



Trusted connections for mission- critical systems

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Reliable connectivity for modern defence

In today's rapidly evolving geopolitical landscape, modern defence and security solutions demand uncompromising reliability and performance. As global threats become more complex and defence strategies more sophisticated, the need for cutting-edge, fail-safe technologies is greater than ever.

LEMO is a global leader in high-performance connector solutions, trusted by leading defence contractors and system integrators across the world. With over 75 years of engineering excellence, our connectors are built to perform in the most demanding conditions — where failure is not an option.

Our interconnect solutions combine compactness, durability, and precision, delivering mission-critical performance for land, air and sea applications.

Trusted by the defence industry

LEMO is a trusted partner in high-performance interconnect solutions for the defence industry.

From military electronics to surveillance and tactical communication systems, LEMO connectors ensure unmatched reliability in the most demanding defence and security applications.



Why LEMO

- Swiss-engineered precision since 1946
- Global support with local service
- Customizable and modular design, allowing easy adjustments as R&D evolves
- Fast prototyping capabilities
- Easy to source with long-term availability for long-term program continuity
- One-to-one engineering support during integration
- Reliable global supply chain and on-time delivery
- Responsive customer service and after-sales support
- High-volume connector production through state-of-the-art automation and fully industrialised in-house processes – ensuring speed, consistency, and exceptional quality at scale

Industry landscape & applications

LEMO's solutions play a key role in defence applications worldwide, delivering the reliability needed for mission success at every level.



Extreme conditions require exceptional solutions

Modern defence systems require cutting-edge connectivity solutions that meet the evolving challenges of military applications. LEMO is at the forefront of these advancements, delivering next-generation interconnect solutions.



Aerospace / UAVs

Autonomous mobility

Radar / EW / Missile systems

Command and control

Data network and radar

Naval / Maritime



Miniaturisation & lightweight

- High-performance connectors optimized for Size, Weight, and Power (SWaP) in portable military systems.



Higher data rates

- Supports high-speed data transmission with fiber-optic, coax, and twisted pair connectors.



MIL-tested

- Rugged, reliable design engineered to withstand the harshest conditions.



Integrated flex circuits

- Modular solutions for enhanced system integration



IP68 sealing or greater

- Advanced sealing ensuring protection against water, dust, moisture, and harsh environments



Modular & configurable systems

- Customizable solutions for a wide range of defence and security applications.



Rugged keyways & shells

- Robust keyways and shells ensure secure and reliable connections under demanding conditions



Multiple locking systems

- Push-Pull, Breakaway, and Ratchet coupling systems for secure, easy-to-use connections in extreme conditions.

LEMO Solutions for Defence & Security

LEMO provides high-performance connectivity solutions for military and defence applications, ensuring reliable operation in extreme environments. Our connectors are engineered for mission-critical operations and tested under harsh environmental conditions, in compliance with military standards such as MIL-STD-810 and MIL-STD-202.

In addition to environmental sealing (up to IP68), rugged mechanical design, and superior signal integrity, LEMO connectors offer key advantages over traditional MIL-Spec products. They are significantly more compact and miniature, helping to reduce the overall size and weight of tactical systems. All LEMO products are non-ITAR, offering easier international integration and export flexibility.

LEMO also offers miniature connectors that are electrically compatible with Nett Warrior/Stanag4695/GOSSRA systems, ensuring interoperability with modern soldier-worn electronics. Our durable cable assemblies, with options for potting and overmolding, along with field-replaceable and repairable solutions, provide long-term reliability and ease of maintenance in the field.



