

SPECIFICATION

REV : XA

DATE : 04-Dec-2017

TITLE : LP24-RJ45 series connector

| | APPROVED | CHECKED | PREPARED |
|------|----------|---------|----------|
| NAME | Ferry | Robin | William |

- **Material Designation:** LP24-RJ45 series connector



- **Ratings:**

| Item | Standard |
|---------------------|---------------------------|
| Operating voltage | AC 42Vrms maximum |
| Rated current | 1.2A |
| Working temperature | -25°C ~ +85°C, 85% RH Max |
| Storage temperature | -25°C ~ +85°C, 85% RH Max |

- **Test condition:**

The test and measurement, unless otherwise specified, shall be carry out at a temperature of 15 to 35°C,Relative humidity of 25 to 85%,and atmospheric of 86 to 106kPa.However,when any doubt arises on the judgment value it, the test and measurement shall be carry out at a temperature of 20±2°C,relative humidity of 60 to 70%,and atmospheric pressure of 86 to 106Pa.

- **Technical data:**

- **Electrical:**

| NO. | Item | Test Method | Requirement |
|-----|-----------------------|---|--|
| 1.1 | Contact Resistance | Mate connectors, Measure by dry circuit,20mV Max,100mA {EIA-364-23} | 40mΩ Max (initial) |
| 1.2 | Insulation Resistance | Unmated connectors, apply 500V DC between adjacent terminal or ground. {EIA-364-21} | 500MΩ Min |
| 1.3 | Withstanding Voltage | Unmated connectors, apply 1000V AC for 1 minute between adjacent terminal or ground. {EIA-364-20} | No Break down Current Leakage: <0.5mA |

- **Mechanical:**

| NO. | Item | Test Method | Requirement |
|-----|------------------|---|----------------------|
| 2.1 | Insertion force | Measure mating force necessary to mate connector. Operation speed: 12.5mm/minute {EIA-364-13} | 22.25N {2.27kgf} Max |
| 2.2 | Withdrawal force | Measure unmating force necessary to mate connector. Operation speed: 12.5mm/minute {EIA-364-13} | |
| 2.3 | Normal force | Measurements done in assembled connector, with nominal deflection, 5 samples of each unique contact. {EIA-364-04} | 0.1N min |
| 2.4 | Retention Force | Perform a forced disassembly axial load to each contact at a maximum rate of 25.4 millimeters (1.0 inch) per minute until the contact retention features fail and allow the contact to become dislodged from their proper position in the housing. Reference to EIA-364-29 Method C - Test to Destruction | 5N min |

| NO. | Item | Test Method | Requirement | |
|-----|------------------|---|--------------------|--------------------|
| 2.5 | Durability | Mated and unmated connectors up to 750 cycles at a maximum rate of 200 cycles per hour {EIA-364-09} | Appearance | NO damage |
| | | | Contact Resistance | 40mΩ Max |
| | | | Insertion force | |
| | | | Withdrawal force | |
| 2.6 | Vibration | Amplitude:1.52mm. Sweep time:50~2000~50Hz Duration:10 minutes in each(total of 30 minutes)X,Y,Z axes. {EIA-364-28 Test condition V test letter A} | Appearance | NO damage |
| | | | Discontinuity | 1 Microsecond Max. |
| 2.7 | Mechanical Shock | Pulse width: 11 msec; Mate connectors to 490m/s ² 50g' s half-sine shock pulses of 11ms duration. Three shocks in each direction applied along three mutually perpendicular planes for a total of 18 shocks.. {EIA 364-27B} | Appearance | NO damage |
| | | | Contact Resistance | 40mΩ Max |

■ Environmental :

| NO. | Item | Test Method | Requirement | |
|-----|-----------------|--|---|-------------|
| | | | | |
| 3.1 | Humidity test | Temperature: $40 \pm 2^{\circ}\text{C}$ Relative Humidity: 90~95% Duration: 4 cycles (96 hours) Upon completion of the test, specimens conditioned at ambient room conditions for 1 {EIA-364-31 Test condition A method III} | Appearance | NO damage |
| | | | Contact Res | 40mΩ Max |
| | | | Insulation Resistance | 100MΩ Min |
| | | | Withstandin Voltage | No breakdow |
| 3.2 | Salt mist spray | Salt concentration: $5\% \pm 1\%$ Temperature: $35 \pm 2^{\circ}\text{C}$; Testing time: 24 ± 2 hours ,After salt is removed by running water and a drop is removed, it is measured. {EIA-364-26A, condition A} | NO damage Appearance shall not be extremely rust. | |
| 3.3 | Thermal shock | Mate connentors together and perform the test as follows. 10 cycle of: A) -55°C for 30 minutes; B) $+85^{\circ}\text{C}$ for 30 minutes {EIA-364-32, Condition I} | Appearance | NO damage |
| | | | Contact Res | 40mΩ Max |
| 3.4 | Heat test | The connector is exposed to $70 \pm 2^{\circ}\text{C}$ atmosphere for 96 hours. After testing it shall be left alone for 1 to 2 hours in room ambient. | Appearance | NO damage |
| | | | Contact Res | 40mΩ Max |
| 3.5 | Cold test | The connector is exposed to $-40 \pm 2^{\circ}\text{C}$ atmosphere for 96 hours. After testing it shall be left alone for 1 to 2 hours in room ambient. | Appearance | NO damage |
| | | | Contact Res | 40mΩ Max |
| 3.6 | Waterproof Test | IEC 60529, IP67 1. The connector is mounting with a sealing 2. Test box which the plug-in hole is opening. 3. Completely immerse the full test boxes into water. 4. The connector plug-in hole is located 1000 mm below the surface of the water. 5. Under water test duration is 30 min. 6. After immersion, allowed dry the receptacle plug-in hole by pressure air before dielectric withstanding voltage test. | No water permeated into the test boxes by visual inspection after test. | |

● **Material Introduction:**

■ **Basic Information**

Complying with class D or CAT 5e standard of TIA/EIA 568B and ISO/IEC11801, data transfer rate is up to 10Gbit/s. Multi-style connecting modes. 1/4 bayonet connect (YT01), quickly plug /unplug(YT09/04), can be used in harsh environments. Shield system with high frequency noise immunity and electromagnetic interference protection.

