

| APPLICABLE STANDARD                                                                 |                             |                                                                                                  |                                     |                                                                                                                                                                                       |                      |                                                                                           |
|-------------------------------------------------------------------------------------|-----------------------------|--------------------------------------------------------------------------------------------------|-------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------|-------------------------------------------------------------------------------------------|
| RATING                                                                              | OPERATING TEMPERATURE RANGE | -55℃ TO +105℃   | STORAGE TEMPERATURE RANGE           | -10℃ TO +50℃(PACKED CONDITION)                                                                                                                                                        |                      |                                                                                           |
|                                                                                     | VOLTAGE                     | 30V AC/DC                                                                                        | OPERATING OR STORAGE HUMIDITY RANGE | RELATIVE HUMIDITY 90%MAX(NOT DEWED)                                                                                                                                                   |                      |                                                                                           |
|                                                                                     | CURRENT                     | 0.2A                                                                                             | APPLICABLE CABLE                    | t=0.2±0.03mm, GOLD PLATED                                                                                                                                                             |                      |                                                                                           |
| SPECIFICATIONS                                                                      |                             |                                                                                                  |                                     |                                                                                                                                                                                       |                      |                                                                                           |
| ITEM                                                                                |                             | TEST METHOD                                                                                      |                                     | REQUIREMENTS                                                                                                                                                                          | QT                   | AT                                                                                        |
| CONSTRUCTION                                                                        |                             |                                                                                                  |                                     |                                                                                                                                                                                       |                      |                                                                                           |
| GENERAL EXAMINATION                                                                 |                             | VISUALLY AND BY MEASURING INSTRUMENT.                                                            |                                     | ACCORDING TO DRAWING.                                                                                                                                                                 | ×                    | ×                                                                                         |
| MARKING                                                                             |                             | CONFIRMED VISUALLY.                                                                              |                                     |                                                                                                                                                                                       | ×                    | ×                                                                                         |
| ELECTRICAL CHARACTERISTICS                                                          |                             |                                                                                                  |                                     |                                                                                                                                                                                       |                      |                                                                                           |
| VOLTAGE PROOF                                                                       |                             | 90V AC FOR 1 min.                                                                                |                                     | NO FLASHOVER OR BREAKDOWN.                                                                                                                                                            | ×                    | ×                                                                                         |
| INSULATION RESISTANCE                                                               |                             | 100V DC.                                                                                         |                                     | 50MΩ MIN.                                                                                                                                                                             | ×                    | ×                                                                                         |
| CONTACT RESISTANCE                                                                  |                             | AC 20mV MAX (1KHz), 1mA.                                                                         |                                     | 100mΩ MAX.<br>INCLUDING FPC BULK RESISTANCE (L=12mm)                                                                                                                                  | ×                    | ×                                                                                         |
| MECHANICAL CHARACTERISTICS                                                          |                             |                                                                                                  |                                     |                                                                                                                                                                                       |                      |                                                                                           |
| VIBRATION                                                                           |                             | FREQUENCY 10 TO 55 Hz, HALF AMPLITUDE 0.75 mm FOR 10 CYCLES IN 3 AXIAL DIRECTIONS.               |                                     | ① NO ELECTRICAL DISCONTINUITY OF 1 μ s.<br>② CONTACT RESISTANCE: 100mΩ MAX.                                                                                                           | ×                    | —                                                                                         |
| SHOCK                                                                               |                             | 981 m/s <sup>2</sup> , DURATION OF PULSE 6ms AT 3 TIMES IN 3 BOTH AXIAL DIRECTIONS.              |                                     |                                                                                                                                                                                       | ×                    | —                                                                                         |
