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 In case that the application demands a high level of reliability, such as automotive,
 please contact a company representative for further information.

| APPLICABLE STANDARD | | IEC 61076-3-124 | | | |
|---|--|--|---|--|---|
| Rating | Operating Temperature Range | -40°C TO +85°C(95%RH max) (note1)  | Storage Temperature Range | -30°C TO +60°C(95%RH max) (note1)  | |
| | Voltage | 50 V AC / 60 V DC | Current | 1.5 A/pin (all pin) | |
| | | | | 3 A/pin (pin No.1,2,6,7) | |
| SPECIFICATIONS | | | | | |
| ITEM | TEST METHOD | | REQUIREMENTS | QT | AT |
| CONSTRUCTION | | | | | |
| General Examination | Examined visually and with a measuring instrument. | | According to drawing. | X | X |
| Marking | Confirmed visually. | | According to drawing. | X | X |
| ELECTRIC CHARACTERISTICS | | | | | |
| Contact Resistance | Measured at 100 mA max (DC or 1000 Hz). | | Contact : 30 mΩ max. Shield : 100 mΩ max. | X | — |
| Insulation Resistance | Measured at 500 V DC. | | 500 MΩ min. | X | — |
| Voltage Proof | 500 V DC applied for 1 min. Current leakage 2mA max. | | No flashover or breakdown. | X | — |
| Insertion Loss | Measured in the range of 1 to 500 MHz. | | 0.02 √(f) dB max. (Whenever the formula results in a value less than 0.1 dB, the requirement shall revert to 0.1 dB.) | X | — |
| Return Loss | Measured in the range of 1 to 500 MHz. | | 68 – 20log(f) dB min. (Whenever the formula results in a value greater than 30 dB, the requirement shall revert to 30 dB.) | X | — |
| Near end Crosstalk | Measured in the range of 1 to 500 MHz. | | 94 – 20log(f) dB min. (1MHz to 250MHz) 46.04 – 30log(f/250) dB min. (250MHz to 500MHz) (Whenever the formula results in a value greater than 75 dB, the requirement shall revert to 75 dB.) | X | — |
| Far end Crosstalk | Measured in the range of 1 to 500 MHz. | | 83.1 – 20log(f) dB min. (Whenever the formula results in a value greater than 75 dB, the requirement shall revert to 75 dB.) | X | — |
| Transverse Conversion Loss | Measured in the range of 1 to 500 MHz. | | 68 – 20log(f) dB min. (Whenever the formula results in a value greater than 50 dB, the requirement shall revert to 50 dB.) | X | — |
| Transverse Conversion Transfer Loss | Measured in the range of 1 to 500 MHz. | | 68 – 20log(f) dB min. (Whenever the formula results in a value greater than 50 dB, the requirement shall revert to 50 dB.) | X | — |
| MECHANICAL CHARACTERISTICS | | | | | |
| Insertion And Withdrawal Forces | A maximum rate of 50 mm/min. Measured by applicable connector. | | Insertion force 25 N max. Withdrawal force 25 N max. | X | — |
| Mechanical Operation | 5000 times insertions and extractions. Mating speed : 10 mm/s max. Rest : 5s, min.(unmated) | | 1) Resistance: Contact : 80 mΩ max. Shield : 100 mΩ max. 2) No damage, cracks or looseness of parts. | X | — |
| Vibration | Frequency 10 to 500 Hz 0.35 mm, 50 m/s ² 2hrs in each of 3 mutually perpendicular axis. | | 1) No electrical discontinuity of 1μs. 2) No damage, cracks or looseness of parts. | X | — |
| | COUNT | DESCRIPTION OF REVISIONS | DESIGNED | CHECKED | DATE |
|  | 3 | DIS-E-00001391 | JY.IGA | KI.NAGANUMA | 18.03.09 |
| Note | | | APPROVED | RI.TAKAYASU | 17.03.24 |
| Note 1. Non-condensing.  | | | CHECKED | KI.NAGANUMA | 17.03.24 |
| Unless otherwise specified, refer to IEC 60512. | | | DESIGNED | HT.SATO | 17.03.24 |
| | | | DRAWN | HT.SATO | 17.03.24 |
| Note QT:Qualification Test AT:Assurance Test X:Applicable Test | | | DRAWING NO. | | ELC-129487-00-00 |
