |
| VIBRATION                                                                                                                                                                                                                      |                             | FREQUENCY 10 TO 55 Hz<br>SINGLE AMPLITUDE 0.75 mm, AT 2h<br>FOR 3 AXIAL DIRECTIONS, TOTAL 6h.                                                   |                           | 1) NO ELECTRICAL DISCONTINUITY OF 1 μs.<br>2) NO DAMAGE, CRACK AND LOOSENESS, OF PARTS.                                                                                                | X                                                      | —          |
| RANDOM VIBRATION                                                                                                                                                                                                               |                             | FREQUENCY 50 TO 2000 Hz AT 15 min<br>FOR 3 AXIAL DIRECTIONS.                                                                                    |                           |                                                                                                                                                                                        | X                                                      | —          |
| SHOCK                                                                                                                                                                                                                          |                             | 490m/s <sup>2</sup> DURATIONS OF PULSE 11 ms AT 3 TIMES FOR 6 DIRECTIONS, TOTAL 18 TIMES.                                                       |                           |                                                                                                                                                                                        | X                                                      | —          |
| ENVIRONMENTAL CHARACTERISTICS                                                                                                                                                                                                  |                             |                                                                                                                                                 |                           |                                                                                                                                                                                        |                                                        |            |
| THERMAL SHOCK                                                                                                                                                                                                                  |                             | TEMP -55 →+15 TO +35→+85→+15TO+35 °C<br>TIME 30 → 2 TO 3 → 30→ 2 TO 3 min<br>UNDER 10 CYCLES.<br>(MATING APPLICABLE CONNECTOR)                  |                           | 1) CONTACT RESISTANCE: 70 mΩ MAX.<br>2) INSULATION RESISTANCE: 10 MΩ MIN.<br>3) NO DAMAGE, CRACK AND LOOSENESS, OF PARTS.                                                              | X                                                      | —          |
| HUMIDITY LIFE                                                                                                                                                                                                                  |                             | TEMPERATURE -10~65 °C, HUMIDITY 90 TO 98 %, UNDER 7 CYCLES (168 h)<br>(MATING APPLICABLE CONNECTOR)                                             |                           | NO DAMAGE, CRACK AND LOOSENESS, OF PARTS.                                                                                                                                              | X                                                      | —          |
| DRY HEAT                                                                                                                                                                                                                       |                             | EXPOSED AT 85±2 °C , 96 h.<br>(MATING APPLICABLE CONNECTOR)                                                                                     |                           | NO DAMAGE, CRACK AND LOOSENESS, OF PARTS.                                                                                                                                              | X                                                      | —          |
| COLD                                                                                                                                                                                                                           |                             | EXPOSED AT -40±2 °C , 96 h.<br>(MATING APPLICABLE CONNECTOR)                                                                                    |                           | NO DAMAGE, CRACK AND LOOSENESS, OF PARTS.                                                                                                                                              | X                                                      | —          |
| CORROSION SALT MIST                                                                                                                                                                                                            |                             | EXPOSED AT 5 % SALT WATER, 35 °C, FOR 48h. (LEFT UNDER UNMATED CONDITION.)                                                                      |                           | NO HEAVY CORROSION OF CONTACTS.                                                                                                                                                        | X                                                      | —          |
|                                                                                                                                                                                                                                | COUNT                       | DESCRIPTION OF REVISIONS                                                                                                                        |                           | DESIGNED                                                                                                                                                                               | CHECKED                                                | DATE       |
| △                                                                                                                                                                                                                              |                             |                                                                                                                                                 |                           |                                                                                                                                                                                        |                                                        |            |
| REMARK<br>HIROSE will not guarantee the performance on these specifications in case this product will be mated with the others which is not HIROSE's.<br><br>Unless otherwise specified, refer to USB2.0, EIA364 or IEC 60512. |                             |                                                                                                                                                 |                           | APPROVED                                                                                                                                                                               | NM. NISHIMATSU                                         | 15. 10. 27 |
|                                                                                                                                                                                                                                |                             |                                                                                                                                                 |                           | CHECKED                                                                                                                                                                                | KN. ICHIKAWA                                           | 15. 10. 27 |
|                                                                                                                                                                                                                                |                             |                                                                                                                                                 |                           | DESIGNED                                                                                                                                                                               | TS. ITO                                                | 15. 10. 27 |
|                                                                                                                                                                                                                                |                             |                                                                                                                                                 |                           | DRAWN                                                                                                                                                                                  | AK. AKIYAMA                                            | 15. 10. 27 |
| Note QT:Qualification Test AT:Assurance Test X:Applicable Test                                                                                                                                                                 |                             |                                                                                                                                                 | DRAWING NO.               |                                                                                                                                                                                        | ELC-126264-30-00                                       |            |
| HRS                                                                                                                                                                                                                            | SPECIFICATION SHEET         |                                                                                                                                                 | PART NO.                  | ZX62D-AB-5P8 (30)                                                                                                                                                                      |                                                        |            |
|                                                                                                                                                                                                                                | HIROSE ELECTRIC CO., LTD.   |                                                                                                                                                 | CODE NO.                  | CL242-0027-5-30                                                                                                                                                                        | △                                                      | 1/2        |