| MECHANICAL OPERATION                                                                |                             | 10 TIMES INSERTIONS AND EXTRACTIONS.                                                             |                                     | ① CONTACT RESISTANCE: 100mΩ MAX.<br>② NO DAMAGE, CRACK AND LOOSENESS OF PARTS.                                                                                                        | ×                    | —                                                                                         |
| FPC RETENTION FORCE                                                                 |                             | MEASURED BY APPLICABLE FPC.<br>(THICKNESS OF FPC SHALL BE t=0.20mm AT INITIAL CONDITION.)        |                                     | DIRECTION OF INSERTION:<br>0.2N × NUMBER OF CONTACTS MIN.<br>(note1)                                                                                                                  | ×                    | —                                                                                         |
| ENVIRONMENTAL CHARACTERISTICS                                                       |                             |                                                                                                  |                                     |                                                                                                                                                                                       |                      |                                                                                           |
| CORROSION SALT MIST                                                                 |                             | EXPOSED AT 35±2℃, 5% SALT WATER SPRAY FOR 96h.                                                   |                                     | ① CONTACT RESISTANCE: 100mΩ MAX.<br>② NO DAMAGE, CRACK AND LOOSENESS OF PARTS.<br>③ NO EVIDENCE OF CORROSION WHICH AFFECTS TO OPERATION OF CONNECTOR.                                 | ×                    | —                                                                                         |
| RAPID CHANGE OF TEMPERATURE                                                         |                             | TEMPERATURE -55→+15 TO +35→+85→+15TO+35 °C<br>TIME 30 → 2 TO 3 → 30 → 2 TO 3 min UNDER 5 CYCLES. |                                     |                                                                                                                                                                                       | ×                    | —                                                                                         |
| DAMP HEAT (STEADY STATE)                                                            |                             | EXPOSED AT 40±2℃,<br>RELATIVE HUMIDITY 90 TO 95%, 96h.                                           |                                     |                                                                                                                                                                                       | ×                    | —                                                                                         |
| DAMP HEAT,CYCLIC                                                                    |                             | EXPOSED AT -10 TO +65 °C<br>RELATIVE HUMIDITY 90 TO 96 %<br>10 CYCLES, TOTAL 240h.               |                                     | ① CONTACT RESISTANCE: 100mΩ MAX.<br>② INSULATION RESISTANCE: 1MΩ MIN. (AT HIGH HUMIDITY)<br>③ INSULATION RESISTANCE: 50MΩ MIN. (AT DRY)<br>④ NO DAMAGE, CRACK AND LOOSENESS OF PARTS. | ×                    | —                                                                                         |
|                                                                                     | COUNT                       | DESCRIPTION OF REVISIONS                                                                         |                                     | DESIGNED                                                                                                                                                                              | CHECKED              | DATE                                                                                      |
|  | 1                           | DIS-F-00000511                                                                                   |                                     | YH.MICHIDA                                                                                                                                                                            | YN.TAKASHITA         | 15.07.29                                                                                  |
| REMARK<br><br>Unless otherwise specified, refer to IEC 60512                        |                             |                                                                                                  |                                     | APPROVED                                                                                                                                                                              | MO.ISHIDA            | 14.01.24                                                                                  |
|                                                                                     |                             |                                                                                                  |                                     | CHECKED                                                                                                                                                                               | HS.SAKAMOTO          | 14.01.24                                                                                  |
|                                                                                     |                             |                                                                                                  |                                     | DESIGNED                                                                                                                                                                              | YS.EBI               | 14.01.24                                                                                  |
|                                                                                     |                             |                                                                                                  |                                     | DRAWN                                                                                                                                                                                 | NM.SANPEI            | 14.01.21                                                                                  |
| Note QT:Qualification Test AT:Assurance Test X:Applicable Test                      |                             |                                                                                                  |                                     | DRAWING NO.                                                                                                                                                                           |                      | ELC4-338903-05                                                                            |
|  | SPECIFICATION SHEET         |                                                                                                  |                                     | PART NO.                                                                                                                                                                              | FH35C-**S-0.3SHW(99) |                                                                                           |
|                                                                                     | HIROSE ELECTRIC CO., LTD.   |                                                                                                  |                                     | CODE NO.                                                                                                                                                                              | CL580                |  1/2 |

