

DERUL UNDERWATER SPECIAL CABLE for ROV/SONAR/DIVING...



Derul underwater special cable has been exported to overseas since 2013. These cables are widely used on ROV, underwater sonar, diving, pool cleaner, etc. Several kinds of high quality PUR material are applied on the cable jacket to make sure of the flexibility and working performance underwater. Fine stranded wire is also the key to the excellent cable solutions.

This catalog contains a few typical samples of the many underwater cables which Derul Cable has made or is able to make, for reference. We offer compatible cable solutions for ROV, sonar and other underwater applications.

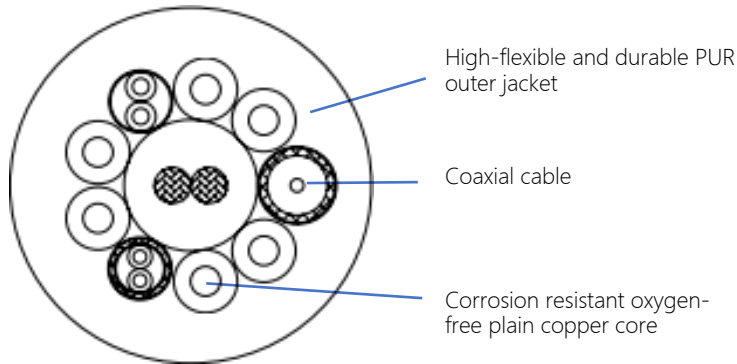


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Derul-HR001 Heavy ROV Cable

This cable is suitable for various types of heavy ROV.

It is designed to be applied with kevlar braiding which provides high tensile capability while keeping the cable's flexibility and bend resistance. The warranty of the cable is long enough to fully realize the overall functions of the vehicle. It is available to be customized into video, signal, power, control or hybrid cable.



Outer diameter : $11.9 \pm 0.1/-0.3$ mm

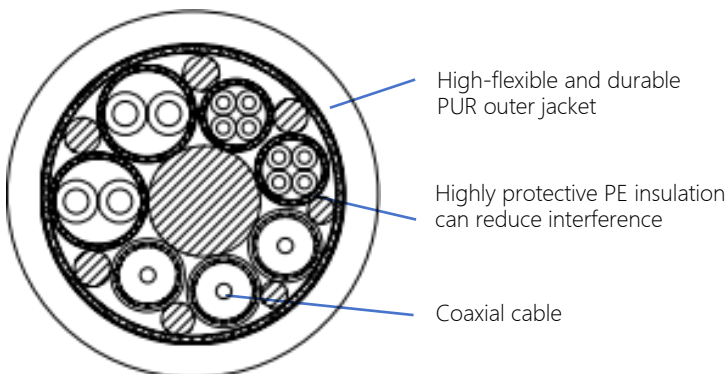
Cable make up:

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

Derul-HR002 Heavy ROV Cable

This cable is suitable for various types of heavy ROV.

It is designed to be applied with kevlar braiding which provides high tensile capability while keeping the cable's flexibility and bend resistance. The warranty of the cable is long enough to fully realize the overall functions of the vehicle. It is available to be customized into video, signal, power, control or hybrid cable.



Outer diameter : 14.5 ± 0.7 mm

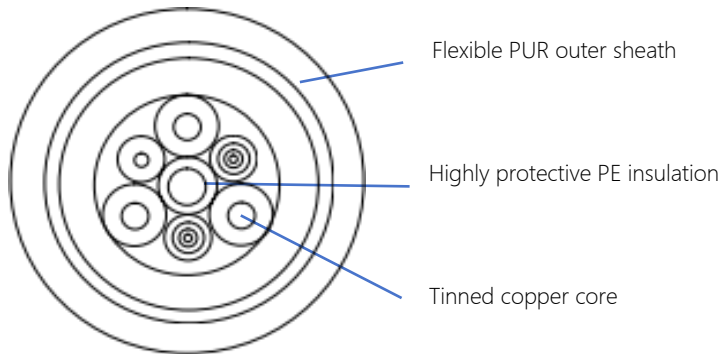
Cable make up:

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

Derul-FR001 Floating ROV Tether

This cable is suitable for various types of ROV.

It is designed to be applied with kevlar braiding which provides high tensile capability while keeping the cable's flexibility and bend resistance. The warranty of the cable is long enough to fully realize the overall functions of the vehicle. It is available to be customized into video, signal, power, control, optic fiber or hybrid cable.

