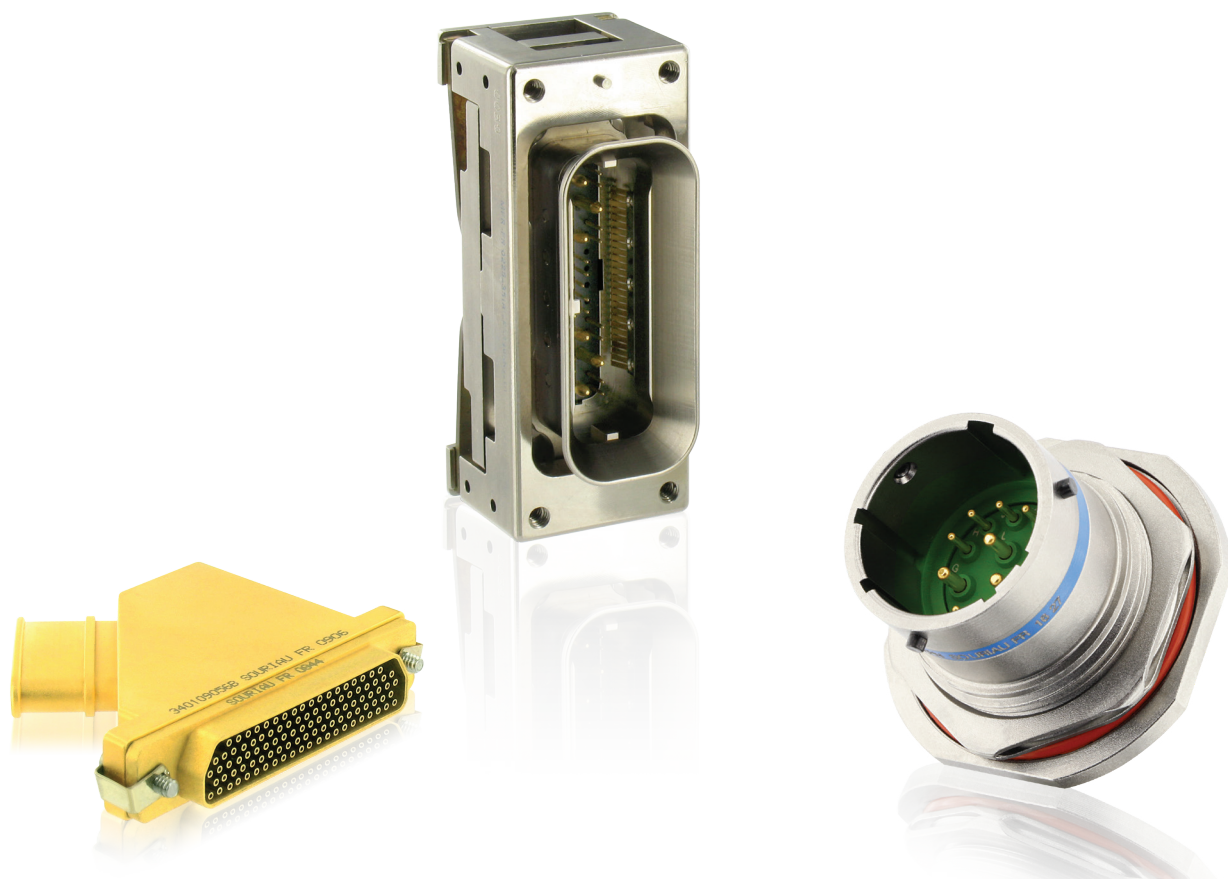


SPACE



## Interconnect Solutions for Space Industry

Standard Ranges & Specific Expertise



**SOURIAU - SUNBANK**  
Connection Technologies

## Features & Benefits

### RELIABLE

#### Controlled Processes, Qualified Products

ISO9001: 2008 and AS9100:200 certified sites.  
NASA GSFC, ESA ESCC as well as MIL qualified products.  
Customer support from concept definition to validated products delivery.

### MATURE

#### Serving Space for More Than 50 Years

Umbilical link between the launch vehicle and the launch pad provided since the beginning of the conquest of space.  
Mission proven solutions on satellites, space station and space vehicles.

### EXPERT

#### Specific Know-how on Space

Understanding of space environment constraints such as cosmic corrosion, material outgassing, magnetic susceptibility and extreme temperatures.  
In house design, production as well as tests capabilities.

