

Box Interconnect Solutions: Inside/Outside

SOURIAU is a global specialist in high performance and high reliability interconnect solutions for severe environments. Seventy years of experience has allowed SOURIAU to become a preferred partner to worldwide Air Framers and major Equipment Manufacturers in the Aerospace and Defense markets.

We provide connectors that meet international standards along with a full range of research and development services. SOURIAU encourages an “engineer to engineer” work process to better understand and meet our customer’s needs.

Anything you need – we can do

- PCB terminations with many lengths and different types of plating
- Shape of connector can be adapted to meet the board application as double flange receptacles
- Receptacles with short shell to minimize space inside the box
- Any customized design to make box mount easier when space is a constraint
- Blindmate/hermetic/thin panel assembly solutions ...

✓ Input/Output Front Panel Circular Connector Variations



Low Profile



Oval Flange



Jam-Nut

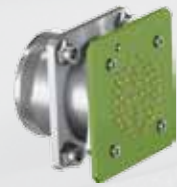


Square Flange



Filter/ Lightning Protection

✓ Input/Output Front Panel Connectors: Circular



- Based upon international standards: 26482, 38999, EN2997
- Rugged environmentally sealed connectors with bayonet or thread coupling.
- Available in different shell material: aluminum, stainless steel, titanium.
- Wide range of layouts to include signal, power, coax, twinax, triax contacts.
- Standard size 8 cavity with Ethernet Quadrax, Power and ELIO® optical fiber contacts to match high speed network requirements.
- EMI-RFI filtering and lightning protection are offered.
- Many terminations including solder cup, crimp and PC tail contacts.

✓ Input/Output Front Panel Connectors: Rectangular



- D-Subminiature: MIL-C-24308.
- Wide range of D-Subminiature for Defense, Aerospace and Space applications.
- A broad range of inserts to include signal, power, coax, twinax, and triax contacts, as well as many contact terminations: D-Subminiature with 90° PCB, solder cup, crimp and PC tail contacts.

✓ Ultraminiature: *microComp*® «Micro-D»



- Based on MIL-DTL-83513 with composite shells and removable contacts.
- Crimp contacts of size 26.
- Available with Micro-D accessories.
- *microComp*® with 90° PCB, crimp contacts and straight spill contacts.

✓ Microminiature 38999 Connectors



- Based on MIL-DTL-38999 Series I & III design.
- Bayonet, thread and push-pull coupling are available.
- Crimp contacts of size 26 and 22.
- Integrated backshells for compactness.

✓ PCB Contact Terminations



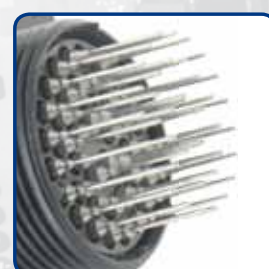
90° Contact



Straight Signal



Surface Mount



Tin Plated



PCB Power



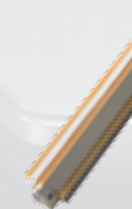
Ethernet Quadrax

✓ Blindmate Rack & Panel Connectors : ARINC 600 & 83527



- Environmental and non-environmental rack & panel series which are recognized standards for avionic designs.
- Available with single, double and triple planforms to include signal power and coaxial contacts.
- New layouts with Ethernet Quadrax and ELIO® optical fiber contacts for high speed solutions.
- EMI-RFI filtering and lightning protection are offered.

✓ PCB & Board Level Connectors

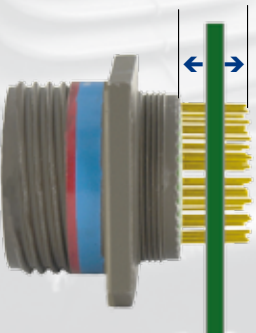


- NAFI: MIL-C- 28754.
- High density PCB interconnect solution with fork and blade contacts.
- Module card connectors with flex termination.
- Solderless pressfit backplane connectors to mount on PCB.
- Insert modules fitted into a metal rail for shielding.
- Surface mount technology.

✓ PCB Contacts with Flexible Mount



- PCB pin & socket contacts as per MIL-DTL-38999 Series I, II & III.
- Contact without shoulder allows a more flexible mounting on variable PCB thickness or depths.



