AQUANCABLE®

Cables for Maritime and Underwater Technologies

by NOVACAVI

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As technologies applied to marine activities evolve, so must do the cables concerned to them.

At ***NOVACAVI***, a privately owned specialist cable manufacturer established in 1975, we decided to meet and exceed all needs for maritime and underwater industry a considerable time ago.

The result is a complete range of custom design cables: **AQUANCABLE®**.

With **AQUANCABLE®** we identify all our bespoke dynamic or static cable solutions including:

- ***ROV CABLES***
- ***FIBER OPTIC HYBRID CABLES***
- ***UMBILICALS***
- ***SUBSEA ARMOURED CABLES***
- ***SUBSEA DETECTION AND INSTRUMENTATION CABLES***

An extensive range of cables meeting your expectations in any harsh environment conditions:

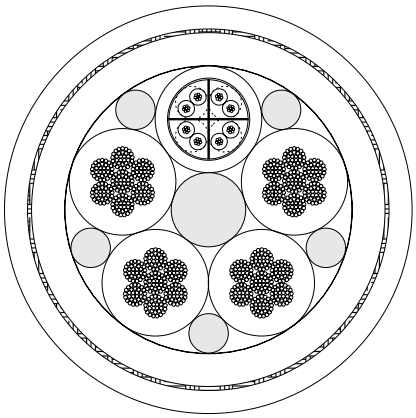
- Towing cables up to a load of 380 Kn
- Neutrally/positively buoyant cables
- Floating cables
- Torque balanced cables
- Sea bottom cables
- Water blocked cables
- Hybrid cables
- Fiber Optic elements fitted cables
- Air, gas and fluid hoses fitted cables
- Data elements up to CAT 7 fitted cables
- Cables integrated with control cores, pairs, triples and quads
- Customized single lengths

A wide range of cable characteristics to guarantee the requested performance:

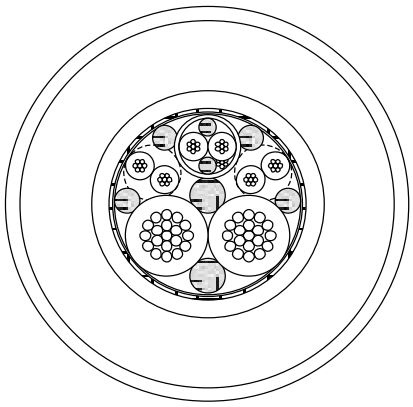
- Fire resistance
- Flame resistance, non fire propagating
- Low smoke halogen free
- Cold resistance
- Chemical resistance
- Oil and fuel resistance
- Pressure resistance
- Mud resistance
- Low toxicity
- U.V. protection
- High breaking strength
- Buoyancy
- Water tightness

We proud ourselves on our ability to offer **in-depth sector knowledge**, decades of **versatile manufacturing capabilities** and **innovative products** to our worldwide customers.

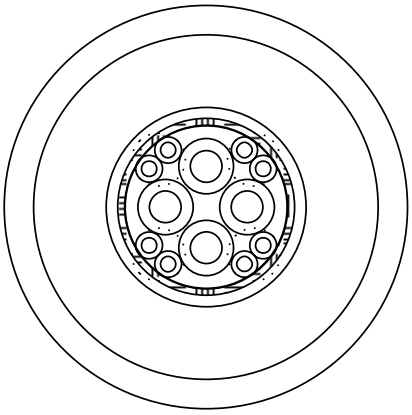
On the following pages you will find a **selection** of our **realized custom projects**.
Individually designed, tested and manufactured to be suitable for their requested specific application, they can all be **adapted as necessary** to meet other special requirements.



Special mechanically hybrid neutrally buoyant cable with flexible subsea CAT 6 cable. Designed to guarantee longer distance data transmission from a specific ROV to its operator station.



Bespoke neutrally buoyant cable for micro and mini ROV used as diver alternative inspection.
A small sized and light cable designed and manufactured with foam polyurethane sheath to guarantee the required buoyancy.



Customized robust and long lasting cable to be used in heavy-duty work ROV. Produced with a slippery durable sheathing material especially suitable against abrasion and erosion due to its application in harsh environments.

