

**CUSTOM DESIGNED CABLES  
AND INTERCONNECT SYSTEMS FOR  
MEDICAL APPLICATIONS**



Axon' Cable is equipped with ISO7 and ISO8 clean rooms. It is possible to use laminar flow systems for the workstations, which would then be classified ISO5.

## CUSTOM DESIGNED CABLES AND INTERCONNECT SYSTEMS FOR MEDICAL APPLICATIONS

ISO13485 certified, Axon' Cable specialises in the design and manufacture of custom designed cables and assemblies for medical applications. Company's expertise in various fields enable to offer One-stop-shop solutions:

- Conductor design and manufacture
- Composite cables
- Jacket and tube extrusion
- Plastic injection moulding and overmoulding
- Interconnect technologies
- High performance custom designed connectors

## APPLICATIONS



EXTERNAL SYSTEMS  
FOR MEDICAL  
IMPLANTS



DIAGNOSTICS  
DENTAL EQUIPMENT



MEDICAL IMAGING



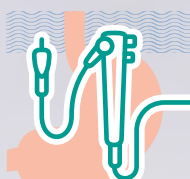
BIOLOGICAL  
ANALYSIS



OXYMETRY:  
BLOOD OXYGEN  
SATURATION  
MONITORING



PATIENT CARE:  
MONITORING,  
PATIENT



SURGICAL ROBOTS  
& INSTRUMENTS



X-RAY & MAGNETIC  
RESONANCE  
IMAGING (MRI)



BEAUTY THERAPY  
SYSTEMS



IMPLANTABLE  
SYSTEMS



## EXPERTISE IN POLYMERS TECHNOLOGIES

- Biocompatibility and sterilisation : Silicon, PU, TPE, PVC compounds tested to USPXXIII class VI and ISO 10993 certified
- Autoclaveable cables and assemblies
- Sterilisable cables and assemblies (Cidex®, Korsolex®)
- Hydrophobic PTFE tubing
- Custom designed colouring with FDA approved colorants
- PTFE tubes for micro-catheters with walls as thin as 10 µm
- Celloflon® dielectric material: Axon' patented expanded PTFE. The use of Celloflon® enables the manufacture of lighter, smaller, more flexible coaxial cables
- Thermo-forming : biocompatible shapes made with a Celloflon® membrane
- Noso-free® cables and assemblies : antibacterial jacketing to improve protection against nosocomial infections
- Low noise coaxial cables : to control noise due to oscillations or vibrations, while maintaining the dielectric properties of the cable.



Camera cordon



Autoclavable assembly



PTFE catheter



Amagnetic assembly

# MINIATURE CABLING SOLUTIONS

- Miniature composite, miniature camera and hybrid cables
- Custom designed miniature cabling: Termination of wires to miniature printed circuits
- PTFE and Celloflon® (expanded PTFE) wires
- Miniature Picocoax® coaxial cables: an excellent combination of a tiny diameter (e.g 0.20 mm) with capacitance of 50 to 100 pF/m
- Axon's Picoflex® allows multiple miniature coaxials to be simply plugged into a PCB via ZIF connector technology. Available in 0.5 mm pitch, they are compatible with Picocoax® AWG 40 to 46
- Flat Flexible Cables in both unshielded and shielded versions for board to board interconnect with pitches down to 0.50 mm and 0.30 mm
- Axolink® Flat Display Connection (FDC). Our plug and play solutions for flat display interconnect consist of Flat Flexible Cables with connectors for fine pitch (DF-9, DF-19, FI-S, FI-X). Axon' also offer shielded flat cables terminated with connectors compatible with FI-R connectors for full HD flat displays (LVDS standard)
- Flat cables for ventilators
- Ultra-miniature connections insulated with long-lasting implantable silicone.



