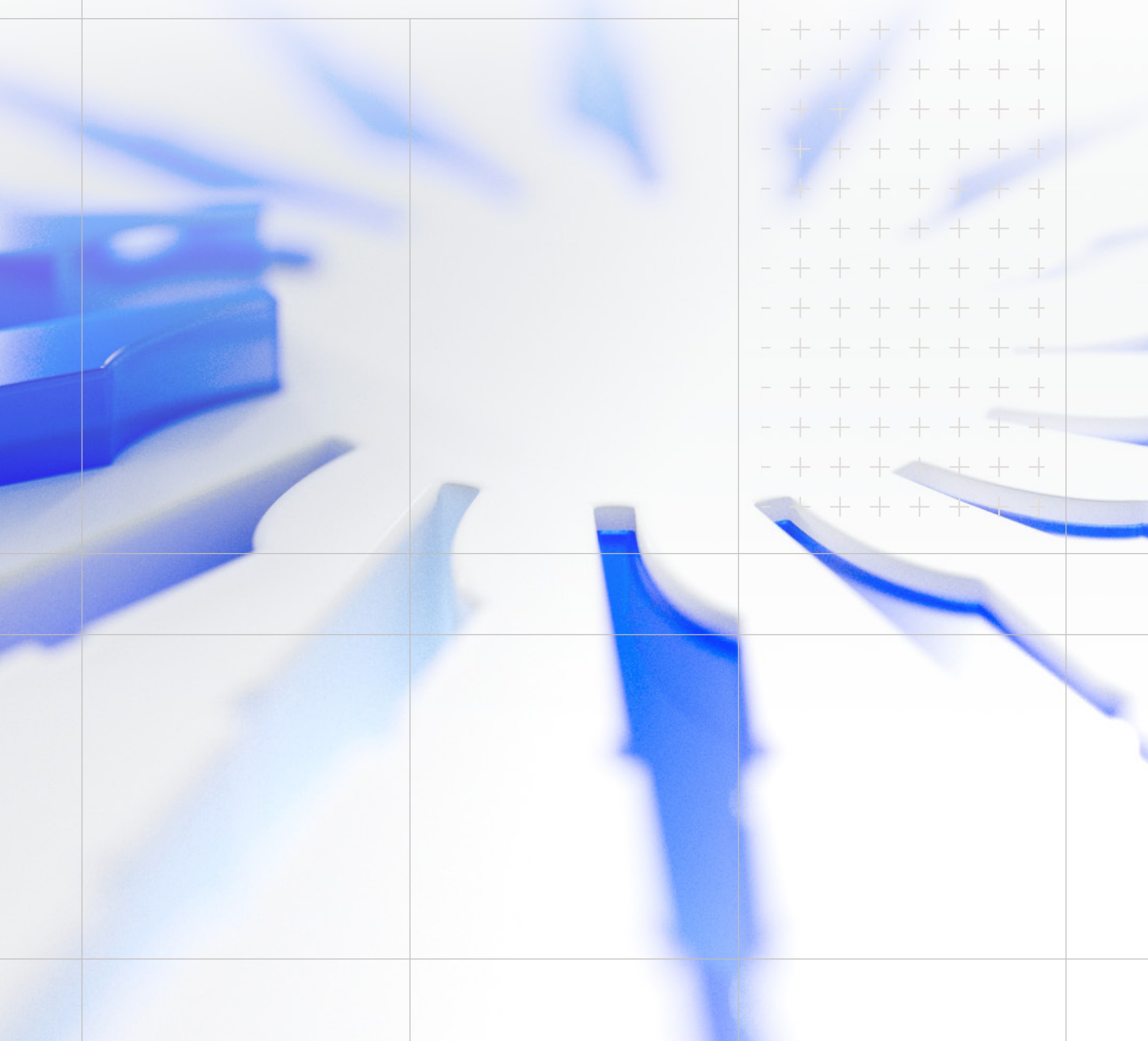
Cambion®

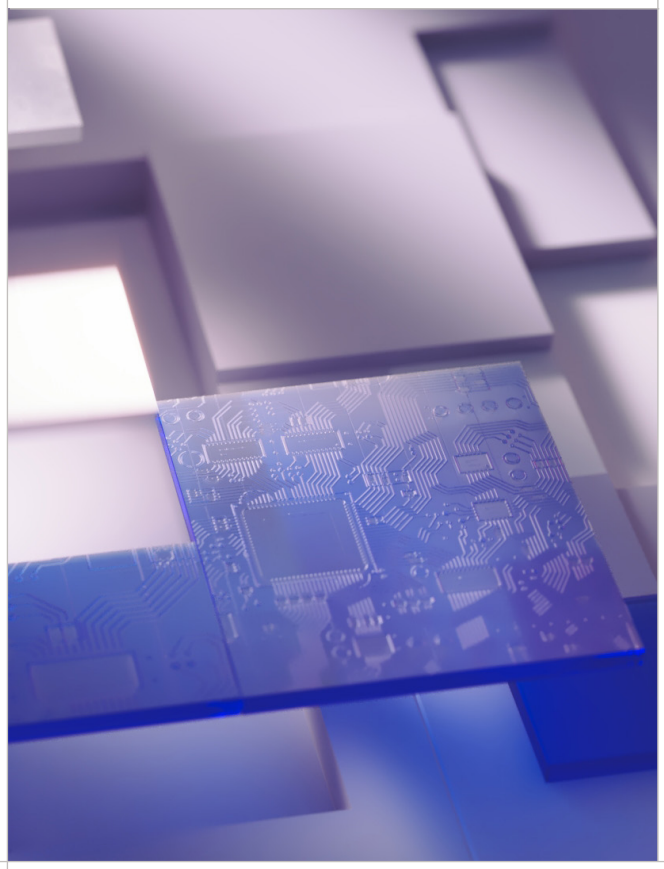
# Short Form Catalogue

WWW.CAMBION.COM



# 01 About Cambion®

+ Precision-engineered connectors
+ Custom winding options available
+ UK manufactured components
+ EN 9100 Certified Quality Management
+ Inductive components rated



Cambion's commitment to innovation, quality, and customer service has earned it a reputation as a leading designer and manufacturer of high performance electro-mechanical/electronic components, inductive assemblies, and interconnect solutions.

Cambion is recognised for its outstanding contributions and expertise within the electronics sector and is a trusted partner to numerous worldwide 'Blue Chip' customers, being extremely active in the Military, Aerospace, Civil Aircraft, Oil & Gas, Medical, and Industrial Markets. And is particularly well known for being strong in Gas Detection and boasts a worldwide reach via its Distribution Network.

Cambion is solely based in the UK operating from its 4,000 square metre facility, within the idyllic Peak District National Park, Castleton, Derbyshire. Cambion is autonomous in its manufacturing capabilities with stamping, machining, moulding, semi/automated assembly supported by an equipped toolroom.

Cambion remains focused on continual investment in the latest machinery, systems, and product development, enabling it to substantially advance its manufacturing and assembly capabilities to cover a broad and comprehensive range of disciplines and technologies, thus offering a complete solution proposition to the customer.

Far East Group facilities provide OEM, ODM and EMS services. Products and services include inductive components, electronic connectors.

# 02 Vertical Integration

Our vertically integrated approach brings key engineering and manufacturing processes together under one roof. With in-house machining, stamping, moulding, tooling and assembly capabilities, Cambion can adapt standard products, develop custom variants, reverse engineer solutions and support projects from initial concept and prototype through to full volume manufacturing, all at our UK facility.

Being able to vertically integrate our capabilities within our customer requirements has significant benefits to our clients. The greater control over quality, lead-times and the finished solution allows Cambion the ability to offer a competitive product or assembly whilst giving our customers the peace of mind that all processes are being performed to the same, high standards they have come to expect from Cambion.

