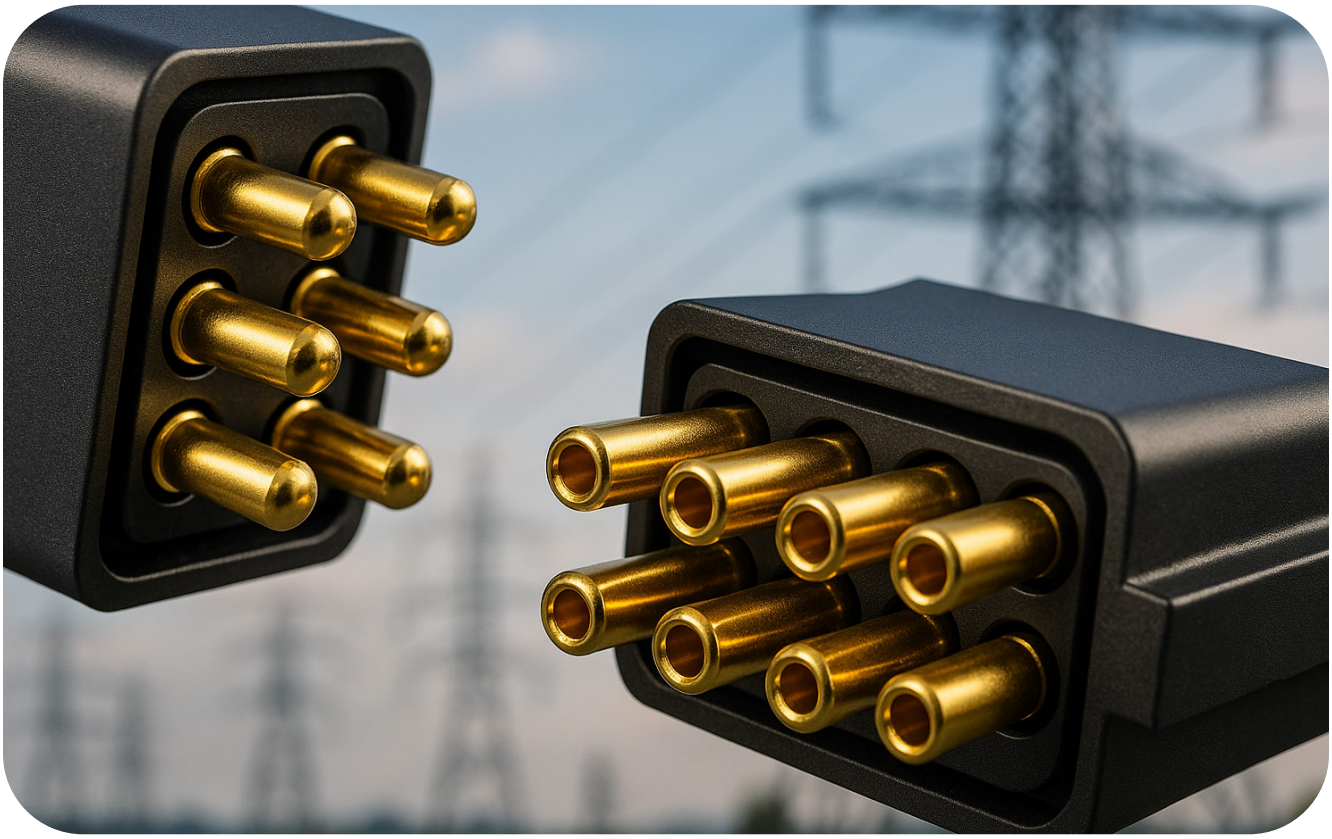
BLOOH SOLUTION LTD.

BS – GOLD-PLATED

POWER CONNECTORS

HIGH-PERFORMANCE CONTACT SOLUTIONS FOR HIGH-FREQUENCY, POWER, AND SECURITY SYSTEMS

www.blooh-solution.com



INTRODUCTION: RELIABLE CONDUCTIVITY FOR CRITICAL INTERFACES

Gold has been a preferred material for electrical contacts for decades—not only because of its conductivity, but also due to its exceptional corrosion resistance and chemical stability. In high-frequency, power distribution, and safety-critical systems, precise contacts determine the efficiency, reliability, and longevity of complex technologies.

