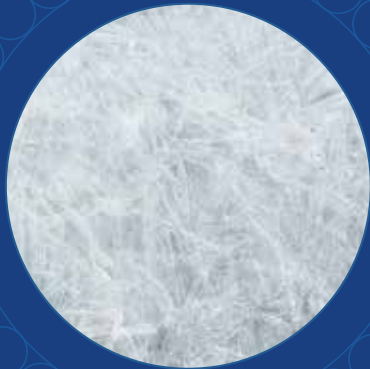
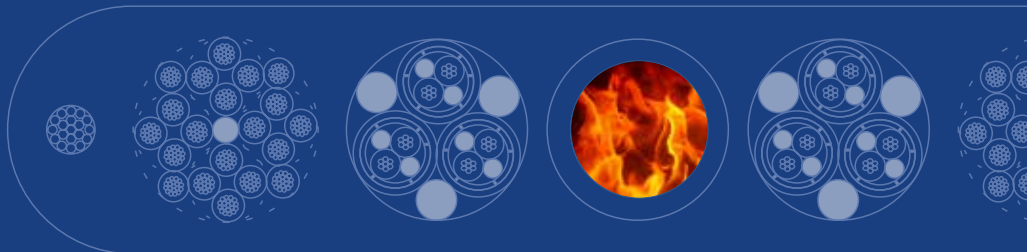


NOVACAVI

Cables for advanced technology



Harsh environments



Established in 1975, **Novacavi** provides expertise in designing and manufacturing an extensive range of **high performance custom cables** to be suitable in **any harsh environment** conditions. Specifically engineered to perform in presence of



All **Novacavi's** cables act as the most reliable, robust long-term efficient solution in **highly demanding applications** such as:

- Defence & Security,
- Extreme Temperatures,
- Geo-survey & Seismology, Oceanography,
- Subsea Telecommunications & Research,
- Oil & Gas Exploration and Production.

Considering electrical requirements, mechanical and environmental performance, **Novacavi** applies specific cable configuration that can be chosen among:

- Power/Signal/Coaxial/Fiber Optic/Composite eventually combined with
- Aramid fiber braid or rope
- Glass fiber
- Galvanized steel, stainless steel or other alloys armour
- Fiber optic suitable for heavy duties

Whatever their application, cables can be provided **longitudinal** or **radial water blocked, gas migration resistant, buoyancy controlled, torque balanced** with **high breaking strength**, in **optimized diameter** and **long customized single length**.

From early concept through reliable production, **Novacavi** offers:

- Custom cable design & development
- Materials knowledge and manufacturing expertise
- Engineering versatility and production flexibility
- In-house capability to build all cable elements that allows shortened lead-times and tight quality control
- Fit for purpose quantity, lengths and packaging

Quality system certified in compliance with **ISO 9001**



Here a selection of realized custom projects. Individually designed and manufactured to be suitable for their specific application, they can all be adapted as necessary to meet other special requirements.

For cable design, expertise, performance and support: tech@novacavi.it

Defence & Security



ROV hybrid power & data cable for subsea mine hunting



Rubber watertight shielded instrumentation cable for use in submerged hydrophone arrays and for other underwater instruments



Armoured multipolar hybrid cable for use in hostile environments and potentially explosive atmospheres

Technical description

- Single mode fiber optic tight buffered
- Tinned copper conductor
- Braid strength member
- Foamed TPR sheath
- Hydrolysis UV resistant high friction PUR outer sheath
- Nominal outer diameter 11,50mm

- Polypropylene insulation
- Tinned copper braid individual shield
- Thermoplastic rubber sheath
- Waterblocking compound
- Thermoplastic rubber sheath
- Tinned copper braid overall shield
- Thermoplastic rubber outer sheath
- Nominal outer diameter 24,50mm

- Crosslinked polyethylene insulation
- Crosslinked flame retardant LSZH compound
- 1 X COAX 75 ohm
- 1 X LAN cable
- Tinned copper braid
- Crosslinked flame retardant LSZH compound sheath
- Galvanized steel braid overall shield
- Crosslinked flame retardant LSZH compound outer sheath
- Nominal outer diameter 20,00mm

Key features

- Neutrally buoyant
- High flexibility
- Low friction coefficient
- Ruggedness in small diameter
- High breaking strength

- Watertight
- Electromagnetic interference (EMI) resistant
- Flexible at low temperatures
- Excellent termination moulding compatibility

- Prepared for Ethernet, video, I/O and telemetry connections
- Oil, flames and UV resistant
- Designed for potentially explosive zones

