

Product Information

Hybrid Cables

Principles

The technology of hybrid cables allow to combine electrical, optical, and mechanical tasks within one cable or cable harness. E.g. optical fibers for fast data transmission or transporting light for illumination purposes, electrical wires for supplying energy or conventional signals as well as mechanical strands for strain relief can be integrated to provide a convenient solution for all tasks: one single cable.



Fibers / Material

All kinds of fibers and wires. Various materials for strain relief, wide range of jackets available.

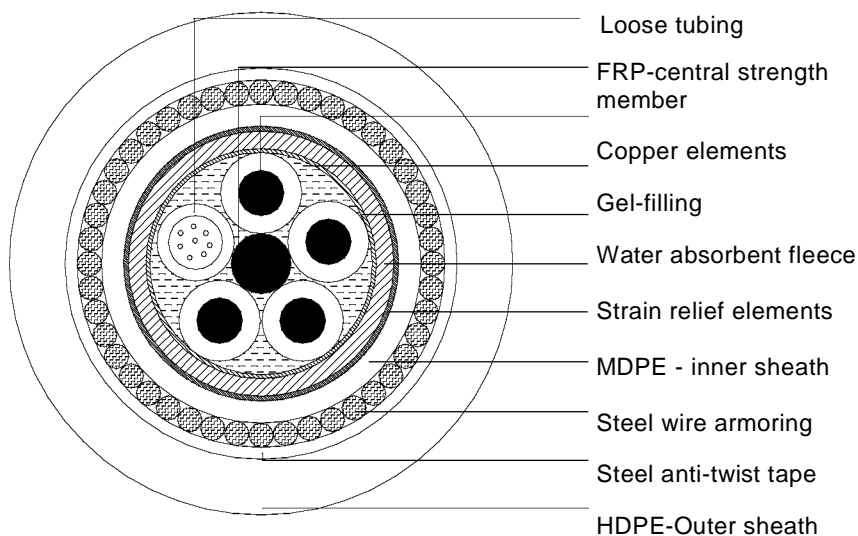
Termination

All kinds of connectors.

Product Information

Product Example

The shown cable links an information station on the shore with a station offshore. The laying is partly done on top of the ocean floor and partly buried in the seabed. It contains 4 copper wires with a diameter of 4.0 mm² for the power supply of the offshore station as well as 8 light guides of type E9/125 for the transfer of the data generated by that station.



Cross Section Hybrid Cable for Offshore Application

To cope with the strain of the laying and the perpetual swell over years, the cable was designed and tested to withstand a pulling force of 9000 N. A big portion of the strain is covered by the steel wire armoring.

Since the cable is permanently under water, a metal diffusion barrier in form of an aluminum layer jacket has been implemented. This prevents OH⁻ ions to penetrate the plastic cladding and to reach the optical fiber, thus avoiding an increase of attenuation and irreversible damage.