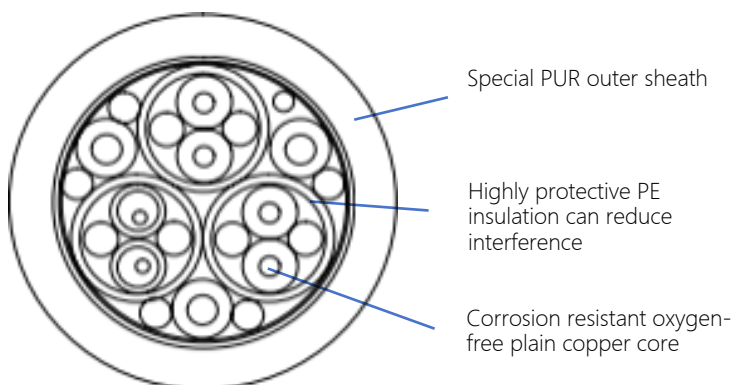


Outer diameter : 15 mm maximum
 Cable make up:
 1 conductor 0.22 mm², in flexible plain copper, insulated in PE
 3 conductors 0.93 mm², in flexible tinned copper, insulated in PE
 3 singlemode 9/125 optical fibres, tight-buffered
 Special polyolefine inner sheath
 Special fibre strength member
 Special PUR outer sheath

Derul-FR002 Floating ROV Tether

This cable is suitable for various types of ROV.

It is designed to be applied with kevlar braiding which provides high tensile capability while keeping the cable's flexibility and bend resistance. The warranty of the cable is long enough to fully realize the overall functions of the vehicle. It is available to be customized into video, signal, power, control, optic fiber or hybrid cable.

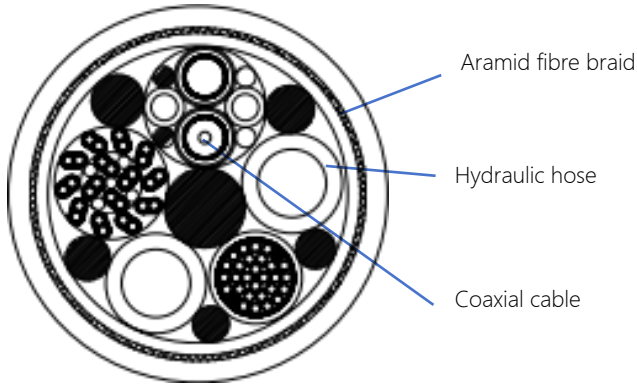


Outer diameter : 14 ± 0.5 mm
 Cable make up:
 3 conductors 0.6 mm², plain copper, insulated in PE
 2 pairs of conductors 0.34 mm², plain copper, insulated in PE, pairs sheathed with special polyolefine
 2 multimode 62.5/125 optical fibres in loose tube
 Stranding with watertightness compound
 Overall shielding by aluminum/polyester tape and drain wire
 Special fibre strength member
 Special PUR outer sheath

Derul-UW001 Underwater Welding Cable

This cable is suitable for various types of underwater welding machine.

It is designed to be applied with kevlar braiding which provides high tensile capability while keeping the cable's flexibility and bend resistance. The warranty of the cable is long enough to fully realize the overall functions of the machine.



Outer diameter : 70 ± 1 mm

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

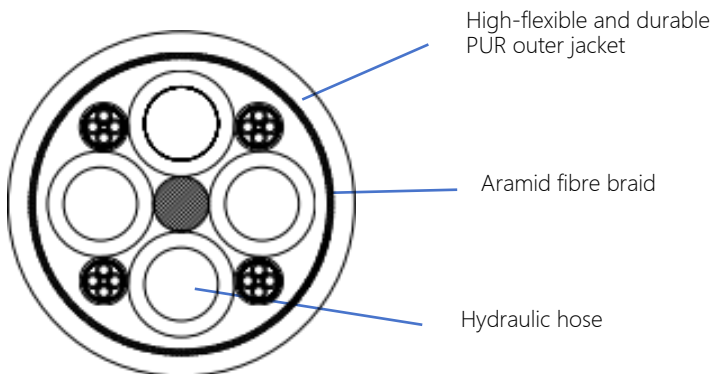
Aramid fibre braid

Polyurethane outer sheath

Derul-UW002 Underwater Welding Cable

This cable is suitable for various types of underwater welding machine.

It is designed to be applied with kevlar braiding which provides high tensile capability while keeping the cable's flexibility and bend resistance. The warranty of the cable is long enough to fully realize the overall functions of the machine.