M Series

¾ turn ratchet rugged connector



F Series

Lightweight Push-Pull connector



D Series

Compact design with overmolding

Locking	Triple start, ¾ turn ratchet coupling	Push-Pull	Push-Pull and Break-Away
Size	9 sizes from ø 11.1 to ø 34.0 mm (plugs)	8 sizes from ø 8.5 to ø 36.1 mm (plugs)	5 sizes from ø 7.0 to ø 18.8mm (plugs)
Keying	10 keyway options	6 keyway options	3 keyway options
Shell Types	Over 40 shell styles	Over 12 shell styles	Over 3 shell types
Shell Material	Aluminium or Brass	Aluminium or Brass	Brass
Plating	Anthracite Nickel or Chrome	Anthracite Nickel or Chrome	Anthracite Nickel
Cable Diameter	2.2 to 34 mm 4 backshell options available	2.2 to 34 mm 1 backshell option	3.2 to 11.7 mm Overmolded backshell
NB of contact	3 to 114	3 to 66	2 to 32
AWG	Low Voltage 16 to 32 High power 1 to 8	18 to 32	10 to 30
Contact types	Multipole / Coax / Fibre Optic / Mixed / High power	Multipole / Fibre Optic	Multipole / Coax / Mixed
Contact Termination	Crimp / Print (PCB)	Crimp / Print (PCB)	Crimp / Print (PCB) / Solder
Data Protocols	SPE / Ethernet Cat6 / USB 2.0	SPE / Ethernet / USB 2.0 / USB 3.2	SPE / Ethernet / USB 2.0 / USB 3.2
Sealing level	IP68 mated / hermetic sockets	IP67 / hermetic sockets	IP68 unmated
Temperature range	-55°C to 200°C	-55°C to 200°C	-55°C to +150°C
Mating Cycles	> 3000	300 / 5000 acc. to sizes/material	> 5000

Innovation in focus

At the forefront of high-performance interconnect solutions, LEMO continues to push boundaries with advanced technologies designed to meet the demanding and ever-evolving requirements of modern defence applications.



Single pair ethernet

High-speed connectivity in a lightweight design

- ✓ Up to 2.5 Gbps
- ✓ Robust ratchet coupling
- ✓ Lightweight design
- ✓ IP68 (20m/2h)
- ✓ Available in the M, F and D Series



Miniature design

Compact and miniature connector for extreme conditions

- ✓ IP68 (20m/2h) unmated
- ✓ Robust 5-way keying
- ✓ Easy integration
- ✓ Push-Pull & Break-Away
- ✓ Tested according to MIL-STD-810H
- ✓ Available in the D Series



Multi coax

New multi coaxial model with high frequency performance

- ✓ High frequency up to 26.5 GHz
- ✓ 12x coaxial contact configuration (50 Ohm)
- ✓ Compact design for harsh environment
- ✓ Available in the M and D Series



USB 3.2

Patented Design

- ✓ High speed data transfer
- ✓ USB 3.2 up to 10 Gb/s
- ✓ Guaranteed signal integrity
- ✓ Compact and robust Push-Pull
- ✓ Available in the D Series

From connector to connection

In the evolving and demanding defence and security environments, LEMO and Northwire deliver integrated interconnect solutions combining precision connectors, PCB-Flex solutions, custom-engineered cables, and high-quality cable assemblies.

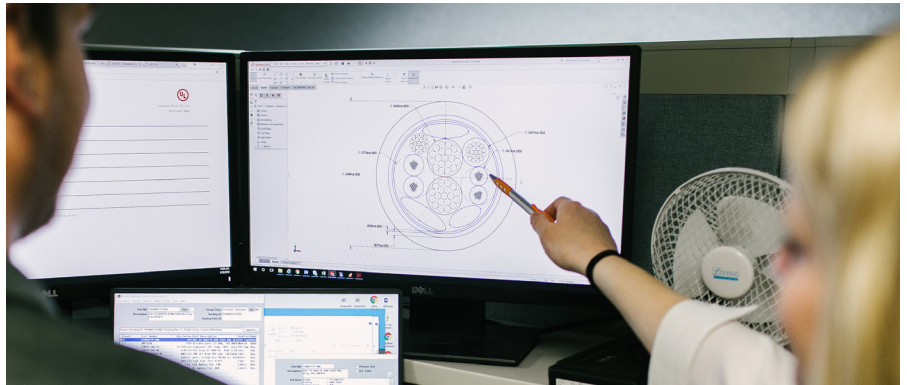
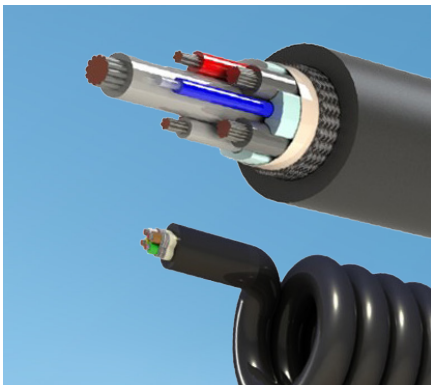
This comprehensive offering provides a one-stop solution, ensuring signal integrity, electrical performance, mechanical durability, and compliance with military standards.