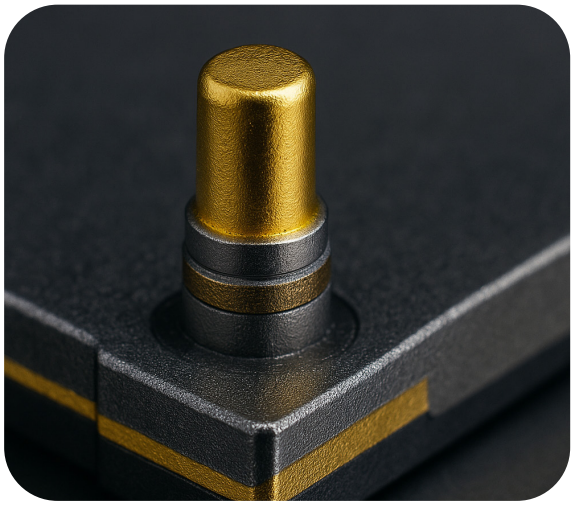
Gold-coated power connectors offer a low-loss, oxidation-resistant interface that ensures long-term consistent conductivity and minimal signal interference. Especially in applications with frequent switching, changing environmental conditions, or high current loads, they guarantee reliable transmission performance.

BLOOH Solution Ltd. develops customized connectors, pins, and transition elements with high-purity gold layers on copper, brass, or titanium bases. These not only provide low contact resistance but also withstand mechanical stress and thermal load over the long term—ideal for industrial, military, and medical applications.

BS-BREAKTHROUGH

At BLOOH Solution, gold-coated connectors are not seen merely as passive contacts, but as integral system components with functional added value. Our technologies are based on precision-controlled electroplating, combined with plasma preparation, micro-abrasive blasting, and the integration of functional diffusion barriers that prevent corrosion, delamination, and performance loss over the long term.

In addition, we use multilayer coating systems with optional ruthenium or nickel bases, which further enhance durability and contact stability under dynamic conditions. The gold layers themselves are applied with a defined grain structure, significantly improving the micro-contact surface and thus signal transmission.



Technological Highlights from BLOOH Solution:

- Pure contact gold coating with 99.9% Au on precision substrates
- Contact resistance <1.5 mΩ even after 10,000 mating cycles
- Thermal stability up to 180°C
- EMC-optimized contact design for high-frequency systems
- Antimicrobial variants for medical and diagnostic applications

Validation and Testing Procedures:

- High-frequency signal tests in climate cycling chambers
- Vibration and shock testing according to MIL-STD 810G
- Accelerated aging tests under humidity exposure
- Micro-ohm resistance measurements before and after thermal cycles

BLOOH Solution connection technologies are currently used in electric vehicles, satellite systems, MRI machines, and telecommunications infrastructure. Our manufacturing complies with international standards such as IPC-6012 and MIL-STD-202.

PORTFOLIO

MODEL AU-CONN POWERLINE

These high-current connectors are specifically designed for industrial energy management systems, e-mobility solutions, and modular battery storage units. The focus is on maximum current-carrying capacity with minimal heat generation. By using a high-purity gold coating, contact resistance is effectively reduced, ensuring consistent conductivity even under peak loads. The robust construction also guarantees reliability under extreme environmental conditions.