Outer diameter : 67 ± 1 mm

Cable make up:

4 hoses 1/2" SAE100R8

4 quads of conductors 2.5 mm², insulated in TPE,

quads shielded by a tinned copper braid, under a polyurethane sheath

Polyurethane inner sheath

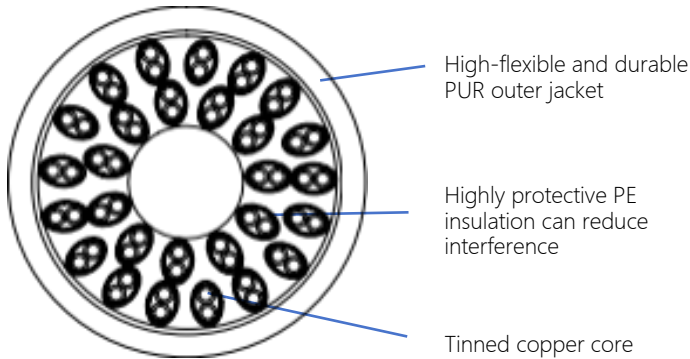
Aramid fibre braid

Polyurethane outer sheath

Derul-US001 Underwater Sonar Cable

This cable is suitable for various types of underwater sonar.

It is designed to be applied with kevlar braiding which provides high tensile capability while keeping the cable's flexibility and bend resistance. The warranty of the cable is long enough to fully realize the overall functions of the sonar.

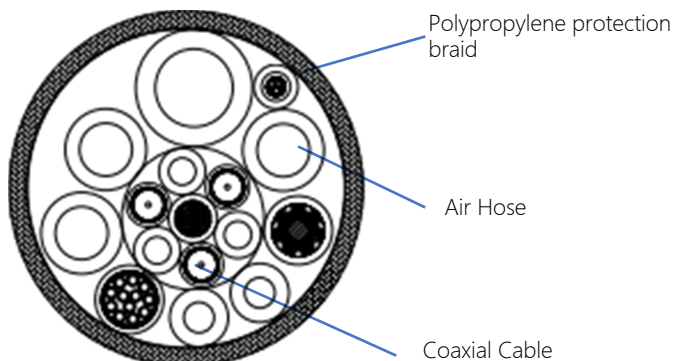


Outer diameter : 25 ± 1 mm
 Cable make up:
 28 pairs of conductors 0.34 mm^2 , in extra flexible tinned copper,
 insulated in PE,
 pairs shielded by tinned copper spinning ,
 sheathed in TPE
 Overall shield by tinned copper braid
 Polyurethane outer sheath

Derul-DU001 Diving Umbilical

This cable is suitable for diving applications.

It is designed to be applied with kevlar braiding which provides high tensile capability while keeping the cable's flexibility and bend resistance. The warranty of the cable is long enough to fully realize its overall functions.

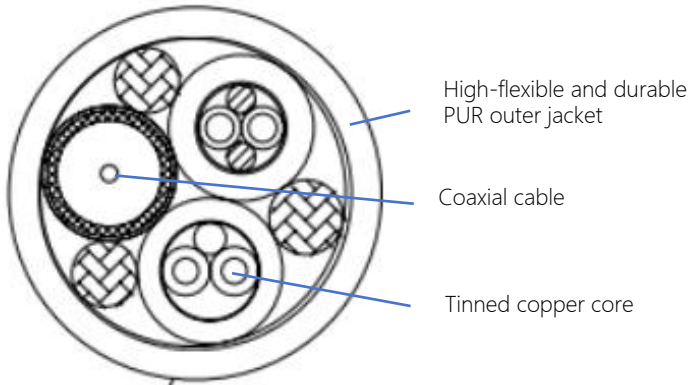


Outer diameter : 81 ± 2 mm
 Cable make up:
 Central aramid fiber strength member
 1 hose $3/4"$
 3 hoses $1/2"$
 5 hoses $1/4"$
 3 coaxial cables type KX8
 1 shielded power cable $12 \times 2.5 \text{ mm}^2$
 1 communication cable of 7 shielded pairs 0.5 mm^2
 Overall assembling tape
 Polypropylene protection braid

Derul-DU002 Diving Umbilical

This cable is suitable for diving applications.

It is designed to be applied with kevlar braiding which provides high tensile capability while keeping the cable's flexibility and bend resistance. The warranty of the cable is long enough to fully realize its overall functions.