Axolink® Flat Display Connection

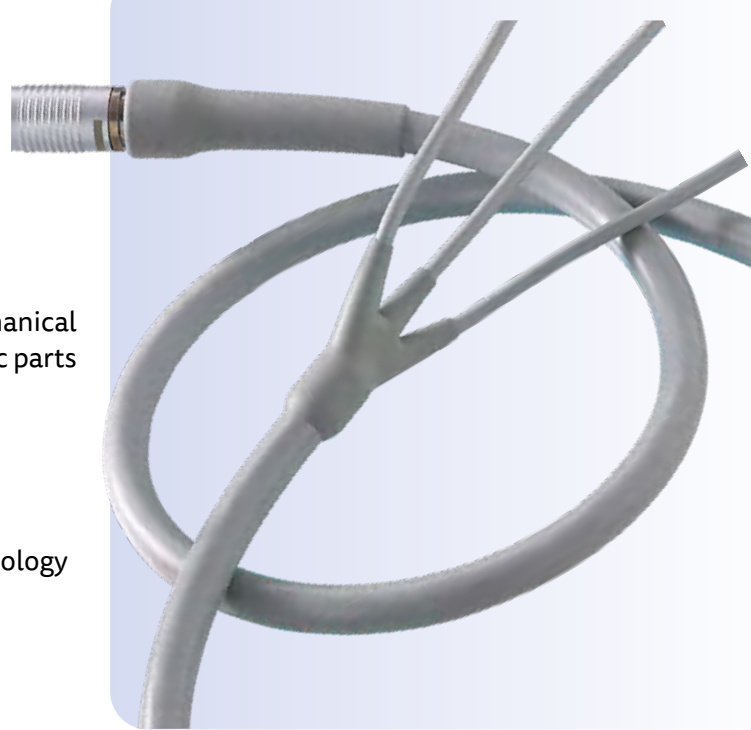
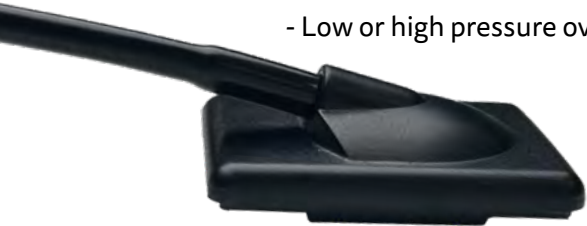
## STANDARD AND CUSTOM-DESIGNED CONNECTORS

Axon' Cable designs and manufacture cable assemblies terminated with any type of connectors and standard or custom-designed micro-D connectors. Micro-D connector system rises to the most demanding of challenges in terms of mechanical, electrical and environmental constraints. Axon' micro-miniature connectors are suited to systems where weight, miniaturisation or quality of signal is paramount:

- Large range of pin arrangements available
- Shape: circular or rectangular
- Specific shells or mounting hardware : plastic or metal bodies (snap versions)
- Integration of different transmission types (e.g. signal and power transmission in the same connector)
- Filtered connectors
- Metal or plastic circular connectors
- A-magnetic solution

## EXPERTISE IN OVERMOULDING

- Expertise in mould design
- Overmoulding of branches for the mechanical protection of the harness - Sleeves and plastic parts
- Connector overmoulding :
  - strain relief for the cable/connector interface: Silicon (guaranteed bonding), Thermoplastic Elastomer (TPE), PVC, PUR
  - Miniaturised solutions with plastics technology
  - Low or high pressure overmoulding



## INDUSTRIAL ASSEMBLIES

- Design and manufacture of industrial assemblies for medical equipment
- From Prototypes to high volume manufacturing in dedicated factories (Europe, America and Asia)
- Expertise in interconnect technologies, EMI protection and high pressure overmoulding

## PACKAGING SOLUTIONS FOR COSMETICS

- High precision
- Extreme miniaturisation
- Flexibility
- Resistance to cleaning cycles
- Reliable batch reproducibility
- Compliance with food standards

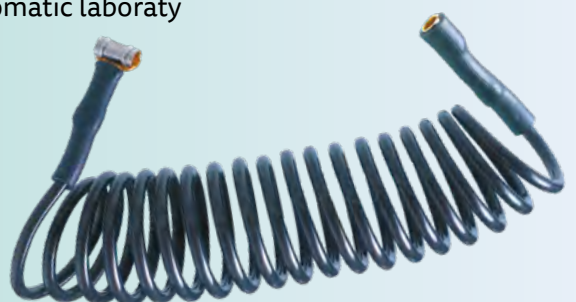
### Designed for :

- Make-up accessories
- Cosmetics testing: skin imitation
- Packaging solutions for make-up, skincare and fragrance accessories



## HYBRID CABLES FOR LABORATORIES

- Cables and cable assemblies to supply the robotic arms of automated devices
- Dispense fluid samples with precision, blood analysis robots
- Very good flexibility and flex life
- Hybrid, spiral, flat or round interconnects
- Automatic laboratory







## AXON' CABLE'S EXPERTISE IN CABLING ENGINEERING

Axon' Cable is a world leader in interconnect systems. The company excels in the design and manufacture of **wires, cables, harnesses, connectors** and **integrated systems** for demanding applications in high technology markets such as oil & gas, aeronautics, military, space, medical electronics, research centers, automotive and consumer electronics.

Axon' Cable's engineers are equipped with the latest simulation and co-design tools to assist customers at every stage of the development of a product: **idea, concept, prototypes, industrialization, volume ramp-up** and **mass production**. Axon' Cable will bring cost-effective solutions based on Lean Engineering and Lean Manufacturing principles. With an annual investment of 10% of its turnover into Research & Development, innovation is clearly what drives the Axon' Cable Group.



### A GLOBAL PRESENCE



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