TECHNICAL SPECIFICATION

Base Material: Copper, nickel-plated

Gold Coating: 2.5 µm electroplated

Max. Current Load: 120 A

Contact Resistance: <0.9 mΩ

Mating Cycles: >5,000

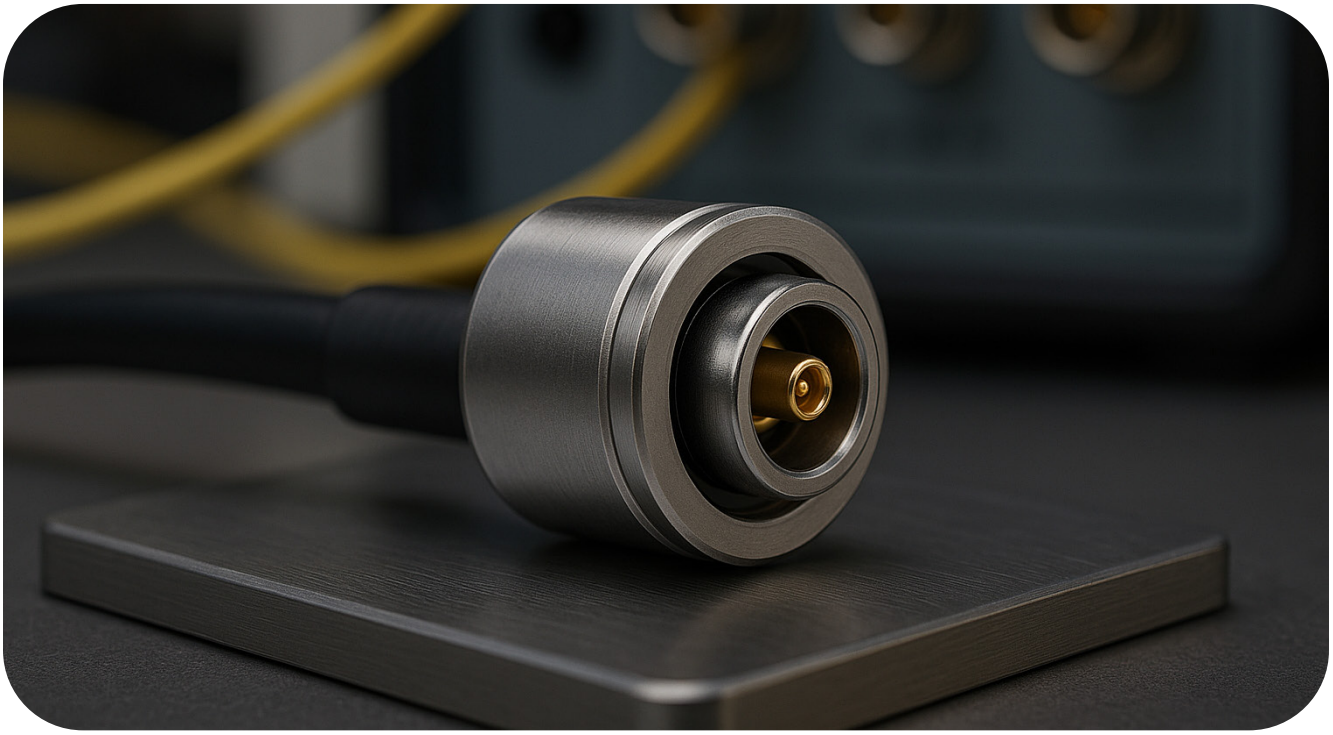
Protection Class: IP67

Additional Benefit: Consistent performance even under temperature fluctuations and vibration.

PORTFOLIO

MODEL AU-CONN SIGNALSAFE

Designed for the precise transmission of high-frequency signals in critical communication environments, these connectors offer low-loss signal routing with high data density. The specialized contact geometry and full 360° shielding ensure minimal crosstalk and maximum signal integrity—even during dynamic movement or electromagnetic interference. Ideal for applications such as antenna systems, medical electronics, and connected vehicles.