| SPECIFICATIONS                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                                                           |                                                                                                                                                       |                      |                                                                                       |     |
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| ITEM                                                                                                                                                                                                                                                                                                                                                                                                 | TEST METHOD                                                                                                                               | REQUIREMENTS                                                                                                                                          | QT                   | AT                                                                                    |     |
| DRY HEAT                                                                                                                                                                                                                                                                                                                                                                                             | EXPOSED AT 85±2°C, 96h.                                                                                                                   | ① CONTACT RESISTANCE: 100mΩ MAX.<br>② NO DAMAGE, CRACK AND LOOSENESS OF PARTS.                                                                        | ×                    | —                                                                                     |     |
| COLD                                                                                                                                                                                                                                                                                                                                                                                                 | EXPOSED AT -55±3°C, 96h.                                                                                                                  |                                                                                                                                                       | ×                    | —                                                                                     |     |
| SULPHUR DIOXIDE<br>[JIS C 60068-2-42]                                                                                                                                                                                                                                                                                                                                                                | EXPOSED AT 40±2°C,<br>RELATIVE HUMIDITY 80±5 %,<br>25±5 ppm FOR 96h.                                                                      | ① CONTACT RESISTANCE: 100mΩ MAX.<br>② NO DAMAGE, CRACK AND LOOSENESS OF PARTS.<br>③ NO EVIDENCE OF CORROSION WHICH AFFECTS TO OPERATION OF CONNECTOR. | ×                    | —                                                                                     |     |
| HYDROGEN SULPHIDE<br>[JIS C 60068-2-43]                                                                                                                                                                                                                                                                                                                                                              | EXPOSED AT 40±2°C,<br>RELATIVE HUMIDITY 80±5 %,<br>10 TO 15 ppm FOR 96h.                                                                  |                                                                                                                                                       | ×                    | —                                                                                     |     |
| SOLDERABILITY                                                                                                                                                                                                                                                                                                                                                                                        | SOLDERED AT SOLDER TEMPERATURE, 235±5°C<br>FOR IMMERSION DURATION, 2±0.5 sec.                                                             | A NEW UNIFORM COATING OF SOLDER SHALL COVER A MINIMUM OF 95 % OF THE SURFACE BEING IMMERSED.                                                          | ×                    | —                                                                                     |     |
| RESISTANCE TO<br>SOLDERING HEAT                                                                                                                                                                                                                                                                                                                                                                      | 1) REFLOW SOLDERING:<br>PEAK TMP. 250°C MAX.<br>REFLOW TMP. 230°C MIN WITHIN 60 sec.<br>2) SOLDERING IRONS:<br>TMP. 350±10°C FOR 5±1 sec. | NO DEFORMATION OF CASE OF EXCESSIVE LOOSENESS OF THE TERMINALS.                                                                                       | ×                    | —                                                                                     |     |
| <div>(note1)</div> <div>FASTEN FPC ON PCB OR SOMETHING FIXED IF FORCE IN VERTICAL DIRECTION SHALL BE PREDICTED.<br/>DO NOT CLOSE THE ACTUATOR BEFORE INSERTING FPC EVEN AFTER THE CONNECTOR IS MOUNTED ONTO A PCB. CLOSING THE ACTUATOR WITHOUT FPC COULD MAKE THE CONTACT GAP SMALLER, WHICH INCREASES THE FPC INSERTION FORCE.<br/>THIS CONNECTOR HAS CONTACT POINTS ON BOTH TOP AND BOTTOM.</div> |                                                                                                                                           |                                                                                                                                                       |                      |                                                                                       |     |
| Note QT:Qualification Test AT:Assurance Test X:Applicable Test                                                                                                                                                                                                                                                                                                                                       |                                                                                                                                           | DRAWING NO.                                                                                                                                           | ELC4-338903-05       |                                                                                       |     |
|                                                                                                                                                                                                                                                                                                                   | SPECIFICATION SHEET                                                                                                                       | PART NO.                                                                                                                                              | FH35C-**S-0.3SHW(99) |                                                                                       |     |
|                                                                                                                                                                                                                                                                                                                                                                                                      | HIROSE ELECTRIC CO., LTD.                                                                                                                 | CODE NO.                                                                                                                                              | CL580                |  | 2/2 |