Marine and underwater cable solutions

DERUL CABLE

LAPP GR

“A range of customized cables for the marine and underwater environment”

This catalogue contains a sample range of the 60000 DERUL CABLE special cables designed and manufactured over the last 10 years.

DERUL CABLE has successfully worked with many Coastal and Deep-sea engineering companies as well as Oceanographical Research Institutes and O.E.M. providers of equipment to the offshore gas and oil industry.

Providing both composite electrical and optical cables for many applications such as ROVs (Remote Operated Vehicles),seabed vehicle umbilicals to ship and submarine borne types for the French Navy, with theirrelevant specifications. These cables can be supplied as complete systems terminated with any prefered style of connector from galvanised, stainless steel to titanium types as either rigid or flexible assemblies dependent on customer specifications.

UNDERWATER MACHINE CABLES

DETECTION AND INSTRUMENTATION CABLES

SPECIAL CABLES

“A Complete range of cables for ROV, underwater Machines and other devices”

DERUL CABLE provides different types of cables such as: power, control, signal, fibre optics, strength member, etc.
Those cables are watertight and super flexible cables with floating capabilities or with neutral buoyancy to control ROV, trenching and burying machine, plough, submarine working machine (welding, cutting, …).
They can be fitted with customized terminations, connectors and other equipments.

UNDERWATER MACHINE CABLES

ROV

On request

HEAVY ROV THETERS
Extra flexible and watertight cable, with stengthening member, including power, control, signal and video.

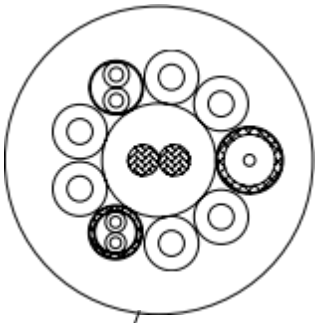
ROV CABLE WITH COAXIAL AND FIBRE CORE STRENGTH MEMBER

Applications : Linking ship and ROV

DERUL CABLE - ROV THETERS -

Cable make up

Aramid fibre central strength member
2 conductors 0.25 mm², in extra flexible tinned copper, insulated in polyester elastomer
6 conductors 1.5 mm², in extra flexible plain copper, insulated in polyester elastomer
1 pair of conductors 0.15 mm², in flexible tinned copper, insulated in polyester elastomer
pair shielded by a tinned copper spinning
1 coaxial cable 75 Ω
Polyurethane outer sheath



Outer diameter : 11.9 +0.1/-0.3 mm

General characteristics

Conductors operating voltage : 250 Volts
Linear resistance :
Conductors 1.5 mm² ≤ 14 Ω/km
Conductors 0.25 mm² ≤ 84.5 Ω/km
Conductors 0.15 mm² ≤ 148.1 Ω/km

Coaxial cable
Characteristic impedance : 75 ± 7 Ω
Capacitance ≤ 0.05 dB/m
Attenuation at 10Mhz ≤ 0.05 dB/m

Operating temperature : -30 to +80°C
Strength member breaking load : 200 daN
Static bending radius ≥ 55 mm
Dynamic bending radius ≥ 110 mm
Weight : 0.22 kg/m

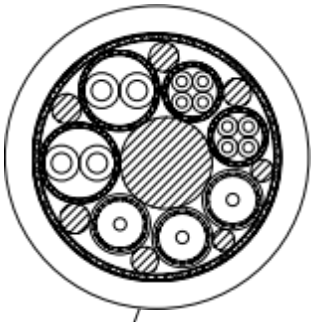
ROV CABLE WITH COAXIAL AND OVERALL SHIELDED

Applications : Linking ship and ROV

DERUL CABLE - SHIELDED ROV CABLE

Cable make up

2 pairs of conductors 0.75 mm², in extra flexible tinned copper, insulated in polyester elastomer, pairs shielded by a tinned copper spinning
2 quads of conductors 0.25 mm², in extra flexible tinned copper, insulated in polyester elastomer, quads shielded by a tinned copper spinning
3 coaxial cables 75 Ω
Stranding with watertightness compound
Overall shielding by a tinned copper spinning
Polyurethane outer sheath



Outer diameter : 14.5 ± 0.7 mm

General characteristics

Conductors operating voltage : 250 Volts
Linear resistance :
Conductors 0.25 mm² ≤ 85.3 Ω/km
Conductors 0.75 mm² ≤ 29.4 Ω/km

Coaxial cable
Characteristic impedance : 75Ω
Capacitance : 81 pF/m
Attenuation at 200 Mhz : 0.22 dB/m

Operating temperature : -30 to +80°C
Static bending radius ≥ 70 mm
Dynamic bending radius ≥ 140 mm
Weight : 0.2 kg/m

Other constructions and dimensions,
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e-mail :sales@derulkable.com

ROV

On request

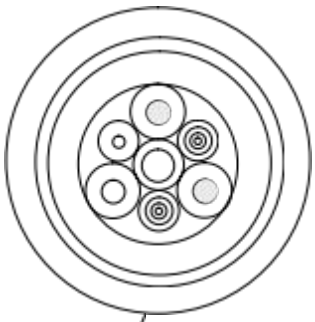
FLOATING ROV THETERS
Extra flexible floating cable, including power, control, signal and fibre optic.

