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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 △2 | -55 °C to 105 °C (1) | Storage Temperature Range | -10 °C to 60 °C (2) |
| | Voltage | Signal Contact : 50 V AC<br>Power Contact : 200 V AC | Storage Humidity Range | Relative humidity 85% max<br>(Not dewed) |
| | Current | Signal Contact : 0.5 A<br>Power Contact : 3.0A | Operating Humidity Range | |

## SPECIFICATIONS

| ITEM | TEST METHOD | REQUIREMENTS | QT | AT |
|---|---|---|---|---|
| **CONSTRUCTION** | | | | |
| General Examination | Visually and by measuring instrument. | According to drawing. | × | × |
| Marking | Confirmed visually. | | × | × |
| **ELECTRIC CHARACTERISTICS** | | | | |
| Contact Resistance | 100 mA(DC or 1000Hz) | Signal Contact : 70mΩ MAX.<br>Power Contact : 20mΩ MAX. | × | — |
| Insulation Resistance | Signal Contact : 100 V DC.<br>Power Contact : 250 V DC | Signal Contact : 100 MΩMIN.<br>Power Contact : 1000 MΩMIN. | × | — |
| Voltage Proof | Signal Contact : 150 V AC for 1 min. | No flashover or breakdown. | × | × |
| | Power Contact : 600 V AC for 1 min. | | × | — |
| **MECHANICAL CHARACTERISTICS** | | | | |
| Insertion and Withdrawal Forces | Measured by applicable connector. | Insertion Force: 54 N MAX.<br>Withdrawal Force: 6 N MIN. | × | — |
| Mechanical Operation | 100 times insertions and extractions. | ① Contact Resistance:<br>Signal Contact : 80mΩ MAX.<br>Power Contact : 30mΩ MAX.<br>② No damage, crack and looseness of parts. | × | — |
| Vibration | Frequency 10 to 55 to 10Hz, approx 5min<br>Single amplitude : 0.75 mm, 10 cycles<br>for 3 axial directions. | ① No electrical discontinuity of 1 μs.<br>② No damage, crack and looseness of parts. | × | — |
| Shock | 490 m/s$^2$ , duration of pulse 11 ms<br>at 3 times for 3 both axial directions. | | × | — |
| **ENVIRONMENTAL CHARACTERISTICS** | | | | |
| Damp Heat (Steady state) | Exposed at 40±2 °C, 90 ～ 95 %, 96 h. | ① Contact Resistance:<br>Signal Contact : 80mΩ MAX.<br>Power Contact : 30mΩ MAX.<br>② Insulation Resistance:<br>Signal Contact : 100 MΩ MIN.<br>Power Contact : 1000 MΩ MIN.<br>③ No damage, crack and looseness of parts. | × | — |
| Rapid Change of Temperature | Temperature -55 → +85 °C<br>Time 30 → 30 min.<br>under 5 cycles.<br>(Relocation time to chamber : within 2～3 MIN) | | × | — |
| Cold | Exposed at -55℃, 96 h | ① Contact Resistance:<br>Signal Contact : 80mΩ MAX.<br>Power Contact : 30mΩ MAX.<br>② No damage, crack and looseness of parts. | × | — |
| Dry Heat △2 | Exposed at 105℃, 96 h | | × | — |
| Sulfur Dioxide | Exposed at 25±2℃, 75±5%RH, 25 PPM for 96 h.<br>(Test standard: IEC 68) | ① No defect such as corrosion which impairs the function of connector.<br>② Contact Resistance:<br>Signal Contact : 80mΩ MAX.<br>Power Contact : 30mΩ MAX. | × | — |
| Resistance to Soldering Heat | 1)Reflow soldering :<br>Peak TMP : 260℃MAX<br>Reflow TMP: 220℃MIN for 60sec<br>2) Soldering irons : 360℃ MAX. for 5 sec. | No deformation of case of excessive looseness of the terminal. | × | — |
| Solderability | Soldered at solder temperature<br>240±3℃ for immersion duration, 3 sec. | A new uniform coating of solder shall cover a minimum of 95 % of the surface being immersed. | × | — |

| | COUNT | DESCRIPTION OF REVISIONS | DESIGNED | CHECKED | DATE |
|---|---|---|---|---|---|
| △2 | 2 | DIS-F-00002065 | TS. OONO | HT. YAMAGUCHI | 17. 02. 02 |

REMARKS (1) Include temperature rise caused by current-carrying.
(2) "STORAGE" means a long-term storage state for the unused product before assembly to PCB.

Unless otherwise specified, refer to IEC 60512.

| | | |
|---|---|---|
| APPROVED | HS. OKAWA | 14. 09. 02 |
| CHECKED | KN. SHIBUYA | 14. 09. 02 |
| DESIGNED | TS. OONO | 14. 09. 02 |
| DRAWN | TS. OONO | 14. 09. 02 |

Note QT:Qualification Test AT:Assurance Test X:Applicable Test

DRAWING NO. ELC-353563-00-00

| | | | | |
|---|---|---|---|---|
| HRS | SPECIFICATION SHEET | PART NO. | FX23-120S-0. 5SV10 | |
| | HIROSE ELECTRIC CO., LTD. | CODE NO. | CL573-3306-8-00 △2 | 1/1 |

FORM HD0011-2-1