

RJ45 Connector Accessories

Industrial Pass-Through 8P8C RJ45 Modular Plug with Integrated Electronic Wire Leads & Pre-Terminated Cable Harness



Key specifications

Plug Type	8P8C Pass-Through Modular Plug (Unshielded UTP / Shielded STP)
Wiring Standard Compatibility	TIA/EIA-568-B, T568A, Custom Pinouts
Electronic Wire Lead Gauge	UL1007 / UL1061 AWG 24, AWG 26, AWG 28 (Customizable)
Conductor Material	99.99% Oxygen-Free Tinned Copper / Bare Copper

Product summary

- **Pass-Through Efficiency:** Streamlines termination with a clear pass-through 8P8C design, ensuring fast visual verification of wire sequences before crimping.
- **Pre-wired Electronic Leads:** Factory-assembled with customized electronic wire leads (AWG 24–28, PVC/LSZH insulation) for seamless board-to-board, cabinet, or sensor integrations.
- **Enhanced Electrical Performance:** Features 50μ" gold-plated 3-prong contacts compatible with both solid and stranded copper wires for maximum signal integrity and corrosion resistance.
- **Industrial-Grade Reliability:** Engineered to withstand 1,000+ insertion cycles, vibration, and extreme temperature fluctuations (-40°C to +85°C).
- **OEM/ODM Customization:** Fully customizable wire gauge, lead lengths, stripping options, color coding, and secondary connector integration (e.g., JST, Molex, Dupont).

Product page:
<https://www.cnplugs.com/product/pass-through-8p8c-rj45-connector-with-wire-leads/>
Category: RJ45 Connector Accessories

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Product details

Industrial-Grade Pass-Through 8P8C RJ45 Modular Plugs with Integrated Electronic Wire Leads

In high-density telecom infrastructure, industrial automation, and custom electronic manufacturing, standard Ethernet connectors often fall short when direct board or device integration is required. Our **Pass-Through 8P8C RJ45 Modular Plug with Wire Leads** bridges the gap between structured networking and internal electronic wiring. Designed for OEMs, system integrators, and equipment manufacturers, this pre-terminated harness assembly drastically cuts down assembly time while eliminating field wiring errors.

Manufactured under strict ISO 9001 and ISO 14001 quality standards, every assembly combines high-grade polycarbonate housing with custom-engineered electronic wire leads to deliver seamless 10G/Gigabit transmission performance. Whether you require custom lengths, specific terminal ends, or specialized shielding, our factory delivers tailored solutions optimized for global distribution.

Key Features & Engineering Advantages

1. High-Precision Pass-Through Architecture

Traditional blind-entry RJ45 connectors often result in improper wire seating, leading to costly re-works and signal loss. Our [pass-through RJ45 connectors](#) allow conductor wires to feed through the front face of the plug. This enables technicians and automated assembly lines to perform immediate visual checks of the T568A/T568B pinout arrangement prior to crimping, achieving a near 100% first-pass yield.

2. Pre-wired Factory-Assembled Electronic Wire Harness

Instead of manually crimping wires on-site, our factory-integrated electronic leads come pre-soldered or pre-crimped to the internal pins of the 8P8C plug. Utilizing high-flexibility tinned copper wire leads wrapped in premium flame-retardant PVC or LSZH insulation, these connectors effortlessly interface with internal PCBs, terminal blocks, or secondary connectors like JST, Molex, or AMP headers.

3. Superior Contact Geometry & 50μ" Gold Plating

Electrical stability is non-negotiable in critical applications. We employ a universal **3-Prong Contact Blade** design that securely penetrates both stranded and solid conductors. To prevent oxidation and maintain low contact resistance over decades of deployment, our contacts feature pure nickel under-plating covered by up to 50 micro-inches (50μ") of real gold plating, fully compliant with [8P8C Modular Connector Standards](#).

Target Industry Applications

Our pre-wired pass-through 8P8C connectors are engineered to support a diverse array of industrial and commercial setups:

- **Industrial Automation & Robotics:** Connecting PLC control units, sensors, and robotic arms where tight bending radiuses and custom wire harnesses are required.
- **Telecom & Server Cabinets:** Internal patch panel wiring, power distribution units (PDUs), and network switch control interfaces.
- **IoT & Security Hardware:** Direct internal wiring for IP cameras, access control panels, smart lighting gateways, and PoE (Power over Ethernet) devices. Explore our full range of [industrial Ethernet connectors](#) for related system components.
- **Medical & Transportation Systems:** Diagnostic equipment, passenger display networks, and onboard telemetry hardware demanding vibration-proof connectivity.

Quality Assurance & Factory Testing Standards

Quality reliability is built into every step of our manufacturing workflow. Every batch of pre-wired 8P8C assemblies undergoes stringent testing procedures before dispatch:

1. **100% Continuity & Pinout Verification:** Automated digital testers check for open circuits, short

circuits, and miswires across all electronic leads.

- 2. **Fluke Versiv™ DSX-8000 Testing:** Sample lots undergo strict channel and patch cord testing to verify Category performance (Cat5e / Cat6 / Cat6A) according to [TIA/EIA-568 Wikipedia Standards](#).
- 3. **Tensile & Pull-Force Testing:** Verifies that the wire crimp and housing retention force exceed 89N (20 lbs), preventing wire pull-out under industrial stress.
- 4. **Salt Spray & Environmental Aging:** Ensures gold plating and metallic shielding resist corrosion in humid or salty marine environments.

Technical specifications

Specification	Published value
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Electronic Wire Lead Gauge	UL1007 / UL1061 AWG 24, AWG 26, AWG 28 (Customizable)
Conductor Material	99.99% Oxygen-Free Tinned Copper / Bare Copper
Insulation Material	RoHS-Compliant PVC / Low Smoke Zero Halogen (LSZH) / PTFE
Contact Plating	Flash Gold / 3μ" / 15μ" / 30μ" / 50μ" Gold over Nickel
Lead Length Options	50mm to 1000mm+ (Tailored to customer drawing)
Rated Current & Voltage	1.5A @ 125V AC RMS
Dielectric Withstanding Voltage	1000V AC RMS / 1 minute (50Hz / 60Hz)
Operating Temperature	-40°C to +85°C (-40°F to 185°F)
Mating Cycles	≥ 1,000 Insertion/Withdrawal Cycles
Certifications & Compliance	UL 94V-0/V-2, RoHS, REACH, CE, Fluke Channel/Patch Tested