ROV CABLE WITH FIBRE OPTIC AND FIBRE BRAIDED STRENGTH MEMBER

Applications : Linking ship and bomb disposal ROV

Cable make up

1 conductor 0.22 mm², inflexible plain copper, insulated in special polyolefine
3 conductors 0.93 mm², inflexible tinned copper, insulated in special polyolefine
3 singlemode 9/125 optical fibres, tight-buffered
Special polyolefine inner sheath
Special fibre strength member
Special polyolefine outer sheath



Outer diameter : 15 mm maximum

General characteristics

Operating voltage :
0.93 mm² conductors : 2400 Volts
0.22 mm² conductors : 100 Volts
Linear resistance :
Conductors 0.93 mm² ≤ 22.7 Ω/km
Conductors 0.22 mm² ≤ 91.7 Ω/km

Singlemode optical fibres :
Attenuation at 1310 nm : 0.40 dB/km
Attenuation at 1550 nm : 0.25 dB/km

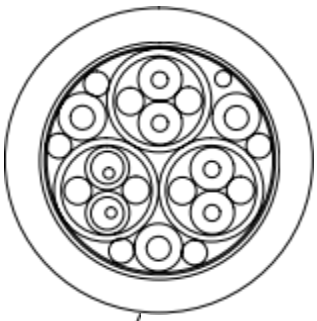
Strength member breaking load : 2300 daN
Operating temperature : -10 to +70 °C
Dynamic bending radius ≥ 250 mm
Linear weight in seawater (d : 1.026) : - 4g/m
Density: 0.98

ROV CABLE WITH FIBRE OPTIC, OVERALL SHIELDED AND FIBRE BRAIDED STRENGTH MEMBER

Applications : Linking ship and mine clearance ROV

Cable make up

3 conductors 0.6 mm², inflexible special alloy, insulated in special polyolefine
2 pairs of conductors 0.34 mm², inflexible special alloy, insulated in special polyolefine,
pairs sheathed with special polyolefine
2 multimode 62.5/125 optical fibres in loose tube
Stranding with watertightness compound
Overall shielding by aluminum/polyester tape and drain wire
Special fibre strength member
Special polyolefine outer sheath



Outer diameter : 14 ± 0.5 mm

General characteristics

0.6 mm² conductors operating voltage : 1500 Volts
Linear resistance :
Conductors 0.6 mm² ≤ 48 Ω/km
Conductors 0.34 mm² ≤ 84 Ω/km

Multimode optical fibres :
Attenuation at 1300 nm : 1.1 dB/km

Strength member breaking load : 1000 daN
Operating temperature : - 30 to +80 °C
Dynamic bending radius ≥ 170 mm
Density in seawater (d: 1.026) : 0.92

Other constructions and dimensions,
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UMBILICALS

Umbilical cables for fixed installations and mobile underwater machines.

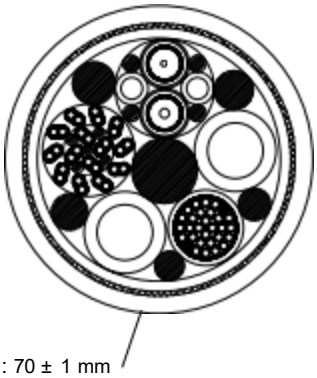
On request

UMBILICAL WITH HYDRAULIC HOSES, VIDEO, AND FIBRE BRAIDED STRENGTH MEMBER Applications :

Underwater welding machine

Cable make up

2 hoses 1/2"
1 coaxial cable type KX4 50 Ω
1 coaxial cable type KX8 75 Ω
2 conductors 16 mm², insulated in polyester elastomer
14 pairs of conductors 1.5 mm², insulated in polyester elastomer, pairs shielded by a tinned copper spinning, under a polyester elastomer sheath
28 conductors 1.5 mm², insulated in polyester elastomer, conductors stranded in layers, under a polyurethane sheath
Polyurethane inner sheath
Aramid fibre braid
Polyurethane outer sheath



Outer diameter : 70 ± 1 mm

General characteristics

Conductors operating voltage :
1.5 mm² : 250 Volts
16 mm² : 1000 Volts
Linear resistance :
Conductors 1.5 mm² ≤ 15 Ω/km
Conductors 16 mm² ≤ 1.35 Ω/km

Coaxial cable type KX4 :
Characteristic impedance : 50 ± 2 Ω
Capacitance ≤ 100 pF/m
Coaxial cable type KX8 :
Characteristic impedance : 75 ± 3 Ω
Capacitance ≤ 67 pF/m

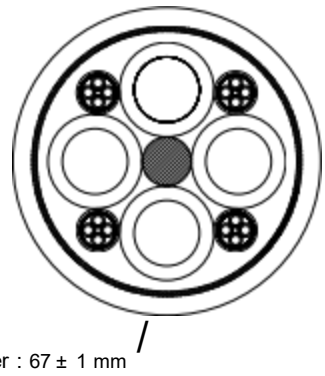
Theoretical breaking strength : 18000 daN
Hoses operating pressure : 190 Bars
Operating temperature : 0 à +80 °C
Static bending radius ≥ 560 mm
Dynamic bending radius ≥ 900 mm
Weight : 5.15 kg/m

