

Jun.1.2026 Copyright 2026 HIROSE ELECTRIC CO., LTD. All Rights Reserved.
In case of consideration for using Automotive equipment / device which demand high reliability, kindly contact our sales window correspondents.

| APPLICABLE STANDARD | | | | | |
|--|--|--------------------------|---|---|----------------|
| RATING | OPERATING TEMPERATURE RANGE | -35°C TO +85°C(NOTES 1) | STORAGE TEMPERATURE RANGE | -10°C TO +60°C(NOTES 3) | |
| | OPERATING HUMIDITY RANGE | 20% TO 80%(NOTES 2) | STORAGE HUMIDITY RANGE | 40% TO 70%(NOTES 2)(NOTES 3) | |
| | VOLTAGE | 50V AC / DC | APPLICABLE CONNECTOR | DF80※-40S-0.5V(##) | |
| | CURRENT | 0.5 A/PIN (NOTE4) | APPLICABLE CABLE | THIN COAXIAL CABLE (AWG#40~AWG#46) / DISCRETE CABLE (AWG#32~36) | |
| 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 | 100m A (DC OR 1000 Hz). | | CONTACT:80mΩ MAX. SHIELDING:80mΩ MAX. | X | — |
| INSULATION RESISTANCE | 100V DC. | | 50MΩ MIN. | X | — |
| VOLTAGE PROOF | 150V AC FOR 1 min. | | NO FLASHOVER OR BREAKDOWN. | X | — |
| MECHANICAL CHARACTERISTICS | | | | | |
| MECHANICAL OPERATION | 30 TIMES INSERTIONS AND EXTRACTIONS. | | ① CONTACT RESISTANCE: NO VARIATION OF 50 mΩ OR MORE FROM INITIAL VALUE. SHIELDING RESISTANCE: NO VARIATION OF 50 mΩ OR MORE FROM INITIAL VALUE. ② NO DAMAGE, CRACK OR LOOSENESS OF PARTS. | X | — |
| VIBRATION | FREQUENCY 10 TO 55 Hz, SINGLE AMPLITUDE 0.75 mm, 3 DIRECTIONS × 10 CYCLE. | | ① NO ELECTRICAL DISCONTINUITY OF 1 μs. ② NO DAMAGE, CRACK OR LOOSENESS OF PARTS. | X | — |
| SHOCK | 490 m/s ² DURATION OF PULSE 11 ms AT 3 TIMES FOR 3 DIRECTIONS. | | | X | — |
| ENVIRONMENTAL CHARACTERISTICS | | | | | |
| RAPID CHANGE OF TEMPERATURE | TEMPERATURE -55 →+85 °C TIME 30 → 30 min UNDER 5 CYCLES. (THE TRANSFERRING TIME OF THE CHAMBER IS 2-3 MINUTE.) | | ① CONTACT RESISTANCE: NO VARIATION OF 50 mΩ OR MORE FROM INITIAL VALUE. SHIELDING RESISTANCE: NO VARIATION OF 50 mΩ OR MORE FROM INITIAL VALUE. | X | — |
| DAMP HEAT (STEADY STATE) | EXPOSED AT 40 ± 2 °C, 90 TO 95 %, 96 h. | | ② INSULATION RESISTANCE: 25 MΩ MIN. ③ NO DAMAGE, CRACK OR LOOSENESS OF PARTS. | X | — |
| SULFUR DIOXIDE GAS | EXPOSED IN 25PPM , 25°C , 75%RH , 96h. | | NO DEFECT SUCH AS CORROSION WHICH IMPAIRS THE FUNCTION OF CONNECTOR. | X | — |
| RESISTANCE TO SOLDERING HEAT | ①BONDING TEMPERATURE: 270°C MAX :5 sec MAX 200°C MIN :30 sec MAX ②MANUAL SOLDERING TEMPERATURE: 350°C, 3sec MAX. | | NO DEFORMATION OF CASE OF EXCESSIVE LOOSENESS OF THE TERMINALS. | X | — |
| SOLDERABILITY | SOLDERED AT SOLDER TEMPERATURE, 245°C FOR INSERTION DURATION, 5 sec. (Sn-3.0Ag-0.5Cu) | | SOLDER SHALL COVER A MINIMUM OF 95 % OF THE SURFACE BEING IMMersed. | X | — |
| | COUNT | DESCRIPTION OF REVISIONS | DESIGNED | CHECKED | DATE |
| △ | | | | | |
| REMARKS | | | APPROVED | TS. SAKATA | 13. 03. 25 |
| NOTE1: INCLUDE THE TEMPERATURE RISING BY CURRENT | | | CHECKED | TS. SAKATA | 13. 03. 25 |
| NOTE2: NON CONDENSING | | | DESIGNED | IO. DENPOUYA | 13. 03. 25 |
| NOTE3: THE TERM "STORAGE" REFERS TO PRODUCTS STORED FOR A LONG PERIOD PRIOR TO MOUNTING AND USE. THE OPERATING TEMPERATURE AND HUMIDITY RANGE COVERS THE NON-CONDUCTING CONDITION OF CONNECTORS AFTER BOARD MOUNTING AND THE TEMPORARY STORAGE CONDITIONS OF TRANSPORTATION, etc | | | DRAWN | IO. DENPOUYA | 13. 03. 25 |
| NOTE4: TEMPERATURE RISE OF CONNECTOR BODY ONLY, AND THAT OF CASE IS NOT INCLUDED. RATED CURRENT VARIES DEPENDING ON CABLES ASSEMBLED. Unless otherwise specified, refer to JIS C 5402,IEC60512. | | | | | |
| Note QT:Qualification Test AT:Assurance Test X:Applicable Test | | | DRAWING NO. | | ELC4-351197-01 |
| HRS | SPECIFICATION SHEET | | PART NO. | DF80D-40P-0.5SD (51) | |
| | HIROSE ELECTRIC CO., LTD. | | CODE NO. | CL662-8118-0-51 | △ 1/1 |