Rugged custom cable solutions



Cable Solutions that are reliable to perform in the most demanding environments: extreme temperatures, exposure to flame, resistance to chemicals, cutting, crushing, impact, abrasion, and water.

- High-flex cables
- Effective RFI & EMI shielding
- Ruggedized coaxial cables
- Composite & hybrid configurations
- RG & RF microwave designs
- Retractable cables for harsh environments



Cable assemblies you can trust

Comprehensive cable assembly capabilities from design to production, we deliver plug-and-play assemblies that ensure seamless integration and reliability.

- **Full-Service offering:** Pre-assembled cable and connector sets tailored to your application, tested and ready for integration.
- **Custom solutions:** Expert in complex cable harnesses, assemblies, and thermoplastic overmolding.
- **Private labelling:** Tailored branding for sensitive projects.
- **Certified quality:** IPC-620, ISO 9001, AS9100, and more.
- **Sustainability:** Eco-conscious manufacturing aligned with strict industry standards.
- **End-to-end support:** From design to delivery, with timely and reliable service.
- **Single point of contact:** One trusted partner from connector and cable selection to final cable assembly delivery.
- **Global support:** Available worldwide through LEMO's international network, with local support and logistics.
- **Design & engineering support:** Technical drawings, system-level expertise.
- **Extensively tested:** Each assembly undergoes rigorous electrical, mechanical, and visual testing to guarantee performance and safety.



