Caledonian

Composite Cables

Addison

Company Profile

Caledonian. established in 1978.offers one of the most complete lines of fiber and copper cabling system solutions with over hundreds of different cabling system products. . Our superior products provide leading edge within every cable series and for every application.

Among the national and international standards with which our cables could comply are: BS - British Standard; LPCB Fire Performance Standard. ISO Standard etc. Caledonian Cables offers a comprehensive stock of cables and cabling products through its nationwide network of resellers and distributors. Caledonian Cables has continually expanded its global presence in Europe and Asia.

Caledonian & Addison. produces a wide range of cables for communication. power and electronics in its primary plants in UK. Italy and Spain. To stay in front. we continually keep expanding our manufacturing capabilities in more low cost region such as Romania. Taiwan. Malaysia etc. This low-cost manufacturing facilities enable us provide a flexible. scalable global system that delivers superior operational performance and optimal results for our customers.

Our extensive global network of manufacturing facilities gives us significant scale and the flexibility to fulfill our customer requirements. This global presence provides design and consultancy solutions that are combined with core cable manufacturing. logistic services. and vertically integrated with our E commerce technologies. to optimize customer operations by lowering costs and reducing time to market.

Caledonian & Addison has been respected for its high standards of quality. excellent service level. competitive pricing and a unique and innovative spirit. With our latest technologies. we are both inspired and well-positioned to meet the changing needs of our customers. We have the resources to diversify and to enhance our product lines and services. We understand the need for change and with our accurate planning. we are ready for the future and the promise of new marketing opportunities. Our tradition of growth through excellence is assured.

Our Design Centers work closely with customers to constantly improve its standard range of products and technologies and to develop customized. country and industry-specific solutions. Caledonian & Addison has established an extensive network of design. manufacturing. and logistics facilities in the world's major markets to serve the growing outsourcing needs of both multinational and regional customers.

Our Certificate

INTERNATIONAL FIRST CERTIFICATION

INTERNATIONAL FIRST CERTIFICATION

CERTIFICATE

Caledonian Cables Limited

20-22 Wenlock Road London N1 7GU England

Novus Seahami Spectrum 7 Spectrum Business Park Seaham Sr7 7tt, England

IFC Global Certification confirms that the above-named organization's management system has been assessed and complies with the requirements of the following standard.

Standard:

ISO 9001:2015

Scope:

Manufacture, design, supply, installation, assembly, commissioning, testing and maintenance of LV/MV/HV energy cables, data cables,instrumentation cables, telecommunication cables,fibre optic cables,railway cables, rolling stock cables, photovoltaic cables, marine cables, cabling system, cable accessories, ABC,AAC, ACSR, AAAC, power and distribution transformers, switchgears, communication systems, IT systems

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Approval

IFC GLOBAL SERTIFIKASYON MUAYENE VE EGITIM HIZMETLERI ANONIM SIRKETI

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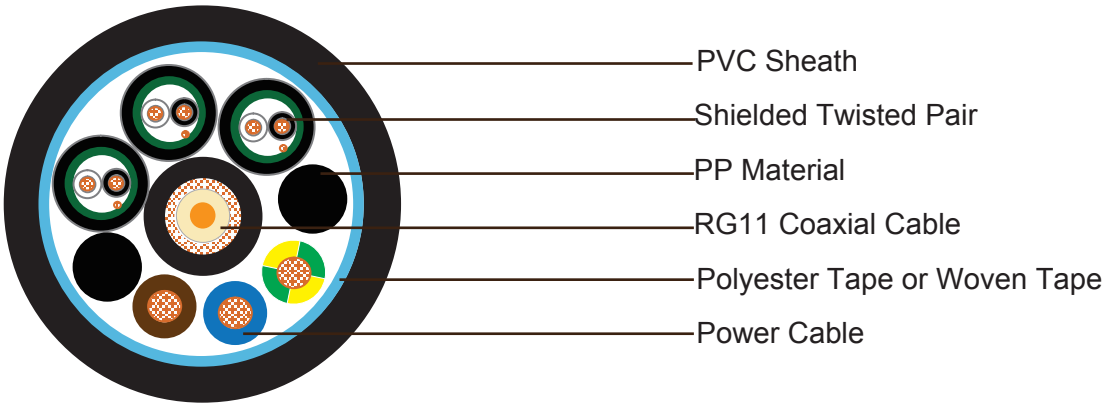
Construction:



1x75Ohm RG11 Coaxial Cable (in the center of the cable core)

Conductor	1.63mm Solid bare copper
Insulation	Polyethylene. Diameter 7.25mm.
Shield	Braid of bare copper wire. Coverage 95%
Sheath	PVC sheath. Nominal outer diameter is 10.3mm.
Sheath Color	Black

3x1x2x22AWG Shielded Twisted Pair (around coaxial cable)

Conductor	7/0.254mm Stranded tinned copper.
Insulation	PVC material. Thickness 0.50mm.
Insulation Color	White and black
Individual Shield	Aluminum polyester tape
Drain Wire	24 AWG stranded tinned copper
Sheath	PVC sheath. Nominal outer diameter 4.8mm. Thickness 0.76mm.
Sheath Color	Black with white number code

3x2.5mm² Power Cable (around coaxial cable)

Conductor	2.5mm² Stranded tinned copper wire.
Insulation	XLPE. Outer diameter 3.41mm
Insulation Color	Blue, Brown and Green/Yellow

Element Assembly

Filler	PP material (around coaxial cable)
Wrapping Tape	Polyester tape or woven tape
Outer Sheath	PVC, thickness 1.6mm, nominal outer diameter 25.0mm
Sheath Color	Black
Cable weight	480kg/km

Electrical and Physical Properties@20°C:

Coaxial Cable

Impedance: 75±3Ohm (@1MHz)

Max. Attenuation: 3.3dB/100m @50MHz

Power Cable

Electrical Resistance: 7.41Ohm/km

Insulation Resistance: ≥5500 MOhmxkm

Data Pairs

Electrical Resistance: 49Ohm/km

Insulation Resistance: ≥1000 MOhmxkm

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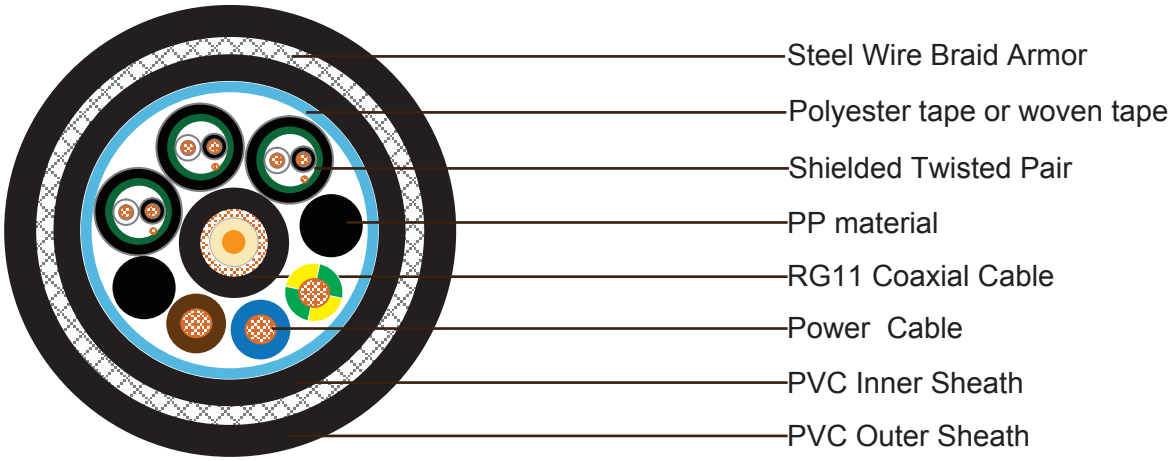
1x RG11 + 3x2.5 Power Cable + 3x1x2x22AWG Data Pairs SWB PVC Sheathed Composite Cable

Construction:



1x75Ohm RG11 Coaxial Cable (in the center of the cable core)

Conductor	1.63mm Solid bare copper
Insulation	Polyethylene. Diameter 7.25mm.
Shield	Braid of bare copper wire. Coverage 95%
Sheath	PVC sheath. Nominal outer diameter is 10.3mm.
Sheath Color	Black

3x1x2x22AWG Shielded Twisted Pair (around coaxial cable)

Conductor	7/0.254mm Stranded tinned copper.
Insulation	PVC material. Thickness 0.50mm.
Insulation Color	White and black
Individual Shield	Aluminum polyester tape
Drain Wire	24 AWG stranded tinned copper

Sheath	PVC sheath. Thickness 0.8mm.
Sheath Color	Black with white number code

3x2.5mm² Power Cable (around coaxial cable)

Conductor	2.5mm² Stranded tinned copper wire.
Insulation	XLPE. Outer diameter 3.41mm
Insulation Color	Blue, Brown and Green/Yellow

Element Assembly

Filler	PP material (around coaxial cable)
Wrapping Tape	Polyester tape or woven tape.
Inner Sheath	Black PVC, thickness 1.0mm
Armor	Steel wire braid, dia. 0.2mm, coverage 85%
Outer Sheath	PVC, thickness 1.8mm, nominal outer diameter 28.3mm
Sheath Color	Black
Cable weight	550kg/km

Electrical and Physical Properties@20°C:

Coaxial Cable

Impedance: 75±3Ohm (@1MHz)

Max. Attenuation: 3.3dB/100m @50MHz

Power Cable

Electrical Resistance: 7.41Ohm/km

Insulation Resistance: ≥5500 MOhmxkm

Data Pairs

Electrical Resistance: 49Ohm/km

Insulation Resistance: ≥1000 MOhmxkm

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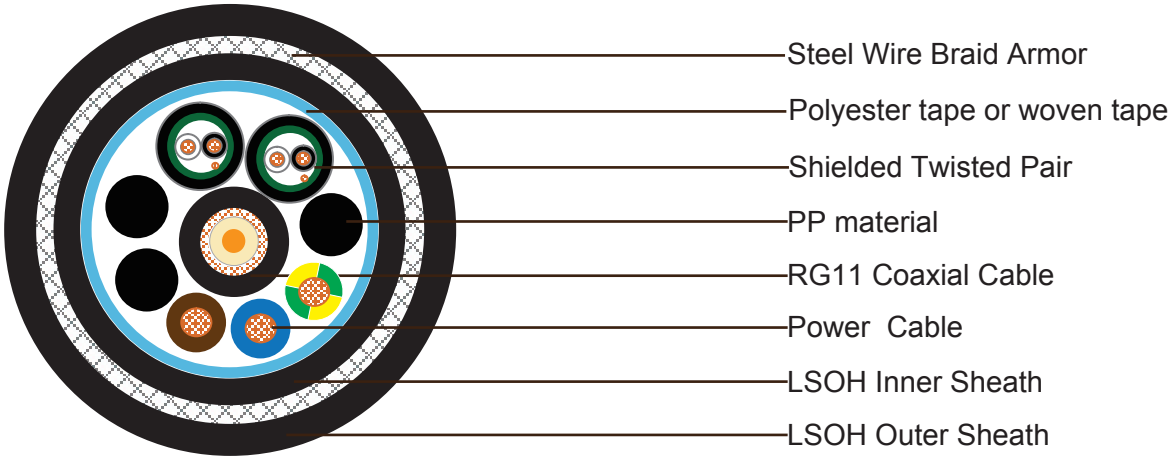
1xRG11 + 3x3 Power Cable + 2x1x2x24AWG Data Pairs SWB LSZH Sheathed Composite Cable

Construction:



1x75Ohm RG11 Coaxial Cable(in the center of the cable core)

Conductor	1.63mm Solid bare copper
Insulation	Polyethylene. Diameter 7.25mm.
Shield	Braid of bare copper wire. Coverage 95%
Sheath	LSZH sheath. Nominal outer diameter is 10.3mm.
Sheath Color	Black

2x1x2x24AWG Shielded Twisted Pair (around coaxial cable)

Conductor	7/0.2mm Stranded tinned copper.
Insulation	PVC material. Thickness 0.47mm.
Insulation Color	White and black
Individual Shield	Aluminum polyester tape
Drain Wire	24 AWG stranded tinned copper

Sheath	LSZH sheath. Nominal outer diameter 4.8mm. Thickness 0.76mm.
Sheath Color	Black and Grey

3x3mm² Power Cable (around coaxial cable)

Conductor	12AWG (3mm² Stranded tinned copper wire.
Insulation	XLPE. Thickness 0.85mm. Outer diameter 3.65mm
Insulation Color	Blue, Brown and Green/Yellow

Element Assembly

Filler	PP material (around coaxial cable)
Wrapping Tape	Polyester tape.
Inner Sheath	Black LSZH, thickness 0.8mm
Armor	Stainless steel wire braid, coverage 85%
Outer Sheath	LSZH, thickness 1.5mm, nominal outer diameter 26.0mm
Sheath Color	Black

Electrical and Physical Properties@20°C:

Coaxial Cable

Impedance: 75±3Ohm (@1MHz)

Max. Attenuation: 3.3dB/100m @50MHz

Power Cable

Electrical Resistance: 6.6Ohm/km

Insulation Resistance: ≥5500 MOhmxkm

Data Pairs

Electrical Resistance: 90Ohm/km

Insulation Resistance: ≥1000 MOhmxkm

Element Assembly

Min Bending Radius: 420mm

Operating Temperature: -35°C/+80°C

Fire Performance:

Flame Propagation: IEC60332-1

Low Smoke Capacity: IEC61034-1/2

Halogen Free: IEC60754-1/2

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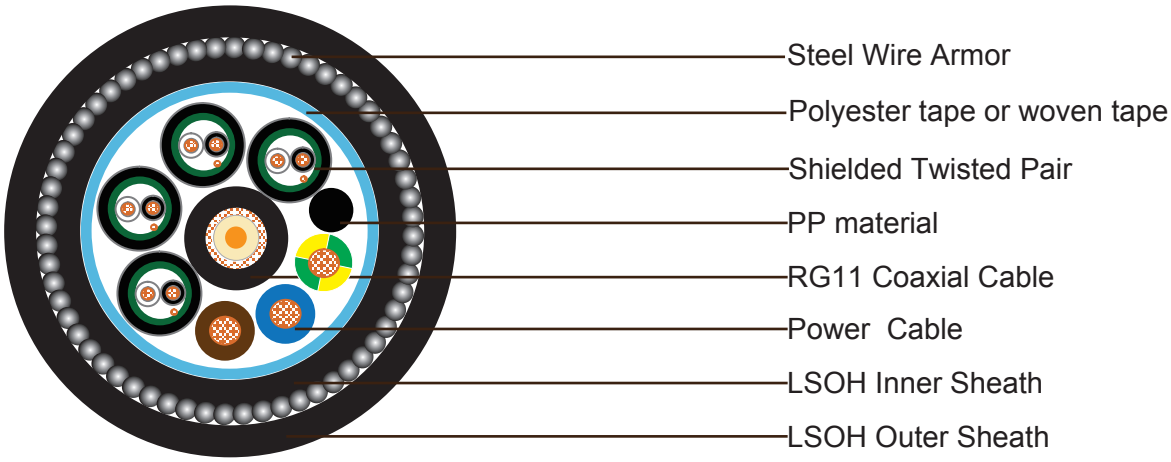
1x RG11 + 3x2.5 Power Cable + 4x1x2x24AWG Data Pairs SWA LSZH Sheathed Composite Cable

Construction:



1x75Ohm RG11 Coaxial Cable (in the center of the cable core)

Conductor	1.63mm Solid bare copper
Insulation	Polyethylene. Diameter 7.25mm.
Shield	Braid of bare copper wire. Coverage 95%
Sheath	LSZH sheath. Nominal outer diameter is 10.3mm.
Sheath Color	Black

4x1x2x24AWG Shielded Twisted Pair data cable (around coaxial cable)

Conductor	7/0.2mm Stranded tinned copper.
Insulation	PVC material. Thickness 0.5mm.
Insulation Color	White and black
Individual Shield	Aluminum polyester tape
Drain Wire	24 AWG stranded tinned copper

Sheath	LSZH sheath. Thickness 0.80mm.
Sheath Color	Black with white number code

3x2.5mm² Power Cable (around coaxial cable)

Conductor	2.5mm² Stranded tinned copper wire.
Insulation	XLPE. Outer diameter 3.41mm
Insulation Color	Blue, Brown and Green/Yellow

Element Assembly

Filler	PP material (around coaxial cable)
Wrapping Tape	Polyester tape or woven tape
Inner Sheath	Black LSZH, thickness 1.1mm
Armor	Steel wire armor, dia. 1.25mm
Outer Sheath	LSZH, thickness 1.8mm, nominal outer diameter 26.0±1.0mm
Sheath Color	Black
Cable Weight	1100kg/km

Electrical and Physical Properties@20°C:

Coaxial Cable

Impedance: 75±3Ohm (@1MHz)

Max. Attenuation: 3.3dB/100m @50MHz

Power Cable

Electrical Resistance: 7.41Ohm/km

Insulation Resistance: ≥5500 MOhmxkm

Data Pairs

Electrical Resistance: 90Ohm/km

Insulation Resistance: ≥1000 MOhmxkm

Element Assembly

Conductor DC resistance per km@20°C:

24AWG: 95.8ohm/km

2.5mm²: 7.4ohm/km

1.63mm: 9.26ohm/km

Minimum Bending Radius: 312mm

Temperature Range: -10°C~70°C

Fire Performance:

Flame Propagation: IEC60332-1

Low Smoke Capacity: IEC61034-1/2

Halogen Free: IEC60754-1/2

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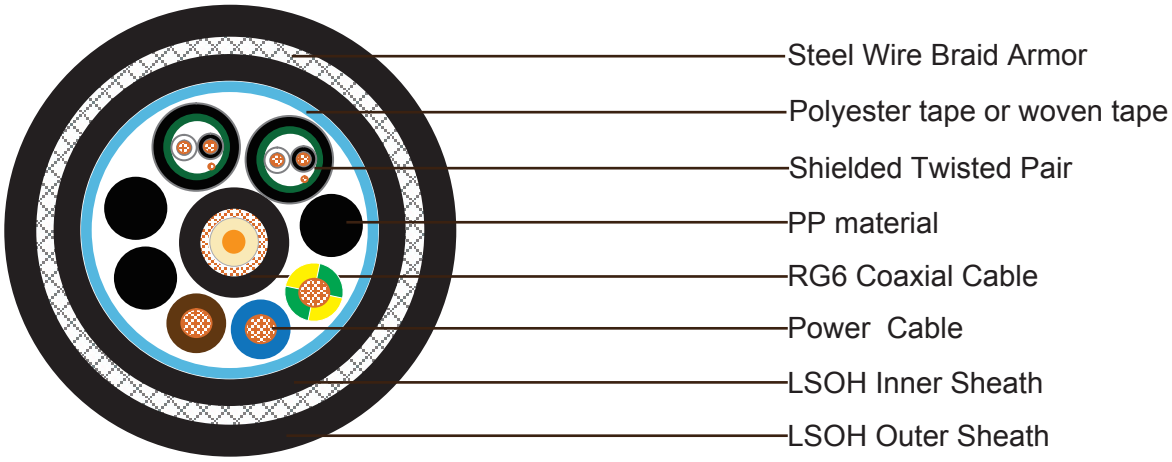
1xRG6 + 3x2.5 Power cable + 2x1x2x22AWG Data Pairs SWB LSZH Sheathed Composite Cable

Construction:



1x75Ohm RG6 Coaxial Cable (in the center of the cable core)

Conductor	1.02mm Solid bare copper
Insulation	Polyethylene. Diameter 4.57mm.
Shield 1	Al-Polyester Tape
Shield 2	Braid of bare copper wire. Coverage: 95%
Sheath	LSZH sheath. Nominal outer diameter is 6.91mm.
Sheath Color	Black

2x1x2x22AWG Shielded Twisted Pair (around coaxial cable)

Conductor	7/0.254mm Stranded tinned copper.
Insulation	PVC material. Thickness 0.50mm.
Insulation Color	White and black
Individual Shield	Aluminum polyester tape

Drain Wire	24 AWG stranded tinned copper
Sheath	LSZH sheath. Thickness 0.5mm.
Sheath Color	Black with white number code

3x2.5mm² Power Cable (around coaxial cable)

Conductor	2.5mm² Stranded tinned copper wire.
Insulation	XLPE. Outer diameter 3.6mm
Insulation Color	Blue, Brown and Green/Yellow

Element Assembly

Filler	PE or PP material
Wrapping Tape	Polyester tape or woven tape
Inner Sheath	Black LSZH, thickness 0.75mm
Armor	Steel wire braid, dia. 0.2mm, coverage 95%
Outer Sheath	LSZH, thickness 1.5mm, nominal outer diameter 21.0mm. Approx.
Sheath Color	Black
Cable Weight	485kg/km

Electrical and Physical Properties@20°C:

Coaxial Cable

Conductor Resistance @ 20°C : 22 ohm/km

Impedance: 75±3Ohm (@1MHz)

Max. Attenuation: 5.2dB/100m @50MHz

Power Cable

Conductor Resistance @ 20°C: 7.41Ohm/km

Insulation Resistance: ≥5500 MOhmxkm

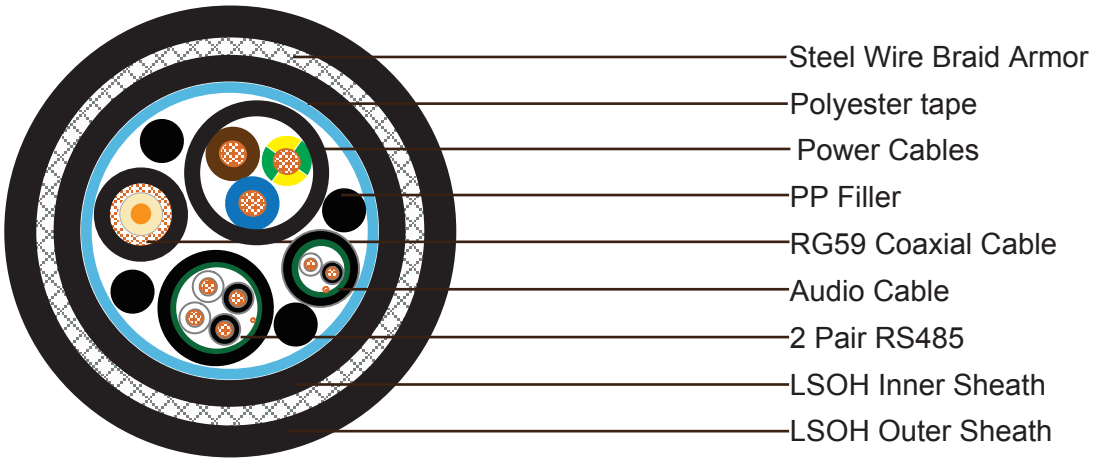
Data Pairs

Electrical Resistance: 49Ohm/km

Insulation Resistance: ≥1000 MOhmxkm

RG59 + 3x2.5 Power cable + 2x2x24AWG RS485 + 1x2x18AWG Audio Cable SWB LSZH Sheathed Composite Cable