REF **45981 UMBILICAL** WITH HYDRAULIC HOSES AND FIBRE BRAIDED STRENGTH MEMBER

Applications : Valves controlled by high pressure fluid

Cable make up

4 hoses 1/2" SAE100R8
4 quads of conductors 2.5 mm², insulated in polyester elastomer, quads shielded by a tinned copper braid, under a polyurethane sheath
Polyurethane inner sheath
Aramid fibre braid
Polyurethane outer sheath



Outer diameter : 67 ± 1 mm

General characteristics

Conductors operating voltage : 0.6/1 kVolts
Conductors linear resistance ≤ 9.6 Ω/km

Hoses operating pressure : 240 bars

Theoretical breaking strength : 18000 daN
Operating temperature : -15 to +40 °C
Static bending radius ≥ 550 mm
Dynamic bending radius ≥ 1000 mm
Weight : 3.22 kg/m

Other constructions and dimensions,
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e-mail :sales@derulkable.com

UMBILICALS

Umbilical cables for the control of underwate valves

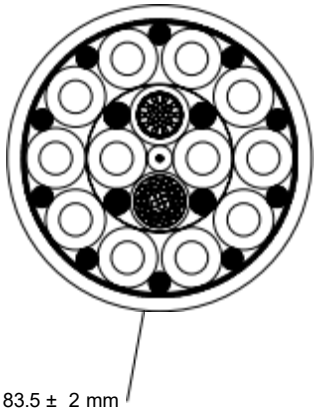
On request

UMBILICAL WITH HYDRAULIC HOSES, SIGNAL, POWER AND FIBRE BRAIDED STRENGTH MEMBER

Applications : Oil or gas control valves

Cable make up

12 hoses 3/8 ''
12 pairs of conductors 1 mm², in extra flexible plain copper, insulated in polyester elastomer, pairs strand shielded by a tinned copper braid, under a polyurethane sheath
4 conductors 1.5 mm², in extra flexible plain copper, insulated in polyester elastomer,
10 pairs of conductors 1 mm², in extra flexible plain copper, insulated in polyester elastomer, pairs shielded by aluminium/polyester tape and drain wire,
conductors 1.5 mm² and shielded pairs 1 mm² stranded under a polyurethanesheath
Polyurethane inner sheath
Aramid fibre braid
Polyurethane outer sheath



Outer diameter : 83.5 ± 2 mm

General characteristics

Conductors operating voltage : 600 Volts
Linear resistance :
Conductors 1 mm² ≤ 21.5 Ω/km
Conductors 1.5 mm² ≤ 14.6 Ω/km

Theoretical breaking strength : 9000 daN

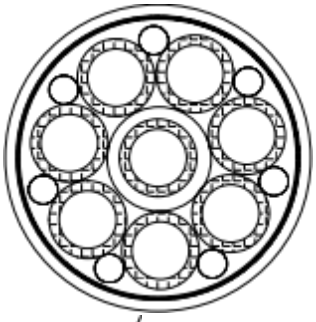
Operating temperature : -10°C to +70°C
Bending radius ≥ 830 mm
Weight : 5.36 kg/m

UMBILICAL HYDRAULIC HOSES AND FIBRE BRAIDED STRENGTH MEMBER

Applications : Oil or gas control valves

Cable make up

8 hoses 1/2'' SAE100R8
Copper fillers ballast
Polyurethane inner sheath
Aramid fibre braid
Polyurethane outer sheath



Outer diameter : 84 ± 2 mm

General characteristics

Theoretical breaking strength : 9000 daN
Operating temperature : -10°C to +70°C
Static bending radius ≥ 675 mm
Dynamic bending radius ≥ 1250 mm
Operating pressure : 240 bars

Other constructions and dimensions,
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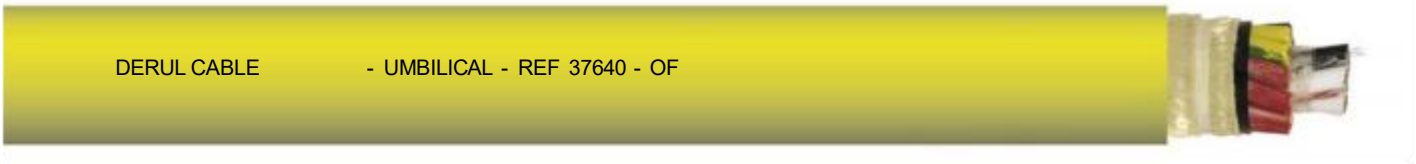
TRENCHING AND BURYING MACHINE

On request

Flexible and tight cables with strenght member for various underwater tasks.

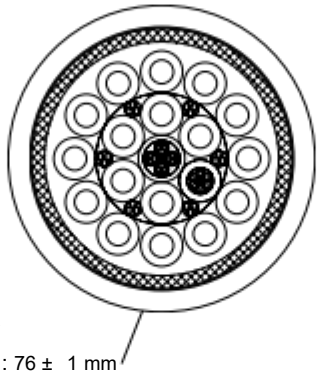
REF **37640 CABLE** WITH POWER, SIGNAL, CONTROL WITH FIBRE OPTIC AND FIBRE BRAIDED STRENGTH MEMBER