|  | SPECIFICATION SHEET | | PART NO. | IX30G-B-10S-CV (7. 0) | |
| | HIROSE ELECTRIC CO., LTD. | | CODE NO. | CL251-0025-0-00 |  1/2 |

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| SPECIFICATIONS | | | | | |
|---|---|---|------------------|-----------------------|---|
| ITEM | TEST METHOD | REQUIREMENTS | QT | AT | |
| Fretting Corrosion | 490 m/s ² , 30 times/min at 1000 times. | 1) No electrical discontinuity of 1μs. 2) No damage, cracks or looseness of parts. | X | — | |
| Shock | Subject mated specimens to 300 m/s ² half-sine shock pulses of 11 milliseconds duration, 3 shocks in both directions of 3 mutually perpendicular directions (totally 18 shocks) | 1) No electrical discontinuity of 1μs. 2) No damage, cracks or looseness of parts. | X | — | |
| Lock Strength | Applying 80 N force for the mating axis direction in state in fitted with applicable connector. | No unlocking, damage, cracks or looseness of parts. | X | — | |
| Wrenching Strength | Applying 25times of 30 N 1s for 2 axis direction on tip of plug case in state in fitted with applicable connector. | No damage, cracks or looseness of parts. | X | — | |
| ENVIRONMENTAL CHARACTERISTICS | | | | | |
| Rapid Change of Temperature | Subject mated specimens to 10 cycles between -55°C and 85°C with 30 minutes dwell at temp. Extremes and 1 minute transition between temperatures. | 1) Voltage proof : 500 V DC applied for 1 min. Current leakage 2mA max. No flashover or breakdown. 2) Resistance: Contact : 80 mΩ max. Shield : 100 mΩ max. 3) Insulation resistance: 500 MΩ min. (at dry) 4) No damage, cracks or looseness of parts. | X | — | |
| Humidity / Temperature Cycling | Low temperature 25 °C; High temperature 65 °C; Cold sub-cycle - 10 °C; Relative humidity 93 % Duration 10 / each 24 h (IEC 60068-2-38,test Z / AD) | 1) Resistance: Contact : 80 mΩ max. Shield : 100 mΩ max. 2) Insulation resistance: 500 MΩ min. (at dry) 3) No damage, cracks or looseness of parts. | X | — | |
| Damp Heat, Steady State | Subject mated specimens to a relative humidity of 93 % at a temperature of 40°C during 21 days. | 1) Resistance: Contact : 80 mΩ max. Shield : 100 mΩ max. 2) Insulation resistance: 500 MΩ min. (at dry) 3) No damage, cracks or looseness of parts. | X | — | |
| Dry Heat | Subject to +85 ± 2 °C, 21 days. (mating applicable connector) | 1) Resistance: Contact : 80 mΩ max. Shield : 100 mΩ max. 2) Insulation resistance: 500 MΩ min. (at dry) 3) No damage, cracks or looseness of parts. | X | — | |
| Cold | Subject to -55 ± 3 °C, 10 days. (mating applicable connector) | 1) Resistance: Contact : 80 mΩ max. Shield : 100 mΩ max. 2) Insulation resistance: 500 MΩ min. (at dry) 3) No damage, cracks or looseness of parts. | X | — | |
| Corrosion Salt Mist | Subject to 5 % salt water, 35 ± 2 °C, 48h. (left under unmated condition.) | No heavy corrosion of contacts. | X | — | |
| Mixed Flowing Gas Corrosion | Test temperature : +25±1 °C, Relative humidity : 75±3 % H ₂ S : 100±20 ppb, NO ₂ : 200±50 ppb Cl ₂ : 10±5 ppb, SO ₂ : 200±20 ppb Duration : 4 days, half mated half unmated (IEC 60512, method 4) | 1) Resistance: Contact : 80 mΩ max. Shield : 100 mΩ max. 2) No damage, cracks or looseness of parts. | X | — | |
| | | | | | |
| Note QT:Qualification Test AT:Assurance Test X:Applicable Test | | DRAWING NO. | ELC-129487-00-00 | | |
|  | SPECIFICATION SHEET | | PART NO. | IX30G-B-10S-CV (7. 0) | |
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