Construction:



75Ohm RG59 Coaxial Cable

Conductor	0.81mm Copper Covered Steel Wire
Insulation	Polyethylene. Diameter 3.65mm
Shield	Bonded Al screen and braid of Al-Mg wire. Coverage: 80%
Sheath	LSZH sheath. Nominal outer diameter is 6.1mm
Sheath Color	Black

24AWG RS485

Conductor	24AWG (7/0.2mm Stranded tinned copper to IEC 60228 Class 2 2 pairs
Insulation	Polyethylene. Thickness 0.6mm
Shield	Aluminium polyester tape
Drain Wire	24 AWG stranded tinned copper drain wire
Sheath	LSZH sheath. Nominal outer diameter is 9.0mm
Sheath Color	Black

3x2.5mm² Power Cable

Conductor	2.5mm² Stranded tinned copper wire to IEC 60228 Class 2
Insulation	XLPE. Thickness 0.7mm
Sheath	LSZH sheath. Nominal outer diameter is 12.0mm
Sheath Color	Black

18AWG Audio Cable

Conductor	1 pair 18AWG (16/0.254mm Stranded tinned copper
Insulation	Polyethylene
Shield	Aluminium polyester tape
Drain Wire	24 AWG stranded tinned copper drain wire
Sheath	LSZH sheath. Nominal outer diameter is 6.5mm
Sheath Color	Black

Element Assembly

Filler	PP, PVC or PE
Wrapping Tape	Polyester tape
Inner Sheath	Black LSZH, thickness 0.8-1.0mm
Armor	Steel wire braid, coverage 95%
Outer Sheath	LSZH, thickness 1.6- 1.8mm, nominal outer diameter is 24±2mm
Sheath Color	Black
Cable Weight	730kg/km

Electrical and Physical Properties @20°C:

Coaxial Cable

Impedance: 75±3Ohm (@1MHz)

Nominal Attenuation: 6.72dB/100m @50MHz

RS485

Nominal Impedance: 120±10Ω

Nominal Conductor DC Resistance @20°C: 78.7 Ohm/km

Nominal Attenuation: 1MHz 2.3dB/100m

Power Cable

Electrical Resistance: 7.41Ohm/km

Insulation Resistance: ≥5500 MOhmxkm

Audio Cable

Electrical Resistance: 18.1Ohm/km

Insulation Resistance: ≥1.1 MOhm .km

Element Assembly

Min Bending Radius: 360mm

Operating Temperature: -35°C/+90°C

Fire Performance:

Low Smoke Capacity: IEC61034-1/2

Halogen Free: IEC60754-1/2

Flame Propagation: IEC60332

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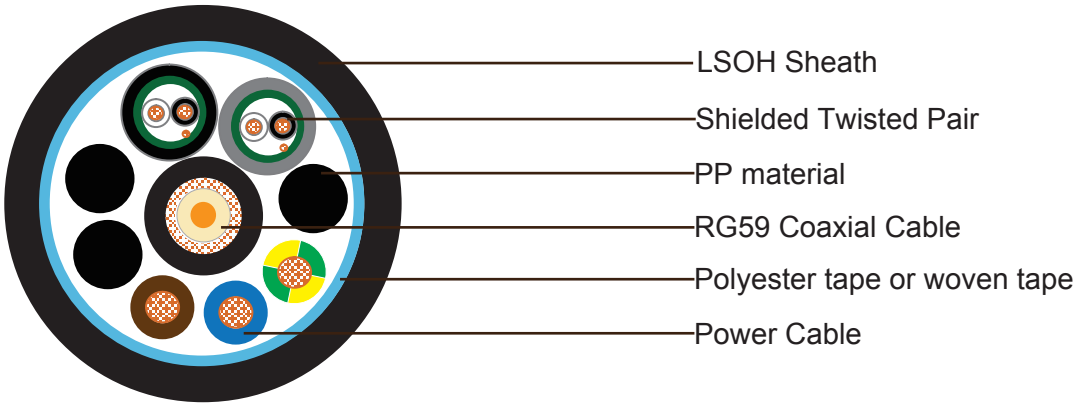
1x RG59 + 3x1.5 Power Cable + 2x1x2x24AWG Data Pairs Unarmored LSZH Sheathed Composite cable

Construction:



1x75Ohm RG59 Coaxial Cable(in the center of the cable core)

Conductor	0.58mm Solid copper conductor
Insulation	Polyethylene. Thickness 1.56mm
Shield	Braid of bare copper wire. Coverage ≥ 95%
Sheath	LSZH sheath. Nominal outer diameter 6.15mm
Sheath Color	Black

2x1x2x24AWG Shielded Twisted Pair (around coaxial cable)

Conductor	7/0.2mm Stranded tinned copper
Insulation	PVC material. Thickness 0.4mm
Insulation Color	Black and white
Shield	Aluminium polyester tape
Drain Wire	24 AWG stranded tinned copper drain wire
Sheath	LSZH sheath. Nominal outer diameter 4.8mm. Thickness 0.76mm
Sheath Color	Black and Grey

3x1.5mm² Power Cable (around coaxial cable)

Conductor	1.5mm² Stranded tinned copper wire
Insulation	XLPE. Nominal outer diameter 3.0mm
Insultion Color	Blue, Brown and Green/Yellow

Element Assembly

Filler	PE or PP material
Wrapping Tape	Polyester tape or woven tape
Outer Sheath	LSZH, nominal outer diameter 16.0±1.0mm
Sheath Color	Black

Electrical and Physical Properties @20°C:

Coaxial Cable

Impedance: 75±3Ohm (@1MHz)

Max. Attenuation: 7.5dB/100m @50MHz

Power Cable

Electrical Resistance: 12.1Ohm/km

Insulation Resistance: ≥5500 MOhmxkm

Data Pairs

Electrical Resistance: 90Ohm/km

Insulation Resistance: ≥1000 MOhmxkm

Element Assembly

Min Bending Radius: 160mm

Operating Temperature: -35°C/+80°C

Fire Performance:

Low Smoke Capacity: IEC61034-1/2

Halogen Free: IEC60754-1/2

Flame Propagation: IEC60332

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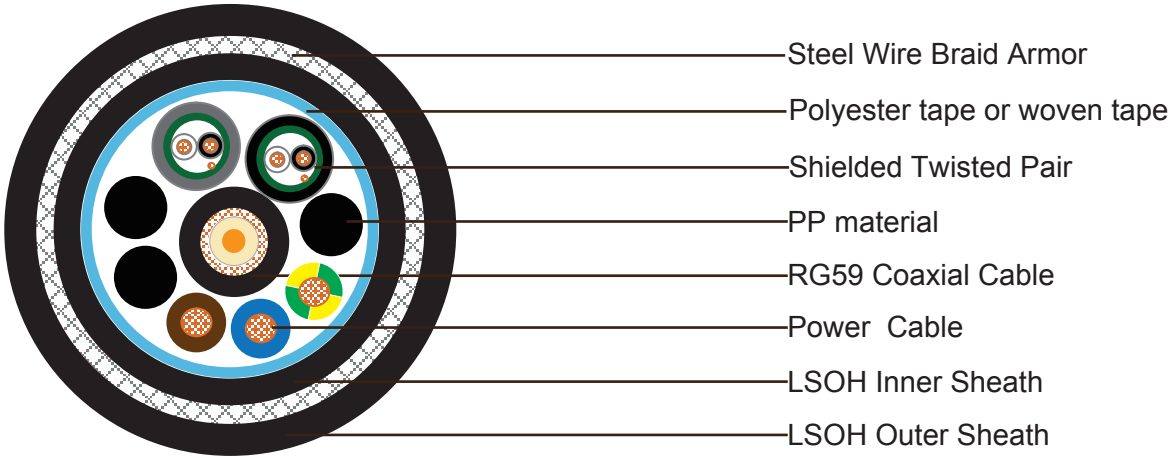
1x RG59 + 3x1.5 Power Cable + 2x1x2x24AWG Data Pairs SWB LSZH Sheathed Composite Cable

Construction:



1x75Ohm RG59 Coaxial Cable(in the center of the cable core)

Conductor	0.58mm Solid copper conductor
Insulation	Polyethylene. Thickness 1.56mm
Shield	Braid of bare copper wire. Coverage ≥ 95%
Sheath	LSZH sheath. Nominal outer diameter 6.15mm
Sheath Color	Black

2x1x2x24AWG Shielded Twisted Pair (around coaxial cable)

Conductor	7/0.2mm Stranded tinned copper
Insulation	PVC material. Thickness 0.4mm
Insulation Color	Black and white
Shield	Aluminium polyester tape
Drain Wire	24 AWG stranded tinned copper drain wire
Sheath	LSZH sheath. Nominal outer diameter 4.8mm. Thickness 0.76mm

Sheath Color	Black and Grey

3x1.5mm² Power Cable (around coaxial cable)

Conductor	1.5mm² Stranded tinned copper wire
Insulation	XLPE. Nominal outer diameter 3.0mm
Insultion Color	Blue, Brown and Green/Yellow

Element Assembly

Filler	PE or PP material
Wrapping Tape	Polyester tape or woven tape
Inner Sheath	Black LSZH, thickness 0.8mm
Armor	Steel wire braid, coverage 85%
Outer Sheath	LSZH, thickness 1.5mm, nominal outer diameter 21.5±2.0mm
Sheath Color	Black

Electrical and Physical Properties @20°C:

Coaxial Cable

Impedance: 75±3Ohm (@1MHz)

Max. Attenuation: 7.5dB/100m @50MHz

Power Cable

Electrical Resistance: 12.1Ohm/km

Insulation Resistance: ≥5500 MOhmxkm

Data Pairs

Electrical Resistance: 90Ohm/km

Insulation Resistance: ≥1000 MOhmxkm

Element Assembly:

Min Bending Radius: 420mm

Operating Temperature: -35°C/+80°C

Fire Performance:

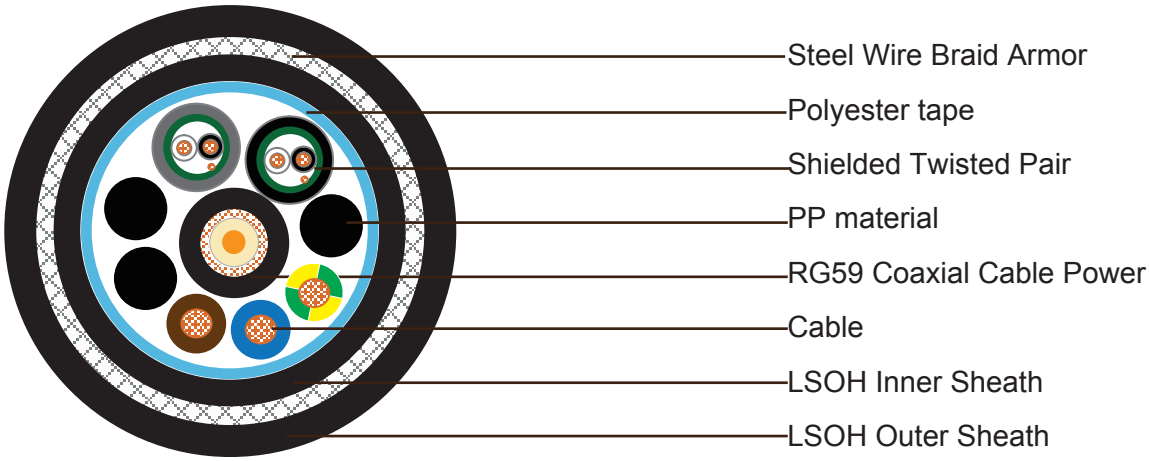
Low Smoke Capacity: IEC61034-1/2

Halogen Free: IEC60754-1/2

Flame Propagation: IEC60332

1xRG59 + 3x3 Power Cable + 2x1x2x24AWG Data Pairs SWB LSZH Sheathed Composite Cable

Construction:



1x75Ohm RG59 Coaxial Cable(in the center of the cable core)

Conductor	0.58 Solid copperweld (CCS).
Insulation	Polyethylene. Thickness 1.56mm
Shield	Braid of bare copper wire. Coverage ≥ 92%
Sheath	LSZH sheath, nominal outer diameter 6.2mm
Sheath Color	Black

2x1x2x24/7 AWG Shielded Twisted Pair (around coaxial cable)

Conductor	7/0.2mm Stranded tinned copper
Insulation	PVC material. Thickness 0.47mm
Insulation Color	Black and white
Shield	Aluminium polyester tape
Drain Wire	24 AWG stranded tinned copper drain wire
Sheath	LSZH sheath. Nominal outer diameter 4.8mm. Thickness 0.76mm
Sheath Color	Black and Grey

3x3mm² Power Cable (around coaxial cable)

Conductor	12AWG (3mm² Stranded tinned copper wire
Insulation	XLPE. Thickness 0.85mm. Outer diameter 3.65mm
Insultion Color	Blue, Brown and Green/Yellow

Element Assembly

Filler	PP material (around coaxial cable)
Wrapping Tape	Polyester tape
Inner Sheath	Black LSZH, thickness 0.8mm
Armor	Steel wire braid, coverage 95%
Outer Sheath	LSZH, thickness 1.5mm, norminal outer diameter 22.0mm
Sheath Color	Black

Electrical and Physical Properties @20°C:

Coaxial Cable

Impedance: 75±3Ohm (@1MHz)

Max. Attenuation: 7.5dB/100m @50MHz

Power Cable

Electrical Resistance: 6.6Ohm/km

Insulation Resistance: ≥5500 MOhmxkm

Data Pairs

Electrical Resistance: 90Ohm/km

Insulation Resistance: ≥1000 MOhmxkm

Element Assembly

Min Bending Radius: 420mm

Operating Temperature: -35°C/+80°C

Fire Performance:

Flame Propagation: IEC60332-1

Low Smoke Capacity: IEC61034-1/2

Halogen Free: IEC60754-1/2

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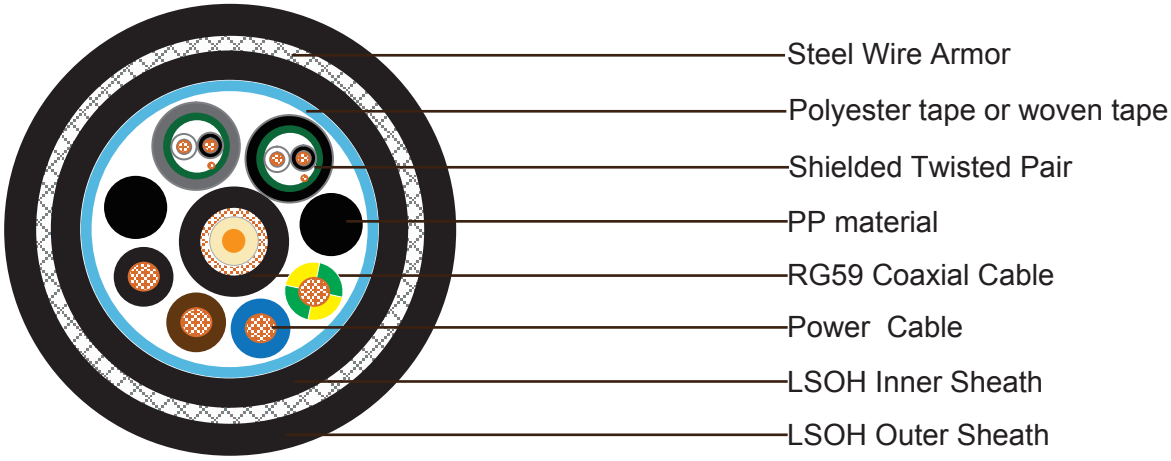
1xRG59 + 4x2.5 Power Cable + 2x1x2x22AWG Data Pairs SWB LSZH Sheathed Composite Cable

Construction:



1x75Ohm RG59 Coaxial Cable(in the center of the cable core)

Conductor	0.58mm Solid copper conductor
Insulation	Polyethylene. Thickness 1.56mm
Shield	Braid of bare copper wire. Coverage ≥ 95%
Sheath	LSZH sheath. Nominal outer diameter 6.15mm
Sheath Color	Black

2x1x2x22AWG Shielded Twisted Pair (around coaxial cable)

Conductor	7/0.254mm Stranded bare copper
Insulation	PVC material. Thickness 0.4mm
Insulation Color	Black and white
Shield	Aluminium polyester tape
Drain Wire	24 AWG stranded tinned copper drain wire
Sheath	LSZH sheath. Nominal outer diameter 5.23mm. Thickness 0.76mm
Sheath Color	Black and Grey

4x2.5mm² Power Cable (around coaxial cable)

Conductor	2.5mm² Stranded bare copper wire
Insulation	XLPE. Nominal outer diameter 3.41mm
Insultion Color	Blue, Brown, Black and Green/Yellow

Element Assembly

Filler	PE or PP material
Wrapping Tape	Polyester tape
Inner Sheath	Black LSZH, thickness 0.8mm
Armor	Steel wire braid, coverage 85%
Outer Sheath	LSZH, thickness 1.5mm, nominal outer diameter is 22.34±2.0mm
Sheath Color	Black
Cable Weight	740kg/km

Electrical and Physical Properties @20°C:

Coaxial Cable

Impedance: 75±3Ohm (@1MHz)

Max. Attenuation: 7.5dB/100m @50MHz

Power Cable

Electrical Resistance: 7.41Ohm/km

Insulation Resistance: ≥5500 MOhmxkm

Data Pairs

Electrical Resistance: 48.4Ohm/km

Insulation Resistance: ≥1000 MOhmxkm

Element Assembly

Min Bending Radius: 420mm

Operating Temperature: -35°C/+80°C

Fire Performance:

Low Smoke Capacity: IEC61034-1/2

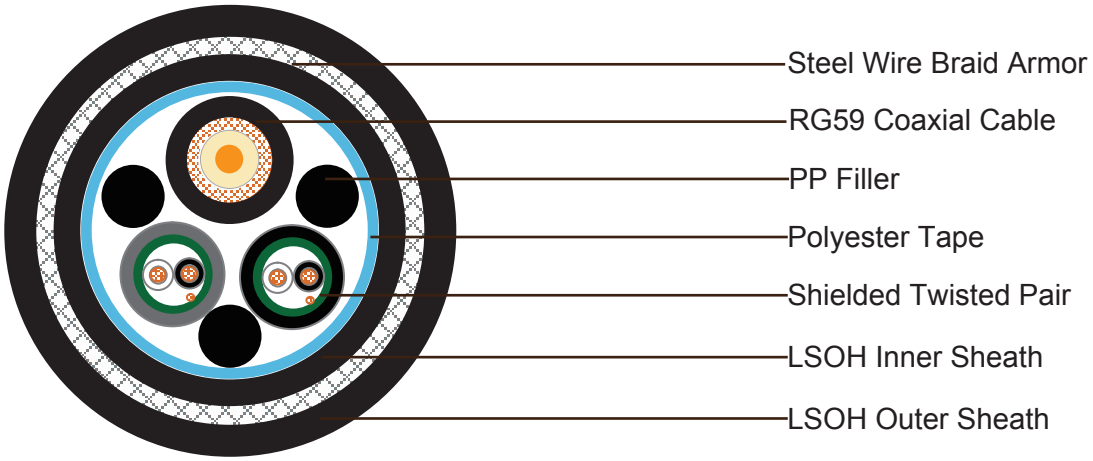
Halogen Free: IEC60754-1/2

Flame Propagation: IEC60332

* The data included in the present catalogue are merely indicative; Caledonian Cables Limited reserves to itself the right to change them as its own discretion in any time.

1xRG59 + 2x1x2x24AWG Data Pairs SWB LSZH Sheathed Composite Cable

Construction:



1x75Ohm RG59 Coaxial Cable

Conductor	0.58mm Solid copper conductor
Insulation	Polyethylene. Thickness 1.56mm
Shield	Braid of bare copper wire. Coverage ≥ 95%
Sheath	LSZH sheath. Nominal outer diameter 6.15mm
Sheath Color	Black

2 x (1 x 2 x 24AWG) Shielded Twisted Pair

Conductor	7/0.2mm Stranded tinned copper
Insulation	PVC material. Thickness 0.6mm
Insulation Color	Black and white
Shield	Aluminium polyester tape
Drain Wire	24 AWG stranded tinned copper drain wire
Sheath	LSZH sheath. Nominal outer diameter 4.8mm. Thickness 0.76mm
Sheath Color	Black and Grey

Element Assembly

Filler	PE or PP material when necessary
Wrapping Tape	Polyester tape or woven tape
Inner Sheath	Black LSZH, thickness 0.8mm
Armor	Steel wire braid, coverage 85%
Outer Sheath	LSZH, thickness 1.5mm, nominal outer diameter is 16.25±2.0mm
Sheath Color	Black
Cable Weight	400kg/km

Electrical and Physical Properties @20°C:

Coaxial Cable

Impedance: 75±3Ohm (@1MHz)

Max. Attenuation: 7.5dB/100m @50MHz

Data Pairs

Electrical Resistance: 90Ohm/km

Insulation Resistance: ≥1000 MOhmxkm

Element Assembly

Min Bending Radius: 420mm

Operating Temperature: -35°C/+80°C

Fire Performance:

Low Smoke Capacity: IEC61034-1/2

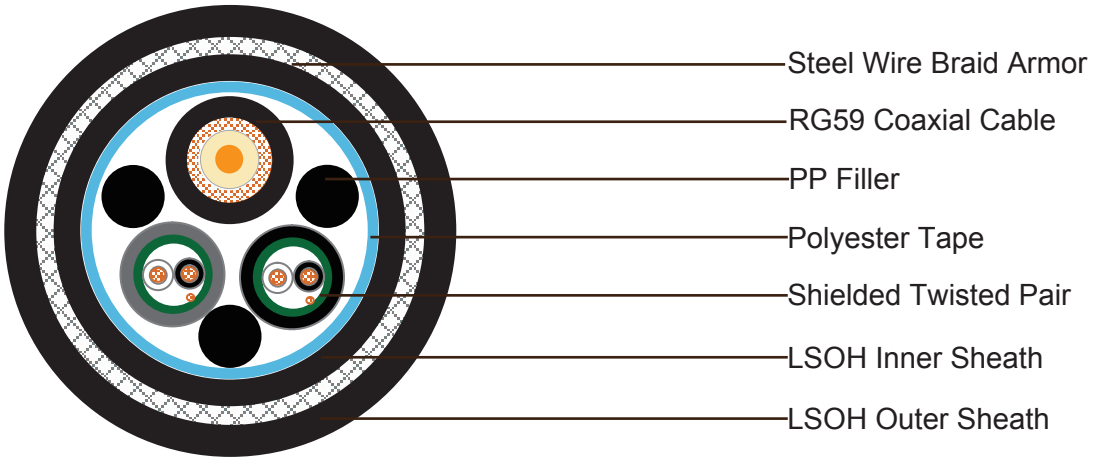
Halogen Free: IEC60754-1/2

Flame Propagation: IEC60332

* The data included in the present catalogue are merely indicative; Caledonian Cables Limited reserves to itself the right to change them as its own discretion in any time.