Outer diameter : 13 ± 0.7 mm

Cable make up:

1 coaxial cable type KX6

1 pair of conductors 0.75 mm^2 , in extra flexible plain copper, insulated in PE, pair sheathed in polyurethane

1 pair of conductors 0.5 mm^2 , in extra flexible

tinned copper, insulated in PE, pair shielded by aluminum/polyester tape and drain wire, sheathed with polyurethane

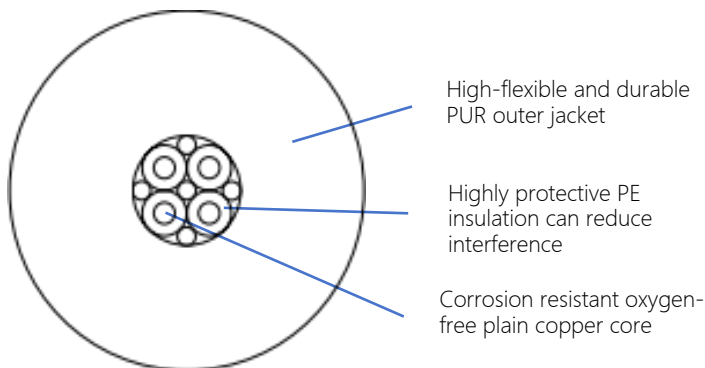
Polypropylene yarns fillers

Polyurethane outer sheath

Derul-SP001 Swimming Pool Cleaner Cable

This cable is suitable for various types of swimming pool cleaning robot.

This cable is neutrally buoyant, and is highly flexible as well, which can perfectly realize the overall function and satisfying performance of the robot.



Outer diameter : $19 \text{ mm } -0/+ 0.9 \text{ mm}$

Cable make up:

4 conductors 0.75 mm^2 , in flexible plain copper, insulated in polyethylene

Low density fillers

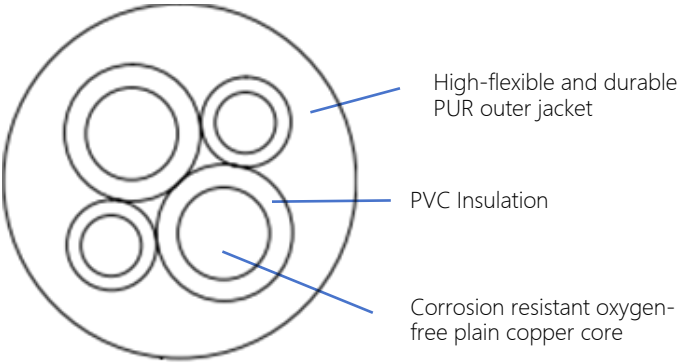
Overall assembling tape

Low density polyolefine outer sheath

Derul-SP002 Swimming Pool Cleaner Cable

This cable is suitable for various types of swimming pool cleaning robot.

This cable is neutrally buoyant, and is highly flexible as well, which can perfectly realize the overall function and satisfying performance of the robot.

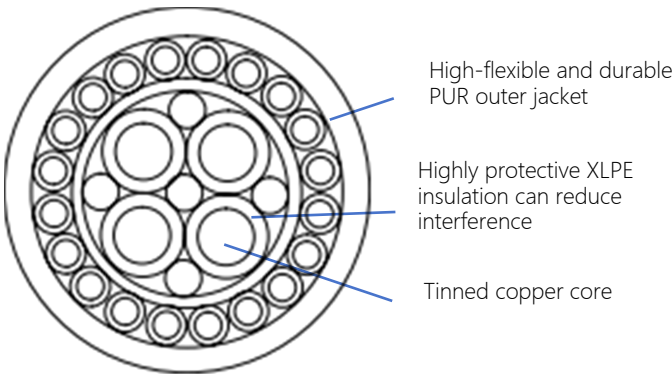


Outer diameter : 6.4 ± 0.1 mm
 Cable make up:
 2 conductors 0.75 mm^2 , in flexible plain copper, insulated in PVC
 2 conductors 0.34 mm^2 , in flexible plain copper, insulated in PVC
 PVC outer sheath

Derul-SF001 Seafarm Cable

This cable is suitable for seafarm application.

The PUR outer sheath is water-proof and high flexible, made of reliable material. The tinned copper used for the wires is corrosion resistant. These features make it an ideal choice for seafarm cable.