+ Full In-House Autonomous Capabilities
+ Cable Harnessing
+ PCB Assembly
+ Custom Magnetics and Winding
+ Bespoke Connector Manufacture
+ Discrete Components

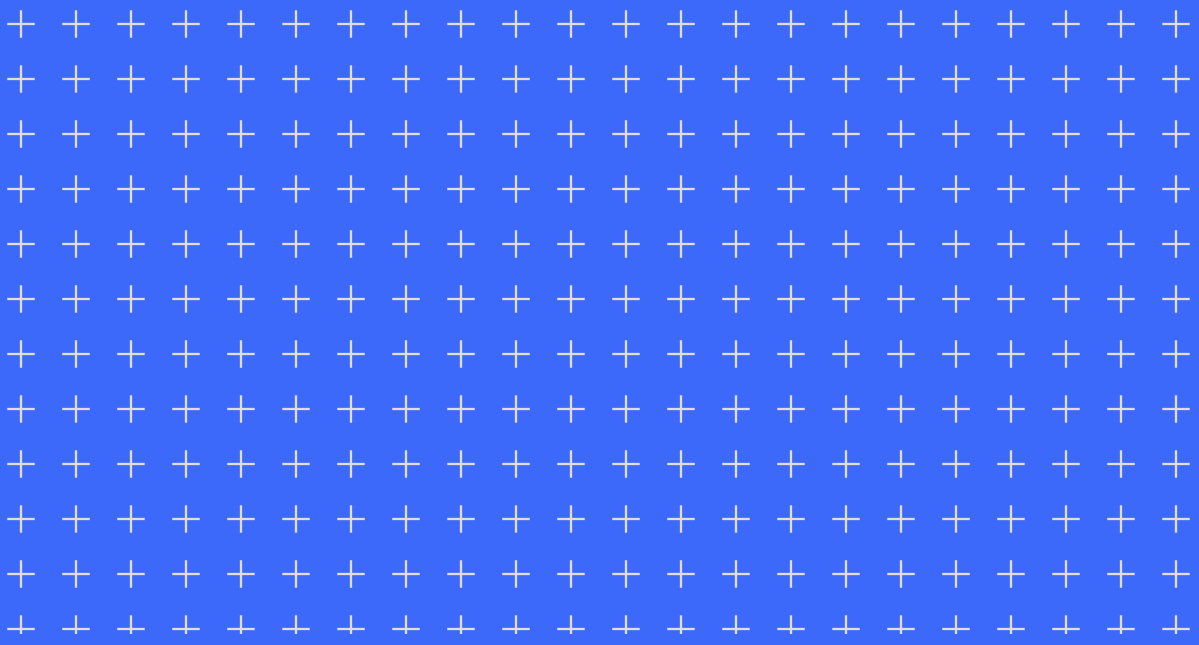


03

# Our Products

Engineered and manufactured at our UK facility to ISO 9001 and EN9100 quality standards, Cambion's product portfolio delivers high-performance electro-mechanical components, custom inductive assemblies, and advanced interconnect solutions built for the world's most demanding environments.

Our comprehensive range encompasses precision-machined pins, cage jacks, spring-loaded contacts, RF connectors, custom coils, toroids, and complete cable assemblies - trusted by leading global partners across the aerospace, defence, medical, oil & gas, and industrial electronics sectors. Backed by fully autonomous manufacturing capabilities and an equipped in-house toolroom, we offer both high-spec standard product ranges and custom-engineered options designed to provide complete, reliable solutions tailored to your exact technical specifications.



# Electro Mechanical

## CAGE JACK - PCB MOUNTED SINGLE POLE SOCKETS

Highly reliable PCB connector with multiple contact points to 60% of the circumference of the mating pin. Used in conjunction with Connector Pins and Shorting Links. Also known as Jacks, Jack Sockets or PCB Sockets.

**Mount** — Solder, Press-fit, Swage, Crimp & Eyelet

**Versions** — Straight & Right Angled, Closed & Open ended, Insulated

**Acceptance Diameter** — 0.41mm (0.016") to 2.54mm (0.100")

**Current Carrying Capacity** — up to 32 Amps

**Material**

| | |
|---|---|
| Spring | Beryllium Copper |
| Body | Copper or Brass, Deep Drawn or Machined |

**Plating Options** — Gold - Tin - Tin/Gold

Right-angled versions can be supplied with colour code snap on insulator. Swaging tools available on request. Custom Designs available on request.