Applications : Trenching and burying tracted machine



Cable make up

12 multimode 62.5/125 optical fibres, in 6 loose tubes stranded under a polyurethanesheath
4 pairs of conductors 0.22 mm², inflexible tinned copper, insulated in XLPE,
pairs shielded by aluminum/polyester tape and drain wire, under a XLPE sheath
6 triplets of conductors 1 mm², in extra flexible plain copper, insulated in polyester elastomer
17 conductors 25 mm², inflexible plain copper, insulated in XLPE
Stranding with watertightness compound
Polyurethane inner sheath
Aramid fibre contra-helical double layer strength member
Polyurethane outer sheath



General characteristics

Operating voltage:
Conductors 0.22 mm² : 250 Volts
Conductors 1 mm² : 1 kVolts
Conductors 25 mm² : 3 kVolts
Linear resistance :
Conductors 0.22 mm² ≤ 93.3 Ω/km
Conductors 1 mm² ≤ 23.4 Ω/km
Conductors 25 mm² ≤ 0.819 Ω/km

Theoretical breaking strength : 60 000 daN

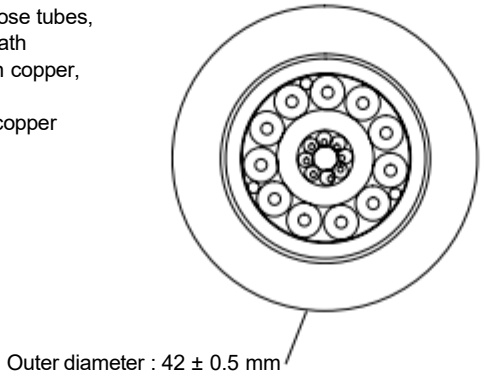
Operating temperature : -10°C to +70°C
Bending radius ≥ 1000 mm
Weight in air : 8.5 kg/m
Weight in seawater : 3.6 kg/m

FLOATING CABLE WITH POWER, SIGNAL, CONTROL, FIBRE OPTIC AND FIBRE BRAIDED STRENGTH MEMBER

Applications : Burying tracted Plough

Cable make up

8 singlemode 9/125 optical fibres in loose tubes, tubes stranded under a polyolefine sheath
11 conductors 1.2 mm², inflexible plain copper, insulated in special polyolefine
3 conductors 1.2 mm² inflexible plain copper
Aluminum tape armoring
Polyolefine inner sheath
Fibre braid strength member
Polyolefine outer sheath



General characteristics

Conductors operating voltage : 3000 Volts

Singlemode optical fibres :
Attenuation at 1285-1330 nm : 0.36 to 0.40 dB/km
Attenuation at 1550 nm : 0.22 to 0.30 dB/km

Theoretical breaking strength : 15 000 daN

Operating temperature : - 10 to 70 °C
Dynamic bending radius ≥ 600 mm
Weight in air : 1306 g/m
Weight in seawater (cable's interstices filled with oil-density : 0.887) : - 30 g/m

Other constructions and dimensions,
Please contact us.
Tel +86 021 61425100
Fax+86 021 61425105
e-mail :sales@derulkable.com

STATIC CABLES

On request

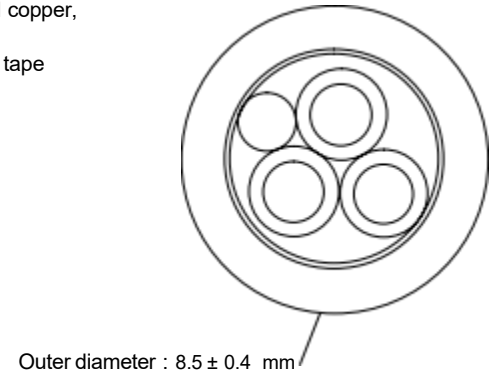
Static cables for equipment of machines and underwater robots for captor, sensor, video, equipped arm, etc...

UNDERWATER SHIELDED POWER CABLE

Applications : Cable for underwater projectors

Cable make up

3 conductors 1 mm², inflexible tinned copper, insulated in XLPE
Overall shield by aluminum/polyester tape and drain wire
Polyurethane outer sheath



General characteristics

Conductors operating voltage : 1000 Volts
Conductors linear resistance ≤ 20 Ω/km

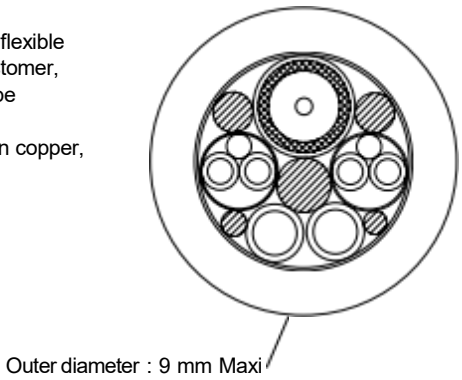
Operating temperature : -20 to +70°C
Static bending radius ≥ 65 mm
Flame retardant according to IEC 332-1
Weight : 0.11 kg/m

WATERTIGHT, POWER, SIGNAL, VIDEO CABLE

Applications : Cable for sensor, video and projectors

Cable make up

1 coaxial cable 75 Ω
2 pairs of conductors 0.34 mm², in extra flexible tinned copper, insulated in polyester elastomer, pairs shielded by aluminum/polyester tape and drain wire
2 conductors 1 mm², in extra flexible plain copper, insulated in polyester elastomer
Polyurethane outer sheath



General characteristics

Operating voltage :
Conductors 1 mm² : 600 Volts
Conductors 0.34 mm² : 250 Volts
Linear resistance :
Conductors 1 mm² ≤ 21 Ω/km
Conductors 0.34 mm² ≤ 63 Ω/km

Coaxial cable :
Characteristic impedance : 75 ± 7 Ω
Capacitance : 80 pF/m

Operating temperature : -20 to +80 °C
Static bending radius ≥ 45 mm
Dynamic bending radius ≥ 90 mm
Weight in air : 0.11 kg/m
Weight in seawater : 0.045 kg/m

Other constructions and dimensions,
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“A complete range of cables for measurement systems”

These cables are intended for detection, instrumentation, sonar, acoustic, security, oceanography, environnement analysis.
They are multifunction (power, signal, control, fibre optic) great depth watertight (6000m or 20000 ft), reinforced, high tensile strength, armoured, according to the request.