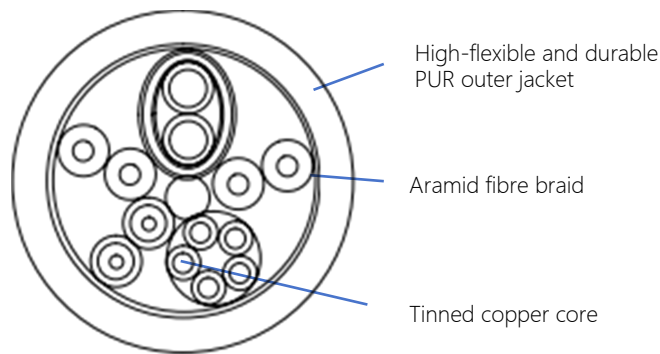


Outer diameter : 15.7 ± 0.8 mm
 Cable make up:
 4 conductors 2.5 mm^2 , in flexible tinned copper, insulated in XLPE
 Strand shielded by tinned copper braid
 20 conductors 0.6 mm^2 , in flexible tinned copper, insulated in XLPE
 Polyurethane outer sheath

Derul-SF002 Seafarm Cable

This cable is suitable for seafarm application.

The PUR outer sheath is water-proof and high flexible, made of reliable material. The tinned copper used for the wires is corrosion resistant. These features make it an ideal choice for seafarm cable.

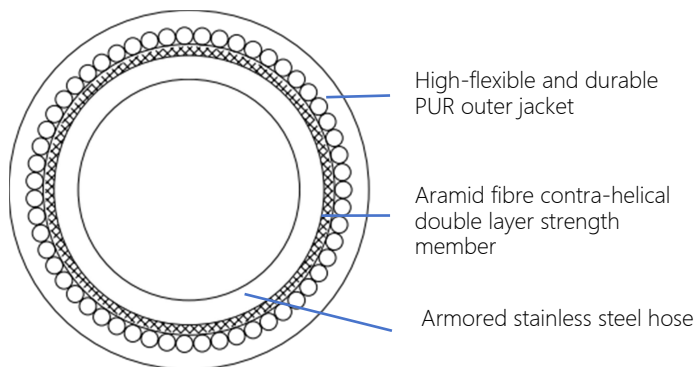


Outer diameter : 6.4 ± 0.1 mm
 Cable make up:
 1 pair 0.75 mm^2 , in extra flexible plain copper, insulated in TPE,
 pair shielded by tinned copper spinning
 2 BUS pairs type RS 422,
 pairs of conductors 0.25 mm^2 , in extra flexible tinned copper, insulated in polypropylene
 2 singlemode 9/125 tight-buffered optical fibres, sheathed with polyurethane
 5 conductors 0.25 mm^2 , in extra flexible tinned copper, insulated in TPE
 Aramid fibre braid
 Polyurethane outer sheath

Derul-SU001 Special Underwater Cable

This cable is suitable for special subsea applications including gas extraction.

The gas hose is armored with stainless steel that will provide high mechanical strength. We also applied high quality PUR outer sheath for the cable.

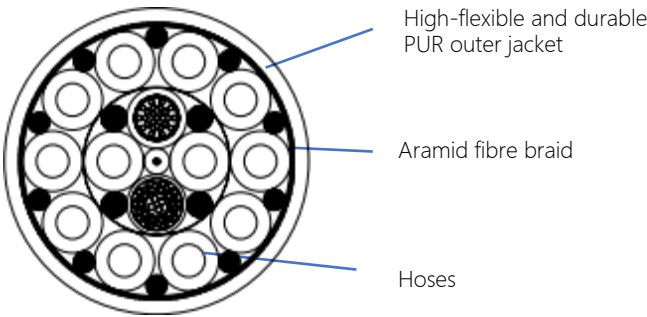


Outer diameter : 84 ± 2 mm
 Cable make up:
 Armored stainless steel hose 2"
 Aramid fibre contra-helical double layer strength member
 Galvanized steel wire armor
 Polyurethane outer sheath

Derul-UVA001 Underwater Valve Cable

This cable is suitable for oil and gas control valves.

Its structure is designed to be with hydraulic hoses, signal, power and strength member. The kevlar braided strength member increases the cable's tensile capability. The flexible PUR sheath ensures the well performance and overall function of the underwater valve.