1xRG59 + 2x1x2x22AWG Data Cable SWB LSZH Sheathed Composite Cable

Construction:



1x75Ohm RG59 Coaxial Cable

Conductor	0.58mm Solid copper conductor
Insulation	Polyethylene. Thickness 1.56mm
Shield	Braid of bare copper wire. Coverage ≥ 85%
Sheath	LSZH sheath. Nominal outer diameter 6.2mm
Sheath Color	Black

2 Pair 22AWG Data Cable

Conductor	7/0.254mm Stranded tinned copper
Insulation	PVC material. Thickness 0.4mm
Insulation Color	Black and white
Shield	Aluminium polyester tape
Drain Wire	7/0.2mm stranded tinned copper drain wire
Sheath	LSZH sheath. Nominal outer diameter 4.8mm.
Sheath Color	Black

Element Assembly

Filler	PP material (around coaxial cable)
Wrapping Tape	Polyester tape
Inner Sheath	Black LSZH, thickness 0.8mm
Armor	Steel wire braid, coverage 95%
Outer Sheath	LSZH, thickness 1.5mm, nominal outer diameter is 18.5mm
Sheath Color	Black

Electrical and Physical Properties @20°C:

Coaxial Cable

Impedance: 75±3Ohm (@1MHz)

Nominal Attenuation: 8.2dB/100m @50MHz

Data Cable

Nominal Conductor Resistance @20°C: 48.4 Ohm/km

Fire Performance:

Flame Propagation: IEC60332

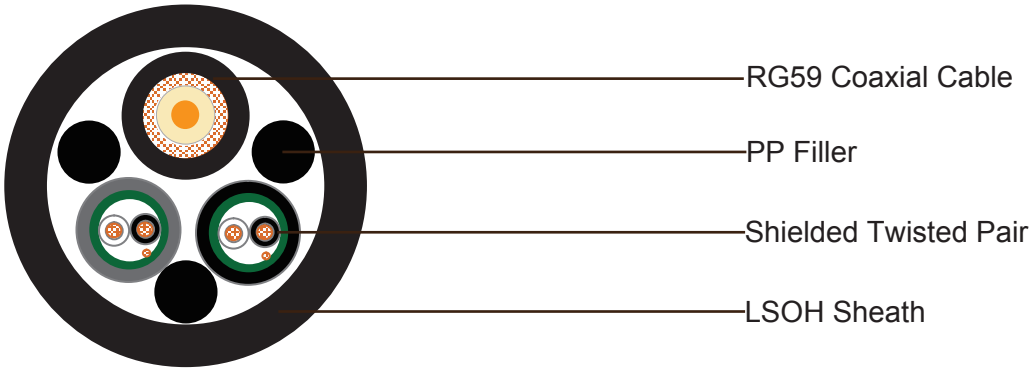
Low Smoke Capacity: IEC61034-1/2

Halogen Free: IEC60754-1/2

* The data included in the present catalogue are merely indicative; Caledonian Cables Limited reserves to itself the right to change them as its own discretion in any time.

1xRG59 + 2x1x2x22AWG Data Cable
Unarmored LSZH Sheathed Composite Cable

Construction:



1x75Ohm RG59 Coaxial Cable

Conductor	0.58mm Solid copper conductor
Insulation	Polyethylene. Thickness 1.56mm
Shield	Braid of bare copper wire. Coverage ≥ 85%
Sheath	LSZH sheath. Nominal outer diameter 6.2mm
Sheath Color	Black

2 Pair 22AWG Data Cable

Conductor	7/0.254mm Stranded tinned copper
Insulation	PE material. Thickness 0.4mm
Insulation Color	Black and white
Shield	Aluminium polyester tape
Drain Wire	7/0.2mm stranded tinned copper drain wire
Sheath	LSZH sheath. Nominal outer diameter 4.8mm.
Sheath Color	Black

Element Assembly

Outer Sheath	LSZH, thickness 1.6- 1.8mm, nominal outer diameter is 15.6mm
Sheath Color	Black

Electrical and Physical Properties @20°C:

Coaxial Cable

Impedance: 75±3Ohm (@1MHz)

Nominal Attenuation: 8.2dB/100m @50MHz

Data Cable

Nominal Conductor Resistance @20°C: 48.4 Ohm/km

Fire Performance:

Flame Propagation: IEC60332

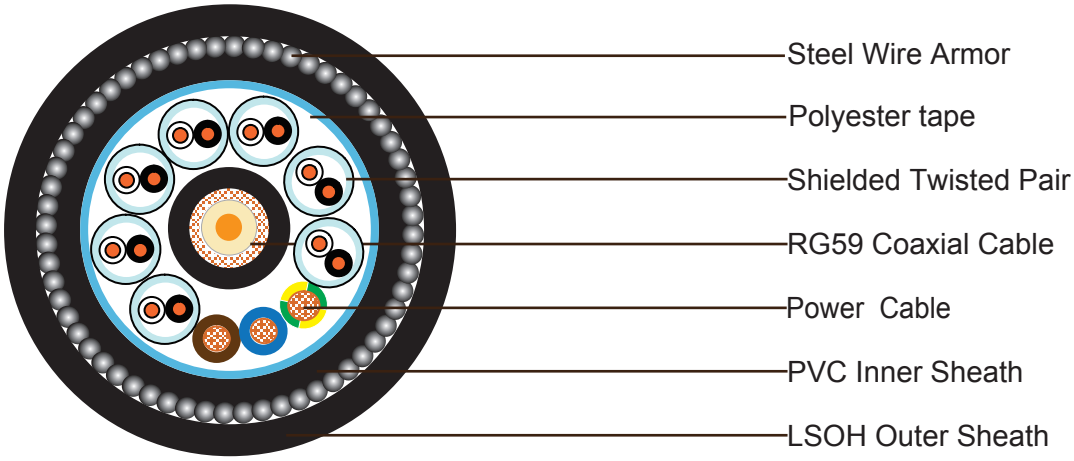
Low Smoke Capacity: IEC61034-1/2

Halogen Free: IEC60754-1/2

* The data included in the present catalogue are merely indicative; Caledonian Cables Limited reserves to itself the right to change them as its own discretion in any time.

1xRG59 + 7x1x2x22AWG Pairs Data Cable+ 3x16AWG Power Cable SWA LSZH Sheathed Composite Cable

Construction:



1x75Ohm RG59 Coaxial Cable

Conductor	0.58mm Solid copper conductor
Insulation	Polyethylene. Thickness 1.56mm
Shield	Braid of bare copper wire. Coverage ≥ 95%
Sheath	PVC sheath. Nominal outer diameter 6.15mm
Sheath Color	Black

7x1x2x22 AWG Shielded Twisted Pair Data Cables

Conductor	22AWG Stranded tinned copper
Insulation	PE material. Thickness 0.6mm
Insulation Color	Black and white with numbering
Individual Shield	Aluminium polyester tape with stranded tinned copper drain wire

3x16AWG Power Cable

Conductor	16AWG Stranded tinned copper wire
Insulation	XLPE. Thickness 0.7mm
Insultion Color	Blue, Brown and Green/Yellow

Element Assembly

Filler	PP material if necessary
Wrapping Tape	Polyester tape
Inner Sheath	1.2mm PVC compound
Armor	Galvanized steel wire
Outer Sheath	An outer protection of extruded UV resisting, anti-rodent and anti-termite LSZH compound is applied over armor. Thickness: 2.0mm. Nominal outer diameter is 28.0mm.
Sheath Color	Black
Cable Weight	510kg/km

Physical Characteristic:

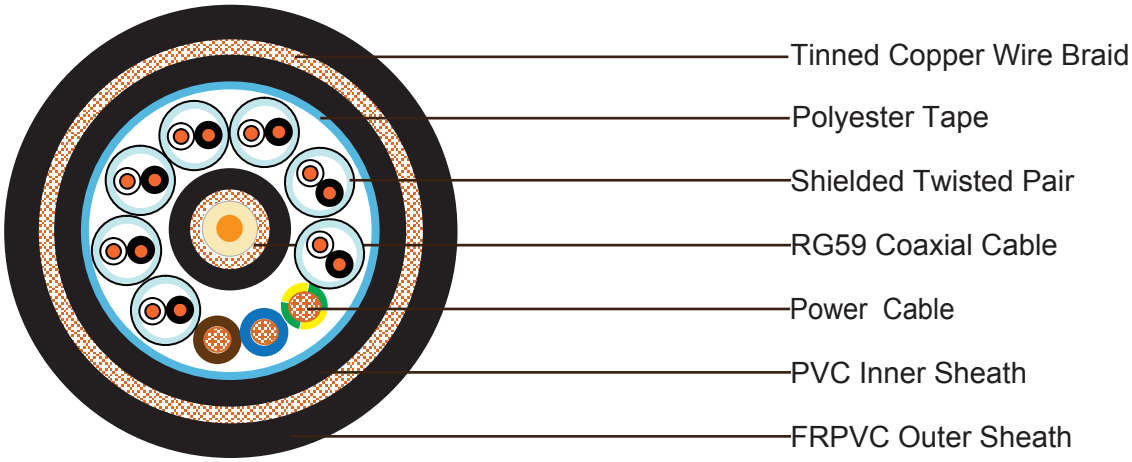
Min Bending Radius: 560mm

Operating Temperature: -30°C/+70°C

* The data included in the present catalogue are merely indicative; Caledonian Cables Limited reserves to itself the right to change them as its own discretion in any time.

1xRG59 + 7x1x2x22AWG Data Cable + 3x16 AWG Power Cable TCWB FRPVC Sheathed Composite Cable

Construction:



1x75Ohm RG59 Coaxial Cable(in the center of the cable core)

Conductor	0.58mm Solid copper conductor
Insulation	Polyethylene. Thickness 1.56mm
Shield	Braid of bare copper wire. Coverage ≥ 95%
Sheath	PVC sheath. Nominal outer diameter 6.2mm
Sheath Color	Black

7x1x2x22 AWG Shielded Twisted Pair (around coaxial cable)

Conductor	7/0.254mm Stranded tinned copper
Insulation	PE material. Thickness 0.6mm
Insulation Color	Black and white
Shield	Aluminium polyester tape
Drain Wire	24 AWG stranded tinned copper drain wire

3x16AWG Power Cable (around coaxial cable)

Conductor	19/0.287mm Stranded tinned copper wire
Insulation	XLPE. Thickness 0.7mm

Element Assembly

Filler	PP material if necessary
Wrapping Tape	Polyester tape
Shield	Tinned copper wire braid, coverage 80%
Outer Sheath	UV resisting FRPVC, thickness 1.8mm, norminal outer diameter 25.0mm
Sheath Color	Black
Cable Weight	850kg/km

Electrical and Physical Properties @20°C:

Coaxial Cable

Impedance: 75±3Ohm (@1MHz)

Max. Attenuation: 7.5dB/100m @50MHz

Power Cable

Electrical Resistance: 6.6Ohm/km

Insulation Resistance: ≥5500 MOhmxkm

Data Pairs

Electrical Resistance: 90Ohm/km

Insulation Resistance: ≥1000 MOhmxkm

Element Assembly

Min Bending Radius: 420mm

Operating Temperature: -35°C/+80°C

Fire Performance:

Flame Propagation: IEC60332-1

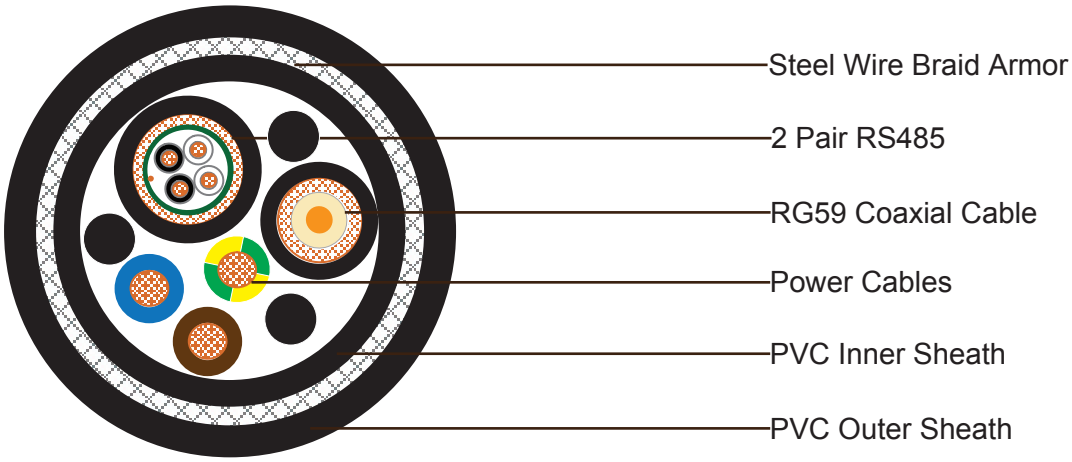
Low Smoke Capacity: IEC61034-1/2

Halogen Free: IEC60754-1/2

* The data included in the present catalogue are merely indicative; Caledonian Cables Limited reserves to itself the right to change them as its own discretion in any time.

1xRG59 + 3x2.5 Power Cable + 2x1x2x24AWG RS485 SWB PVC Sheathed Composite Cable

Construction:



1x75Ohm RG59 Coaxial Cable

Conductor	0.58mm Solid copper conductor
Insulation	Polyethylene. Thickness 1.56mm
Shield	Braid of bare copper wire. Coverage ≥ 85%
Sheath	PVC sheath. Nominal outer diameter 6.2mm
Sheath Color	Black

2 Pair 24AWG RS485

Conductor	7/0.2mm Stranded tinned copper
Insulation	PE material. Thickness 0.6mm
Shield 1	Aluminium polyester tape with 24 AWG stranded tinned copper drain wire
Shield 2	Tinned copper wire braiding
Sheath	PVC sheath. Nominal outer diameter is 9.0mm
Sheath Color	Black

3x2.5mm² Power Cable

Conductor	2.5mm² Stranded tinned copper wire
Insulation	PVC. Thickness 0.7mm
Insultion Color	Blue, Brown and Green/Yellow

Element Assembly

Inner Sheath	Black PVC, thickness 0.8mm
Armor	Steel wire braid, coverage 95%
Outer Sheath	PVC, thickness 1.8mm, nominal outer diameter is 26.0mm
Sheath Color	Black

Electrical and Physical Properties @20°C:

Coaxial Cable

Impedance: 75±3Ohm (@1MHz)

Nominal Attenuation: 8.2dB/100m @50MHz

RS485

Nominal Impedance: 120±10Ω

Nominal Conductor DC Resistance @20°C: 78.7 Ohm/km

Nominal Attenuation: 1MHz 2.3dB/100m

Power Cable

Electrical Resistance: 7.56Ohm/km

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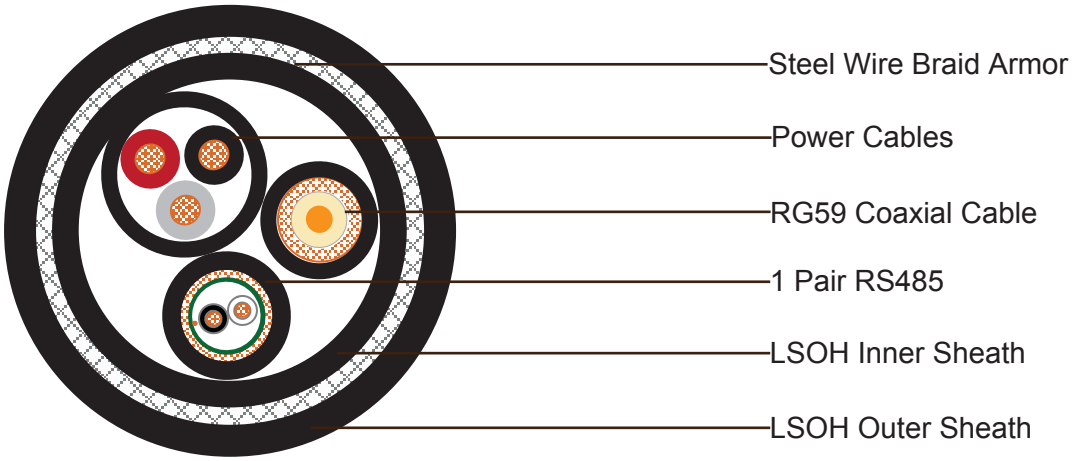
1xRG59+ 3x2.5 Power Cable +1x2x24AWG RS485 SWB LSZH Sheathed Composite Cable

Construction:



1x75Ohm RG59 Coaxial Cable

Conductor	0.58mm Solid copper conductor
Insulation	Polyethylene. Thickness 1.56mm
Shield	Braid of bare copper wire. Coverage ≥ 85%
Sheath	PVC sheath. Nominal outer diameter 6.2mm
Sheath Color	Black

1 Pair 24AWG RS485

Conductor	7/0.2mm Stranded tinned copper
Insulation	PE material. Thickness 0.6mm
Insulation Color	Black and white
Shield 1	Aluminium polyester tape with 24 AWG stranded tinned copper drain wire
Shield 2	Tinned copper wire braiding
Sheath	PVC sheath. Nominal outer diameter is 6.0mm
Sheath Color	Black

3x2.5mm² Power Cable

Conductor	2.5mm² Stranded tinned copper wire
Insulation	XLPE. Thickness 0.7mm
Sheath	LSZH compound. Nominal diameter is 11.0mm

Element Assembly

Inner Sheath	Black LSZH, thickness 1.0mm
Armor	Steel wire braid, coverage 85%
Outer Sheath	LSZH, thickness 1.8mm, nominal outer diameter is 25.0mm
Sheath Color	Black

Electrical and Physical Properties @20°C:

Coaxial Cable

Impedance: 75±3Ohm (@1MHz)

Nominal Attenuation: 8.2dB/100m @50MHz

RS485

Nominal Impedance: 120±10Ω

Nominal Conductor DC Resistance @20°C: 78.7 Ohm/km

Nominal Attenuation: 1MHz 2.3dB/100m

Power Cable

Electrical Resistance: 7.56Ohm/km

Fire Performance:

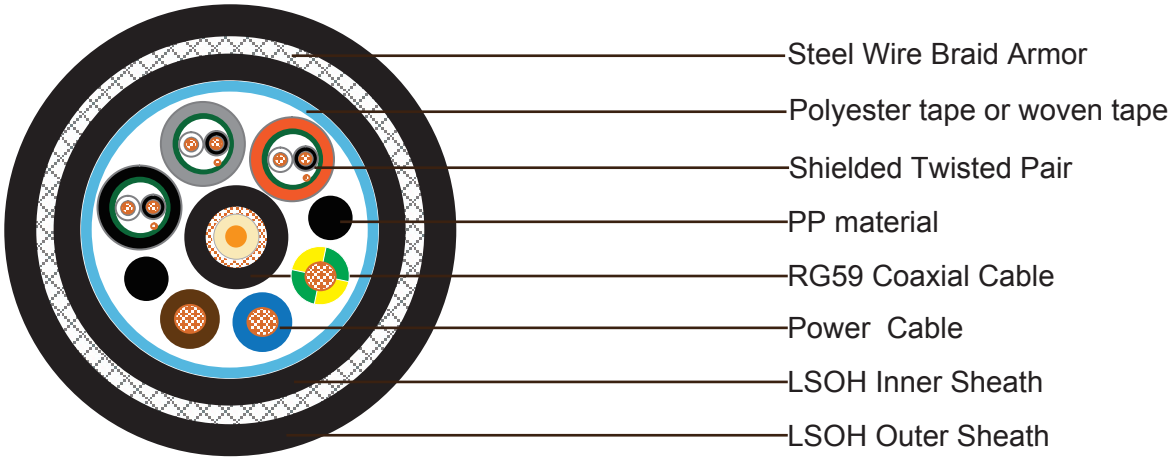
Flame Propagation: IEC60332-1

Low Smoke Capacity: IEC61034-1/2

Halogen Free: IEC60754-1/2

1xRG59 + 3x12AWG Power Cable + 3x1x2x24 AWG Shield Pairs SWB LSZH Sheathed Composite Cable

Construction:



1x75Ohm RG59 Coaxial Cable(in the center of the cable core)

Conductor	0.58mm Solid copper conductor
Insulation	Polyethylene. Thickness 1.56mm
Shield	Braid of bare copper wire. Coverage ≥ 92%
Sheath	LSZH sheath. Nominal outer diameter 6.2mm
Sheath Color	Black

3x1x2x24/7 AWG Shielded Twisted Pair (around coaxial cable)