DETECTION AND INSTRUMENTATION CABLES

DETECTION SYSTEM

On request

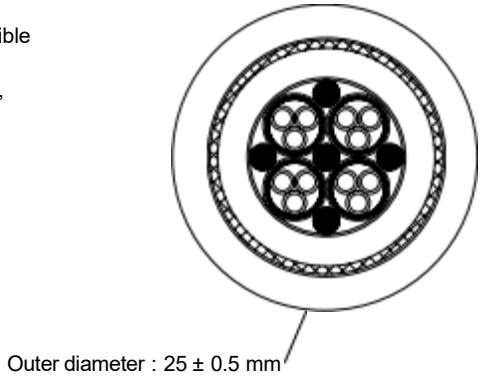
Special cables, watertight, manufactured with long lifespan materials for security and monitoring systems with magnetic or acoustic detection.

UNDERWATER CABLE WATERTIGHT AND SHIELDED

Application : Magnetic detection system

Cable make up

4 triplets type KU 06-16
triplets of conductors 1.34 mm², inflexible tinned copper, insulated in ETFE
triplets shielded by tinned copper braid, sheathed in ETFE
Polyethylene inner sheath
Stainless steel braid armoring
with watertightness compound
Polyethylene outer sheath



General characteristics

Conductors operating voltage : 600 Volts
Conductors linear resistance ≤ 15 Ω/km

Cable with good crushing resistance
Theoretical breaking strength :1500 daN

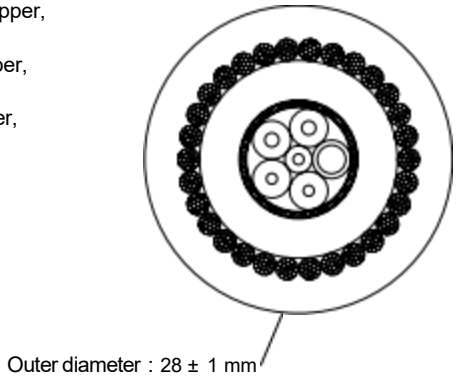
Operating temperature : -20 to +70 °C
Static bending radius ≥ 300 mm
Weight : 0.83 kg/m

UNDERWATER CABLE REINFORCED AND STEEL-ARMOURED

Application : Acoustic detection system

Cable make up

3 conductors 0.6 mm², inflexible plain copper, insulated in polyethylene
2 conductors 1 mm², inflexible plain copper, insulated in polyethylene
1 conductor 4 mm², inflexible plain copper, insulated in polypropylene
Stranding with watertightness compound
Overall shield by copper braid
HDPE inner sheath
Galvanized steel wires armoring
Polyurethane outer sheath



General characteristics

Operating voltage :
Conductors 0.6 mm² : 1000 Volts
Conductors 1 mm² : 500 Volts
Conductors 4 mm² : 500 Volts
Linear resistance :
Conductors 0.6 mm² ≤ 36 Ω/km
Conductors 1 mm² ≤ 21 Ω/km
Conductors 4 mm² ≤ 5.5 Ω/km

Theoretical breaking strength : 8900 daN
Operating temperature : -20 to +80 °C
Static bending radius ≥ 280 mm
Dynamic bending radius ≥ 560 mm
Weight in air : 1.28 kg/m
Weight in seawater : 0.65 kg/m

Other constructions and dimensions,
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e-mail :sales@derulkable.com

SONAR

Inboard ship sonar system cables, shielded and manufactured with high insulation resistance.

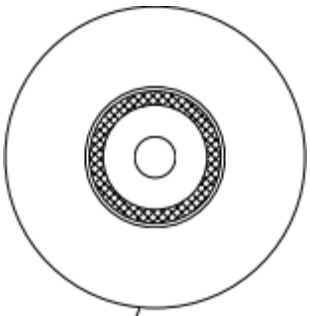
On request

PLATED COPPER COAXIAL

Application : Inboard ship sonar connection

Cable make up

Tinned copper conductor
Insulated in FEP
Tinned copper braid
Rubberized tape
Neoprene outer sheath



Outer diameter : 11 ± 0.25 mm

General characteristics

Coaxial cable type DSM 40-01
Operating voltage : 4.5 kV (peak)
Insulation resistance / 500 V > 1000 MΩ.km
Capacitance < 125 pF/m

