|  | BLE STANDARD       |   |   |         | Storage  |  | -10 °C to 6                                    | -10 °C to 60 °C (2) |      |  |
|--|--------------------|---|---|---------|--|--|--|---------------------|------|--|
| Rating                                 | Temperature Range  |   | Signal Contact - 50 V AC  |         | Temperatur   | 0  | -10 C 10 6                                     |                     | . /  |  |
|  | Voltage<br>Current |   | Power Contact : 200 V AC  |         | Storage Hu   | midity Range   | Relative humidity 85                           | % max               |      |  |
|  |                    |   | Signal Contact : 0.5 A<br>Power Contact : 3.0A  |         |  | berating Humidity Range (Not dewed)  |  |                     |      |  |
|  |                    |   |   | IFICATI |  |  |  |                     |      |  |
|  | EM                 |   | TEST METHOD   |         |  | DEOL   | IIREMENTS                                      | QT                  | Δ    |  |
|  |                    |   |   |         |  | REQU   | JIREMENTS                                      | QI                  | A    |  |
| CONSTRUCTION<br>General Examination    |                    | Visually a  | Visually and by measuring instrument.   |         |  | According to drawing.  |  |                     | >    |  |
| Varking                                |                    |   | Confirmed visually.   |         |  | ing to trawin  | g.   | ×                   |      |  |
| ELECTRIC CHARAC                        |                    |   |   |         |  |  |  | 4                   |      |  |
| Contact Resistance                     |                    | 100 mA(DC or 1000Hz)  |   |         | Signal   | Signal Contact : 70m Ω MAX.  |  |                     | -    |  |
| Insulation Resistance<br>Voltage Proof |                    |   |   |         |  | Power Contact : 20m Ω MAX.   |  |                     |      |  |
|  |                    | -   | Signal Contact : 100 V DC.<br>Power Contact : 250 V DC  |         |  | Contact : 100  |  | ×                   | -    |  |
|  |                    |   | Signal Contact : 150 V AC for 1 min.  |         |  | Power Contact : 1000 MΩ MIN.   |  |                     |      |  |
| Voltage 1 1001                         |                    | Power Contact : 600 V AC for 1 min.   |   |         | No flas  | No flashover or breakdown.   |  |                     | -    |  |
| MECHAN                                 | ICAL CHA           | RACTERI   |   |         |  |  |  | <u> </u>            |      |  |
| Insertion and                          |                    |   | Measured by applicable connector.   |         |  | Insertion Force: 27 N MAX.   |  |                     | ·    |  |
| Nithdrawal I                           |                    | 105.1   |   |         |  | awal Force:  | 3 N MIN.                                       | ×                   | _    |  |
| Mechanical Operation                   |                    | 100 times insertions and extractions.   |   |         | S<br>F   | <ol> <li>Contact Resistance:<br/>Signal Contact : 80m Ω MAX.<br/>Power Contact : 30m Ω MAX.</li> <li>No damage, crack and looseness of parts.</li> </ol>                                 |  |                     |      |  |
| Vibration                              |                    | Single an   | Frequency 10 to 55 to 10Hz, approx 5min<br>Single amplitude : 0.75 mm, 10 cycles<br>for 3 axial directions. |         |  | <ol> <li>No electrical discontinuity of 1 μs.</li> <li>No damage, crack and looseness of parts.</li> </ol>   |  |                     |      |  |
| Shock                                  |                    | $490 \text{ m/s}^2$ , duration of pulse 11 ms<br>at 3 times for 3 both axial directions.  |   |         |  |  |  | ×                   |      |  |
| ENVIRON                                | IMENTAL            | CHARACT   | FERISTICS   |         |  |  |  |                     |      |  |
| Damp Heat                              |                    | Exposed a   | at 40±2 °C, 90 ~ 95 %   | , 96 h. | <li>① Cor</li>   | ntact Resista  | nce:   | ×                   | -    |  |
| (Steady state)                         |                    |   |   |         |  | Signal Contac  |  |                     |      |  |
| Rapid Change of<br>Temperature         |                    | Temperature $-55 \rightarrow +85 \ ^{\circ}C$ Time $30 \rightarrow 30 \ ^{\circ}min.$ under5 cycles.(Relocation time to chamber : within 2~3 MIN) |   |         | ② Inst<br>S<br>F   | Power Contac<br>ulation Resist<br>Signal Contac<br>Power Contac  | ance:<br>tt : 100 MΩ MIN.<br>tt : 1000 MΩ MIN. | ×                   | -    |  |
| Cold                                   |                    | Exposed a   | Exposed at -55°C, 96 h  |         |  | ntact Resistar   |  | ×                   | -    |  |
|  |                    | Expand  |   |         |  | Signal Contact : $80m \Omega$ MAX.<br>Power Contact : $30m \Omega$ MAX.  |  |                     | _    |  |
| Dry Heat                               |                    | Exposed a   | Exposed at 105°C, 96 h  |         |  | <ol> <li>No damage, crack and looseness of parts.</li> </ol>   |  |                     | -    |  |
| Sulfur Dioxide                         |                    |   | Exposed at 25±2°C, 75±5%RH, 25 PPM for 96 h.<br>(Test standard: IEC 68)                                     |         |  | <ol> <li>No defect such as corrosion which impairs<br/>the function of connector.</li> <li>Contact Resistance:<br/>Signal Contact : 80m Ω MAX.<br/>Power Contact : 30m Ω MAX.</li> </ol> |  |                     | -    |  |
| Resistance to<br>Soldering Heat        |                    | Peak TI   | 1)Reflow soldering :<br>Peak TMP : 260°CMAX<br>Reflow TMP: 220°CMIN for 60sec                               |         |  | No deformation of case of excessive looseness of the terminal.   |  |                     | -    |  |
|  |                    |   | ng irons : 360°C MAX. for 5   | sec.    |  |  |  |                     |      |  |
| Solderability                          |                    | Soldered  | Soldered at solder temperature $240 \pm 3^{\circ}$ C for immersion duration, 3 sec.                         |         |  | A new uniform coating of solder shall cover a minimum of 95 % of the surface being   |  |                     | •    |  |
| 001                                    | IT                 |   |   | ~       |  | sed.   |  |                     | <br> |  |
|  |                    | DESCRIPTIC  | ON OF REVISIONS   |         | ESIGNED  |  | CHECKED  | DA                  | (IE  |  |
|  | (1) Include temp   | erature rise caus   | sed by current-carrying.  |         |  | APPROVED   | NH. NAKATA                                     | 18.0                | 4    |  |
|  |                    | means a long-te   | eans a long-term storage state for the unused product   |         |  | CHECKED MK. NAGATA   |  | 18.0                |      |  |
|  |                    | ndly to PCB.  |   |         |  | DESIGNED TS. 00N0  |  |                     | 4. 1 |  |
| Unless oth                             | nerwise spe        | cified, refer   | ified, refer to IEC 60512.  |         |  |  |  |                     | 4. 1 |  |
| Note QT:Qualification Test AT:A        |                    |   |   |         |  |  |  |                     |      |  |
|  |                    |   |   |         | DRAWING NO.   ELC-353553-2<br>PART NO.   FX23-60S-0. 5SV (20 |  |  | ,<br>               |      |  |
|  |                    |   |   |         |  |  | •  |                     |      |  |
| RS                                     |                    |   |   |         | ODE NO.  |  |  | $\wedge$            | 1/   |  |

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