Special characteristics

- Long distance data trasmission
- Resilient, flexible and neutrally bouyant
- Integrated CAT 6 component

- Small sized
- Light
- Resilient
- Neutrally buoyant

- Abrasion/erosion resistant
- Neutrally buoyant
- Pressure resistant

Technical description

Aluminium alloy conductors
Polyethylene insulation
Aramidic fiber braid strength member
Hydrolysis UV resistant PUR outer sheath
Nominal overall Ø 31,10 mm

Ref. 12GAX64

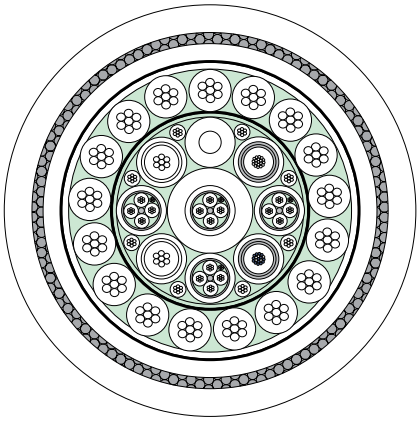
Tinned copper conductors
HDPE insulation
Polypropylene filling yarn
Aramidic fiber braid strength member
Foam polyurethane sheath
Hydrolysis UV resistant PUR outer sheath
Nominal overall Ø 11,30 mm

Ref. 8GAX50

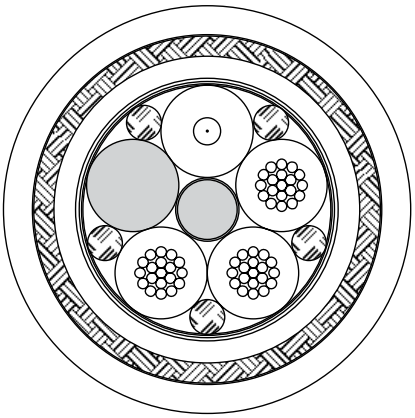
Bare copper conductors
Aramidic fiber braid strength member
Foamed polyolefine sheath
LDPE UVR outer sheath
Nominal overall Ø 17,00 mm

Ref. 12GAX49

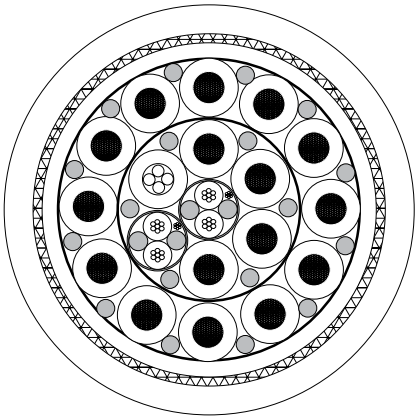
F.O. HYBRID CABLES



Subsea fiber optics composite instrumentation cable for work class ROVs.
Principal elements of this customized composed cable are: single mode fiber optics in metal tube, side scan sonar coaxial cables together with power, communication and other coaxial cables.



Bespoke 7 Km one single length neutrally buoyant ROV F.O. hybrid cable.
Load-bearing cable with 7000 Kg breaking strength thought to be used in a peculiar underwater inspection system.
This tether cable has to be connected to a long range ROV let down to inspect an underground gallery with shallow water inside.



Specially designed fiber optics composite tether cable for light work class ROV.
Its construction made of a perfect balance between aluminium and copper elements, was thought to satisfy and guarantee the exact required subsea performance.

Special characteristics

- Cable performance at 1500 m water depth
- Breaking strength 10000 daN
- One single long continous length supply
- 7 Km long continuous length
- Neutrally buoyancy
- 7000 Kg breaking strength
- Very narrow buoyancy tolerance
- Water blocked cable
- Strictly suited to required buoyancy

Technical description

F.O. cable polyethylene sheath
Bare copper conductors
Polypropylene and HDPE crosslinked insulation
Waterblocking compound
UVR PETE outer sheath
Nominal overall Ø 41,30 mm

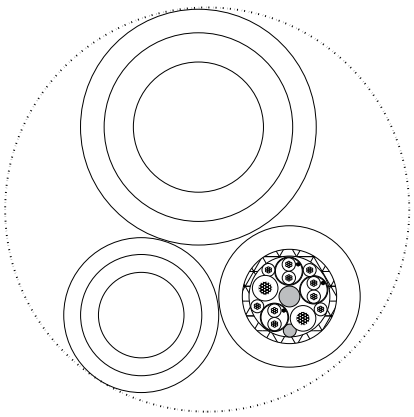
Ref. 45XM301

F.O. cable
HDPE crosslinked compound insulation
Aramidic fiber
Polyethylene insulation
Swelling waterblocking tape
Tinned copper braid overall shield
LDPE UVR outer sheath
Nominal overall Ø 23,00 mm

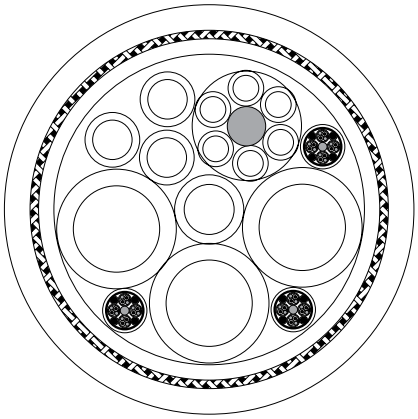
Ref. 3GAX47

F.O. cable
Tinned copper conductors
Aluminium alloy conductors
Polypropylene insulation
Swelling water blocking fillers
Aramidic fiber braid strength member
Hydrolysis UV resistant PUR outer sheath
Nominal overall Ø 22,70 mm