Conductor	7/0.2mm Stranded tinned copper
Insulation	PVC material. Thickness 0.47mm
Insulation Color	Black and white
Shield	Aluminium polyester tape
Drain Wire	24 AWG stranded tinned copper drain wire

Sheath	LSZH sheath. Nominal outer diameter 4.8mm. Thickness 0.76mm
Sheath Color	Black , Grey and Orange

3x3mm² Power Cable (around coaxial cable)

Conductor	3.0mm² Stranded tinned copper wire
Insulation	XLPE. Thickness 0.85mm. Outer diameter 3.65mm
Insultion Color	Blue, Brown and Green/Yellow

Element Assembly

Filler	PVC or PE material (around coaxial cable)
Wrapping Tape	Polyester tape
Inner Sheath	Black LSZH, thickness 0.8mm
Armor	Steel wire braid, coverage 85%
Outer Sheath	LSZH, thickness 1.5mm, nominal outer diameter is 22.0mm
Sheath Color	Black

Electrical and Physical Properties @20°C:

Coaxial Cable

Max. Electrical Resistance: 158Ohm/km

Impedance: 75±3Ohm (@1MHz)

Max. Attenuation: 7.5dB/100m @50MHz

Power Cable

Electrical Resistance: 6.6Ohm/km

Insulation Resistance: ≥5500 MOhmxkm

Data Pairs

Electrical Resistance: 90Ohm/km

Insulation Resistance: ≥1000 MOhmxkm

Element Assembly

Min Bending Radius: 420mm

Operating Temperature: -35°C/+80°C

Fire Performance:

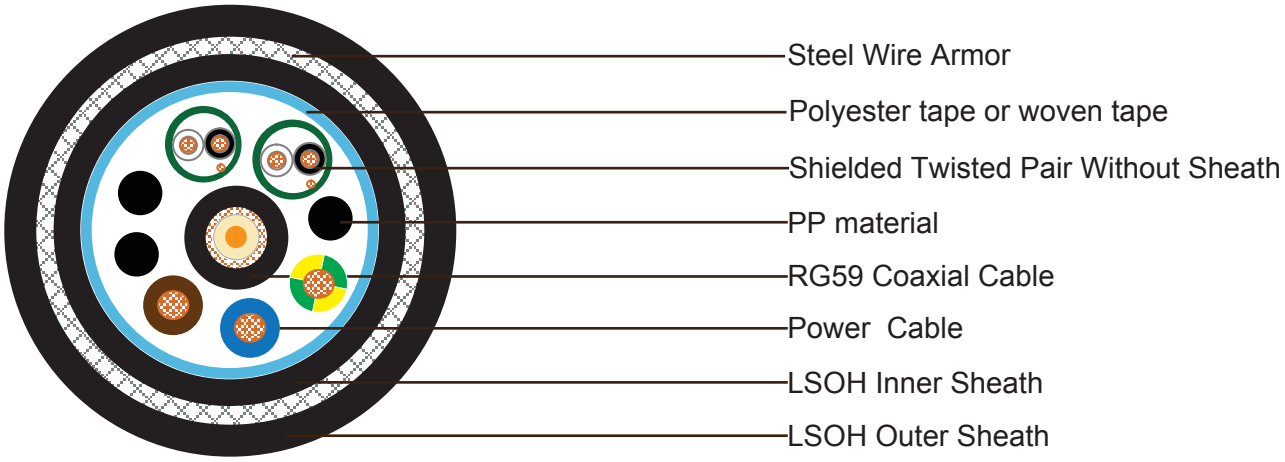
Flame Propagation: IEC60332-1 & IEC60332-2

Low Smoke Capacity: IEC61034-1/2

Halogen Free: IEC60754-1/2

1xRG59 + 3x1.5 Power Cable + 2x1x2x24AWG Shielded Control Cable Without Sheath SWB LSZH Sheathed Composite Cable

Construction:



1x75Ohm RG59 Coaxial Cable

Conductor	0.58mm Solid copper conductor
Insulation	Polyethylene. Thickness 1.56mm
Shield	Braid of bare copper wire. Coverage ≥ 95%
Sheath	LSZH sheath. Nominal outer diameter 6.15mm
Sheath Color	Black

2x1x2x24 AWG Shielded Control Cable Without Sheath

Conductor	7/0.2mm Stranded tinned copper
Insulation	PVC material. Thickness 0.4mm
Insulation Color	White and black
Shield	Aluminium polyester tape with 24 AWG stranded tinned copper drain wire

3x1.5mm² Power Cable

Conductor	1.5mm² Stranded tinned copper wire to IEC 60228 Class 2 or BS 6360
Insulation	XLPE compound to BS6234. Nominal outer diameter 3.0mm
Insultion Color	Blue, Brown and Green/Yellow

Element Assembly

Filler	PP, PVC or PE
Wrapping Tape	Polyester tape
Inner Sheath	Black LSZH, thickness 0.76mm
Armor	0.2mm steel wire interwoven braid, coverage 95%
Outer Sheath	LSZH, thickness 1.4mm, nominal outer diameter is 19.0mm
Sheath Color	Black

Physical Characteristic:

Min Bending Radius: 360mm

Operating Temperature: -35°C/+90°C

Fire Performance:

Flame Retardant: IEC60332 part 1 & 2

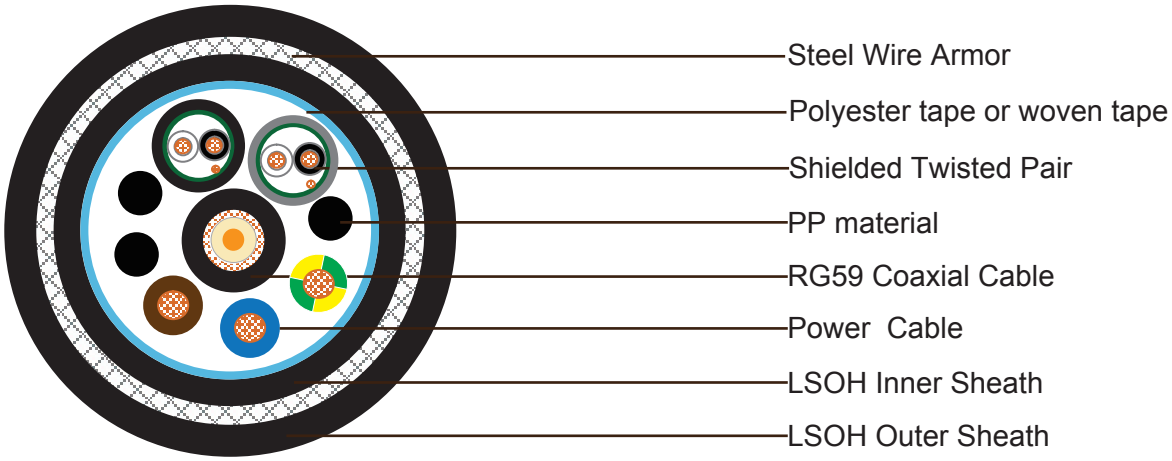
Halogen Free: IEC 60754

Low Smoke Emission: IEC 61034

* The data included in the present catalogue are merely indicative; Caledonian Cables Limited reserves to itself the right to change them as its own discretion in any time.

1xRG59 + 3x1.5 Power Cable + 2x1x2x24AWG Shielded Control Cable SWB LSZH Sheathed Composite Cable

Construction:



1x75Ohm RG59 Coaxial Cable

Conductor	0.58mm Solid copper conductor
Insulation	Polyethylene. Thickness 1.56mm
Shield	Braid of bare copper wire. Coverage ≥ 95%
Sheath	LSZH sheath. Nominal outer diameter 6.15mm
Sheath Color	Black

2x1x2x24 AWG Shielded Control Cable

Conductor	7/0.2mm Stranded tinned copper
Insulation	PVC material. Thickness 0.4mm
Insulation Color	White and black
Shield	Aluminium polyester tape with 24 AWG stranded tinned copper drain wire
Sheath	LSZH sheath. Nominal outer diameter 4.8mm. Thickness: 0.76mm
Sheath Color	Black and Grey

3x1.5mm² Power Cable

Conductor	1.5mm² Stranded tinned copper wire to IEC 60228 Class 2 or BS 6360
Insulation	XLPE compound to BS6234. Nominal outer diameter 3.0mm
Insultion Color	Blue, Brown and Green/Yellow

Element Assembly

Filler	PP, PVC or PE
Wrapping Tape	Polyester tape
Inner Sheath	Black LSZH, thickness 0.76mm
Armor	0.2mm steel wire interwoven braid, coverage 95%
Outer Sheath	LSZH, thickness 1.4mm, nominal outer diameter is 22.6mm
Sheath Color	Black

Physical Characteristic:

Min Bending Radius: 360mm

Operating Temperature: -35°C/+90°C

Fire Performance:

Flame Retardant: IEC60332 part 1 & 2

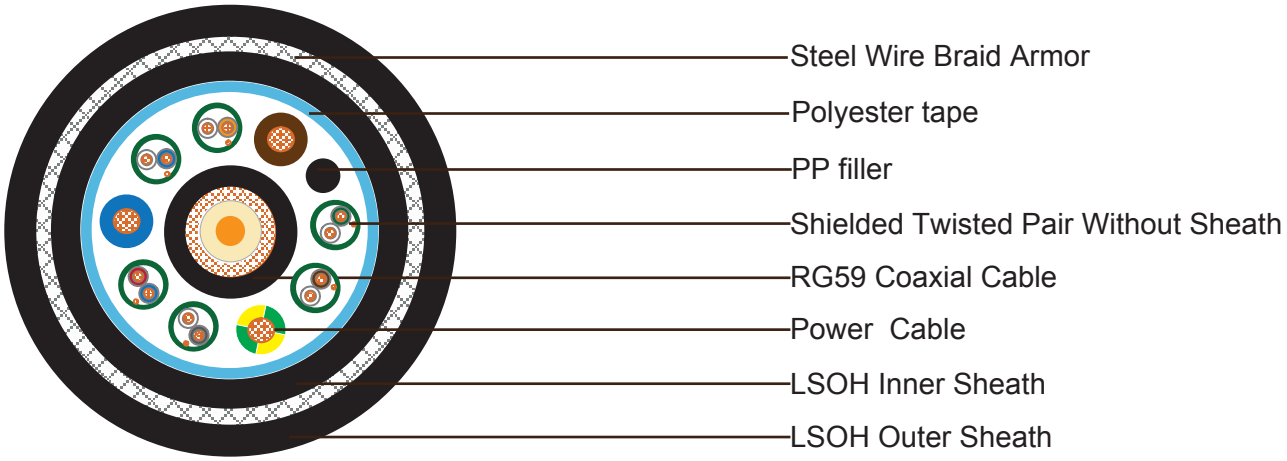
Halogen Free: IEC 60754

Low Smoke Emission: IEC 61034

* The data included in the present catalogue are merely indicative; Caledonian Cables Limited reserves to itself the right to change them as its own discretion in any time.

1xRG59 + 3x1.5 Power Cable + 6x1x2x24AWG Shielded Control Cable Without Sheath SWB LSZH Sheathed Composite Cable

Construction:



1x75Ohm RG59 Coaxial Cable

Conductor	0.58mm Solid copper conductor
Insulation	Polyethylene. Thickness 1.56mm
Shield	Braid of bare copper wire. Coverage ≥ 95%
Sheath	LSZH sheath. Nominal outer diameter 6.15mm
Sheath Color	Black

6x1x2x24 AWG Shielded Control Cable Without Sheath

Conductor	7/0.2mm Stranded tinned copper
Insulation	PVC material. Thickness 0.4mm
Insulation Color	White and blue, White and orange, White and green, White and brown, White and grey, Red and blue according to IEC60708-1
Shield	Aluminium polyester tape with 24 AWG stranded tinned copper drain wire

3x1.5mm² Power Cable

Conductor	1.5mm² Stranded tinned copper wire to IEC 60228 Class 2 or BS 6360
Insulation	XLPE compound to BS6234. Nominal outer diameter 3.0mm
Insultion Color	Blue, Brown and Green/Yellow

Element Assembly

Filler	PP, PVC or PE
Wrapping Tape	Polyester tape
Inner Sheath	Black LSZH, thickness 0.76mm
Armor	0.2mm steel wire interwoven braid, coverage 95%
Outer Sheath	LSZH, thickness 1.4mm, nominal outer diameter is 22.6mm
Sheath Color	Black

Physical Characteristic:

Min Bending Radius: 360mm

Operating Temperature: -35°C/+90°C

Fire Performance:

Flame Retardant: IEC60332 part 1 & 2

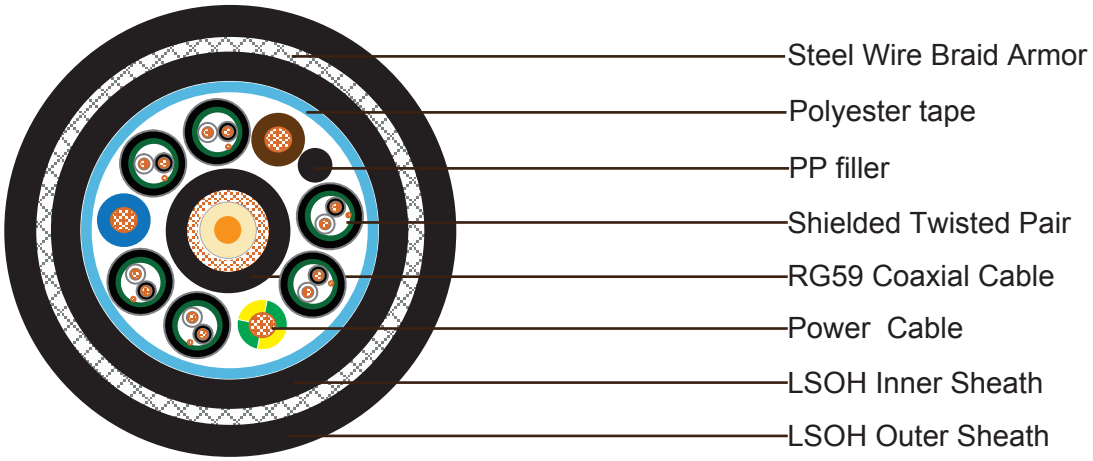
Halogen Free: IEC 60754

Low Smoke Emission: IEC 61034

* The data included in the present catalogue are merely indicative; Caledonian Cables Limited reserves to itself the right to change them as its own discretion in any time.

1xRG59 + 3x1.5 Power Cable + 6x1x2x24AWG Shielded Control Cable SWB LSZH Sheathed Composite Cable

Construction:



1x75Ohm RG59 Coaxial Cable

Conductor	0.58mm Solid copper conductor
Insulation	Polyethylene. Thickness 1.56mm
Shield	Braid of bare copper wire. Coverage ≥ 95%
Sheath	LSZH sheath. Nominal outer diameter 6.15mm
Sheath Color	Black

6x1x2x24 AWG Shielded Control Cable

Conductor	7/0.2mm Stranded tinned copper
Insulation	PVC material. Thickness 0.4mm
Insulation Color	White and black
Shield	Aluminium polyester tape with 24 AWG stranded tinned copper drain wire
Sheath	LSZH sheath. Nominal outer diameter 4.8mm. Thickness: 0.76mm
Sheath Color	Black and Grey

3x1.5mm² Power Cable

Conductor	1.5mm² Stranded tinned copper wire to IEC 60228 Class 2 or BS 6360
Insulation	XLPE compound to BS6234. Nominal outer diameter 3.0mm
Insultion Color	Blue, Brown and Green/Yellow

Element Assembly

Filler	PP, PVC or PE
Wrapping Tape	Polyester tape
Inner Sheath	Black LSZH, thickness 0.76mm
Armor	0.2mm steel wire interwoven braid, coverage 95%
Outer Sheath	LSZH, thickness 1.4mm, nominal outer diameter is 24.5mm
Sheath Color	Black

Physical Characteristic:

Min Bending Radius: 360mm

Operating Temperature: -35°C/+90°C

Fire Performance:

Flame Retardant: IEC60332 part 1 & 2

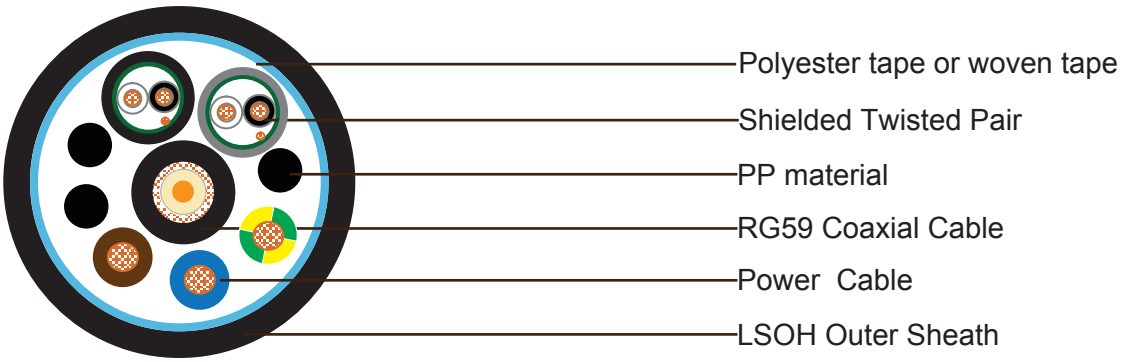
Halogen Free: IEC 60754

Low Smoke Emission: IEC 61034

* The data included in the present catalogue are merely indicative; Caledonian Cables Limited reserves to itself the right to change them as its own discretion in any time.

1xRG59 + 3x3 Power Cable + 2x1x2x24AWG Shielded Control Cable Unarmored LSZH Sheathed Composite Cable

Construction:



1x75Ohm RG59 Coaxial Cable

Conductor	0.58mm Solid copper conductor
Insulation	Polyethylene. Thickness 1.56mm
Shield	Braid of bare copper wire. Coverage ≥ 95%
Sheath	LSZH sheath. Nominal outer diameter 6.15mm
Sheath Color	Black

2x1x2x24 AWG Shielded Control Cable

Conductor	7/0.2mm Stranded tinned copper
Insulation	PVC material. Thickness 0.4mm
Insulation Color	White and black
Shield	Aluminium polyester tape with 24 AWG stranded tinned copper drain wire
Sheath	LSZH sheath. Nominal outer diameter 4.8mm. Thickness: 0.76mm
Sheath Color	Black and Grey

3x3mm² Power Cable

Conductor	3mm² Stranded tinned copper wire to IEC 60228 Class 2 or BS 6360
Insulation	XLPE, Thickness 0.66mm. Outer diameter 3.63mm
Insultion Color	Blue, Brown and Green/Yellow

Element Assembly

Filler	PP, PVC or PE
Wrapping Tape	Polyester tape
Outer Sheath	LSZH, thickness 1.2mm, nominal outer diameter is 18.5mm
Sheath Color	Black

Physical Characteristic:

Min Bending Radius: 200mm

Operating Temperature: -35°C/+90°C

Fire Performance:

Flame Retardant: IEC60332 part 1 & 2

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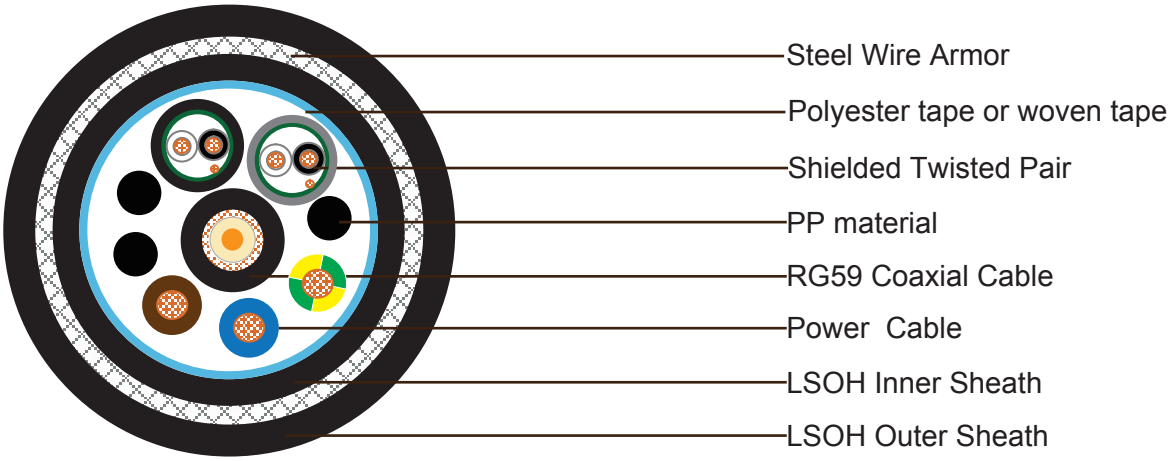
1xRG59 + 3x3 Power Cable + 2x1x2x24AWG Shielded Control Cable SWB LSZH Sheathed Composite Cable

Construction:



1x75Ohm RG59 Coaxial Cable

Conductor	0.58mm Solid copper conductor
Insulation	Polyethylene. Thickness 1.56mm
Shield	Braid of bare copper wire. Coverage ≥ 95%
Sheath	LSZH sheath. Nominal outer diameter 6.15mm
Sheath Color	Black

2x1x2x24 AWG Shielded Control Cable

Conductor	7/0.2mm Stranded tinned copper
Insulation	PVC material. Thickness 0.4mm
Insulation Color	White and black
Shield	Aluminium polyester tape with 24 AWG stranded tinned copper drain wire
Sheath	LSZH sheath. Nominal outer diameter 4.8mm. Thickness: 0.76mm
Sheath Color	Black and Grey

3x3mm² Power Cable

Conductor	3mm² Stranded tinned copper wire to IEC 60228 Class 2 or BS 6360
Insulation	XLPE, Thickness 0.66mm. Outer diameter 3.63mm
Insultion Color	Blue, Brown and Green/Yellow

Element Assembly

Filler	PP, PVC or PE
Wrapping Tape	Polyester tape
Inner Sheath	Black LSZH, thickness 0.76mm
Armor	0.2mm steel wire interwoven braid, coverage 95%
Outer Sheath	LSZH, thickness 1.4mm, nominal outer diameter is 21.0mm
Sheath Color	Black

Physical Characteristic:

Min Bending Radius: 360mm

Operating Temperature: -35°C/+90°C

Fire Performance:

Flame Retardant: IEC60332 part 1 & 2

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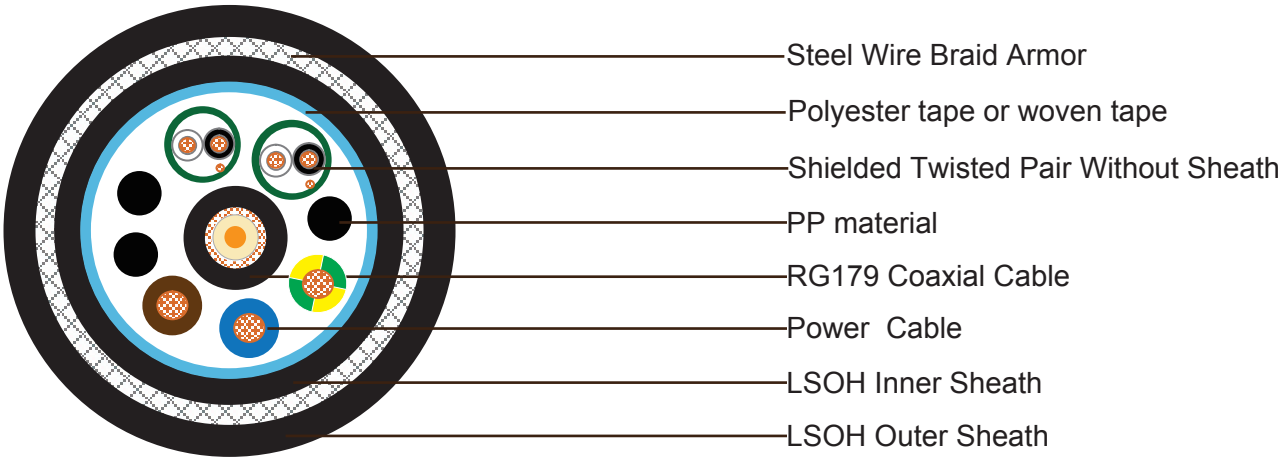
1xRG179 + 3x1.5mm² Power Cable + 2x1x2x24 AWG Data Pairs Without Sheath SWB LSZH Sheathed Composite Cable

Construction:



1x75Ohm RG179 Coaxial Cable

Conductor	7/0.1mm Sliver plated copper conductor
Insulation	Solid PTFE. Diameter: 1.6mm
Shield	Braid of silver plated copper wire. Coverage ≥ 95%
Sheath	FEP sheath. Nominal outer diameter 2.5mm
Sheath Color	Black

2x1x2x24 AWG Shielded Control Cable Without Sheath

Conductor	7/0.2mm Stranded tinned copper
Insulation	PVC material. Thickness 0.4mm
Insulation Color	Black and white with pair number
Shield	Aluminium polyester tape with 24 AWG stranded tinned copper drain wire. Nominal outer diameter 3.5mm

3x1.5mm² Power Cable

Conductor	1.5mm² Stranded tinned copper wire
Insulation	XLPE. Nominal outer diameter 3.0mm
Insultion Color	Blue, Brown and Green/Yellow

Element Assembly

Filler	PE or PP material
Wrapping Tape	Polyester tape or woven tape
Inner Sheath	Black LSZH, thickness 0.8mm. Diameter Over Bedding: 11.2mm±0.8mm
Armor	Steel wire braid, coverage 85%
Outer Sheath	LSZH, thickness 1.5mm, nominal outer diameter is15.8±2.0mm
Sheath Color	Black

Electrical and Physical Properties @20°C:

Coaxial Cable

Impedance: 75±5Ohm (@1MHz)

Nominal capacitance: 63pF/m

Max. Attenuation: 28dB/100m @50MHz

Power Cable

Electrical Resistance: 12.1Ohm/km

Insulation Resistance: ≥5500 MOhmxkm

Data Pairs

Electrical Resistance: 90Ohm/km

Insulation Resistance: ≥1000 MOhmxkm

Physical Characteristic:

Min Bending Radius: 420mm

Operating Temperature: -35°C/+80°C

Fire Performance:

Low Smoke Capacity: IEC61034-1/2

Halogen Free: IEC60754-1/2

Flame Propagation: IEC60332

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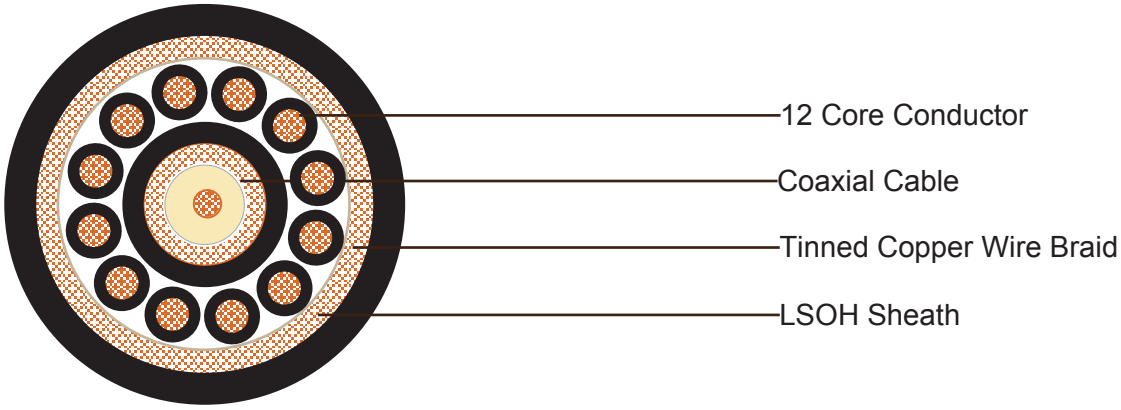
1C Coaxial Cable + 12 Core Conductors TCWB PVC Sheathed Composite Cable

Construction:



1x75Ohm Coaxial Cable

Conductor	7/0.254mm stranded tinned copper wires
Insulation	Foamed polyethylene. Thickness is 1.46mm
Shield	Braid of bare copper wire. Coverage ≥ 95%
Sheath	PVC sheath. Nominal outer diameter: 5.28mm
Sheath Color	Black

12 Core Conductor

Conductor	7/0.32mm Stranded tinned copper wires
Insulation	PVC material. Thickness is 0.4mm
Insultion Color	Blue, Brown and Green/Yellow

Element Assembly

Shield	Tinned copper wire braid, coverage 80%
Outer Sheath	LSZH, thickness 0.8mm, nominal outer diameter is 11.05mm
Sheath Color	Black

Electrical and Physical Properties @20°C:

Coaxial Cable

Nom. Impedance: 75Ohm

Nom. Capacitance Conductor to Shield: 56.7pF/m (17.3pF/ft)

Nom. Velocity of Propagation: 78%

Nom. Delay: 4.26ns/m (1.3ns/ft)

Nom. Conductor DC Resistance: 0.047 Ohm/m (14.4 Ohm/1000ft)

Nom. Inner Shield DC Resistance: 0.0084 Ohm/m (2.55 Ohm/1000ft)

Nom. Attenuation:

Freq. (MHz)	Attenuation (dB/100m)	Attenuation (dB/100ft)
0.5	0.8	0.24
1	1.1	0.34
5	2.4	0.73
10	3.4	1.04
100	10.6	3.23
200	15.3	4.67
400	21.69	6.62

12C Conductor

Max. Operating Voltage: 300V

Max. Operating Voltage (overall): 300V

Element Assembly

Operating Temperature Range: -30°C to +75°C

Min Bending Radius: 127mm

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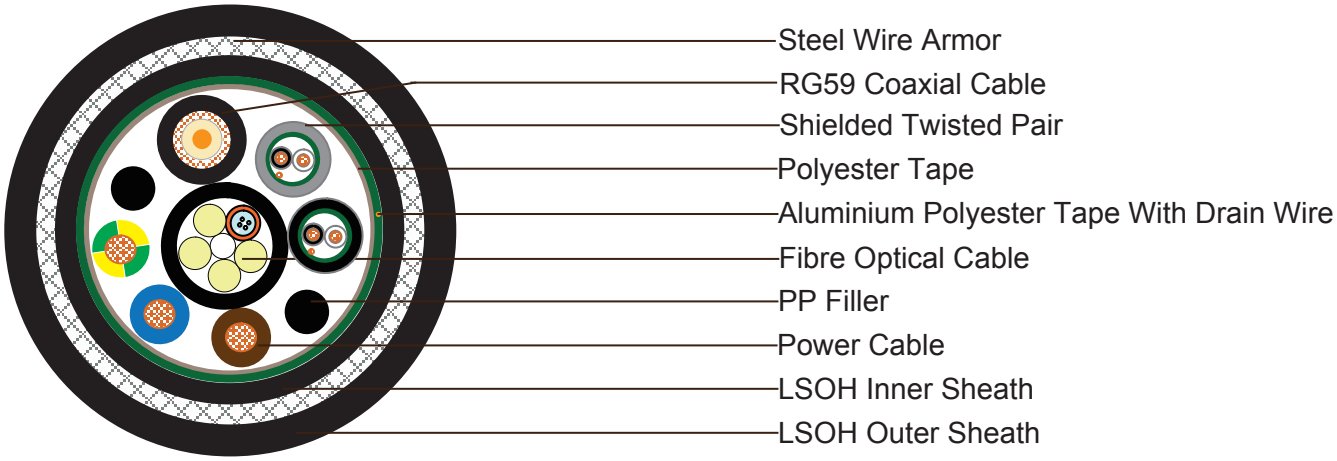
1xRG59 + 4 Core 62.5 Fiber Cable + 3x2.5 Power Cable + 2x1x2x24AWG Pairs SWB LSZH Sheathed Composite Cable

Construction:



1x75Ohm RG59 Coaxial Cable

Conductor	0.58mm Solid copper conductor
Insulation	Polyethylene. Thickness 1.56mm
Shield	Braid of bare copper wire. Coverage ≥ 95%
Sheath	LSZH (SHF1)sheath. Norminal outer diameter 6.2mm
Sheath Color	Black

4 core 62.5/125 Multi Loose Tube Type Fiber Cable

Fibers	4Cx62.5/125
Central Member	Galvanized steel wire
Sheath	Nominal outer diameter 9.6mm
Sheath Color	Black

2x1x2x24 AWG Shielded Twisted Pair (around coaxial cable)

Conductor	7/0.2mm Stranded tinned copper
Insulation	PVC material. Thickness 0.47mm
Insulation Color	Black and white with pair number
Shield	Aluminium polyester tape with 0.5mm² stranded tinned copper drain wire. Nominal outer diameter 3.5mm
Sheath	LSZH (SHF1) sheath. Norminal outer diameter 5.2mm

3x2.5mm² Power Cable

Conductor	2.5mm² Stranded tinned copper wire
Insulation	XLPE. Thickness 0.85mm. Outer diameter 3.6mm
Insultion Color	Blue, Brown and Green/Yellow

Element Assembly

Filler	PP material around cable core
Wrapping Tape	Polyester tape
Shield	Aluminium polyester tape with 0.5mm² tinned copper drain wire
Inner Sheath	Black LSZH (SHF1) , thickness 1.0-1.2mm
Armor	Steel wire braid, coverage 85%
Outer Sheath	LSZH (SHF1), thickness 1.8-2.0mm. norminal outer diameter 28.5mm
Sheath Color	Black

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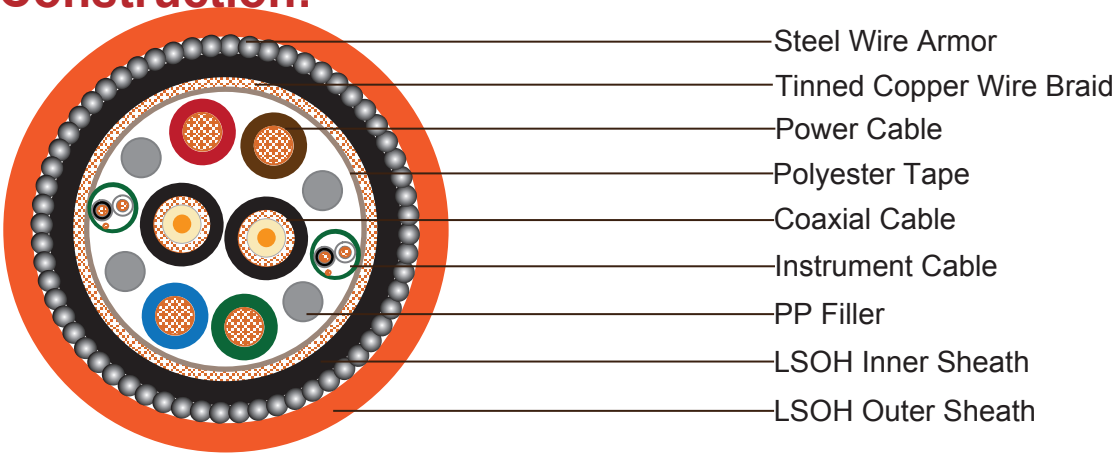
4x2.5 Power Cable +2 Instrument Pair+2 Coaxial Cable SWA LSOH Sheathed Composite Cables

Construction:



2 Core Coaxial Cable

Conductor	7/0.22mm no oxygen copper conductor
Insulation	Polyethylene. Thickness 0.92mm
Shield	0.12mm bare copper wire braided, coverage ca.85%
Sheath	LSZH, thickness: 0.8mm; Norminal outer diameter 4.5±0.3mm
Sheath Color	Black

4x 2.5mm^2 Power Cable

Conductor	7/0.68mm stranded no oxygen copper
Insulation	LSZH material. Thickness 0.8mm; outer diameter 3.7±0.2mm
Insulation Color	Red, blue, green, yellow

2 Pair Instrument Cable

Conductor	7/0.22mm stranded tinned copper
Insulation	PE material. Thickness 0.50mm, outer diameter 1.6±0.2mm
Insulation Color	White/ blue; white/orange

Shield	Aluminum-plastic compounded tape with 7/0.22mm tinned copper draining wire

Element Assembly

Filler	Non-absorbent Polypropylene
Wrapping Tape	Polyester tape
Shield	Tinned copper wire braided, coverage ca.80%
Inner Sheath	Black LSOH, thickness: 1.0mm
Armor	0.30mm galvanized steel(single φ wire braided; coverage ca.80%
Outer Sheath	LSZH , thickness: 1.7mm, Norminal outer diameter23.1±1.0mm
Sheath Color	Orange
Cable Weight	735 kg/km

Electrical and Physical Properties @20°C:

Coaxial Cable

Impedance: 75±3Ohm (@1MHz)

Max. Attenuation: 3dB/100m

Capacity: 55pF/m nominal at 1kHz

Power Cable

Electrical Resistance: 6.6Ohm/km

Insulation Resistance: ≥5500 MOhmxkm

Data Pairs

Electrical Resistance: 90Ohm/km

Insulation Resistance: ≥1000 MOhmxkm

Element Assembly

Min Bending Radius: 280mm

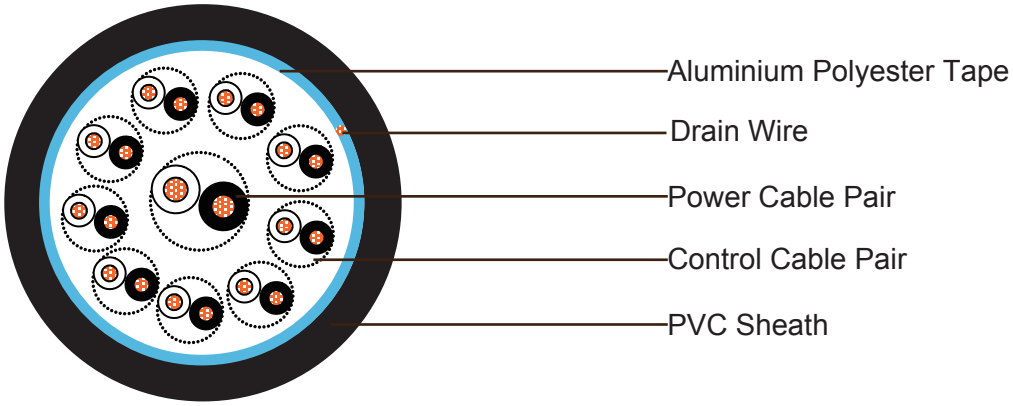
Operating Temperature: -35°C/+90°C

Long term operation temperature of cable conductor: 90°C

Max temperature of cable conductor during short circuit: ≤250°C

1x2x2.5 Power Cable + 9x1x2x1.0 Control Cable Unarmored PVC Sheathed Composite Cable

Construction:



1x2x2.5mm² Power Cable

Conductor	2.5mm² annealed copper
Insulation	XLPE material.
Insulation Color	Black and white

9x1x2x1.0mm² Control Cable

Conductor	1.0mm² annealed copper
Insulation	PE material.
Insulation Color	Black and white with pair number

Element Assembly

Shield	Aluminium polyester tape
Drain Wire	24 AWG stranded tinned copper drain wire
Sheath	PVC sheath. Nominal outer diameter 25.5mm. Thickness 1.8mm

Sheath Color	Black
Cable Weight	477 kg/km

Electrical and Physical Properties @20°C:

Power Cable

Max. Conductor Resistance: 7.41Ohm/km at 20ºC

Control Cable

Max. Conductor Resistance: 18.5Ohm/km at 20ºC

Operating Temperature: -20°C/+90°C

Voltage Rating: 600/1000V

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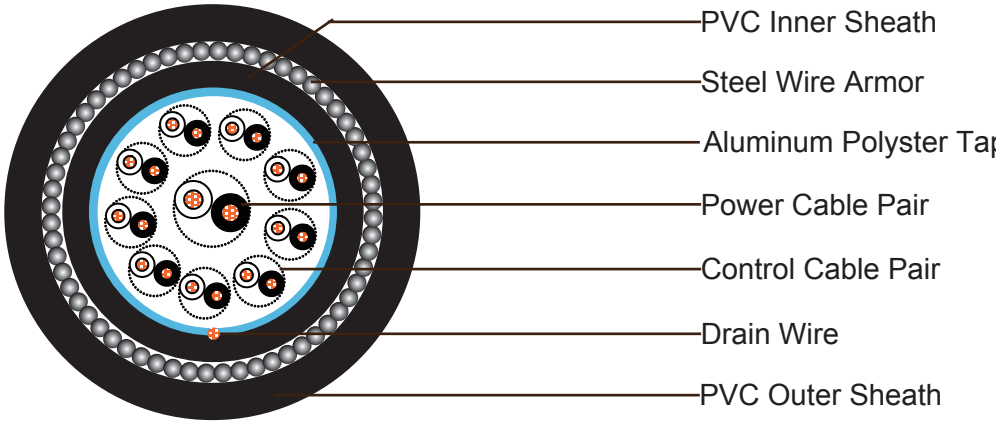
1x2x2.5 Power Cable + 9x1x2x1.0 Control Cable SWA PVC Sheathed Composite Cable

Construction:



1x2x2.5mm² Power Cable

Conductor	2.5mm² annealed copper
Insulation	XLPE material.
Insulation Color	Black and white

9x1x2x1.0mm² Control Cable

Conductor	1.0mm² annealed copper
Insulation	PE material.
Insulation Color	Black and white with pair number

Element Assembly

Shield	Aluminium polyester tape
Drain Wire	24 AWG stranded tinned copper drain wire
Bedding	PVC

Armour	1.6mm Steel wire armor.
Sheath	PVC sheath. Nominal outer diameter 31.0mm. Thickness 2.0mm
Sheath Color	Black
Cable Weight	1415 kg/km

Electrical and Physical Properties @20°C:

Power Cable

Max. Conductor Resistance: 7.41Ohm/km at 20ºC

Control Cable

Max. Conductor Resistance: 18.5Ohm/km at 20ºC

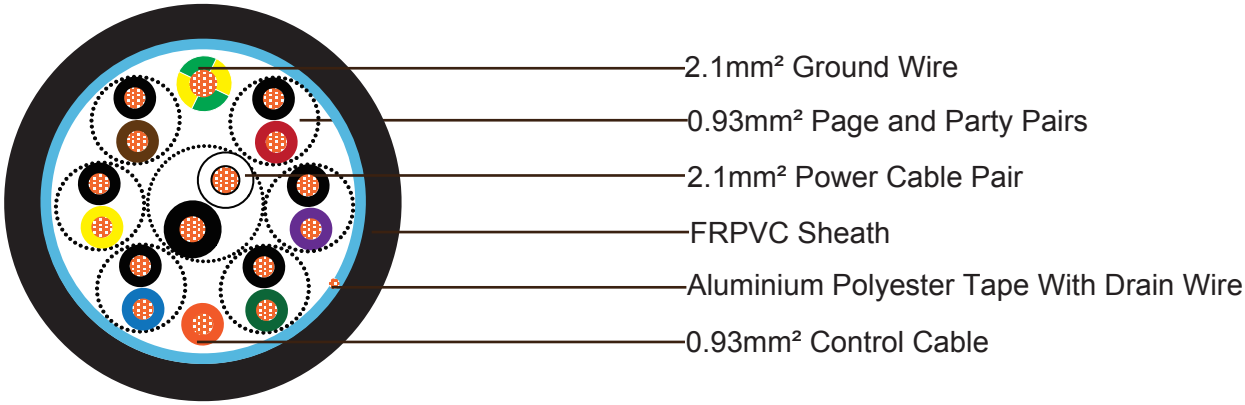
Operating Temperature: -20°C/+90°C

Voltage Rating: 600/1000V

* The data included in the present catalogue are merely indicative; Caledonian Cables Limited reserves to itself the right to change them as its own discretion in any time.