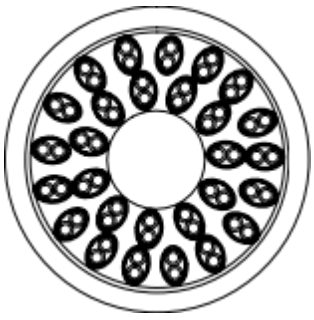
Impedance at 20 to 50 MHz : 40 Ω
Attenuation at 20 MHz : 6.05 dB/100m
Attenuation at 30 MHz : 7.45 dB/100m
Attenuation at 50 MHz : 9.95 dB/100m
Weight : 0.15 kg/m

SHIELDED MULTIPAIRS DYNAMIC CABLE

Application : Inboard ship sonar connection

Cable make up

28 pairs of conductors 0.34 mm²,
in extra flexible tinned copper,
insulated in polyester elastomer,
pairs shielded by tinned copper spinning ,
sheathed in polyester elastomer
Overall shield by tinned copper braid
Polyurethane outer sheath



Outer diameter : 25 ± 1 mm

General characteristics

Conductors operating voltage : 600 Volts
Conductors linear resistance ≤ 62.8 Ω/km
Characteristic impedance
between 2 conductors : 40 ± 5 Ω
Capacitance between 2 conductors ≤ 180 pF/m

Operating temperature : - 30 to +70 °C
Static bending diameter ≥ 100 mm
Dynamic bending diameter ≥ 160 mm
Weight : 740 g/m

Other constructions and dimensions,
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OCEANOGRAPHIC

On request

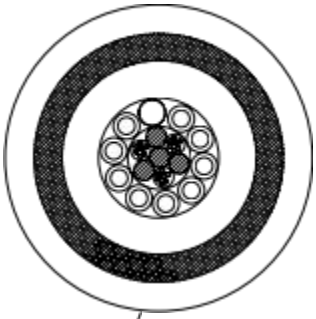
Electrical and fibre optic cables with strenght member reinforced for electromagnetic and optic detection instruments (radio- telescope, seismograph...).

ELECTRO OPTIC CABLE REINFORCED, WATERTIGHT AND FIBRE BRAIDED STRENGTH MEMBER

Application : Connection for optical amplificators of underwater radiotelescope (-2500m)

Cable make up

21 singlemode 9/125 optical fibres
in stainless steel loose tube (7 fibres per tube)
9 conductors 1 mm², inflexible plain copper,
insulated in XLPE
Stranding with silicone compound
Polyethylene inner sheath
Aramid fibre braid
Polyurethane outer sheath



Outer diameter : 30 ± 0.5mm

General characteristics

Conductors operating voltage : 600 Volts
Conductors linear resistance ≤ 22 Ω/km

Optical fibres :
Attenuation between 1285 and 1330 nm ≤ 0.6 dB/km
Attenuation at 1550 nm ≤ 0.4 dB/km
Fibres proof test : 200 kpsi

Theoretical breaking load ≥ 18 000 daN
Pressure rating : 260 bars
Operating temperature : -10 to +60 °C
Static bending radius ≥ 300 mm
Weight in air : 0.83 kg/m
Weight in seawater : 0.104 kg/m

POWER/SIGNAL CABLE, REINFORCED, WATERTIGHT AND FIBRE BRAIDED STRENGTH MEMBER

Application : Detection line for seismic instrumentation (- 2000m)

Cable make up

2 pairs of conductors 0.22 mm², inflexible tinned copper, insulated in polypropylene,
pairs shielded by aluminum/polyester tape
and drain wire, sheathed in PVC
1 pair of conductors 1.5 mm², in extra flexible plain copper, insulated in polyester elastomer,
pair shielded by aluminum/polyester tape
and drain wire
3 Conductors 1.5 mm² (filling + ballast)
Stranding with watertightness compound
HDPE inner sheath
Aramid fibre braid
HDPE outer sheath

Outer diameter : 24 ± 1 mm

General characteristics

Conductors operating voltage : 600 Volts
Linear resistance :
Conductors 0.22 mm² ≤ 96 Ω/km
Conductors 1.5 mm² ≤ 15 Ω/km
Pairs 0.22 mm² theoretical impedance : 120 Ω
Pairs 0.22 mm² capacitance : 40 pF/m

Theoretical breaking load : 10 000 daN
Operating temperature : -30 to 70 °C
Static bending radius ≥ 150 mm
Dynamic bending radius ≥ 370 mm
Weight in air : 507 g/m
Weight in seawater : 43 g/m

Other constructions and dimensions,
Please contact us.

Tel +86 021 61425100
Fax+86 021 61425105
e-mail :sales@derulkable.com

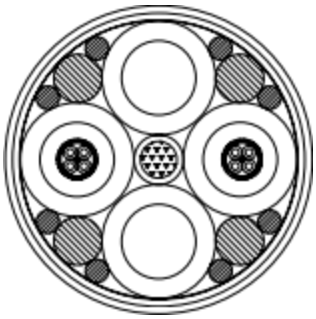
Buoy cables for measurement and oceanographical data acquisition.

UMBILICAL POWER, SIGNAL, HOSES WITH FIBRE STRENGTH CORE MEMBER AND REINFORCED SHEATH

Application : Oceanographical measurement buoy

Cable make up

Central aramid strength member
4 PVC hoses
Fillers
PVC sheath
Polyurethane outer sheath



Outer diameter : 63 ± 1 mm

General characteristics

Theoretical breaking load : 5000 daN
Hoses working pressure : 15 bars
Hoses maximum pressure : 50 bars
Operating temperature : -15 to +60 °C
Static bending radius ≥ 250 mm
Dynamic bending radius ≥ 620 mm
Weight in air (hoses filled with water) : 3.64 kg/m
Weight in seawater (hoses filled with water) : 0.34 kg/m

Other constructions and dimensions,
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Tel +86 021 61425100
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e-mail :sales@derulkable.com

On request

“A complete range of special cables, studied and manufactured according to your needs.”