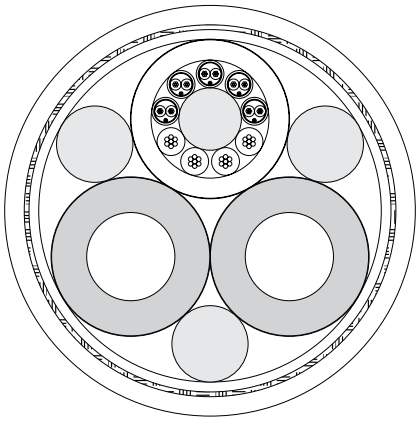
Ref. 24XM308



Neutrally buoyant diver umbilical cable designed, developed and manufactured strictly according to customer's specific latest underwater equipments.
Its peculiar construction guarantees light weight in sea water and maintains neutral buoyancy improving diver's efficiency and safety while working in harsh situations.



Specially designed umbilical cable to be part of a high efficiency cutting subsea system used to remove decommissioned offshore structures.
Bespoke integrated to suit customer's needs.



Customized intervention and maintenance umbilical cable for a wide range of subsea services.
Specially designed and manufactured with durable materials to guarantee operational strength and dynamic requirements.

Special characteristics

- Customized neutral buoyancy
- Cable construction and hoses choice according with customer's request
- Air, gas and fluid hoses custom fitted cable
- One single long continuous length required
- Oil and fuel resistant
- High breaking strength

Technical description

Diver hoses
Bare and tinned copper conductors
HDPE insulation
Aramidic fiber braid strength member
Hydrolysis UV resistant PUR outer sheath
Nominal overall Ø 30,00 mm

Ref. 3OMB5

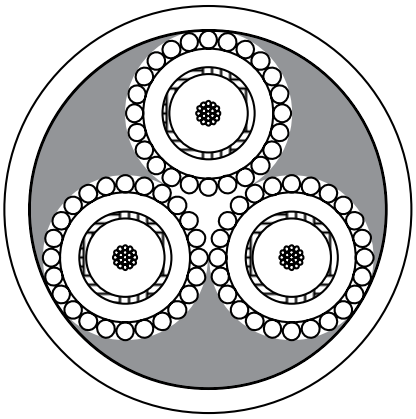
Thermoplastic houses
Tinned copper conductors
HDPE insulation
Thermoplastic rubber sheath,
Aramidic yarn braid
Hydrolysis resistant PUR outer sheath
Nominal overall Ø 103 mm

Ref. 16OMB4

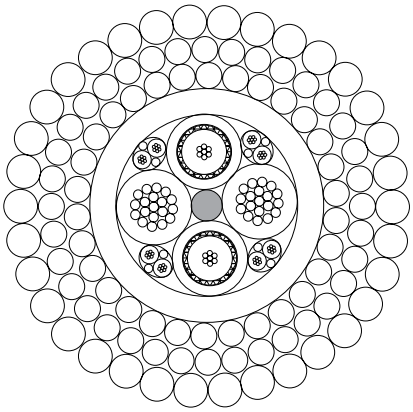
Polypropylene insulation
TPE-E sheath
Hydrolysis UV resistant PUR sheath
2 Hydraulic hose ½"
Aramidic fiber strength member
Hydrolysis UV resistant PUR outer sheath
Nominal overall Ø 59,15 mm

Ref. 16OMB11

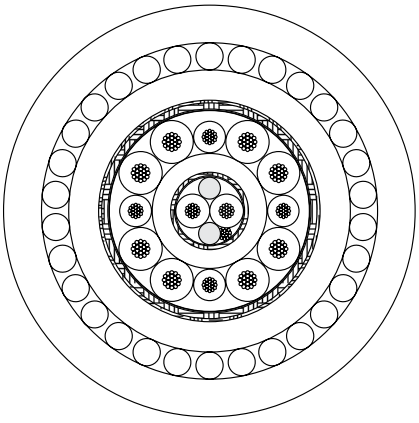
SUBSEA ARMOURED CABLES



Heavy sinking cable with a significant specific weight and high breaking load used to survey the depth.
Launched and dragged on the seabed, it has to quickly sink and to maintain a high capacity against tightness and abrasion in severe operating environments while performing without rising from the seabed.



Customized composed tow cable with coaxial, power and signal conductors laid up together with an overall torque balanced armour of a special austenitic stainless steel.
Load-bearing cable with 38 tons breaking strength and a peculiar non-magnetic and mechanic protection which provides an outstanding combination of strength, toughness and corrosion resistance to the entire cable.