Flame Retardant Unarmoured 16 Conductors UV Resistant & Vermin Proof FRPVC Composite Cable

Construction:



1 Pair Power cable and 1 ground wire

Conductor	2.10mm²(42/0.25mm) annealed copper
Insulation	PVC material. Thickness 0.5mm
Insulation Color	Black and white
Ground wire color	Yellow-Green

6 Page and party pairs, 1 control wire

Conductor	0.93mm²(19/0.25mm) annealed copper
Insulation	PVC material. Thickness 0.5mm
Insulation Pair Color	Red-Black/Red, Violet-black/violet, Green-black/green, Blue-black/blue,Yellow-black/yellow, Brown-black/brown
Control wire color	Orange

Element Assembly

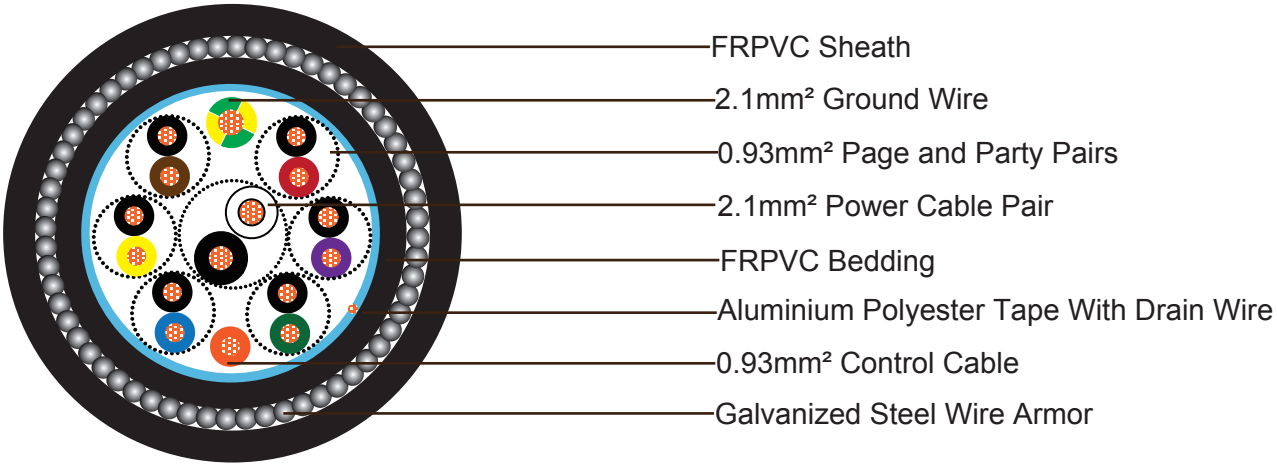
Core make-up	Six pairs and control wire laid around power pair and ground wire

Collective screen	Aluminium/p.e.t.p. laminated tape applied with the metallic side down in electrical contact with 7 stranded 0.25mm copper drain wire over the p.e.t.p. binder tape
Sheath	UV Resistant & Vermin Proof FRPVC compound. Thickness 1.8mm, Overall diameter 21.5±1.0mm.
Sheath Color	Black

* The data included in the present catalogue are merely indicative; Caledonian Cables Limited reserves to itself the right to change them as its own discretion in any time.

Flame Retardant SWA 16 Conductors UV Resistant & Vermin Proof FRPVC Composite Cable

Construction:



1 Pair Power cable and 1 ground wire

Conductor	2.10mm²(42/0.25mm) annealed copper
Insulation	PVC material. Thickness 0.5mm
Insulation Color	Black and white
Ground wire color	Yellow-Green

6 Page and party pairs, 1 control wire

Conductor	0.93mm²(19/0.25mm) annealed copper
Insulation	PVC material. Thickness 0.5mm
Insulation Pair Color	Red-Black/Red, Violet-black/violet, Green-black/green, Blue-black/blue,Yellow-black/yellow, Brown-black/brown
Control wire color	Orange

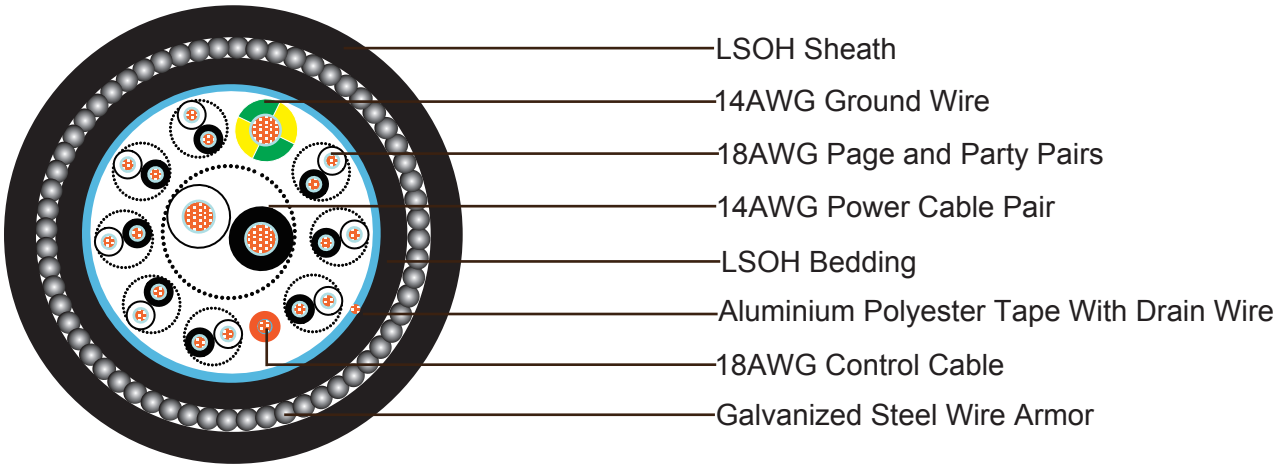
Element Assembly

Core make-up	Six pairs and control wire laid around power pair and ground wire
Collective screen	Aluminium/p.e.t.p. laminated tape applied with the metallic side down in electrical contact with 7 stranded 0.25mm copper drain wire over the p.e.t.p. binder tape
Bedding	1.0mm FRPVC compound.
Armour	1.6mm Galvanized steel wire. 0.2mm 80% Steel wire braid/1.25mm galvanized steel wire are optional
Sheath	UV Resistant & Vermin Proof FRPVC compound is applied over armour.. Thickness 1.7mm, Overall diameter 26.75±1.25mm
Sheath Color	Black

* The data included in the present catalogue are merely indicative; Caledonian Cables Limited reserves to itself the right to change them as its own discretion in any time.

Fire Resistant, SWA 20 Conductors UV Resistant, Flame Retardant LSZH Composite Cable

Construction:



1 Pair Power cable and 1 ground wire

Conductor	14AWG (19/0.361mm) annealed copper
Fire Barrier	Mica/Glass Tape
Insulation	XLPE material. Thickness 0.7mm
Insulation Color	Black and white
Ground wire color	Yellow-Green

8 Party Line and Spare Pair, 1 control wire

Conductor	18AWG (19/0.254mm) annealed copper
Fire Barrier	Mica/Glass Tape
Insulation	XLPE material. Thickness 0.7mm
Insulation Pair Color	Black & White with Pair Number
Control wire color	Orange

Element Assembly

Core make-up	The power pair, ground wire, Party Line and Spare Pair, and control wire are twistedtogether. Fillers will be used if necessary.
Binder tape	The polyester tape is wrapped over the cable cores
Bedding	1.0mm Flame Retardant LSZH compound
Armour	1.6mm Steel wire armor
Sheath	UV Resistant, Flame Retardant LSZH is applied over armour.. Thickness 1.7mm, Overall diameter 34.8±2.5mm
Sheath Color	Black
Cable Weight	1722 kg/km

Electrical and Physical Properties @20°C:

Power Pair, Ground Wire

Max. Conductor Resistance: 8.9Ohm/km at 20ºC

Insulation Resistance: ≥1000 MOhmxkm

Party Line and Spare Pair, Control Wire

Max. Conductor Resistance: 17.9Ohm/km at 20ºC

Insulation Resistance: ≥1000 MOhmxkm

Operating Temperature: -20°C/+90°C

Voltage Rating: 600/1000V

Fire Characteristics:

Fire Resistance: IEC 60331

Flame Propagation: IEC60332-1 & IEC60332-3C

Low Smoke Capacity: IEC61034-1/2

Halogen Free: IEC60754-1/2

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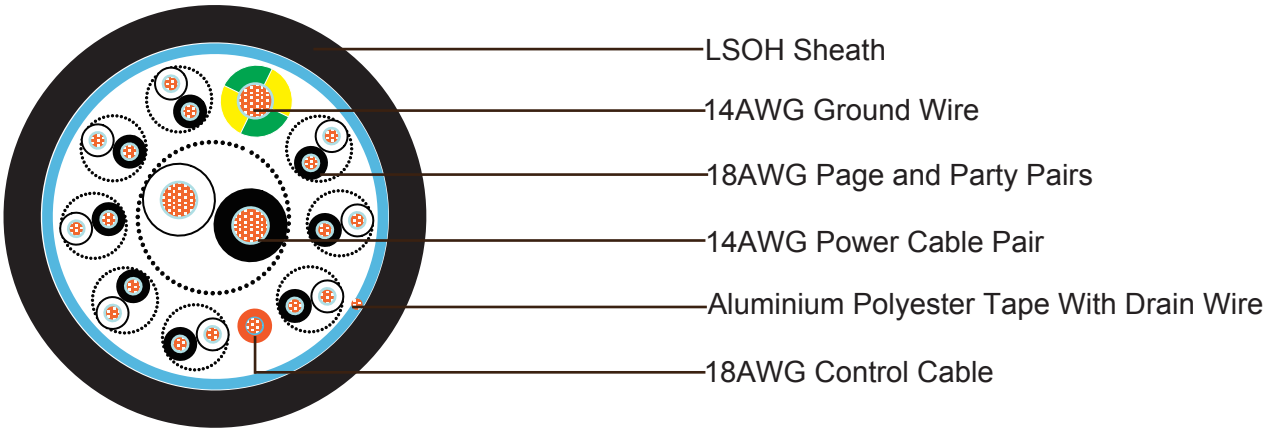
Fire Resistant, Unarmored 20 Conductors UV Resistant, Flame Retardant LSZH Composite Cable

Construction:



1 Pair Power cable and 1 ground wire

Conductor	14AWG (19/0.361mm) annealed copper
Fire Barrier	Mica/Glass Tape
Insulation	XLPE material. Thickness 0.7mm
Insulation Color	Black and white
Ground wire color	Yellow-Green

8 Party Line and Spare Pair, 1 control wire

Conductor	18AWG (19/0.254mm) annealed copper
Fire Barrier	Mica/Glass Tape
Insulation	XLPE material. Thickness 0.7mm
Insulation Pair Color	Black & White with Pair Number
Control wire color	Orange

Element Assembly

Core make-up	The power pair, ground wire, Party Line and Spare Pair, and control wire are twistedtogether. Fillers will be used if necessary.
Binder tape	The polyester tape is wrapped over the cable cores
Sheath	UV Resistant, Flame Retardant LSZH is applied.Thickness 1.5mm, Overall diameter 29.5±2.0mm
Sheath Color	Black
Cable Weight	566 kg/km

Electrical and Physical Properties @20°C:

Power Pair, Ground Wire

Max. Conductor Resistance: 8.9Ohm/km at 20ºC

Insulation Resistance: ≥1000 MOhmxkm

Party Line and Spare Pair, Control Wire

Max. Conductor Resistance: 17.9Ohm/km at 20ºC

Insulation Resistance: ≥1000 MOhmxkm

Operating Temperature: -20°C/+90°C

Voltage Rating: 600/1000V

Fire Characteristics:

Fire Resistance: IEC 60331

Flame Propagation: IEC60332-1 & IEC60332-3C

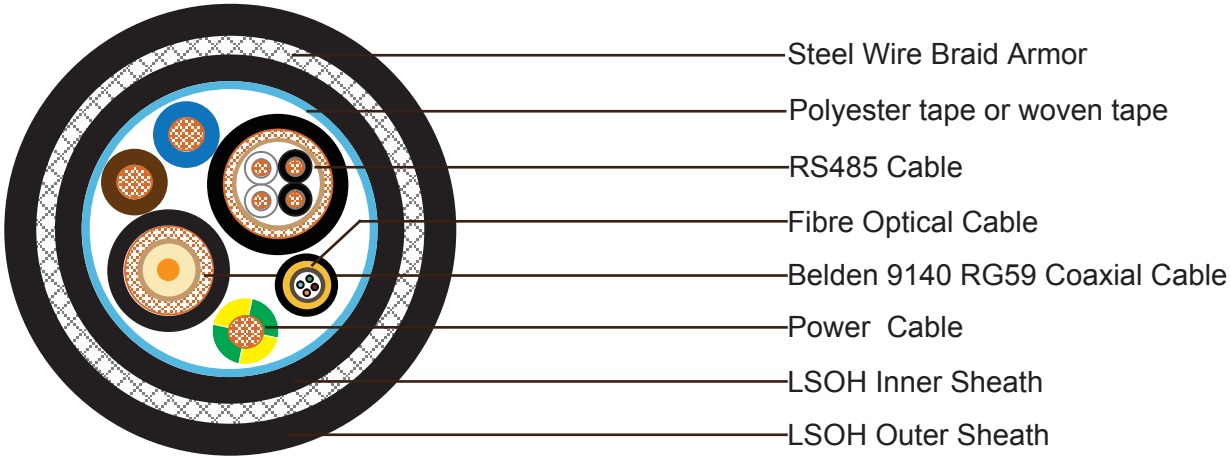
Low Smoke Capacity: IEC61034-1/2

Halogen Free: IEC60754-1/2

* The data included in the present catalogue are merely indicative; Caledonian Cables Limited reserves to itself the right to change them as its own discretion in any time.

3x12AWG Power Cable + RS 485 + Belden 9104 + Fiber Optic Cable Steel Wire Braid Armored Composite Cable

Construction:



3x12AWG Power Cable

Conductor	12AWG (19/0.455mm) stranded copper wire
Insulation	XLPE compound. Nominal outer diameter 3.75mm
Insulation Color	Blue, Brown and Green/Yellow

2 Pair 24AWG RS485

Conductor	24AWG (7/0.2mm) stranded copper to IEC228 Class 2
Insulation	PE material. Thickness 0.8mm
Shield	Aluminium polyester tape with 24 AWG stranded tinned copper drain wire
Braid	Copper wire braiding
Sheath	LSZH sheath. Nominal outer diameter is 9.0mm
Sheath Color	Black

Belden 9104 RG59 Coaxial Cable

Conductor	20AWG bare copper covered steel wire
Insulation	Foam high density polyethylene. Norminal outer diameter 3.66mm
Shield	Aluminium foil with 100% coverage
Braid	Aluminium wire braiding with 67% coverage
Sheath	PVC sheath. Norminal outer diameter 6.02mm
Sheath Color	Black

4 Core Central Loose Tube Fiber Optic Cable

Optical Fiber	Multi-mode cabled fibers meet or exceed the requirements of ITUT G.651 specification
Loose Tube	PBT tubes1.80±0.1mm outer diameter, contains 4 fibers. The tubes are filled with a thixotropic gel to prevent the ingress of water
Aramid Yarn	Aramid Yarn is laid over the tube core to serve as peripheral strength member
Sheath	LSZH outer Sheathis extruded over the glass yarn. Nominal outer diameter is about 3.40mm
Sheath Color	Black

Element Assembly

Wrapping Tape	Polyester tape or woven tape
Inner Jacket	Black LSZH, thickness 1.20mm
Armor	Steel wire braid, coverage 80%
Sheath	LSZH, thickness 1.80mm, nominal outer diameter 22.0±2.0mm
Sheath Color	Black

Optical Characteristics

Optical Fiber

The Multi-mode fibers meet the ITU G.651 specification, as listed below:

Property	50/125 fibers	62.5/125 fibers
Attenuation @ 850 nm (dB/km)	≤ 3.0	≤ 3.2
Attenuation @ 1300 nm (dB/km)	≤ 1.0	≤ 1.2
Added Attenuation with Bending	≤ 0.5 dB (850 and 1300 nm for 100 turns around a 75 mm mandrel	
Numerical Aperture	0.20 ± 0.02	0.275 ± 0.015
Bandwidth @ 850 nm	400 MHz*km	160 MHz*km
Bandwidth @ 1300 nm	800 MHz*km	500 MHz*km
Core diameter	50 ± 3 μm	62.5 ± 3 μm
Cladding diameter	125 ± 2 μm	
Core-Claddingoffset	≤ 6%	
Cladding non-circularity	≤ 2%	
Core non-circularity	≤ 6%	
Coating diameter	245 ± 10 μm	
Coating / Cladding offset	12 μm	
Proof Test	≥ 0.69 GN/m2 (100 kpsi)	

The fibers contain no splices.

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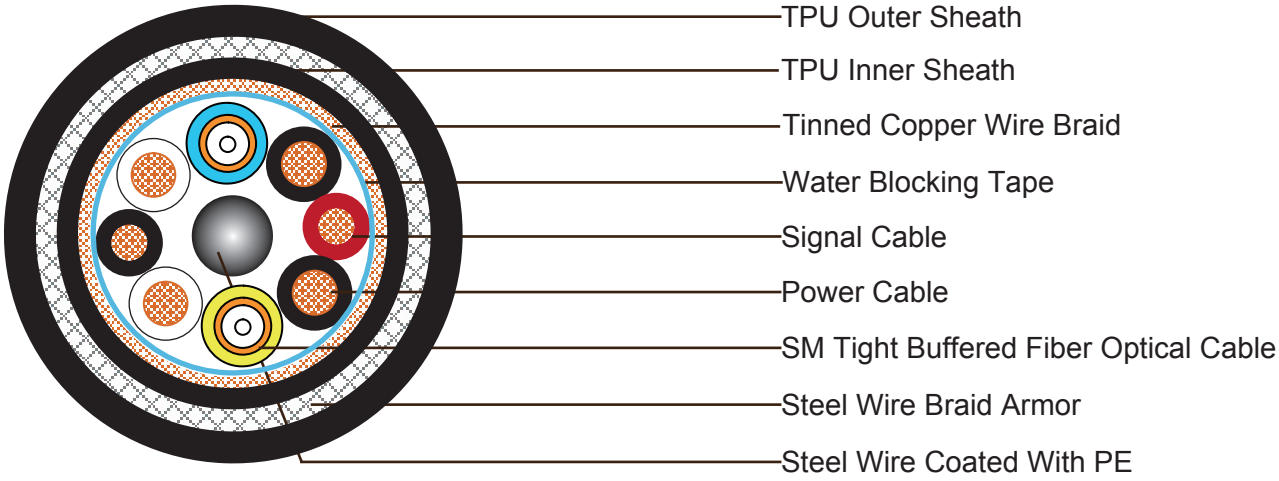
Power Cable + Signal Cable + SM Tight Buffered Fiber Optical Cable SWB Armored TPU Sheathed Composite Cable

Construction:



4x20AWG Power Cable

Conductor	20AWG stranded tinned copper wire
Insulation	XLPE. Nominal outer diameter is 1.5mm
Insulation Color	2xBlack and 2xWhite

2x24AWG Signal Conductor

Conductor	24AWG stranded tinned copper wire
Insulation	XLPE. Nominal outer diameter is 1.1mm
Insulation Color	Red and Black

2Cx9/125um Tight Buffered Fiber Cable

Tight buffered fiber	Single-mode fiber meets the ITU G.652D specification
Strength meber	Aramid yarn

Sheath	PVC, Nominal outer diameter: 1.6mm
Sheath Color	Blue & yellow

Element Assembly

Central Strength Member	1.5mm steel wire coated with PE, OD: 2.1mm
Wrapping Tape	Water blocking tape
Screen	Tinned copper wire braiding, 90% coverage
Inner Jacket	Black TPU
Armor	Steel wire braid, dia. 0.2mm, coverage 80%
Sheath	TPU, nominal outer diameter 12.0mm.
Sheath Color	Black
Cable Weight	250kg/km

Optical Characteristics

Parameter		**Standard Single Mode Fiber per ITU-T G.652D**	**Non-zero Dispersion Shifted fiber per ITU-T G.655**	**Non-zero Dispersion Shifted fiber per ITU-T G.656**	**Units**
Fiber Code		9	8	7	
Attenuation, Loose Tube Cables	@1310nm	≤0.35	N/A	N/A	dB/km
	@1550nm	≤0.22	≤0.22	≤0.22	dB/km
	@1625nm	≤0.25	≤0.26	≤0.26	dB/km
Attenuation, Tight Buffer or Semi-Tight Cables	@1310nm	≤0.38	N/A		dB/km
	@1550nm	≤0.28	N/A		dB/km
Chromatic Dispersion	between 1260 and 1360nm (O Band)	≤3.5	N/A	N/A	ps/(nm*km)
	between 1460 and 1530nm (S Band)	N/A	N/A	2.0-7.0	ps/(nm*km)
	between 1530 and 1565nm (C Band)	≤18	1.0-10.0	7.0-10.0	ps/(nm*km)
	between 1565 and 1625nm (L Band)	≤22	7.0-12.0	10.0-14.0	ps/(nm*km)

Zero Dispersion Wavelength		1310±11	1530-1560	1460-1565	nm
Zero Dispersion Slope		0.093	0.093	0.093	ps/(nm2.km)
Point Discontinuity at 1300nm& 1550nm		0.1	0.1	0.1	dB
Mode Field Diameter	@1300nm	9.3±0.5	N/A	N/A	um
	@1550nm	10.4±0.8	8.5±0.6	9.0±0.5	um
Cable Cut-offWavelength		≤1260	≤1450	≤1450	nm
PMD (Individual fiber)		≤0.2	≤0.2	≤0.2	ps/km1/2
Cladding Diameter		125±1	125±1	125±1	um
Core/Cladding Concentricity Error		≤0.5	≤0.5	≤0.6	um
Cladding Non-Circularity		≤1.0	≤1.0	≤1.0	%
Coating Non-Circularity		≤6.0	≤6.0	≤6.0	%
Primary Coating Diameter		245±10	245±10	245±10	um
Proof-Test Level		100 (0.7)	100 (0.7)	100 (0.7)	Kpsi/GN/m2
Fatigue Coefficient		≥20	≥20	≥20	
Temperature Dependence between 0°C ~ +70°C @ 1310 & 1550nm		0.1	0.1	0.1	Db/km

The fibers contain no splices.