Ref. 4GAX107

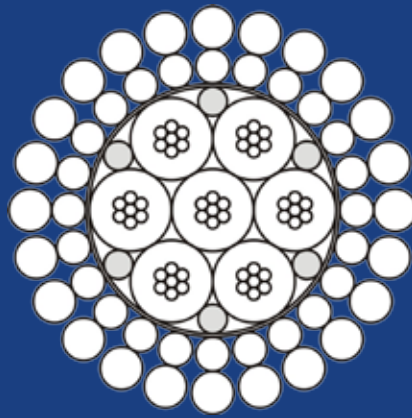
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Ref. 19AZT972

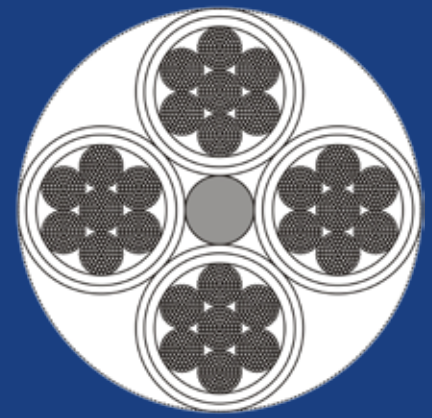
Extreme Temperatures



Coaxial data transmission cable in use in Ion pumps in nuclear research laboratory



Custom rugged armored cable for logging downhole equipment in geothermal power plant



Special low temperature multi core power cable for research station on the Antarctic Plateau

Technical description

- Multilayer Polyimide tape
- Copper braid
- Glass impregnated braid
- Nominal overall diameter 4,3 mm

- Nickel plated copper conductor
- Multilayer sintered PTFE tape insulation
- High temperature glass woven-PTFE tape
- Preformed galvanized steel wire armour
- Nominal overall diameter 12,10mm

- Extra flexible tinned copper conductor
- PFA insulation
- Nominal outer diameter 23,85mm

Key features

- Working temperature up to 300°C
- High radiation resistant

- Working temperature - 60°C / +320°C
- High pressure and aggressive agents resistant
- High breaking strength

- Fluoropolymer insulated operating under freezing conditions
- Wide temperature range -100°C / +120°C
- Flexible

Ref. 1HRS338

Ref. 7SSA22

Ref. 4MT133

Geo-survey & Seismology



Specially conceived resilient data, signal and power armoured underwater cable connecting sea bottom with surface buoys equipped with sensors



Custom hybrid cable for submarine hydraulic digital profile meter to be laid on the seabed close to gas extracting platform



Hydrophone cable used in boreholes for seismic tomographic applications down to 400m

Technical description

- Yarn rope strain member
- Tinned copper conductor
- Polyethylene insulation
- Galvanized steel braid armour
- Hydrolysis resistant PUR outer sheath
- Nominal overall diameter 18,50mm

- Tinned copper conductor
- HDPE insulation
- FEP hose
- Waterblocking tape
- Hydrolysis UV resistant PUR outer sheath
- Nominal overall diameter 16.20mm

- Tinned copper conductor
- HDPE insulation
- Cores twisted in pairs
- LPC fiber strength member
- Hydrolysis and UV resistant matt PUR outer sheath
- Nominal overall diameter 16,00mm

Key features

- Hybrid ruggedized custom cable
- Dynamic permanent application

- Hybrid cable
- Working on seabed
- For fluid flow

- Tough and flexible
- Excellent moisture, abrasion & weather resistance

Ref. 16XM396

Ref. 21MC471

Ref. 122XM424

Oceanography, Subsea Telecommunications & Research



Subsea cable with double stainless steel armour for extra heavy duties



Electro-optical ROV cable for instrumental survey and activities at depth up to 4000m



Power cable for subsea trenching machine

Technical description

- FEP insulation
- Single mode fiber optic
- HDPE covering
- Hydrolysis UV resistant PUR outer sheath
- Double contra-helical AISI 304 stainless steel wire armour
- Nominal overall diameter 22,40mm

- Multi mode fiber optic
- Tinned copper conductor
- Polypropylene insulation
- Waterblocking compound
- Polyethylene sheath
- Strength member embedded in PUR sheath
- Hydrolysis UV resistant PUR outer sheath
- Nominal overall diameter 20,60mm

- Bare copper conductor
- Conductive compound
- HDPE crosslinked compound insulation
- Hydrolysis UV resistant PUR sheath
- Braid strength member
- Hydrolysis UV resistant PUR outer sheath
- Nominal overall diameter 43,50mm

