CALMONT Wire & Cable

Aerospace Products

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Aerospace and Military Wire and Cable

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The cables used in aerospace and military applications are quite diverse. As one would imagine, the construction considerations for a cable used for the Space Station are quite different from a Naval tow cable. The following is a graphical representation of the various applications Calmont provides solutions for and their unique construction details. Please contact Calmont for your specific needs.

Applications	Construction Considerations	Materials Used
 Spacecraft – Satellites	Radiation Resistant, Flexibility, Low Outgassing	Tefzel, Aracon, Silicone Rubber and Silicone which meets NASA .01% TML requirement
 Aircraft	Fire Retardancy, Flexibility, Low Smoke, Low Halogen,	FEP, PFA, Tefzel, Flame Retardant Polyurethane Tefzel Insulations, Jackets
 Armament/Missile	Flame Retardancy, Ruggedness	FEP, PFA, Tefzel Insulations with Tefzel or PVC or Teflon Insulations Polyurethane, TPE or Blown on Neoprene Jackets
 Tactical Ground Communications/ Radar– Ground Support		
 Naval Sea/Shipboard	Flame Retardancy, Low Smoke, Low Halogen	EMI Shields, Filled Polyolefin Jackets and Silicone Rubber Jackets, Teflon, Silicone Rubber, and Surlyn Insulations with blown on Neoprene Jackets
 Undersea Tow, Tether, Sonar Video, ROV, Lighting, Umbilical, Geophysical	Buoyancy, Atmospheric Pressure, Ruggedness	

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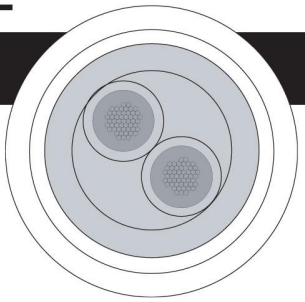
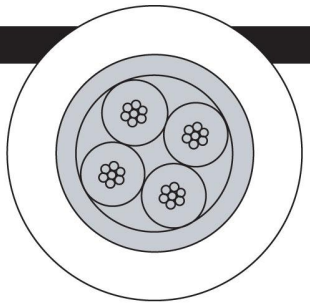
Specialty Cable

Calmont offers aerospace and military customers a full range of rugged flexible and low outgassing jacketing options. Polyurethane, silicone rubber and thermoplastic rubber are just some of the materials used for these applications.

Low Noise Cable for Military Laser Targeting



This cable consists of two high strength alloy conductors insulated with FEP and coated with semiconductive PVC. These conductors are cabled and shielded with both a braid shield and aluminized Mylar tape. This cable was designed to eliminate the noise generated by cable movement during military exercises. The jacket is polyurethane for ruggedness.

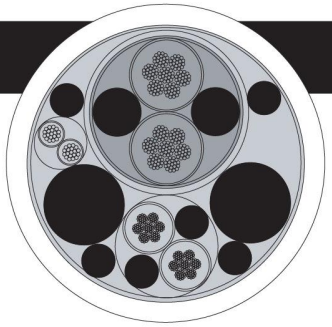


Transducer Cable

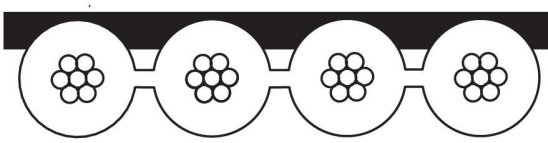
This cable is used for strain gage testing on airframes during flight-testing. It is also used by the automotive industry for crash dummy sensors. This cable uses four conductors insulated with Teflon for reduced size; braided shield for EMI interference and a silicone rubber jacket for flexibility.

Degaussing Cable for Shipboard Use

This cable has two 4 AWG conductors and two 12 AWG conductors for carrying the current to the degaussing coils. The 16 AWG conductors are used for control. All of the conductors and the cable jacket are PVC. Large PVC fills are used to make the cable round.



When beneficial, Calmont can incorporate commercially available QPL subcomponents into a custom designed cable. This allows our customers to take advantage of readily available approved material, but at the same time, address unique requirements for nonstandard shielding, jacketing and other components



Bomb Fuse Cable

This cable consists of four conductors of 26 AWG 7 strand tinned copper insulated with silicone and is used to connect the fuse to a bomb. The cable is folded in behind the fuse during use. Silicone rubber is used for long-term storage and cold weather flexibility.

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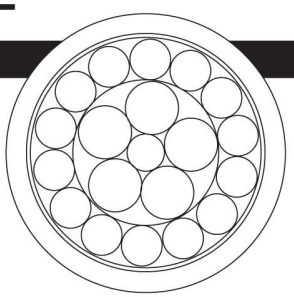
Specialty Cable

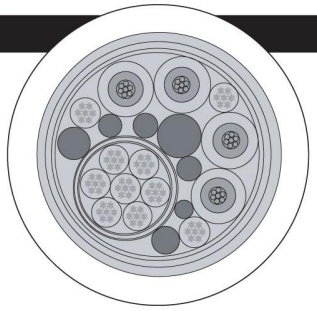
Aracon Shielded Satellite Cable

This cable is shielded with Aracon, a nickel-plated Kevlar manufactured by Dupont. The Aracon has a 30% weight savings over a standard braided copper shield. The 15 conductors are made from 10 each 30 AWG high strength alloy conductors and 5 each 26 AWG high strength alloy conductors. The insulation and jackets are TEFZEL.



Noncommercial materials such as nickel plated Kevlar are utilized for weight critical satellite applications.

Tactical Hybrid Video Cable



This cable contains four coax conductors, three power conductors and seven signal/control wires. This cable is used for surveillance cameras. The 4 coaxial conductors consist of three RGB coaxes and the fourth for Sync of the camera. The power leads provide the power while the seven control leads are used for tilt, pan and zoom control of the camera. The jacket is constructed of sunlight resistant TPE.