Electrical Properties @20°C:

20AWG Power Cable

Conductor Resistance @ 20°C : 35.3 ohm/km

Insulation Resistance: ≥10GOhmxkm

24AWG Signal Conductor

Conductor Resistance @ 20°C: 95Ohm/km

Insulation Resistance: ≥10GOhmxkm

Mechanical Properties:

Max. Pulling Load

- Under installation: 1500N

- In service: 600N

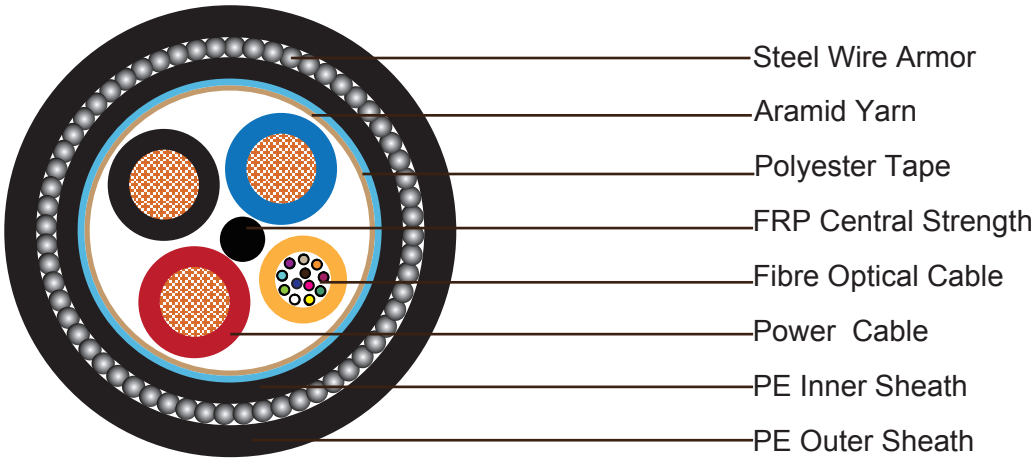
Maximum Compressive Load: 1000N

Minimum Bending Radius:

- Under installation: 20×OD
- During operation: 10×OD.

3x2.5 Power Cable + 12C Fiber Optic Cable SWA Composite Cable

Construction:



3x2.5mm² Power Cable

Conductor	7/0.67mm Stranded bare copper wire
Insulation	XLPE. Thickness is 0.7mm. Outer diameter 3.41mm

12C Fiber Cable

No of fibers in loose tube	12 fibers
Loose tube	outer diameter: 2.4mm (PE or PVC Sheathwould be used over the loose tube if necessary)

Element Assembly

Central Strength Member	1.5mm FRP central strength member with PE/PVC coating if necessary
Strength member	Aramid yarn helically is applied over cable core.
Wrapping Tape	Polyester tape is applied over cable core
Inner Jacket	PE, LSOH is optional, thickness is 1.0mm
Armor	Steel wire armour, size: 0.9mm

Sheath	PE, LSOH is optional, thickness is 1.8mm, nominal outer diameter 17.0±1.0mm
Sheath Color	Black

Optical Characteristics

12C Optic Fiber Cable, G652D (around central member)

Parameter		**Standard Single Mode Fiber per ITU-T G.652D**	**Non-zero Dispersion Shifted fiber per ITU-T G.655**	**Non-zero Dispersion Shifted fiber per ITU-T G.656**	**Units**
Fiber Code		9	8	7	
Attenuation, Loose Tube Cables	@1310nm	≤0.35	N/A	N/A	dB/km
	@1550nm	≤0.22	≤0.22	≤0.22	dB/km
	@1625nm	≤0.25	≤0.26	≤0.26	dB/km
Attenuation, Tight Buffer or Semi-Tight Cables	@1310nm	≤0.38	N/A		dB/km
	@1550nm	≤0.28	N/A		dB/km
Chromatic Dispersion	between 1260 and 1360nm (O Band)	≤3.5	N/A	N/A	ps/(nm*km)
	between 1460 and 1530nm (S Band)	N/A	N/A	2.0-7.0	ps/(nm*km)
	between 1530 and 1565nm (C Band)	≤18	1.0-10.0	7.0-10.0	ps/(nm*km)
	between 1565 and 1625nm (L Band)	≤22	7.0-12.0	10.0-14.0	ps/(nm*km)
Zero Dispersion Wavelength		1310±11	1530-1560	1460-1565	nm
Zero Dispersion Slope		0.093	0.093	0.093	ps/(nm2.km)
Point Discontinuity at 1300nm& 1550nm		0.1	0.1	0.1	dB
Mode Field Diameter	@1300nm	9.3±0.5	N/A	N/A	um
	@1550nm	10.4±0.8	8.5±0.6	9.0±0.5	um
Cable Cut-offWavelength		≤1260	≤1450	≤1450	nm
PMD (Individual fiber)		≤0.2	≤0.2	≤0.2	ps/km1/2
Cladding Diameter		125±1	125±1	125±1	um

Core/Cladding Concentricity Error	≤0.5	≤0.5	≤0.6	um
Cladding Non-Circularity	≤1.0	≤1.0	≤1.0	%
Coating Non-Circularity	≤6.0	≤6.0	≤6.0	%
Primary Coating Diameter	245±10	245±10	245±10	um
Proof-Test Level	100 (0.7)	100 (0.7)	100 (0.7)	Kpsi/GN/m2
Fatigue Coefficient	≥20	≥20	≥20	
Temperature Dependence between 0°C ~ +70°C @ 1310 & 1550nm	0.1	0.1	0.1	Db/km

The fibers contain no splices.

Mechanical Properties:

Tensile load:

Operating: 2650N

Installation: 8000N

Bending radius:

Operating: 15×OD

Installation: 30×OD

Compressive load:

Short term: 6000N

Long term: 4000N

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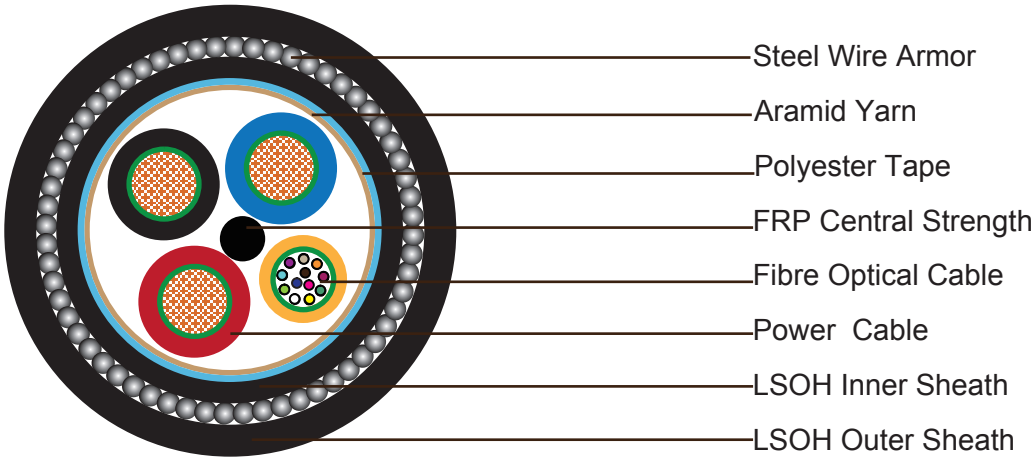
3x2.5 Power Cable+12C Fiber Optic Cable SWA Fire Resistant Composite Cable

Construction:



3x2.5mm² Power Cable

Conductor	7/0.67mm Stranded bare copper wire
Fire barrier	Mica tape wrapped copper conductor
Insulation	XLPE. Thickness is 0.7mm. Outer diameter 4.6-4.7mm

12C Optic Fiber Cable, G652D (around central member)

No of fibers in loose tube	12 fibers
Loose tube	outer diameter: 3.8mm (PE or PVC Sheathwould be used over the loose tube if necessary)
Fire barrier	Mica tape wrapped loose tube

Element Assembly

Central Strength Member	1.9mm FRP central strength member with PE/PVC coating if necessary
Strength member	Aramid yarn helically is applied over cable core.
Inner Jacket	LSZH, thickness is 1.0mm
Armor	Steel wire armour, size: 0.9mm

Sheath	LSZH, thickness is 1.8mm, norminal outer diameter 18.2±1.0mm
Sheath Color	Black

Optical Characteristics

12C Optic Fiber Cable, G652D (around central member)

Parameter		**Standard Single Mode Fiber per ITU-T G.652D**	**Non-zero Dispersion Shifted fiber per ITU-T G.655**	**Non-zero Dispersion Shifted fiber per ITU-T G.656**	**Units**
Fiber Code		9	8	7	
Attenuation, Loose Tube Cables	@1310nm	≤0.35	N/A	N/A	dB/km
	@1550nm	≤0.22	≤0.22	≤0.22	dB/km
	@1625nm	≤0.25	≤0.26	≤0.26	dB/km
Attenuation, Tight Buffer or Semi-Tight Cables	@1310nm	≤0.38	N/A		dB/km
	@1550nm	≤0.28	N/A		dB/km
Chromatic Dispersion	between 1260 and 1360nm (O Band)	≤3.5	N/A	N/A	ps/(nm*km)
	between 1460 and 1530nm (S Band)	N/A	N/A	2.0-7.0	ps/(nm*km)
	between 1530 and 1565nm (C Band)	≤18	1.0-10.0	7.0-10.0	ps/(nm*km)
	between 1565 and 1625nm (L Band)	≤22	7.0-12.0	10.0-14.0	ps/(nm*km)
Zero Dispersion Wavelength		1310±11	1530-1560	1460-1565	nm
Zero Dispersion Slope		0.093	0.093	0.093	ps/(nm2.km)
Point Discontinuity at 1300nm& 1550nm		0.1	0.1	0.1	dB
Mode Field Diameter	@1300nm	9.3±0.5	N/A	N/A	um
	@1550nm	10.4±0.8	8.5±0.6	9.0±0.5	um
Cable Cut-offWavelength		≤1260	≤1450	≤1450	nm
PMD (Individual fiber)		≤0.2	≤0.2	≤0.2	ps/km1/2
Cladding Diameter		125±1	125±1	125±1	um

Core/Cladding Concentricity Error	≤0.5	≤0.5	≤0.6	um
Cladding Non-Circularity	≤1.0	≤1.0	≤1.0	%
Coating Non-Circularity	≤6.0	≤6.0	≤6.0	%
Primary Coating Diameter	245±10	245±10	245±10	um
Proof-Test Level	100 (0.7)	100 (0.7)	100 (0.7)	Kpsi/GN/m2
Fatigue Coefficient	≥20	≥20	≥20	
Temperature Dependence between 0°C ~ +70°C @ 1310 & 1550nm	0.1	0.1	0.1	Db/km

The fibers contain no splices.

Mechanical Properties:

Tensile load:

Operating: 600N

Installation: 1500N

Bending radius:

Operating: 12.5×OD

Installation: 25×OD

Compressive load:

Short term: 1000N

Long term: 300N

Fire Characteristics:

Fire Resistance: IEC 60331

Flame Propagation: IEC60332

Low Smoke Capacity: IEC61034-1/2

Halogen Free: IEC60754-1/2

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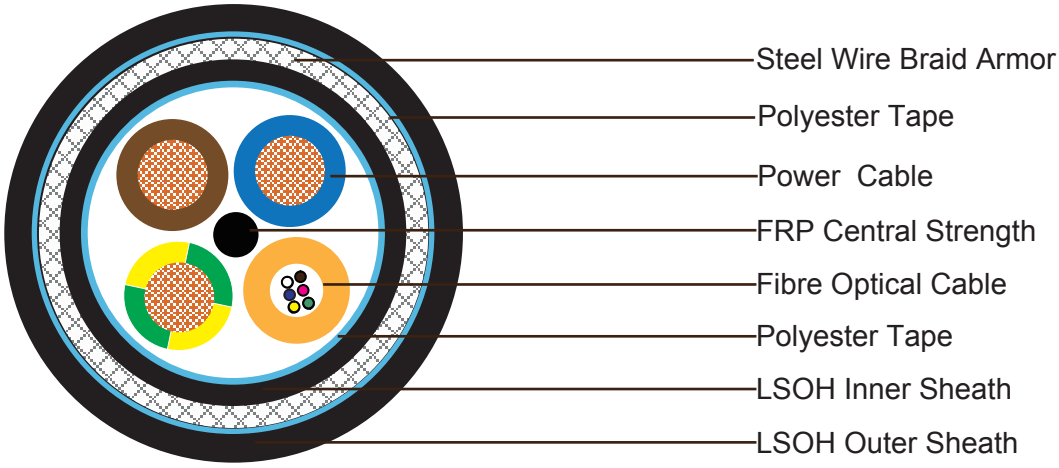
3x2.5 Power Cable + 6C Optical Fibre Cable SWB LSZH Sheathed Composite Cable

Construction:



3x2.5mm² Power Cable (around central member)

Conductor	50/0.25mm Stranded bare copper wire
Insulation	XLPE. Thickness is 0.86mm. Outer diameter 3.5mm
Insulation Color	Blue, Brown and Green/Yellow

6C Optic Fiber Cable

No of fibers in loose tube	6 fibers
Loose tube	Outer diameter: 3.5mm (PE or PVC Sheathwould be used over the loose tube if necessary)

Element Assembly

Wrapping Tape	Ployester tape
Inner Sheath	Grey LSZH, thickness 0.8mm
Armor	Steel wire braid, coverage 99%
Wrapping Tape	Ployester tape
Sheath	LSZH, thickness 1.6mm, norminal outer diameter 16.2mm
Sheath Color	Grey

Optical Characteristics

Table 1. SM

Property	Requirement
Optical properties	
Attenuation @ 1310 nm	0.35 dB/km
Attenuation @ 1550 nm	0.22 dB/km
Point Discontinuity	0.1 dB @ 1310 or 1550 nm
Chromatic Dispersion slope:	0.092 ps/km/nm2
Zero Chromatic Dispersion Wavelength:	1300 - 1324 nm
Mode Field Diameter @ 1300 nm	9.3 0.5m
Mode Field Diameter @ 1550 nm	10.5 1.0m
Fiber Cut-Off Wavelength	1260 70 nm
Cable Cut-Off Wavelength	1260 nm
Geometrical properties	
Cladding Diameter:	125 1.0 m
Core-Cladding Offset	0.8 m
Cladding Non-Circularity:	1.0 %
Colored Coating Diameter:	250 10m
Coating / Cladding Offset:	12m
Mechanical properties	
Proof Test:	0.7 GN/m2 for 1 second

Table 2. MM

Property	50/125 fibers	62.5/125 fibers
Attenuation @ 850 nm (dB/km)	≤ 3.0	≤ 3.2
Attenuation @ 1300 nm (dB/km)	≤ 1.0	≤ 1.2
Added Attenuation with Bending	≤ 0.5 dB (850 and 1300 nm for 100 turns around a 75 mm mandrel	
Numerical Aperture	0.20 ± 0.02	0.275 ± 0.015
Bandwidth @ 850 nm	400 MHz*km	160 MHz*km

Bandwidth @ 1300 nm	800 MHz*km	500 MHz*km
Core diameter	50 ± 3 μm	62.5 ± 3 μm
Cladding diameter	125 ± 2 μm	
Core-Claddingoffset	≤ 6%	
Cladding non-circularity	≤ 2%	
Core non-circularity	≤ 6%	
Coating diameter	245 ± 10 μm	
Coating / Cladding offset	12 μm	
Proof Test	≥ 0.69 GN/m2 (100 kpsi)	

Electrical and Physical Properties @20°C(Power Cable):

Max. Electrical Resistance: 7.98Ohm/km

Insulation Resistance: ≥5500 MOhmxkm

Dielectric Strength: 1500V/1'

Physical Characteristic:

Min Bending Radius: 240mm

Operating Temperature: -35°C/+80°C

Fire Characteristics:

Flame Propagation: IEC60332-1

Low Smoke Capacity: IEC61034-1/2

Halogen Free: IEC60754-1/2

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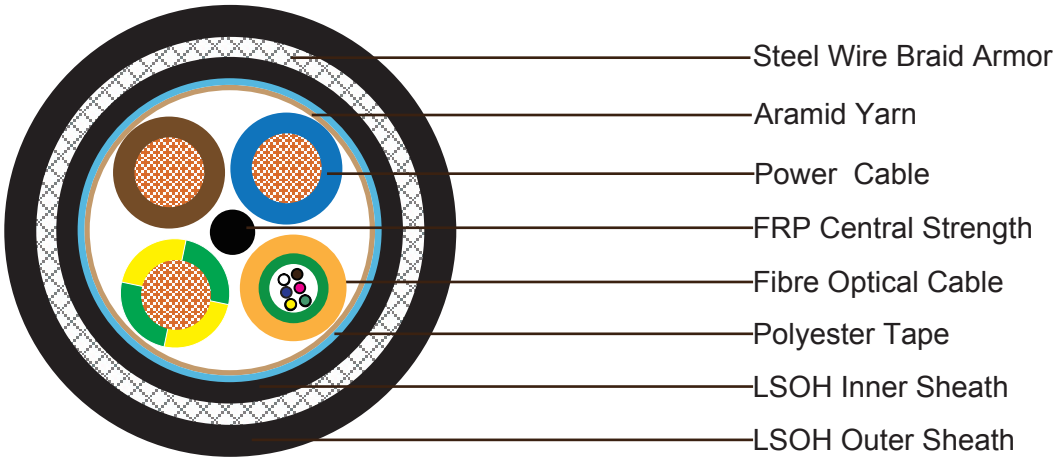
3x2.5 Power Cable + 6C Fiber Optic Cable SWB Armored Composite Cable

Construction:



3x2.5mm² Power Cables

Conductor	7/0.67mm Stranded bare copper wire
Insulation	XLPE compound. Nominal outer diameter 3.41mm
Insulation Color	Blue, Brown and Green/Yellow

6 Core Central Loose Tube Fiber Optic Cable

Optical Fiber	Single-mode cabled fibers meet or exceed the requirements of ITUT G.652.D specification
Loose Tube	PBT tubes1.80±0.1mm outer diameter, contains 6 fibers, The tubes are filled with a thixotropic gel to prevent the ingress of water
Fiber Glass Yarn	Fiber Glass Yarn is laid over the tube core to serve as peripheral strength member.
Sheath	PE outer Sheathis extruded over the glass yarn, Nominal outer diameter is about 3.40mm
Sheath Color	Black

Element Assembly

Central Strength Member	1.5mm FRP central strength member with PE/PVC coating if necessary
Strength member	Aramid yarn helically is applied over cable core.
Inner Jacket	Black PE, thickness 1.00mm
Armor	Steel wire braid, coverage 80%, 0.25mm steel tape armor is optional
Sheath	PE, thickness 1.80mm, nominal outer diameter 16.00±1.0mm
Sheath Color	Black

Optical Characteristics

Single-mode fibers meet or exceed the requirements of ITUT G.652.D, as listed in below:

Parameter		Standard Single Mode Fiber per ITU-T G.652D	Non-zero Dispersion Shifted fiber per ITU-T G.655	Non-zero Dispersion Shifted fiber per ITU-T G.656	Units
Fiber Code		9	8	7	
Attenuation, Loose Tube Cables	@1310nm	≤0.35	N/A	N/A	dB/km
	@1550nm	≤0.22	≤0.22	≤0.22	dB/km
	@1625nm	≤0.25	≤0.26	≤0.26	dB/km
Attenuation, Tight Buffer or Semi-Tight Cables	@1310nm	≤0.38	N/A		dB/km
	@1550nm	≤0.28	N/A		dB/km
Chromatic Dispersion	between 1260 and 1360nm (O Band)	≤3.5	N/A	N/A	ps/(nm*km)
	between 1460 and 1530nm (S Band)	N/A	N/A	2.0-7.0	ps/(nm*km)
	between 1530 and 1565nm (C Band)	≤18	1.0-10.0	7.0-10.0	ps/(nm*km)
	between 1565 and 1625nm (L Band)	≤22	7.0-12.0	10.0-14.0	ps/(nm*km)
Zero Dispersion Wavelength		1310±11	1530-1560	1460-1565	nm
Zero Dispersion Slope		0.093	0.093	0.093	ps/(nm2. km)
Point Discontinuity at 1300nm& 1550nm		0.1	0.1	0.1	dB
Mode Field Diameter	@1300nm	9.3±0.5	N/A	N/A	um
	@1550nm	10.4±0.8	8.5±0.6	9.0±0.5	um

Cable Cut-off Wavelength	≤1260	≤1450	≤1450	nm
PMD (Individual fiber)	≤0.2	≤0.2	≤0.2	ps/km1/2
Cladding Diameter	125±1	125±1	125±1	um
Core/Cladding Concentricity Error	≤0.5	≤0.5	≤0.6	um
Cladding Non-Circularity	≤1.0	≤1.0	≤1.0	%
Coating Non-Circularity	≤6.0	≤6.0	≤6.0	%
Primary Coating Diameter	245±10	245±10	245±10	um
Proof-Test Level	100 (0.7)	100 (0.7)	100 (0.7)	Kpsi/GN/m2
Fatigue Coefficient	≥20	≥20	≥20	
Temperature Dependence between 0°C ~ +70°C @ 1310 & 1550nm	0.1	0.1	0.1	Db/km

The fibers contain no splices.

Mechanical Properties:

Minimum Bending Radius:

Under Installation: 25×OD

During Operation: 12.5×OD

Temperature Range:

Operating Temperature Range: -40°C (-40 oF to +70°C (+158 oF)

Storage Temperature Range: -50°C (-58 oF to +70°C (+158 oF)

Maximum Crush Resistance:

Long Term: 300N

Short Term: 10000N

Minimum Tensile Resistance:

Under Installation: 1500N

During Operation: 600N.