Flexible Mounting

Thin Panel Assembly

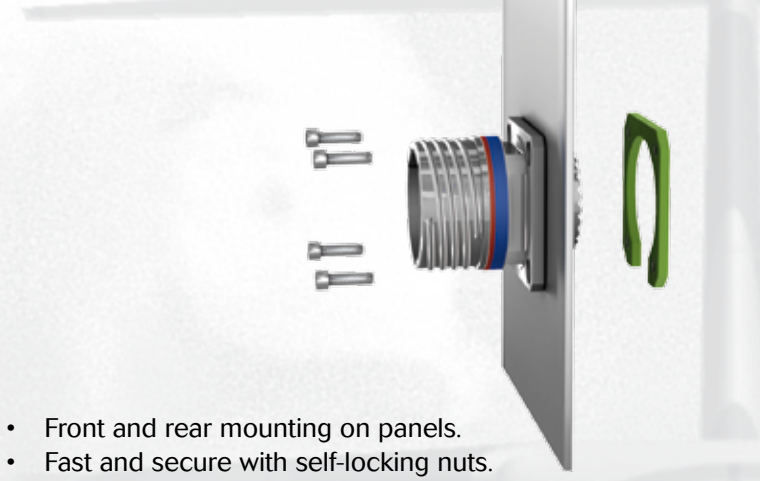
SOURIAU offers cost saving solutions which are easy to install and incorporate self-locking nuts for safer mounting.

✓ Clinch Nut Receptacle



- Easy to install, no need for nuts and washers.
- Fast and secure with self-locking nuts.
- Superior mounting to standard receptacles designed for severe vibration environments.

✓ Fixing Plate



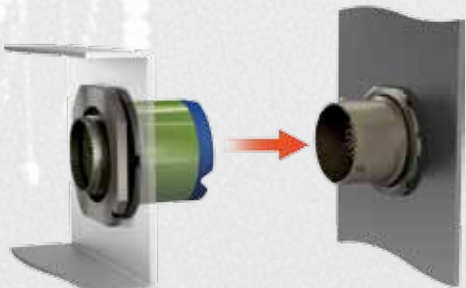
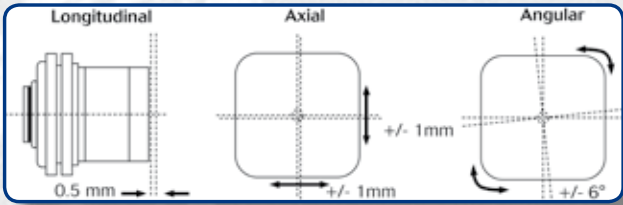
- Front and rear mounting on panels.
- Fast and secure with self-locking nuts.
- A complete range with 2, 3 or 4 holes and many platings available.

Blind Mate Connection

Full range of sealed circular connectors for blind connection, rack & panel mating or quick connections in hard to access areas.

✓ Rack & Panel

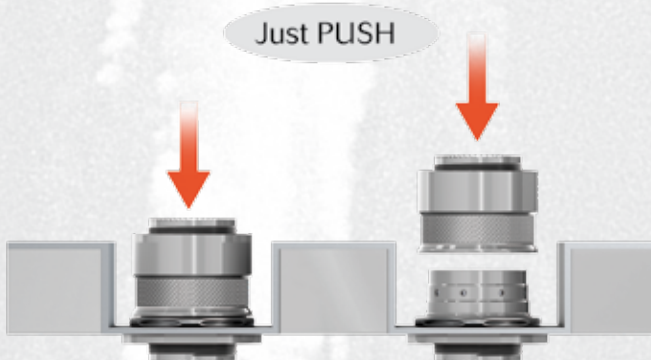
- Fixed receptacle on back panel and float-mounting plug on the rackable unit.
- Available from shell size 9 to 25 with all MIL-DTL-38999 layouts.
- Misalignment and overtravel capabilities.



Connecting Rack Fixed panel

✓ Push-Pull

- Easy to connect and disconnect:
→ just push or pull.
- Mechanical full-mate indicator:
→ plug locking ring rotates free.
- High vibration performance:
→ up to 44 g loads.
- Option with lanyard on plug for quick separation mode.

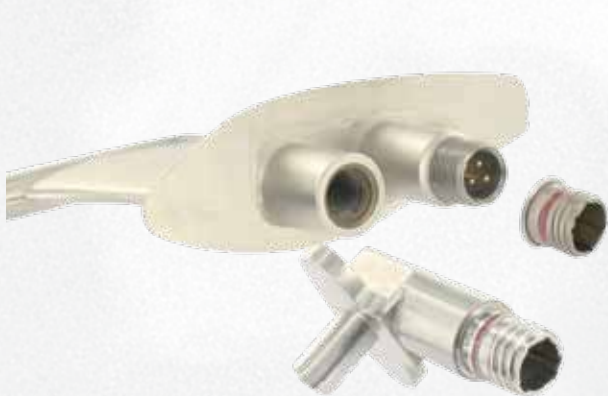


Inside Box

Hermetic Box Assembly

Many aerospace applications require hermetic connectors directly mounted on the device. The main applications are pitots, transducers, sensors, valves, actuators, engine controls and fuel management. The connectors used are in stainless steel with glass bead for hermetic sealing.

✓ Stainless Steel Panel - Electronic Beam Welding - Brazing



- Glass bead in stainless steel shells with a wide range available:
- EN 2997
- MIL-DTL-38999 Class K
- MIL-C-264-82
- Receptacle shape can be designed to match the device panel cut.
- EMI-RFI filtering and lightning protection is available.