Key features

- High breaking load
- Maximized strength
- Weight and size reduction

- Waterblocked
- Highly flexible but extremely tough

- 4kW power cable suitable for heavy work
- High breaking strength
- Special thick and resistant sheath
- Abrasion resistant

Ref. 10SSA23

Ref. 46XM437

Ref. 6XM433

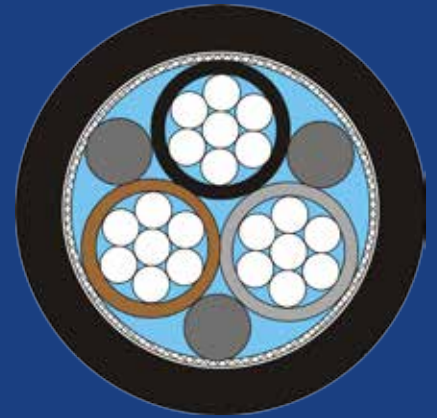
Oil & Gas Exploration and Production



Customized umbilical cable for subsea services. Specially designed and manufactured with durable materials to guarantee operational strength and dynamic requirements



Special thermocouple sensor cable for flare tips meeting Atex breathing test



Custom subsea waterblocked cables for Antifouling System project

Technical description

- Cross-linked polyethylene insulation
- Protective PTFE tape
- Hydrolysis UV resistant PUR sheath
- 3 Hydraulic hoses 1/2"
- Aramidic fiber strength member
- Hydrolysis UV resistant PUR outer sheath
- Nominal overall diameter 73,00mm

- Silicon rubber insulation
- Conductors twisted in pairs with waterblocking compound
- Galvanized steel braid armour
- Cross-linked halogen-free compound outer sheath
- Nominal overall diameter 21,60mm

- Crosslinked compound EPR insulation
- Waterblocking compound
- Tinned copper braid shield
- Halogen free thermoplastic rubber sheath
- Hydrolysis UV resistant PUR outer sheath
- Nominal overall diameter 27,50mm

Key features

- Oil and fuel resistant
- High breaking strength
- High pressure hydraulic hoses

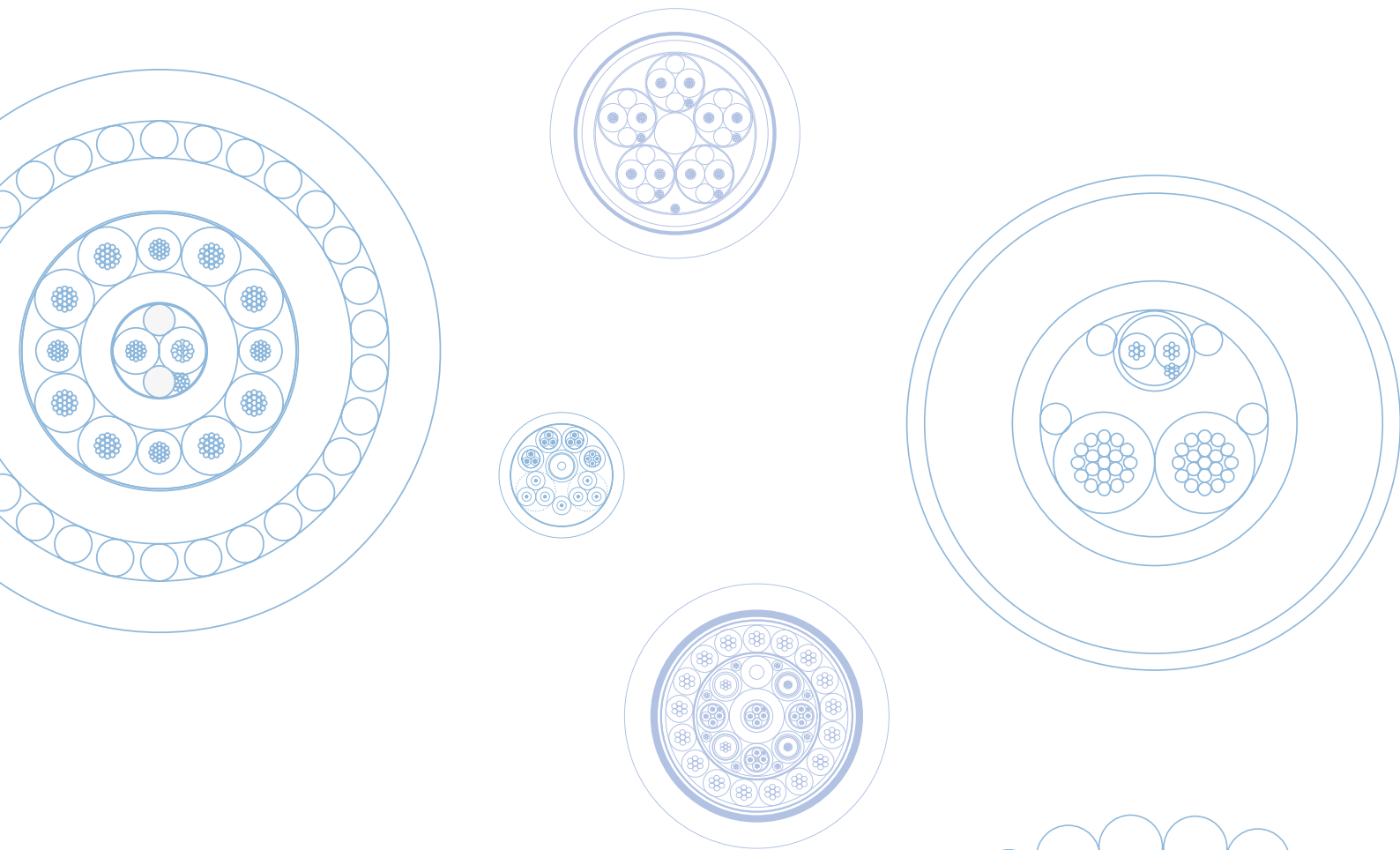
- Gas blocked according to ATEX IEC60079-14 Annex E.1
- Fire resistant