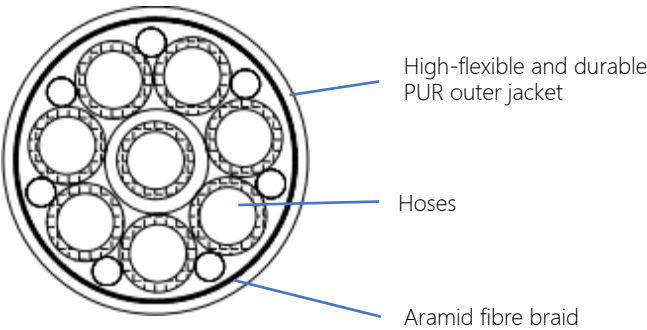


Outer diameter : 83.5 ± 2 mm
 Cable make up
 12 hoses 3/8 "
 12 pairs of conductors 1 mm², in extra flexible plain copper, insulated in TPE, pairs strand shielded by a tinned copper braid, under a polyurethane sheath
 4 conductors 1.5 mm², in extra flexible plain copper, insulated in TPE,
 10 pairs of conductors 1 mm², in extra flexible plain copper, insulated in TPE, pairs shielded by aluminium/polyester tape and drain wire, conductors 1.5 mm² and shielded pairs 1 mm² stranded under a polyurethane sheath
 Polyurethane inner sheath
 Aramid fibre braid
 Polyurethane outer sheath

Derul-UVA002 Underwater Valve Cable

This cable is suitable for oil and gas control valves.

Its structure is designed to be with hydraulic hoses, signal, power and strength member. The kevlar braided strength member increases the cable's tensile capability. The flexible PUR sheath ensures the well performance and overall function of the underwater valve.

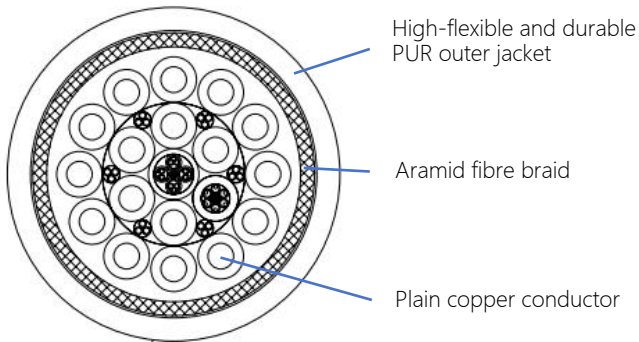


Outer diameter : 84 ± 2 mm
 Cable make up
 8 hoses 1/2" SAE100R8
 Copper fillers ballast
 Polyurethane inner sheath
 Aramid fibre braid
 Polyurethane outer sheath

Derul-UM001 Underwater Machine Cable

This cable is suitable for underwater machines for applications like trenching and burying machine.

The cable is flexible and tight so that it can be used in many underwater works. Its structure is designed to be with signal, power, control and fiber optic. The strength member is applied to ensure the tensile capability.

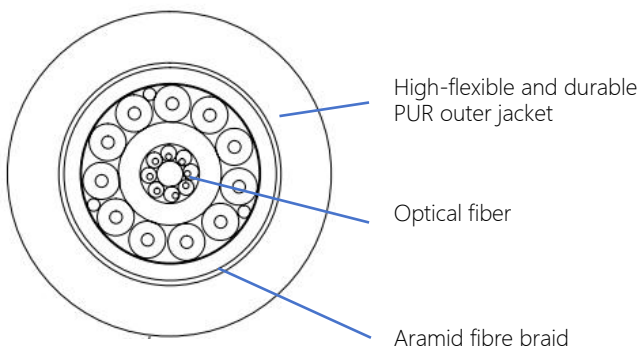


Outer diameter : 76 ± 1 mm
 Cable makeup
 12 multimode 62.5/125 optical fibres, in 6 loose tubes stranded under a polyurethane sheath
 4 pairs of conductors 0.22mm^2 , in flexible tinned copper, insulated in XLPE, pairs shielded by aluminum/polyester tape and drain wire, under a XLPE sheath
 6 triplets of conductors 1mm^2 , in extra flexible plain copper, insulated in TPE
 17 conductors 25mm^2 , in flexible plain copper, insulated in XLPE
 Stranding with watertightness compound
 Polyurethane innersheath
 Aramid fibre contra-helical double layer strength member
 Polyurethane outer sheath

Derul-UM002 Underwater Machine Cable

This cable is suitable for underwater machines for applications like trenching and burying machine.

The cable is flexible and tight so that it can be used in many underwater works. Its structure is designed to be with signal, power, control and fiber optic. The strength member is applied to ensure the tensile capability.