Lightweight Hermetic Box - Micropackaging

The expertise to join dissimilar metals through the process of explosive bonding, vacuum brazing, diffusion bonding and laser welding allow SOURIAU PA&E to produce and offer lightweight hermetic connectors or micropackaging with performances which are unequaled in the aerospace industry.

✓ Aluminum/Titanium Panel - Laser Welding - Brazing



- Lightweight hermetic connectors in aluminum or titanium shells with copper contacts.
- Hermeticity of 10⁻⁹ atm.cm³/s.
- Nano-D, Micro-D, *microComp*[®], D-Sub and 38999 Series III are available in the standard formats.
- Laser weldable on panel or chassis.

✓ Wide Range available in Aluminum Shell



Nano-D, Micro-D
microComp[®]



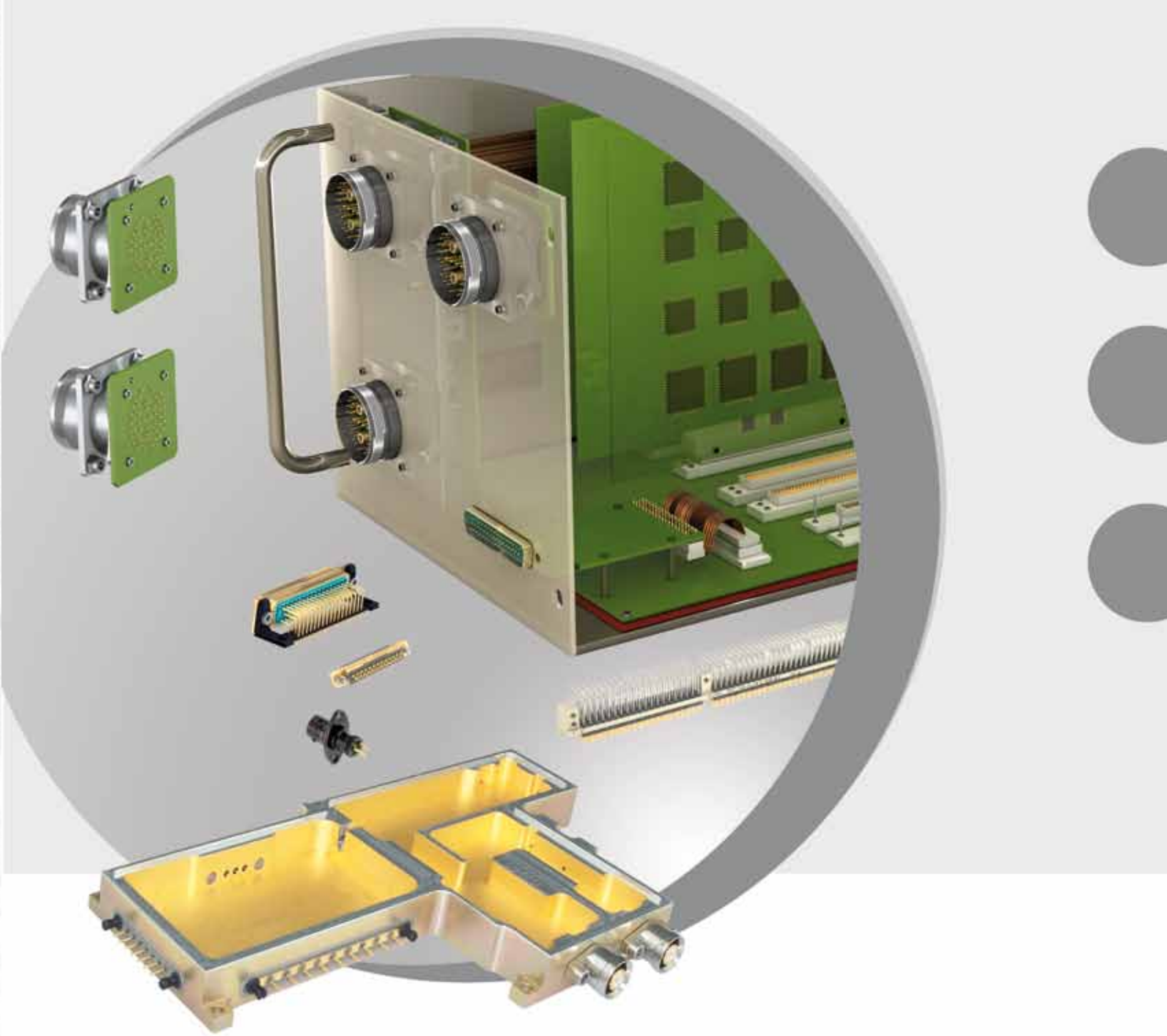
38999 Series III
Multipin



38999 Series III
Power



38999 Series III
Butt Joint ELIO[®] (fiber optic)



Box Mount Interconnect Solutions Inside/Outside



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