TECHNICAL SPECIFICATION

Frequency Range: up to 6 GHz

Return Loss: >30 dB @ 2.4 GHz

Contact Material: Phosphor bronze, gold-plated

Mating Cycles: >10,000

Operating Temperature: –40°C to +155°C

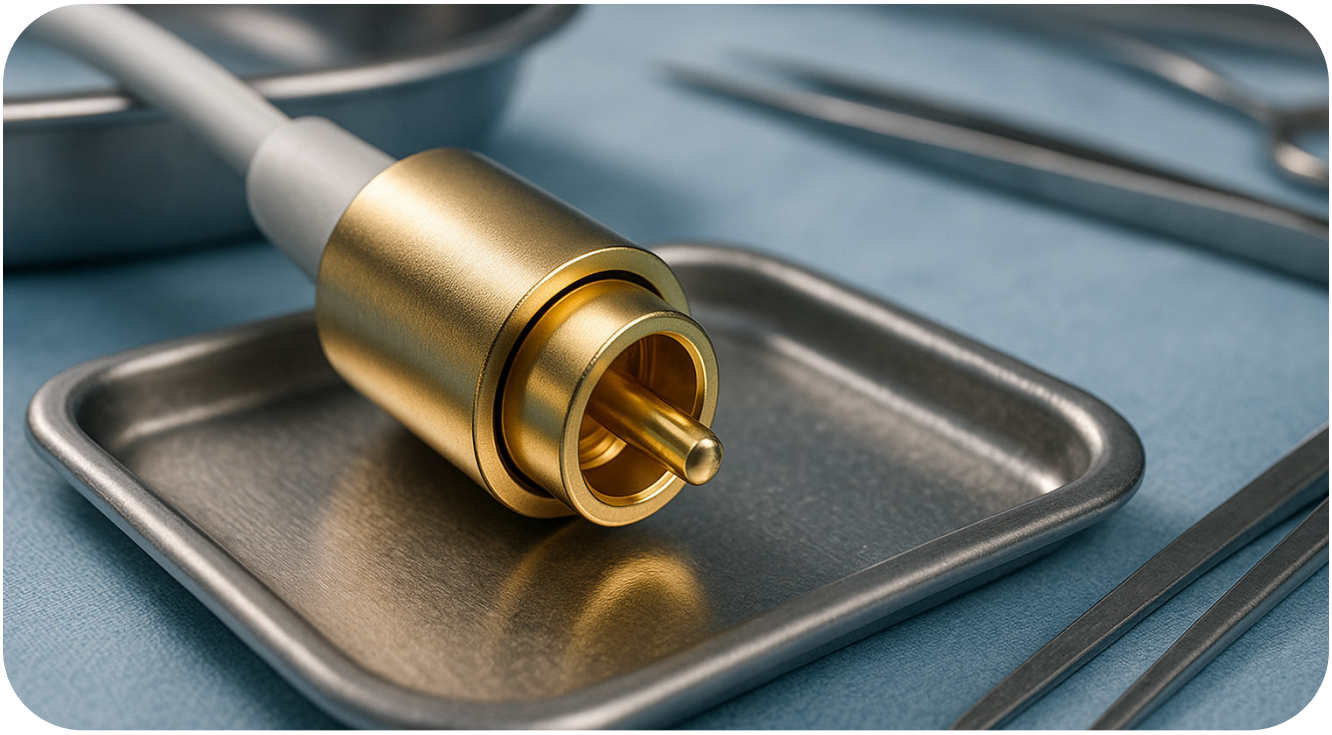
Shielding: 360° full contact

Additional Benefit: Minimized signal loss for stable digital communication.

PORTFOLIO

MODEL AU-CONN MEDICORE

These medically optimized connectors provide a secure, stable, and biocompatible connection for demanding diagnostic and therapeutic applications. Featuring specially developed gold-nickel alloys with antimicrobial properties and excellent skin compatibility, they meet the highest standards for hygiene and reliability. Especially suitable for long-term use with frequent contact with the human body.



TECHNICAL SPECIFICATION

Contact Material: Gold-nickel alloy

Biocompatibility: ISO 10993 certified

Contact Force: 0.4–0.6 N

Mating Cycles: >2,000

Sealing: Optional IPx4/IPx6

Resistance to Disinfectants:
Tested against 20 chemicals

Additional Benefit: Long lifespan and skin compatibility for extended medical use.

DRIVING INNOVATION FORWARD!

FOR MORE INFORMATION PLEASE CONTACT:

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