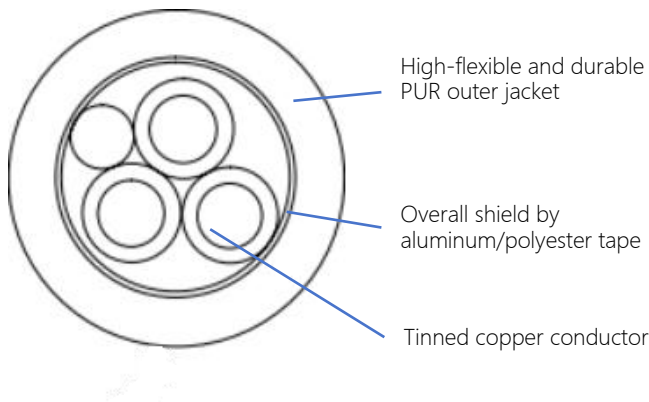


Outer diameter : $42 \pm 0.5\text{mm}$
 Cable make up
 8 singlemode 9/125 optical fibres in loose tubes, tubes stranded under a polyolefine sheath
 11 conductors 1.2mm^2 , in flexible plain copper, insulated in special polyolefine
 3 conductors 1.2mm^2 in flexible plain copper
 Aluminum tape armoring
 Polyolefine inner sheath
 Fibre braid strength member
 PUR outer sheath

Derul-US001 Underwater Static Cable

This cable is suitable for underwater robots for captor, sensor, video, equipped arm, etc...

The cable is flexible and tight so that it can be used for many underwater robots. Its structure is designed to be underwater shielded power cable.

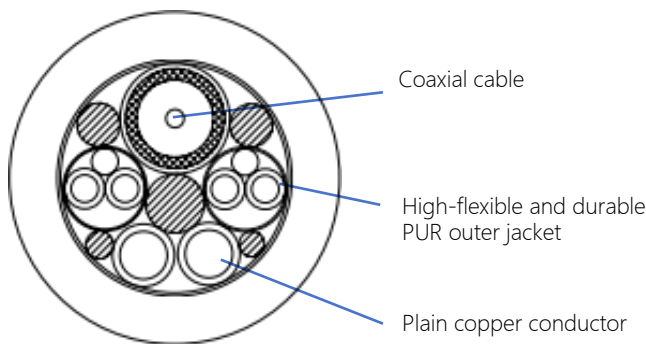


Outer diameter : 8.5 ± 0.4 mm
 3 conductors 1 mm^2 , in flexible tinned copper,
 insulated in XLPE
 Overall shield by aluminum/polyester tape
 and drain wire
 Polyurethane outer sheath

Derul-SE001 Underwater Sensor Cable

This cable is suitable for underwater sensors.

The cable is flexible and tight so that it can be used for many underwater sensors. Its structure is designed to be with signal, power and video. The strength member is applied to ensure the tensile capability. It can ensure the precision of the underwater metering.

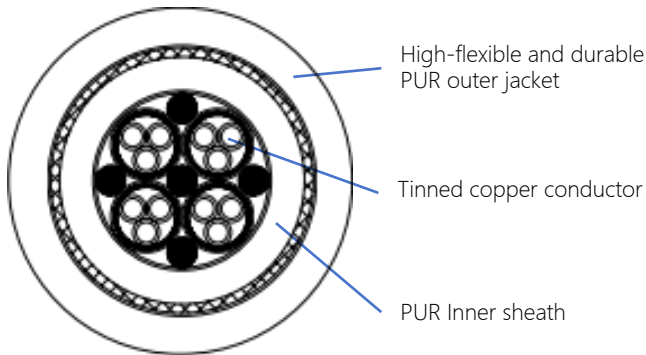


Outer diameter : 9 mm Max
 Cable make up
 1 coaxial cable $75\ \Omega$
 2 pairs of conductors 0.34 mm^2 , in extra flexible
 tinned copper, insulated in TPE,
 pairs shielded by aluminum/polyester tape
 and drain wire
 2 conductors 1 mm^2 , in extra flexible plain
 copper,
 insulated in TPE
 Polyurethane outer sheath

Derul-DS001 Underwater Detection System Cable

This cable is suitable for various underwater detection system.

The cable is watertight, with a long lifespan. Manufactured with reliable material, high strength stainless steel braid armoring, it can be the perfect cable choice for magnetic detection.