### LARGE OFFER

#### One-Stop Shopping for Interconnect

Connectors, contacts, backshells, liners w/wo overbraid for a complete and reliable interconnect solution.

### VARIOUS PURPOSES

#### Multiple Solutions for Multiples Uses

Standard or quick connect/disconnect.  
Circular or rectangular profiles.  
Copper or fiber optic contacts.  
Hand or robotic operation.

## Typical applications



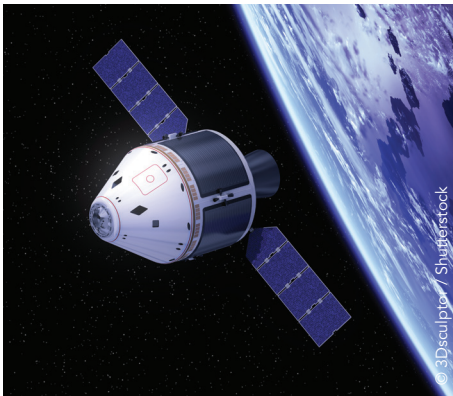
Space Station



Operations in Space



Satellites



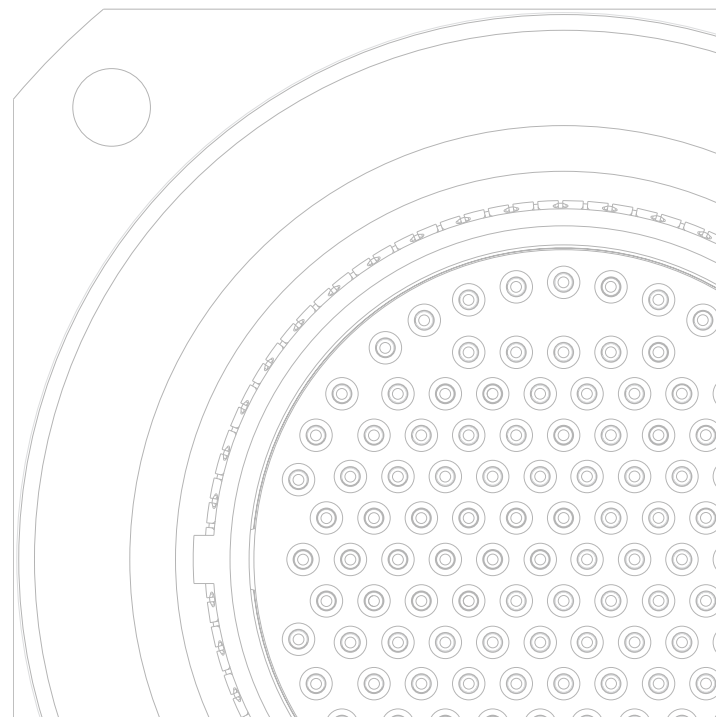
Transportation Vehicles



Launchers



Space Mission









## On launchers



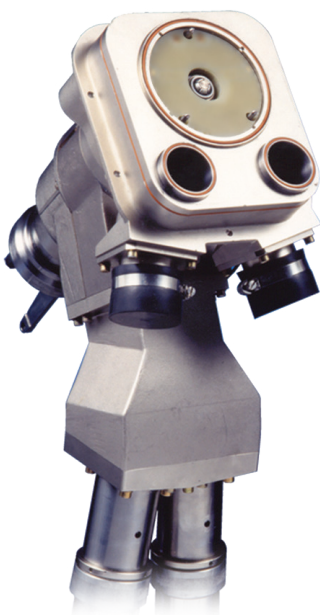
Interconnect solutions used on a launcher usually operate on a shorter life cycle, as opposed to solutions mounted on orbital payloads. However, they have to perform extremely quickly and securely in a demanding environment, especially in terms of vibrations.