The experience of DERUL CABLE has enabled us to anticipate the evolution of marine and underwater technologies and thus be present with new solutions complying with the specific needs of the off-shore industry, shipbuilding, institutes research, defence and security systems. The multi-disciplinary R&D team and modular production tool, are key to reacting properly to the most variable demand in special cables. We are able to tailor your cable design, bearing in mind all the electrical, mechanical and environmental constraints of your application.

We propose turnkey solutions, integrating the cable connections and terminations. DERUL CABLE makes your cords and harnesses from the connectors of your choice and those especially designed by us.

This catalogue contains a sample range of the DERUL CABLE special cables designed and manufactured over the last 10 years.

SPECIAL CABLES

SUBMARINE

Submarine cables for all types of work and underwater human interventions.

On request

UMBILICAL MULTIFUNCTION/POWER/CONTROL/OPERATION/SIGNAL/VIDEO /FLUID MONOPIECE

Application : Diving Bell

Cable make up

Central aramid fiber strength member
1 hose 3/4"
3 hoses 1/2"
5 hoses 1/4"
3 coaxial cables type KX8
1 shielded power cable 12 x 2.5 mm²
1 communication cable of 7 shielded pairs 0.5 mm²
Overall assembling tape
Polypropylene protection braid

Outer diameter : 81 ± 2 mm

General characteristics

Conductors operating voltage : 250 Volts
Linear resistance :
Conductors 0.5 mm² ≤ 43 Ω/km
Conductors 1 mm² ≤ 21.5 Ω/km
Conductors 2.5 mm² ≤ 9 Ω/km

Coaxial cables :
Characteristic impedance : 75 Ω
Capacitance ≤ 71 pF/m

Strength member breaking load ≥ 6000 daN
Operating temperature : -10 to +60 °C
Static bending radius ? 500 mm
Weight in air (empty hoses) : 3990 g/m
Weight in seawater (empty hoses) : 250 g/m

CABLES TIGHT POWER/SIGNAL/VIDEO

Application : Complement for narguilé of deep-sea diving

Cable make up

1 coaxial cable type KX6
1 pair of conductors 0.75 mm², in extra flexible plain copper, insulated in polyester elastomer, pair sheathed in polyurethane
1 pair of conductors 0.5 mm², in extra flexible tinned copper, insulated in polyester elastomer, pair shielded by aluminum/polyester tape and drain wire, sheathed with polyurethane
Polypropylene yarns fillers
Polyurethane outer sheath

Outer diameter : 13 ± 0.7 mm

General characteristics

Conductors operating voltage : 250 Volts
Linear resistance :
Conductors 0.5 mm² ≤ 44.5 Ω/km
Conductors 0.75 mm² ≤ 28.6 Ω/km

Coaxial cable:
Characteristic impedance : 75 ± 3 Ω
Capacitance : 70 pF/m

Theoretical breaking load of the polypropylene yarns : 55 daN
Operating temperature : -10 to +70 °C
Static bending radius ≥ 75 mm
Dynamic bending radius ≥ 130 mm
Weight in air : 0.16 kg / m
Weight in seawater : 25 g / m

Other constructions and dimensions,
Please contact us.
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SWIMMING POOL

Floating cables for cleaning robots of extra swimming pool flexible.

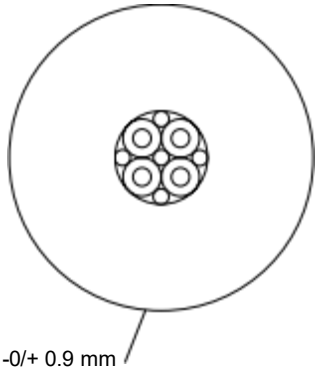
On request

CABLES FLOATING/POWER/COMMANDEAR

Application : Swimming pool robots

Cable make up

4 conductors 0.75 mm², inflexible plain copper, insulated in polyethylene
Low density fillers
Overall assembling tape
Low density polyolefine outer sheath



Outer diameter : 19 mm -0/+ 0.9 mm

General characteristics

Conductors operating voltage : 500 Volts
Conductors linear resistance ≤ 27.3 Ω/km

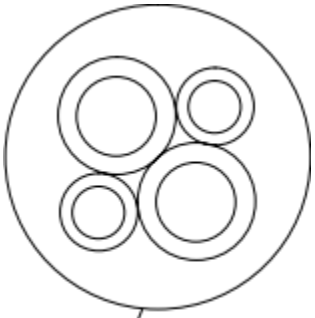
Operating temperature : -15°C to +70°C
Static bending radius ≥ 85 mm
Weight in air : 274 g/m
Weight in seawater : -9.2 g/m

CABLES NONFLOATING/POWER/ORDER

Application : Robots of swimming pool

Cable make up

2 conductors 0.75 mm², inflexible plain copper, insulated in PVC
2 conductors 0.34 mm², inflexible plain copper, insulated in PVC
PVC outer sheath