Bespoke subsea armoured cable for electro-acoustic instruments.
Used for detection in aquatic environments, its watertight and flexible construction makes it perfect for underwater use.

Special characteristics

- Sinking cable
- Significant specific weight
- High breaking load
- Outstanding combination of strength, toughness and corrosion resistance
- 38 tons breaking strength
- Watertightness
- Anti torsion constuction

Technical description

Tinned copper conductor
Polyethylene insulation
Tinned copper braid overall shield
PVC sheath
Preformed galvanized steel wire armour
TPE-E thermoplastic polyester elastomer outer sheath
Nominal overall Ø 15,05 mm

Ref. 3SSA8

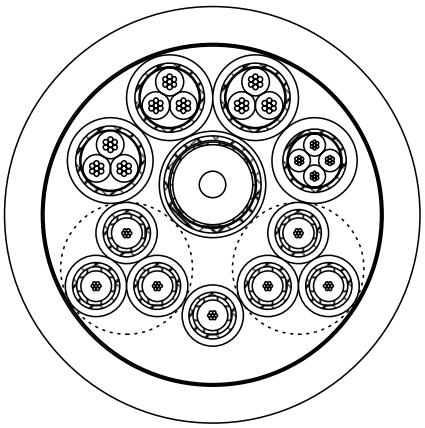
Bare copper conductors
Polyethylene insulation
Bare copper braid overall shield
PET-E thermoplastic polyester elastomer sheath
Polyethylene sheath
Special amagnetic austenitic stainless steel wire armour
Nominal overall Ø 28,60 mm

Ref. 12SSA11

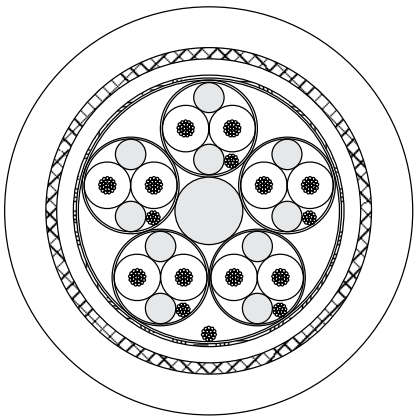
Tinned copper conductor
Polypropylene insulation
Silicone waterblocking compound
Preformed galvanized steel wire armour
Hydrolysis UV resistant PUR outer sheath
Nominal overall Ø 27,30 mm

Ref. 14AZS433

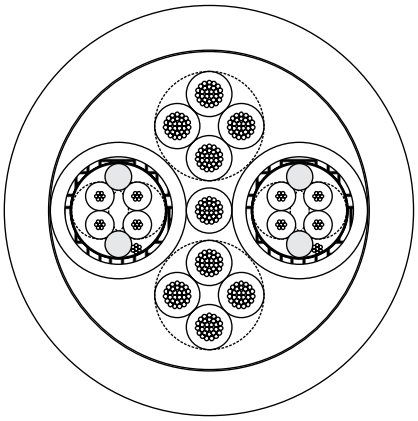
SUBSEA DETECTION AND INSTRUMENTATION CABLES



Customized composed cable with micro wave coaxial for special subsea equipments. This cable guarantees high speed data transmission accurancy thanks to its integrated high performance ultra low loss coaxial cable.



Custom design cable to be partially used in water environments and partially outside where fire resistance is a required special feature.



Bespoke subsea detection and instrumentation cable for a special innovative equipment extracting energy from ocean waves.

Special characteristics

- High performance ultra low loss coaxial cable
- Swelling water blocking capacity
- Fire resistant cable
- Water blocked cable
- Resilient in all wave conditions
- Water blocked cable

Technical description

Micro wave coax cable
Tinned copper conductors
HDPE insulation
Polyethylene sheath
Silicone waterblocking compound
Hydrolysis UV resistant PUR outer
Nominal overall Ø 20,35 mm

Ref. 21MC451

Bare copper conductors
Polypropylene insulation
Cores twisted in pairs
Flame barrier glass fiber tape
FR LSZH compound sheath
Galvanized steel braid armour,
FR LSZH hydrolysis resistant polyurethane outer sheath
Nominal overall Ø 24,90 mm

Ref. 10AZT952

Tinned copper conductors
Polyethylene insulation
Polyethylene sheath
HDPE insulation
Petroleum jelly compound
Protective polyester tape
Hydrolysis UV resistant PUR outer sheath
Nominal overall Ø 23,05 mm

Ref. 17MC458

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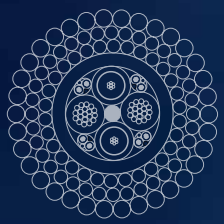



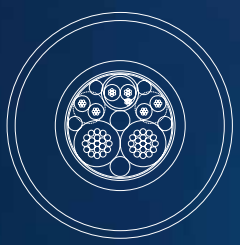

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