### Our offer in four categories:

-  Umbilical connections, to link the launcher to the pad, with specific ejection technologies
-  Interstage and lanyard release connectors
-  Hermetic sealing adapted to cryogenic temperature uses
-  Aviation, Military or Space standards qualified products

#### Umbilical connections

Electrical and pneumatic conductors



#### 8D8/8D9/8D36

Lanyard release connectors



#### Mil-DTL 38999

Series I, II & III, as well as extensions



#### Deadface connector

Safe interface after disconnection



#### AS85049 backshells

Mil standard backshells



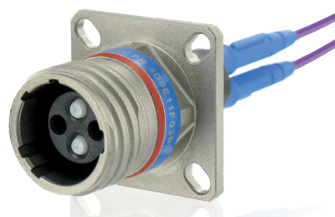
#### Hermetic sealing

Adapted to very low temperatures



#### ELIO®

Lens & Butt joint fiber optic



#### Liners

Cable protection






## On deep space equipment



Our products designed for deep space have the commonality to be capable to withstand use during an extended period of time in the very specific space conditions.

### Our offer in three categories:

-  Interconnect derived from industry standards, and qualified per ESA/ESCC, NASA/GSFC or MIL standards
-  Interconnect adapted to robotic use, with an eased connect/disconnect operation
-  Mechanism to backup legacy actuators

On top of that, we have the capability to assist you to bring a product up to space level requirements, with appropriate qualification and quality system.

#### Space grade D-Sub

PCB or removable contacts



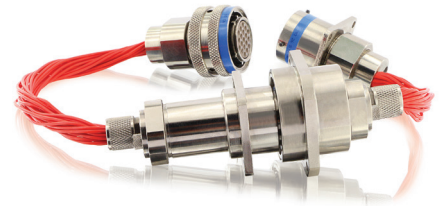
#### Space grade 8976

Alignment system, LIF\* contacts



#### Disconnection harness

High performance harness



#### Space grade D38999

Series I, II & III



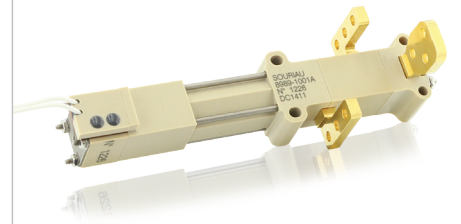
#### Space grade 8977

Alignment system, LIF\* contacts



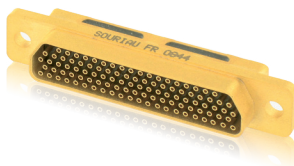
#### Non explosive actuators

Mechanical actuator backup



#### Space grade microComp®

Miniature, composite

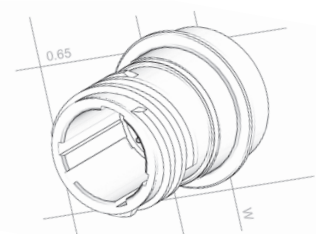


#### Space grade backshells

D sub, D38999, microComp®



#### "SpAcified" solutions



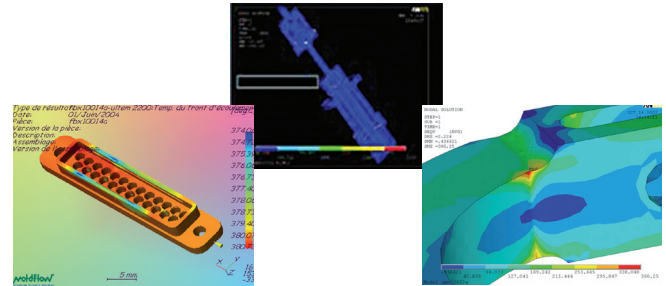
# Interconnect Solutions for Space Industry | Our Expertise

Thanks to more than 50 years of experience in the space industry, we have accumulated a very rich knowhow to support our customers.

This expertise goes from product definition to solution validation and stringent production processes, to follow our motto: *reliable people, reliable solutions!*

## Product definition

- **Material Choice:** Atomic Oxygen corrosion resistance, cold welding prevention, limited outgassing, etc.
- **Product design:** expertise on launching systems design as well as robotic operated connections
- Knowhow to support specific needs



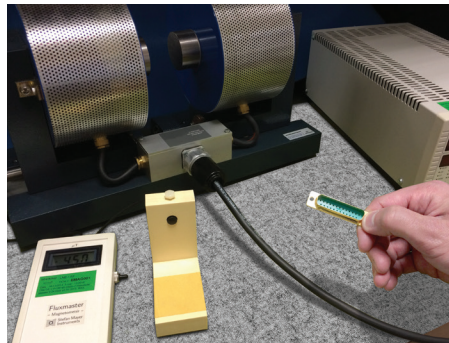
Stress and heat dissipation analysis

## Validation & qualification

- In-house certified independent laboratory
- Capability to simulate various environments as well as to measure any key parameters