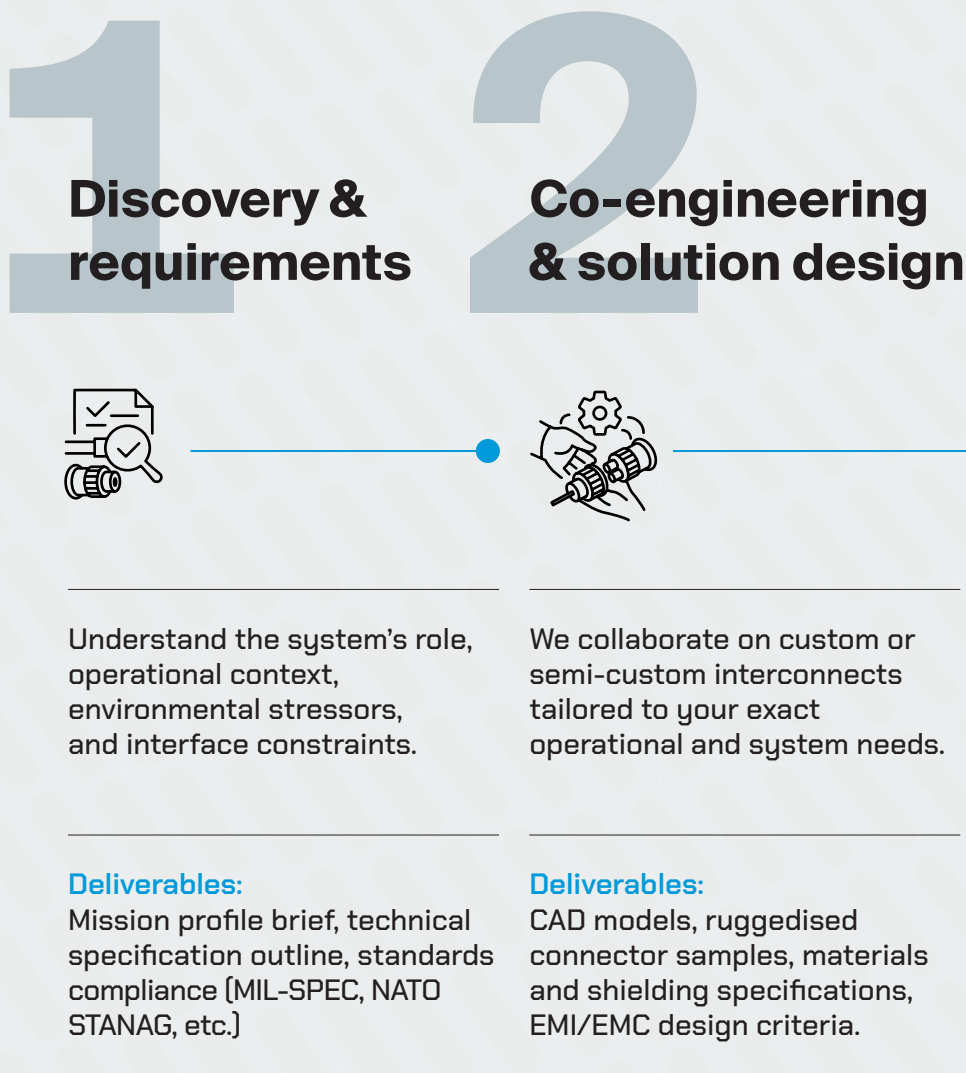
How we partner and innovate with you

We work side by side with defence system designers to develop interconnect solutions that are rugged and precise, mission-ready, secure, and built to perform in the world’s most demanding environments.

How we work with you:

Our collaborative approach ensures that every interconnect solution is precisely engineered to meet your performance needs, regulatory requirements, and user expectations.

With LEMO, you’re never working alone. You gain a committed partner focused on delivering not just a component, but a trusted solution – engineered with precision and delivered with care.



Prototyping & validation



Rapid prototyping, testing, and validation under real-world and extreme conditions to ensure combat readiness.

Deliverables:

Prototype units, test data [shock, vibration, ingress, thermal], compliance reports.

Production & deployment



Scalable manufacturing with strict quality controls, full traceability, and on-time delivery for critical missions.

Deliverables:

Production plan, supply chain coordination, quality assurance certifications.

Sustainment & lifecycle support



A long-term partner supporting upgrades, retrofits, maintenance, and next-generation programs — anywhere in the world.

Deliverables:

Technical support, redesign services, lifecycle planning, global support, shielding specifications, EMI/EMC design criteria.

Regulatory Commitment

MIL-DTL-38999 LEMO offers more compact and higher performance (e.g. data transfer speed) connectivity alternatives without compromising robustness and test protocols.

MIL-STD-810H Specific test conditions and procedures to validate that products can withstand the harsh and varied environmental conditions required for both military and commercial high-performance equipment. LEMO also uses these test procedures for selected product series to guarantee their performance as required by many customers for their harsh environment applications.

NATO STANAG NATO STANdardization AGreements between the members of the alliance for specific processes, equipment and protocols. LEMO offers unique alternative connector solutions that can still guarantee signal compatibility with selected standards.

Genuine quality, unmatched reliability

Often imitated, never equaled

LEMO's cutting-edge technologies are a global standard in the industry, attracting imitations and counterfeits. While look-alike products may appear similar, they cannot match the precision, durability, and performance of genuine LEMO connectors.

Protecting innovation and integrity

Our connectors are protected by patents, providing legal safeguards against counterfeit and unauthorised versions. Using non-genuine connectors, or mixing them with competitors' products, compromises the safety, performance, and compliance of your systems. LEMO cannot be held liable for any issues arising from the use of unauthorised, modified, or counterfeit components.

Choose LEMO for **Swiss precision**, engineering excellence, and products that meet the **highest defence and security standards.**

Empowering connectivity

About LEMO

With a strong legacy of excellence and innovation, the LEMO Group is a global leader in providing high performance custom interconnect solutions. From the depth of the oceans to the far reaches of outer space, no matter how harsh the environment may be, our connectors and cable solutions are chosen, wherever connections are too critical, precious, or vital to fail. Offering over 90,000 product combinations that continue to grow through custom specific designs, our subsidiaries and distributors have

built a global network of strong, dedicated local resources with unmatched technical expertise and understanding of customer requirements. Thanks to our global network, we serve more than 150,000 customers in over 80 countries worldwide. All our staff of 2,000 people are united to accomplish the same mission: to guarantee to our customers interconnect solutions that exceed their expectations by designing and delivering products that combine innovation, reliability, and exceptional service.

Years of experience	+80
Employees	+2000
Custom solutions	+90000
Subsidiaries	+20
Distributors	+20
Customers worldwide	+150000
Countries	+80

LEMO, your ideal partner

One-to-One local engineering expertise and technical support for system integration

Strong supply chain and global distribution network

Custom interconnect solutions for specific project requirements including rapid prototyping

Certified interconnect solutions in compliance with industry standards

Vertical integration ensuring reliable, high-quality interconnect solutions and sustained availability



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Product finder



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