Outer diameter : 6.4 ± 0.1 mm

General characteristics

Conductors operating voltage : 500 Volts
Linear resistance :
Conductors 0.75 mm² ≤ 27.3 Ω/km
Conductors 0.34 mm² ≤ 59.2 Ω/km

Flame retardant according to IEC 60332-1
Operating temperature : -15 to 75 °C
Static bending radius ≥ 33 mm
Weight : 0.064 kg/m

Other constructions and dimensions,
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e-mail :sales@derulkable.com

AQUACULTURE AND FISHING

On request

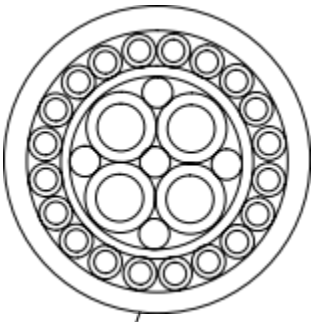
Multifunction immergeables, tight composite cables
for aquacoles farms and halieutic observation
and information system.

CABLES POWER/CONTROL/SIGNAL WITH SHEATH REINFORCED

Application : Connection between the coast and the aquacole farm

Cable make up

4 conductors 2.5 mm², inflexible tinned copper,
insulated in XLPE
Strand shielded by tinned copper braid
20 conductors 0.6 mm², inflexible tinned copper,
insulated in XLPE
Polyurethane outer sheath



Outer diameter :15.7 ± 0.8 mm

General characteristics

Operating voltage :
Conductors 2.5 mm² : 1000 Volts
Conductors 0.6 mm² : 250 Volts
Linear resistance :
Conductors 2.5 mm² ≤ 8.21 Ω/km
Conductors 0.6 mm² ≤ 34 Ω/km

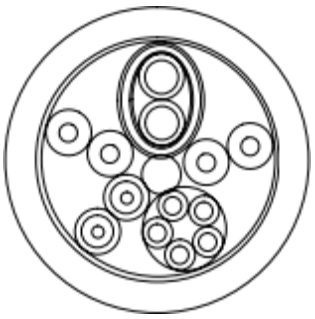
Operating temperature : -15 to 70 °C
Static bending radius ≥ 240 mm
Weight : 0.39 kg/m

CABLES VIDEO POWER/CONTROL/OPERATION/SIGNAL/BY OPTICAL FIBRES

Application : Halieutic observation and information system

Cable make up

1 pair 0.75 mm², in extra flexible plain copper,
insulated in polyester elastomer,
pair shielded by tinned copper spinning
2 BUS pairs type RS 422,
pairs of conductors 0.25 mm², in extra flexible
tinned copper, insulated in polypropylene
2 singlemode 9/125 tight-buffered optical fibres,
sheathed with polyurethane
5 conductors 0.25 mm², in extra flexible tinned copper,
insulated in polyester elastomer
Aramid fibre braid
Polyurethane outer sheath



Outer diameter : 10 ± 0.5 mm

General characteristics

Conductors operating voltage : 250 Volts
Linear resistance :
Conductors 0.25 mm² ≤ 80.6 Ω/km
Conductors 0.75 mm² ≤ 27.3 Ω/km
Pairs type RS 422 :
Characteristic impedance : 100 Ω
Capacitance ≤ 60 pF/m

Optical fibres :
Attenuation at 1310 nm < 0.25 dB/km
Attenuation at 1550 nm < 0.40 dB/km

Strength member breaking load : 140 daN
Operating temperature : -15 to +60 °C
Static bending radius ≥ 80 mm
Dynamic bending radius ≥ 150 mm
Weight : 0.11 kg/m

Other constructions and dimensions,
Please contact us.
Tel +86 021 61425100
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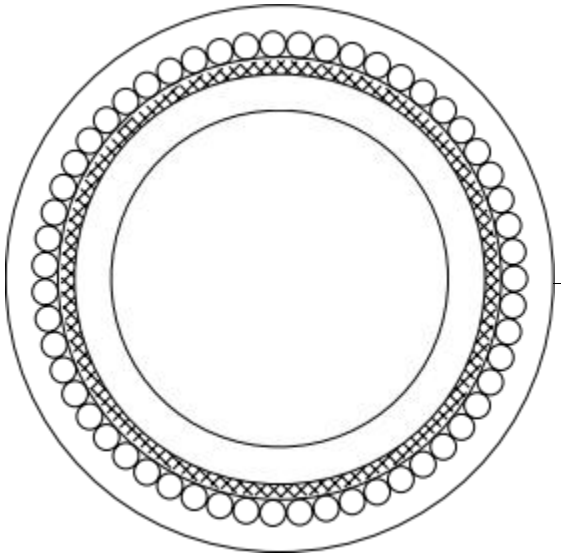
e-mail :sales@derulkable.com

On request

UMBILICAL FOR GAS EXTRACTION EQUIPPED WITH ANCHORING STAINLESS AND LIMITING DEVICE OF CURVE OUT OF PU

Application : This system makes it possible to extract methane gas found during oil extraction, and then to burn it off.



Cable make up

Armored stainless steel hose 2"
Aramid fibre contra-helical double layer strength member
Galvanized steel wire armor
Polyurethane outer sheath

General characteristics

Theoretical breaking strength ≥ 57 000 daN
Dynamic bending radius ≥ 1700 mm
Weight : 7 kg/m

Other constructions and dimensions,
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