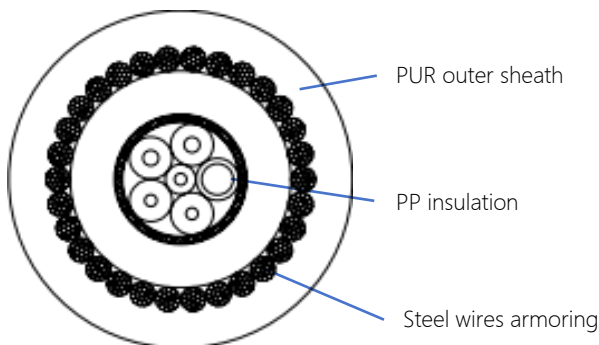


Outer diameter : 25 ± 0.5 mm
 Cable make up
 4 triplets type KU 06-16
 triplets of conductors 1.34 mm^2 , in flexible tinned copper, insulated in ETFE
 triplets shielded by tinned copper braid, sheathed in ETFE
 Polyethylene inner sheath
 Stainless steel braid armoring with watertightness compound
 Polyethylene outer sheath

Derul-DS002 Underwater Detection System Cable

This cable is suitable for various underwater detection system.

The cable is watertight, with a long lifespan. Manufactured with reliable material, high strength stainless steel braid armoring, it can be the perfect cable choice for acoustic detection.

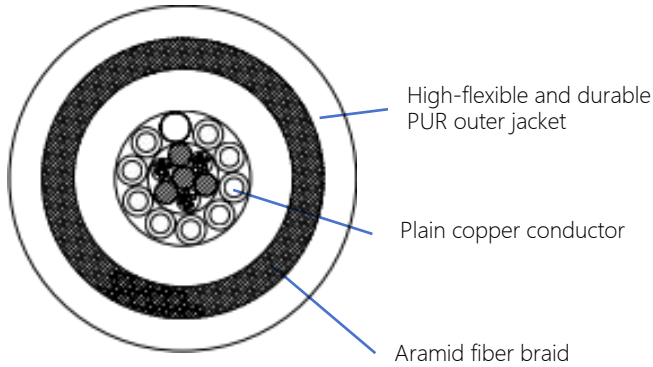


Outer diameter : 28 ± 1 mm
 Cable make up
 3 conductors 0.6 mm^2 , in flexible plain copper, insulated in polyethylene
 2 conductors 1 mm^2 , in flexible plain copper, insulated in polyethylene
 1 conductor 4 mm^2 , in flexible plain copper, insulated in polypropylene
 Stranding with watertightness compound
 Overall shield by copper braid
 HDPE inner sheath
 Galvanized steel wires armoring
 Polyurethane outer sheath

Derul-O001 Oceanographic Cable

This cable is suitable for oceanographic works.

It is designed to be a hybrid electrical and fiber optic cable, with aramid fiber braid as strength member. It can be used for oceanographic works such as electromagnetic and optic detection instruments (radio- telescope, seismograph...).

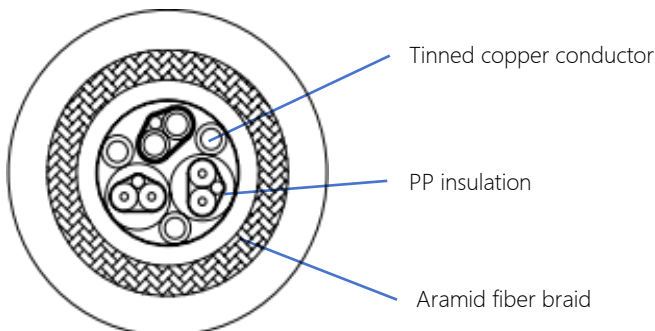


Outer diameter : $30 \pm 0.5\text{mm}$
 Cable make up
 21 singlemode 9/125 optical fibres
 in stainless steel loose tube (7 fibres
 9 conductors 1 mm^2 , in flexible plain
 insulated in XLPE
 Stranding with silicone compound
 Polyethylene inner sheath
 Aramid fibre braid
 Polyurethane outer sheath

Derul-O002 Oceanographic Cable

This cable is suitable for oceanographic works.

It is designed to be a hybrid electrical and fiber optic cable, with aramid fiber braid as strength member. It can be used for oceanographic works such as seismic instrumentation (- 2000m).



Outer diameter : $24 \pm 1\text{ mm}$
 Cable make up
 2 pairs of conductors 0.22 mm^2 , in flexible
 tinned
 copper, insulated in polypropylene,
 pairs shielded by aluminum/polyester tape
 and drain wire, sheathed in PVC
 1 pair of conductors 1.5 mm^2 , in extra
 flexible
 plain copper, insulated in polyester
 elastomer,
 pair shielded by aluminum/polyester tape
 and drain wire
 3 Conductors 1.5 mm^2 (filling + ballast)
 Stranding with watertightness compound
 HDPE inner sheath
 Aramid fibre braid
 HDPE outer sheath