## CONNECTOR AND POLYGON PINS

A range of precision machined Pins for through board **Connector pins** are used in conjunction with Cage Jack or Shorting Link Sockets. Can be used when inserting into various PCB materials such as FR4 and Ceramic. **Polygon pins** are soldered to PCBs.

**Mount** — Solder, Press-fit, Swaged & Crimp

**Versions** — Straight & Right Angled. Standard, & Patch Cord form

**Crimp AWG** — 16 AWG — 28 AWG

**Pin Diameter** — 0.41mm (0.016") to 2.54mm (0.100")

**Board Thickness**
0.79mm (0.031") - 3.96mm (0.156")

**Material**
Brass or High performance Tellurium Copper

**Plating Options** — Gold - Tin

Connector Pins also designed in Patch Cord style. Comprehensive range of insertion tools specific to the Terminal mount.



## SPRING LOADED CONTACTS AND CONNECTORS

A range of discrete and assembled Spring Loaded Contacts offering low contact resistance, high reliability, and up to 1 million cycles.

**Mount** — Solder, SM, and press fit

**Versions** — Slotted, solder bucket, socket, and pin

**Material**

| | |
|---|---|
| Body | Brass |
| Plunger | Brass |
| Spring | Stainless Steel |
| Insulator | High temperature plastic, UL 94V-0 |

**Plating** — Gold

**Operating Temperature Range** — -40°C to +125°C

**Dual in-line connector available 4 through 20 way.**

For custom design please consult factory.



## SHORTING LINKS - ALSO KNOWN AS HANDBAGS OR JUMPERS

A range of discrete, and assembled Spring Loaded Contacts offering low contact resistance, high reliability, and up to 1 million cycles.

**Type** — Male & Female

**Styles** — Insulated & Non Insulated

**Pitch** — 2.54mm (0.100") to 12.7mm (0.500")

**Colours**
Red, Blue & Black as standard; other colours available on request

**Material**

| | |
|---|---|
| Link | Brass |
| Insulator | Polypropylene |
| Female Spring | Beryllium Copper |
| Female Body | Copper |

**Plating Options**
Gold - Tin - Tin/Gold



# Electro Mechanical

## SOLDER TERMINALS

A range of Terminals offering various options for lead or component termination.

**Mount** — Solder, Press-fit & Swaged

**Versions** — Slotted, Turreted & Threaded

**Board Thickness**
0.79mm (0.031") — 3.18mm (0.125")

**Material**
Brass & Phosphor Bronze

**Plating Options**
Silver
Gold
Electro Tin
Electro Solder

Comprehensive range of insertion tools specific to the Terminal type.



## INSULATED TERMINALS

A range of Insulated Terminals in the stand off or feed-through style.

**Versions** — Slotted, Turreted & Threaded

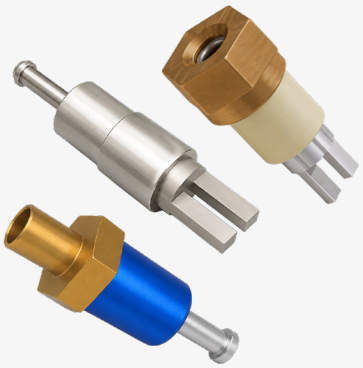
**Insulator Material**
PTFE (Teflon)
Diallyl Phthalate
Ceramic
Tufnol

**Terminal Material**
Brass

**Plating Options**
Silver
Gold
Electro Tin
Electro Solder

Metric and Imperial thread sizes

Comprehensive range of insertion tools specific to the Terminal type.



## NON-MAGNETIC PINS AND SOCKETS

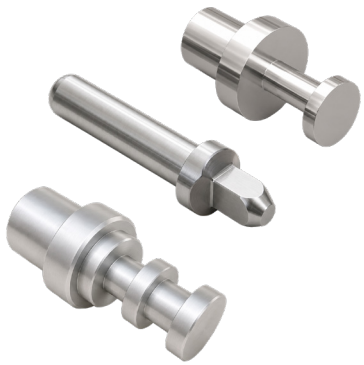
To complement its existing ranges, Cambion are able to offer pins, sockets and shorting links to suit applications that are susceptible to magnetic interference.