- Longitudinal waterblocking pressure tested
- Oil and fuel resistant

Ref. 35OMB22

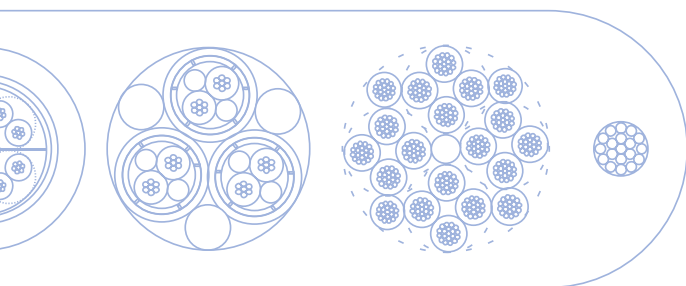
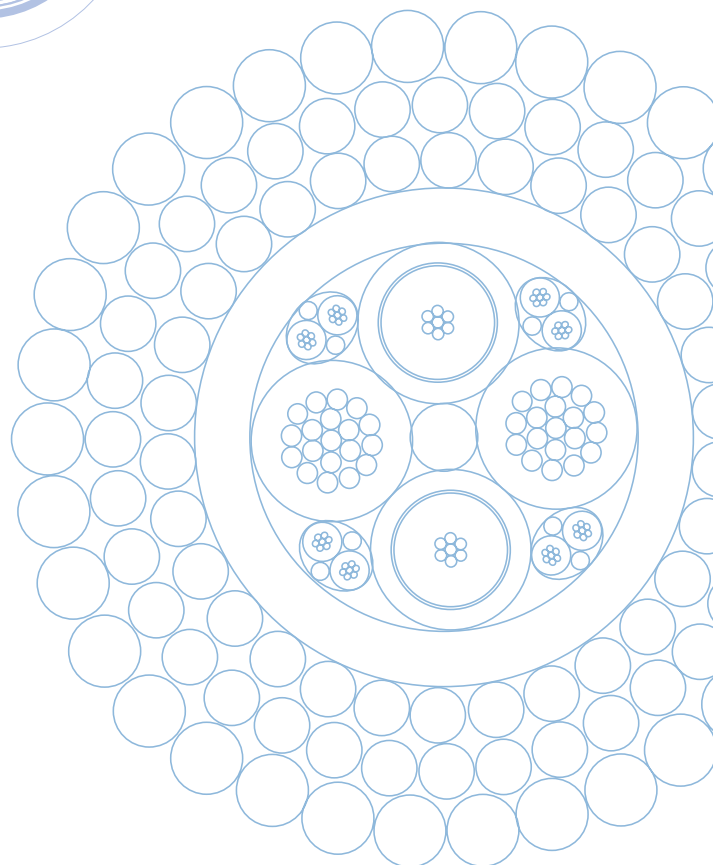
Ref. 24KK227

Ref. 3R3439



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