Vacuum bell for robotic operating testing  
-170°C/+200°C temperature gradient



Magnetic permeability measurement



Binocular controls

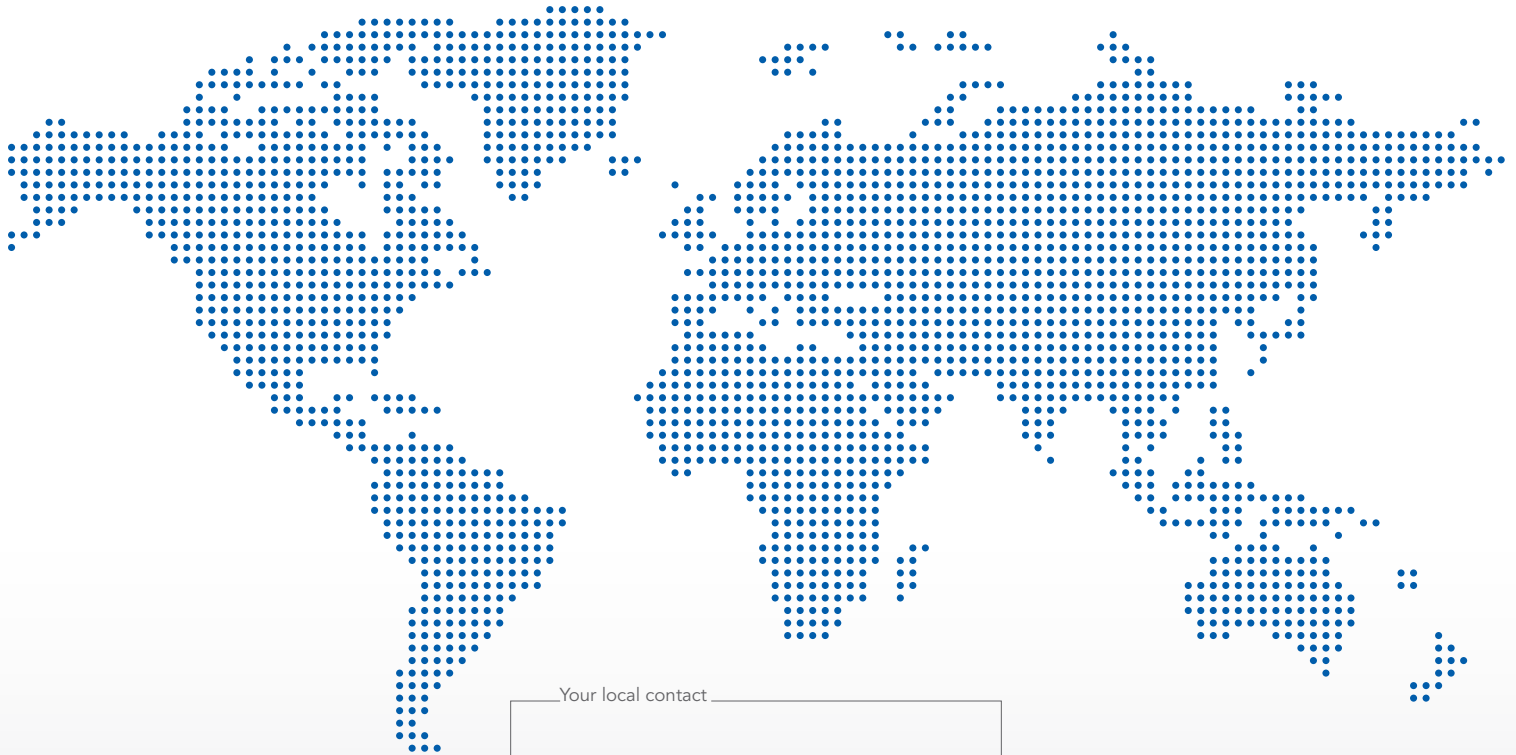
## Production processes

- Stringent production process
- Controlled environment
- Binocular inspection
- Rigorous traceability procedures and documentation



Clean Room handling

# Reliable People, Reliable Solutions



Your local contact



Our contribution to environmental protection:  
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Connection Technologies