By careful selection of materials and finish allow products to be supplied with virtually dead Magnetic signatures.

**Materials** — Brass, Phosphor Bronze or Copper Finishes - Gold, Silver or Tin

All parts tested with a Magnetoscop

Custom designs welcome



## RELAY BASES

Bases available in various styles to suit round pin Relays, with and without mounting ears. Other versions available on request.

**Materials**
Insulator — High temperature plastic, UL 94V-0, suitable for vapour phase, infrared and wave soldering

Contacts — Brass, Gold or Tin plated

Clips — Beryllium Copper, Gold plated

**Operating Temperature Range**
-40°C to +125°C

**Current** — up to 25A



# Electro Mechanical

## RF CONNECTORS

Cambion complements its range of high performance connectors and inductive products, with RF Connectors. Specialising in the manufacture of custom variants of industry standards.

Cambion can offer a unique development facility of precision turning and prototyping of specials based on SMA, SMB, N, BNC, MMCX and bespoke designs incorporating blind mates, quick mate and cable terminations with minimal outlay.



## LOUVERED CONTACTS

A range of Louvered contacts offering larger mating pin diameters complementing Cambion's existing portfolio of high performance sockets.

| **Material** | **Plating Options** | **Plating Options** |
|---|---|---|
| Spring | Beryllium Copper | Silver or Gold |
| Body | Brass | |

To suit Pin Diameters — 3.17mm (0.125") 6.00mm (0.236") & 8.00mm (0.315")
Current Carrying Capacity — up to 185 Amps.

Custom designs welcome



## CUSTOM CONNECTORS AND CABLE ASSEMBLY

Cambion are able to assist with Electro-Mechanical component design, either hybrid versions of standard products, or to an application specific requirement, supported with fast turnaround of prototypes via its UK manufacturing facility.

Additionally, Cambion can offer full project management of connector and cable harness developments.



# Inductive Products

## FILTERED TERMINALS

**Capacitance** — E12 range from 150pF to 2200pF

**Capacitance Tolerance** — ±20%, ±10% and ±5%

**Working Voltage** — over 500V DC

**Working Current** — up to 20 Amps

**Plating** — include gold, silver and tin

**Mounting** — Thread, solder and swaged

Additional elements such as inductors can be included within the package to form Pi filters



## VARIABLE COILS

**Inductance** — 50nH to over 100mH "Q" — greater than 200

**Frequency Range** — from below 1KHz to over 500MHz

**Styles** — Open and magnetically shielded versions

**Pattern Size** — 5, 7 and 10mm others to order

**Mounting** — through hole and surface mount

**Applications Include** — filters, if transformer, communications systems, telemetry



## CHOKES

**Inductance** — 22nH to over 100mH

**Current** — greater than 4A

**DCR** — less than 10mΩ

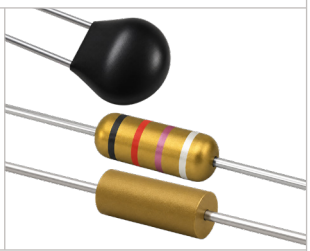
**"Q"** — greater than 100

**Tolerance** — 5% and 10% available others to special order

**Case type** — open, shrink sleeve, epoxy and moulded

**Packaging** — loose, ammo pack or tape and reel

**Applications Include** — communications equipment, RFID, filter networks



## TOROIDS

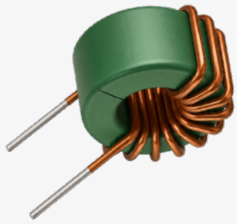
**Outside Diameter** — 1.5mm to 175mm

**Core Material** — strip steel, amorphous, iron powder and ferrite

**Wire Size** — 0.05mm to over 3mm

**Mounting** — self-leaded, surface mount, open frame, potted

**Applications Include** — dc-dc converters, common mode and differential mode filter, RF mixer, baluns, current sensors, audio systems