■ **Packing and Storage:**

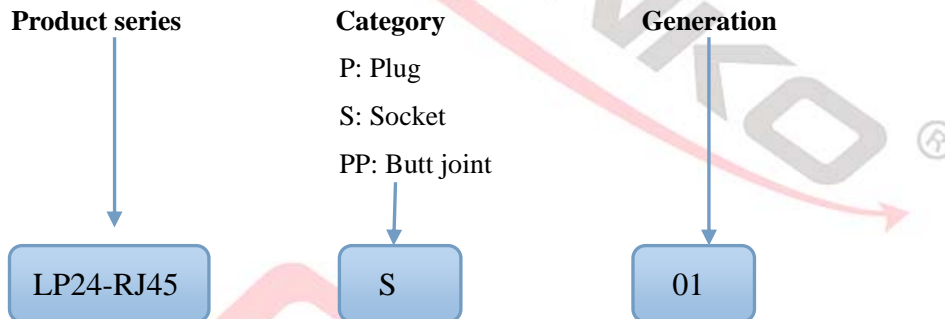
The production are packed in plastic bag, The packing list must be set in every carton, which has been given clear information of material designation, part number, production order number, packet quantity and total product quantity. The packaged production should be stored in the storeroom ,in which Environment Temperature is $-40^{\circ}\text{C} \sim +80^{\circ}\text{C}$,Relative humidity $\leq 85\%$,no acidic, alkaline and other corrosive gases.

■ **Mating Type.**

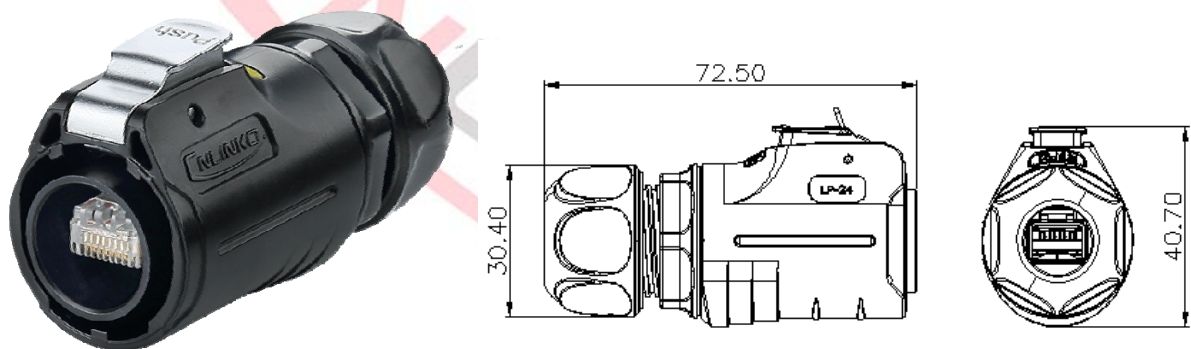
Mated with: LP24-RJ45 connector (male)

■ **Applicable Standards :** Meeting FCC、TIA/EIA 568、MIL、IEC、CNS Standards

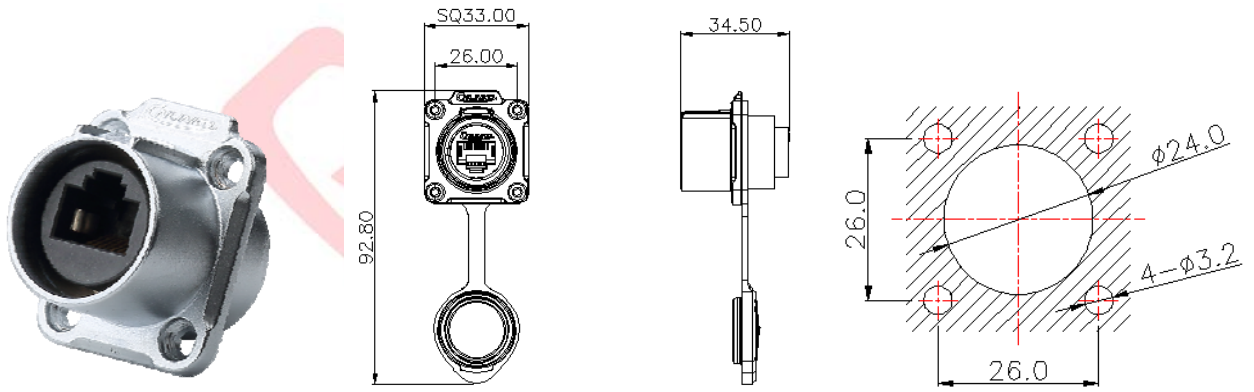
PRODUCT CODE



● **Outline dimension**



LP-24-RJ45-P01 Plug



LP-24-RJ45-S01 Socket

Mounting hole