

SILFORM® CABLES & ASSEMBLIES

Silicone covered flat cables (SILFORM®) in either straight or shaped form are the result of a combination of a range of AXON' technologies : highly flexible conductors, fine wires and AXON's expertise in the processing of silicone and elastomeric compounds.

SILFORM® cables represent an ideal solution for technically demanding applications requiring high cabling densities along with severe mechanical and environmental restrictions, all within a flat construction.

SILFORM® cables and assemblies can be custom designed to incorporate a wide range of elements including RF cables, mouldings and EMI shielding.

► EXTREMELY FLEXIBLE WIRES

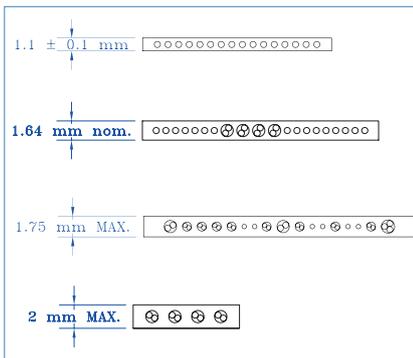
- Very high stranded conductors in silver plated copper and copper alloys.
- High flexibility for easy installation (FW product range) and long flexlife (LFW product range).
- Fine braided shields with silver plated copper alloy strands as small as 52 AWG.
- Ultra-thin, high performance fluoropolymer extrusions.
- 26 AWG to 36 AWG.

► CONSTRUCTION

- Low shore (20 to 60 shA) silicone in straight or shaped forms.
- Controlled impedance (100 ohms for example).
- Application-specific constructions.
- Integrated wires, shielded bundles, databus, RF, fibre optics, high speed.
- Silicon thickness 0.7 mm.

► MINIATURISED ASSEMBLIES

- High quality crimped terminations of wires as small as 36 AWG.
- Automated stripping (rotary blades, laser or mechanical).
- Micro-D and Nano-D connector termination, also other styles of circular and rectangular connectors are possible.
- Low and high pressure moulding/overmoulding at rear of connector.
- EMI termination (backshells, conductive potting, direct shield termination).
- Straight lengths up to 1.5 m max



▲ EXAMPLES OF CONSTRUCTION



▲ STRAIGHT OR SHAPED FLAT SILICONE CABLES



▲ OVERMOULDED SILFORM® MICRO-D ASSEMBLY

MINI SYSTEMS : COMPLETE SOLUTIONS

► TWIST CAPSULE

AXON' is able to offer custom designed twist capsules (AXOTWIST™) which can rotate freely to defined limits, using our SILFORM® composite cables. Silicone covered flat cables in a "fold-back" configuration are placed between two metal rings which can rotate with respect to one another. With a huge variety of cable compositions, the AXOTWIST™ system maintains exceptionally low torque and high flexlife within a restricted space.

AXON' has long experience in manufacturing clockspring rotary connectors with flat flexible cables for automotive airbag systems. The company draws on this experience to offer dedicated solutions for the defence and aerospace industries.

► CONNECTORS WITH EXTRA FUNCTIONALITY

Within the micro-D, or indeed any other connector, AXON' can integrate electronic components in order to perform specific functions.

Examples include :

- line-by-line signal filtering to exclude all "noise" outside a given frequency range,
- the inclusion of RFID tags to provide valuable identification data to the manufacturer, the customer or end user,
- or other specific components as required.

Any such components are fully encapsulated in either potting or overmoulding in order to withstand severe operational conditions such as high levels of vibration or shock.



▲ AXOTWIST™



▲ TWIST CAPSULE