## WIRE WOUND CHIP

**Footprint** — 0402, 0603, 0805, 1008 and 1812

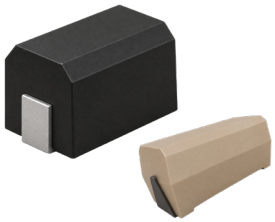
**Inductance** — 1nH to 1mH

**Current** — up to 1.3A

**Tolerance** — 2%, 5%, 10% and 20%

**Core Materials** — ceramic and ferrite

**Applications Include** — communication systems, cellular telephones, filter networks, telemetry



## TRANSFORMERS

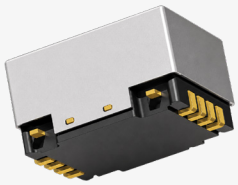
**Types** — linear and switching

**Core Material** — laminated steel, laminated nickel, iron powder and ferrite

**Power Rating** — from 0.2VA to over 500VA

**Styles** — through hole and surface mount, open frame, potted, planar and traditional winding methods

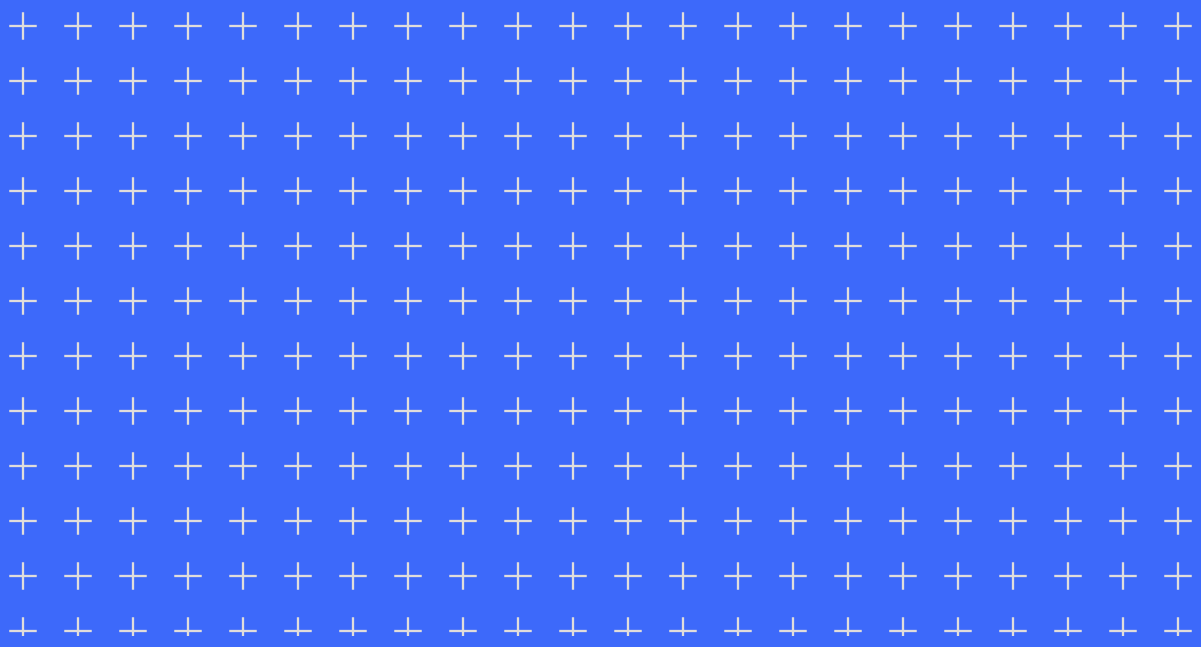
**Applications Include** — dc-dc converter, ac-dc or dc-ac power supplies, impedance matching



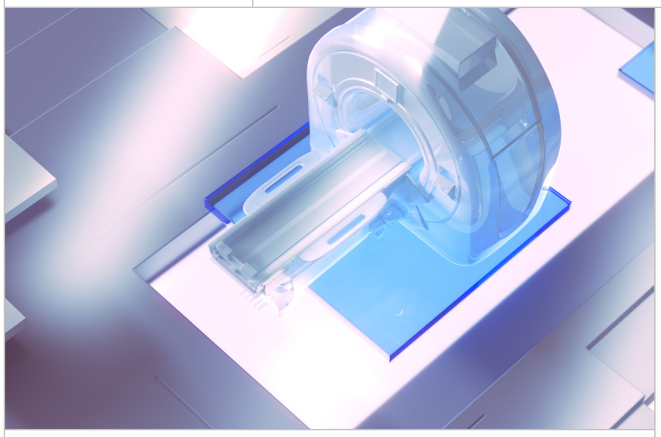
04

# Industries

Cambion's expertise spans a diverse range of industries, bringing together technical knowledge, engineering capability and a practical understanding of complex application requirements. By working closely with customers, we develop solutions that address the unique challenges of each sector, combining flexibility and innovation with a commitment to long-term partnerships. Across every industry we serve, our focus remains on helping customers overcome engineering challenges and achieve the performance their applications demand.

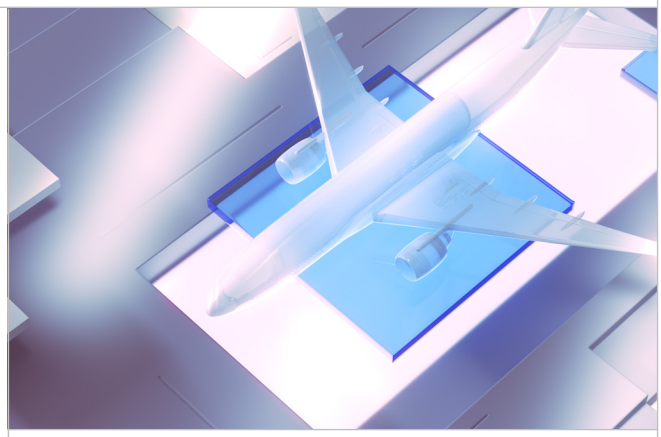


# 04 Industries



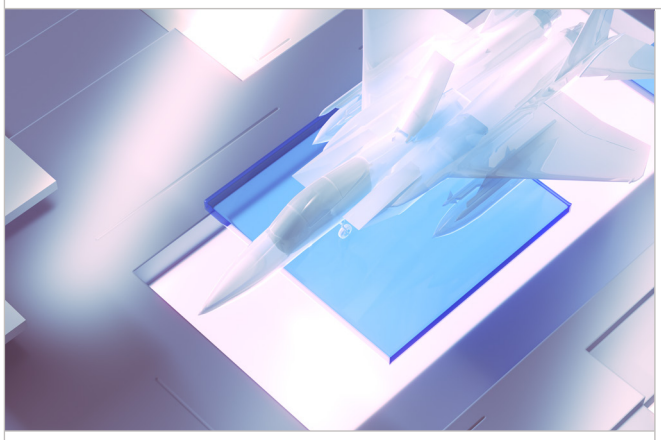
## MEDICAL

Precision is essential in medical equipment and instrumentation. Cambion manufactures electro-mechanical components, including PCB pins, connectors, sockets, a non-magnetic range of products and bespoke solutions, designed to support reliable electrical connections and consistent performance. With a strong focus on quality and manufacturing expertise, our products meet the technical requirements of medical electronics and support the evolving needs of equipment manufacturers.



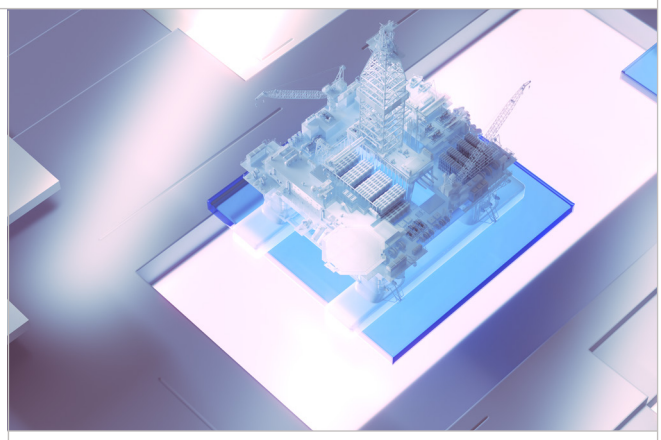
## AEROSPACE

Supporting demanding applications, Cambion manufactures precision-engineered components for electronic systems and associated equipment. Our extensive range includes connectors, sockets, contact pins and inductive components, ensuring dependable electrical connections. Combining manufacturing expertise with bespoke design capabilities, we deliver tailored component solutions to meet specific engineering requirements across the aerospace sector whilst operating to the highest levels of quality as a EN9100D/AS9100D certified company.



## DEFENCE

Reliability is critical in defence and military electronics. As a UK manufacturer, our portfolio includes specialist connectors, cable assemblies and bespoke electro-mechanical and inductive solutions for a wide range of applications. Through precision manufacturing and technical expertise, Cambion provides engineers with dependable component options for demanding electronic systems where quality, consistency and reliable performance are essential.



## OIL GAS RAIL

Operating in challenging industrial environments requires dependable components. Cambion supplies specialist connectors, contacts, sockets and inductive components for oil and gas, petrochemical and rail applications. With in-house manufacturing expertise and bespoke design capabilities, we develop tailored solutions to meet specific engineering requirements, supporting reliable electrical connections and consistent high performance across these demanding sectors.

05

# Engineering Capabilities

+ Autonomous UK manufacturing facility
+ In-house tooling, stamping and moulding
+ Custom coil winding and inductive assembly
+ Comprehensive prototyping
+ Full project management

**Autonomous Precision Manufacturing**

Cambion operates from a dedicated 4,000 square metre facility in Castleton, Derbyshire, nestled within the Peak District National Park. Operating as a fully autonomous manufacturer, Cambion maintains complete operational control over its core production processes, including precision stamping, CNC machining, high-temperature plastic moulding, and semi-automated or fully automated assembly.

These operations are backed by an equipped in-house toolroom, allowing for rapid tool production, maintenance, and modification. Through continual investment in advanced machinery, automated systems, and product development, Cambion has established a broad technical scope spanning multiple disciplines. This end-to-end operational structure enables Cambion to manage customer requirements seamlessly from initial concept and rapid prototyping through to low-cost, high-volume production under industry-recognised quality standards.

**Quality & Environmental Management**

Cambion operates a rigorous quality framework built to satisfy the stringent reliability requirements of the Aerospace, Defence, Medical, Oil & Gas, & Industrial sectors. Aligned with corporate sustainability directives, Cambion actively integrates sustainable practices into its value chain through energy self-sufficiency initiatives and an aggressive Net Zero plan aimed at systematically reducing environmental impact without reliance on carbon offsetting.

**Core Engineering & Technical Disciplines**

- **Precision Machining & Turning:** In-house CNC turning and prototyping for micro-pins, cage jacks, custom RF connectors (SMA, SMB, BNC), and bespoke interconnects.
- **Stamping & Moulding:** High-speed metal stamping and high-temperature UL 94V-0 thermoplastic moulding, supported by an equipped in-house toolroom.
- **Custom Magnetics & Winding:** Precision coil winding for toroids, transformers, chokes, and air coils using ferrite, iron powder, and ceramic cores.
- **Assembly & Cable Harnessing:** Turnkey project management for custom electro-mechanical components, hybrid connectors, and cable harness assemblies.
- **Testing & Specialised Solutions:** Magnetoscop-screened non-magnetic components for zero-interference applications, alongside extended Far East Group OEM, ODM, and EMS capabilities.

**HEALTH AND SAFETY MANAGEMENT**
ISO 45001:2018

**ENVIRONMENTAL MANAGEMENT**
ISO 14001:2015

**QUALITY MANAGEMENT**
ISO 9001:2015
EN 9100: 2018
Joscar Certified
Cyber Essentials Certified

## + Providing innovative and sustainable solutions for our customers with components and interconnection


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