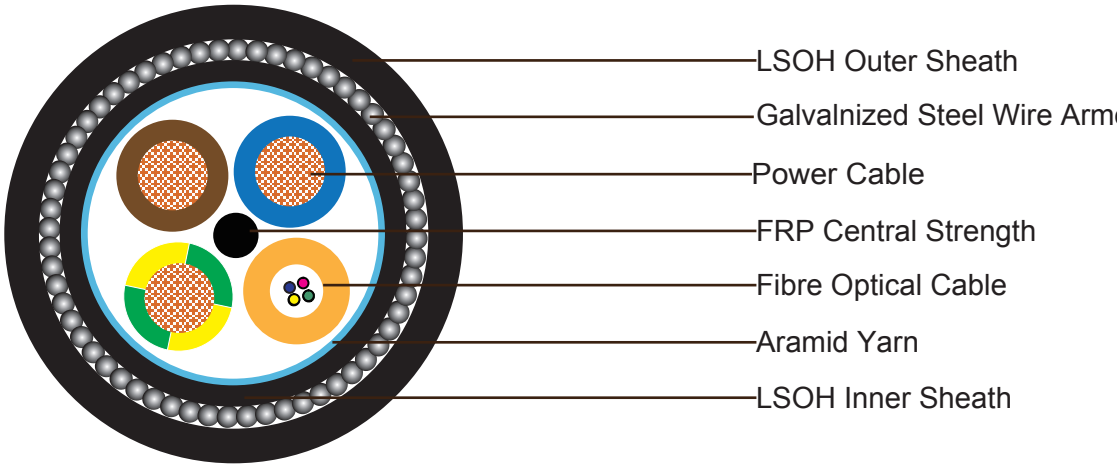
Repeated Impact: 4.0 N.m (J

Twist (Torsion): 180x10 times, 125xOD

Cyclic Flexing: 25 cycles for armoured cables;

3x2.5 Power Cable + 4C Fiber Optic Cable SWA LSZH Sheathed Composite Cable

Construction:



3x2.5mm² Power Cable

Conductor	50/0.25mm Stranded bare copper wire
Insulation	XLPE. Thickness is 0.7mm. Outer diameter 3.5mm
Insulation Color	Blue, Brown and Green/Yellow

4C Optic Fiber Cable, G652D (around central member)

No of fibers in loose tube	4 fibers
Loose tube	Outer diameter: 3.5mm (PE or PVC Sheathwould be used over the loose tube if necessary)

Element Assembly

Central Strength Member	Steel wire central strength member with PE coating if necessary
Strength member	Aramid yarn helically is applied over cable core.
Inner Jacket	LSZH, thickness is 1.0mm
Armor	Galvanised steel wire armour, Outer diameter: 0.9mm

Sheath	LSZH, thickness is 1.6mm, norminal outer diameter 17.0mm
Sheath Color	Black

Optical Characteristics

4C Optic Fiber Cable, G652D (around central member)

Parameter		**Standard Single Mode Fiber per ITU-T G.652D**	**Non-zero Dispersion Shifted fiber per ITU-T G.655**	**Non-zero Dispersion Shifted fiber per ITU-T G.656**	**Units**
Fiber Code		9	8	7	
Attenuation, Loose Tube Cables	@1310nm	≤0.35	N/A	N/A	dB/km
	@1550nm	≤0.22	≤0.22	≤0.22	dB/km
	@1625nm	≤0.25	≤0.26	≤0.26	dB/km
Attenuation, Tight Buffer or Semi-Tight Cables	@1310nm	≤0.38	N/A		dB/km
	@1550nm	≤0.28	N/A		dB/km
Chromatic Dispersion	between 1260 and 1360nm (O Band)	≤3.5	N/A	N/A	ps/(nm*km)
	between 1460 and 1530nm (S Band)	N/A	N/A	2.0-7.0	ps/(nm*km)
	between 1530 and 1565nm (C Band)	≤18	1.0-10.0	7.0-10.0	ps/(nm*km)
	between 1565 and 1625nm (L Band)	≤22	7.0-12.0	10.0-14.0	ps/(nm*km)
Zero Dispersion Wavelength		1310±11	1530-1560	1460-1565	nm
Zero Dispersion Slope		0.093	0.093	0.093	ps/(nm2.km)
Point Discontinuity at 1300nm& 1550nm		0.1	0.1	0.1	dB
Mode Field Diameter	@1300nm	9.3±0.5	N/A	N/A	um
	@1550nm	10.4±0.8	8.5±0.6	9.0±0.5	um
Cable Cut-offWavelength		≤1260	≤1450	≤1450	nm
PMD (Individual fiber)		≤0.2	≤0.2	≤0.2	ps/km1/2
Cladding Diameter		125±1	125±1	125±1	um

Core/Cladding Concentricity Error	≤0.5	≤0.5	≤0.6	um
Cladding Non-Circularity	≤1.0	≤1.0	≤1.0	%
Coating Non-Circularity	≤6.0	≤6.0	≤6.0	%
Primary Coating Diameter	245±10	245±10	245±10	um
Proof-Test Level	100 (0.7)	100 (0.7)	100 (0.7)	Kpsi/GN/m2
Fatigue Coefficient	≥20	≥20	≥20	
Temperature Dependence between 0°C ~ +70°C @ 1310 & 1550nm	0.1	0.1	0.1	Db/km

The fibers contain no splices.

Mechanical Properties:

Tensile load:

Short term: 600N

Long term: 1500N

Fire Characteristics:

Flame Propagation: IEC60332-1

Low Smoke Capacity: IEC61034-1/2

Halogen Free: IEC60754-1/2

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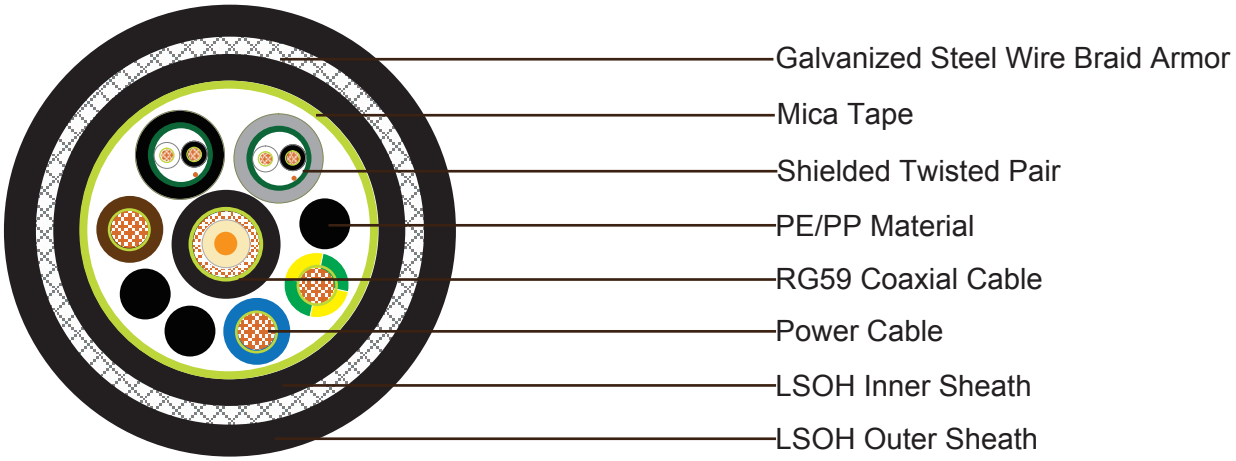
1x RG59 + 3x2.5 Power Cable + 2x1x2x24AWG Data Pairs SWB LSZH Sheathed Fire Resistant & Mud Resistant Composite Cable

Construction:



1x75Ohm RG59 Coaxial Cable(in the center of the cable core)

Conductor	0.58mm Solid copper conductor
Insulation	Polyethylene. Thickness 1.56mm
Shield	Braid of bare copper wire. Coverage ≥ 95%
Fire Barrier	Mica tape
Sheath	FRLSZH sheath. Nominal outer diameter 6.7mm
Sheath Color	Black

2x1x2x24AWG Shielded Twisted Pair (around coaxial cable)

Conductor	7/0.2mm Stranded tinned copper
Fire Barrier	Mica tape
Insulation	PVC material. Thickness 0.7mm
Insulation Color	Black and white
Shield	Aluminium polyester tape
Drain Wire	24 AWG stranded tinned copper drain wire
Sheath	FRLSZH sheath. Nominal outer diameter 8.5mm. Thickness 0.8mm

Sheath Color	Black and Grey

3x2.5mm² Power Cable (around coaxial cable)

Conductor	2.5mm² Stranded tinned copper wire
Fire Barrier	Mica tape
Insulation	XLPE. Nominal outer diameter 4.2mm
Insultion Color	Blue, Brown and Green/Yellow

Element Assembly

Filler	PE or PP material
Fire Barrier	Mica tape
Inner Sheath	Black FRLSZH, thickness 1.5mm
Armor	Galvanized steel wire braid, coverage 95%
Outer Sheath	FRLSZH, thickness 1.5mm, nominal outer diameter 31.0±2.0mm
Sheath Color	Black

Electrical and Physical Properties @20°C:

Coaxial Cable

Impedance: 75±3Ohm (@1MHz)

Max. Attenuation: 7.5dB/100m @50MHz

Power Cable

Electrical Resistance: 7.56Ohm/km

Insulation Resistance: ≥5500 MOhmxkm

Data Pairs

Electrical Resistance: 90Ohm/km

Insulation Resistance: ≥200 MOhmxkm

Element Assembly:

Min Bending Radius: 420mm

Operating Temperature: -30°C/+80°C

Fire Performance:

Low Smoke Capacity: IEC61034-1/2

Halogen Free: IEC60754-1/2

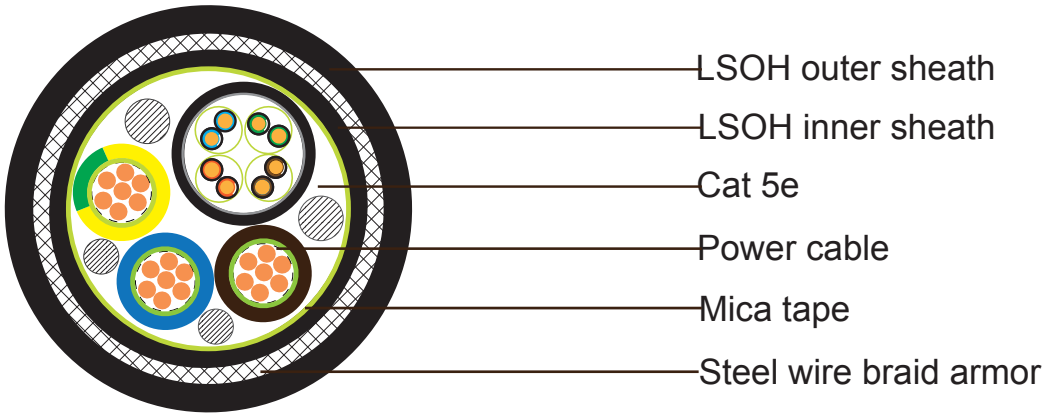
Flame Propagation: IEC60332

Fire Resistant: IEC60331-21

Mud Resistant & other properties could be met upon request

Cat5e+3x2.5 Power Cable SWB LSZH Sheathed Fire Resistant & Mud Resistant Composite Cable

Construction:



CAT5E 4x2x24AWG

Conductor	Solid copper conductor
Insulation	Polyethylene/Silicone Rubber
Fire Barrier	Mica tape
Sheath	FRLSZH sheath. Nominal outer diameter 9.5mm
Sheath Color	Black

3x2.5mm² Power Cable

Conductor	2.5mm² Stranded tinned copper wire
Fire Barrier	Mica tape
Insulation	XLPE. Nominal outer diameter 5.0mm
Insultion Color	Blue, Brown and Green/Yellow

Element Assembly

Filler	PE or PP material
Fire Barrier	Mica tape
Inner Sheath	Black FRLSZH, thickness 1.0mm
Armor	Galvanized steel wire braid, coverage 95%
Outer Sheath	FRLSZH, thickness 1.6mm, nominal outer diameter 23.0±1.5mm
Sheath Color	Black

Electrical and Physical Properties @20°C:

Cat5e

FREQ (MHz)	NEXT(dB/100m) Minimum Value/Typical Value/ Standard Value	IL (dB/100m)	SRL (dB/100m) Minimum Value/Typical Value/ Standard Value
1	64.0/71.0/62.0	2.0	24.5/26.0/23.0
4	55.0/62.0/53.0	4.0	24.5/26.0/23.0
8	49.5/57.0/48.0	5.7	24.5/26.0/23.0
10	49.0/56.0/47.0	6.4	24.5/26.0/23.0
16	44.9/52.0/44.0	8.2	24.5/26.0/23.0
20	42.5/48.0/42.0	9.2	24.5/26.0/23.0
25	42.0/48.0/41.0	10.3	24.5/26.0/23.0
31.25	40.6/48.0/39.0	11.6	22.5/24.0/21.0
62.5	36.1/43.0/35.0	16.9	19.5/22.0/18.0
100	34.0/40.0/32.0	21.8	17.5/20.0/16.0

Power Cable

Electrical Resistance: 12.1Ohm/km

Insulation Resistance: ≥5500 MOhmxkm

Element Assembly:

Min Bending Radius: 420mm

Operating Temperature: -30°C/+80°C

Characteristic Impedance	100 Ohm±15%
Nominal Velocity of Propagation (NVP)	69%
Max. Dc Resistance	9.38 Ohm/100m
Max. Resistance Unbalance	5%
Max. Mutual Capacitance:	5.6 nF/100m
Maximum Capacitance Unbalance	330 pF/100m
Max. Propagation Delay Skew	30 ns/100m
Max. Propagation Delay	536 ns/100m@100 mhz
Max. Pulling Load	80N

Fire Performance:

Low Smoke Capacity: IEC61034-1/2

Halogen Free: IEC60754-1/2

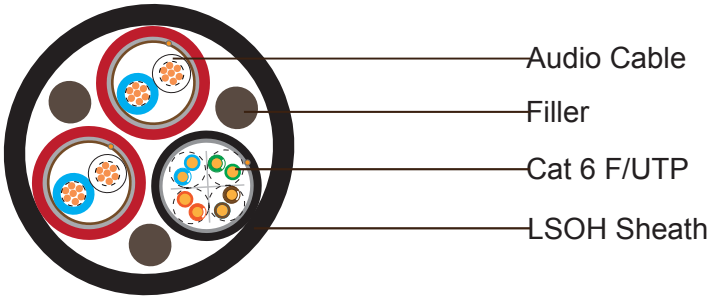
Flame Propagation: IEC60332

Fire Resistant: IEC60331-21

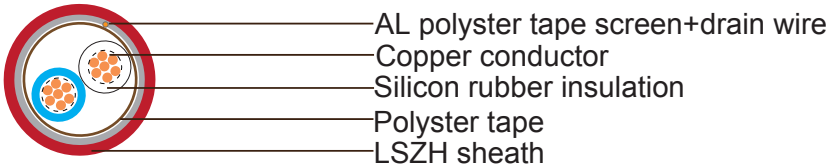
Mud Resistant & other properties could be met upon request

2x(2C1.5mm²) Audio Cable + Cat6 F/UTP LSZH Sheathed Unarmoured Composite Cable

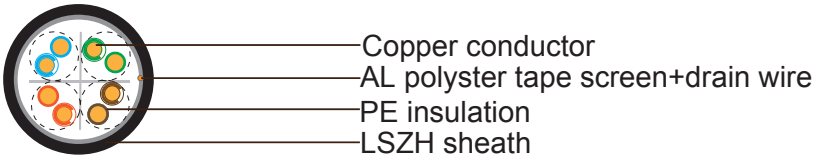
Construction:



Audio Cable



Cat 6 F/UTP



2Cx1.5mm² Audio Cable

Conductor	1.5mm² Stranded copper wire, class 5 to IEC60228.
Insulation	Fire resistant silicone rubber compound. Nominal thickness 0.8mm.
Insulation Color	White and blue.
Screen	Alumminum tape with tinned copper drain wire.
Sheath	LSZH sheath. Nominal thickness 1.0 mm.
Sheath Color	Red.
General Standard	Basic design to EN50288-7.

Cat 6 F/UTP

Conductor	24 AWG stranded plain copper.
Insulation	PE material. Nominal diameter is 0.97mm.
Insulation Color	White-orange,Orange;White-blue,Blue;
	White-green,Green;White-brown,Brown.
Screen	Alumminum tape with tinned copper drain wire.
Sheath	LSZH sheath. Nominal overall diameter is 6.5 mm.
Sheath Color	Black or Grey or Blue. Other colors also available upon request.
Applications	IEEE 802.3: 10Base-T; 100Base-T; 1000Base-T;
	IEEE 802.5 16 MB; ISDN; TPDDI; ATM.
Standards	ISO/IEC 11801, IEC 61156-5,EN 50173,ANSI/TIA 568B.

Element Assembly

Filler	PP material .
Wrapping Tape	Polyester tape or woven tape.
Outer Sheath	High flexible LSZH. Nominal thickness 1.8mm.
Sheath Color	Black. Other colors also available upon request.

Electrical and Physical Properties@20°C:

Audio Cable

Max.Electrical Resistance: 12.3Ohm/km
Min. Insulation Resistance: 1000 MOhm/km
Operating Temperature: -20°C/+90°C
Voltage rating: 300/500V
Insulation spark test: 7000 V r.m.s./H.F.
Max. Attenuation: 0.88 dB/km @800HZ
Max. Inductance: 0.75mH/km

Cat6 F/UTP (1-250MHz)

Max.Electrical Resistance: 93.8 Ohm/km
Min.Insulation Resistance: 2000 MOhm/km
Operating Temperature: -20°C/+70°C

Max.Resistance Unbalance: 5%
Max. Mutual Capacitance: 5.6nF/100m
Max. Capacitance Unbalance: 330pF/100m
Characteristic Impedance : 100 ± 15 (1-250MHz)
Nominal Velocity of Propagation: 69%
Max. Propagation Delay : 536ns/100m@100MHz
Max.Propagation Delay skew : 45ns/100m(1-125MHz)
Test voltage (DC, 1 min) Core/Core : 1000V

Fire Performance:

Audio Cable

Fire Resistance : IEC60331
Flame Retardance : IEC60332-1-2
Fire Propagation : IEC60332-3-22
Halogen Free: IEC60754-1/2
Low Smoke Capacity: IEC61034-1/2
Oxygen Index : ISO 4589-2
Temperature Index : ISO 4589-3

Cat6 F/UTP

Flame Retardance : IEC60332-1-2
Fire Propagation : IEC60332-3-22
Halogen Free: IEC60754-1/2
Low Smoke Capacity: IEC61034-1/2
Oxygen Index : ISO 4589-2
Temperature Index : ISO 4589-3

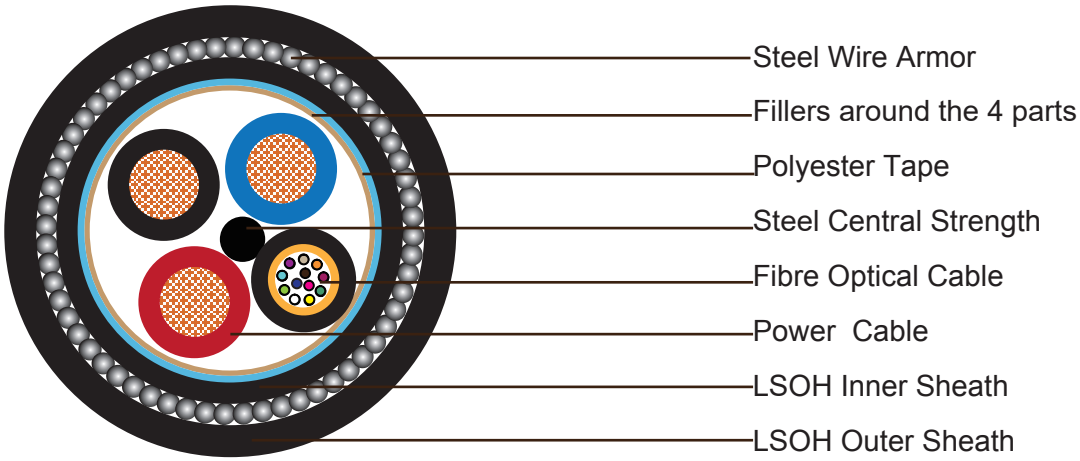
Element Assembly

Flame Retardance : IEC60332-1-2
Fire Propagation : IEC60332-3-22
Halogen Free: IEC60754-1/2
Low Smoke Capacity: IEC61034-1/2
Oxygen Index : ISO 4589-2
Temperature Index : ISO 4589-3

* The data included in the present catalogue are merely indicative; Caledonian Cables Limited reserves to itself the right to change them as its own discretion in any time.2

3x2.5 Power Cable + 12C Fiber Optic Cable SWA LSOH Sheathed Composite Cable

Construction:



3x2.5mm² Power Cable

Conductor	7/0.67mm Stranded bare copper wire
Insulation	XLPE. Thickness is 0.7mm. Outer diameter 3.41mm

12C Fiber Cable

No of fibers in loose tube	12 fibers
Loose tube	outer diameter: 2.2+/-0.2mm (Aramid yarn &PE Sheath would be used over the loose tube)

Element Assembly

Central Strength Member	Steel central strength member with PE/PVC coating if necessary
Fillers	PP fillers will be added around the 4 cable cores.
Wrapping Tape	Polyester tape is applied over cable core if necessary
Inner Jacket	PE, LSOH is optional, thickness is 1.0mm
Armor	Steel wire armour

Sheath	PE, LSOH is optional, thickness is 1.8mm, nominal outer diameter 16.2±2.0mm
Sheath Color	Black

Optical Characteristics

Property	50/125 fibers	62.5/125 fibers
Attenuation @ 850 nm (dB/km)	≤ 3.0	≤ 3.2
Attenuation @ 1300 nm (dB/km)	≤ 1.0	≤ 1.2
Added Attenuation with Bending	≤ 0.5 dB (850 and 1300 nm) for 100 turns around a 75 mm mandrel	
Numerical Aperture	0.20 ± 0.02	0.275 ± 0.015
Bandwidth @ 850 nm	400 MHz*km	160 MHz*km
Bandwidth @ 1300 nm	800 MHz*km	500 MHz*km
Core diameter	50 ± 3 μm	62.5 ± 3 μm
Cladding diameter	125 ± 2 μm	
Core-Cladding offset	≤ 6%	
Cladding non-circularity	≤ 2%	
Core non-circularity	≤ 6%	
Coating diameter	245 ± 10 μm	
Coating / Cladding offset	12 μm	
Proof Test	≥ 0.69 GN/m^2 (100 kpsi)	

The fibers contain no splices.

Mechanical Properties:

Tensile load:

Operating: 3000N Installation: 5000N

Bending radius:

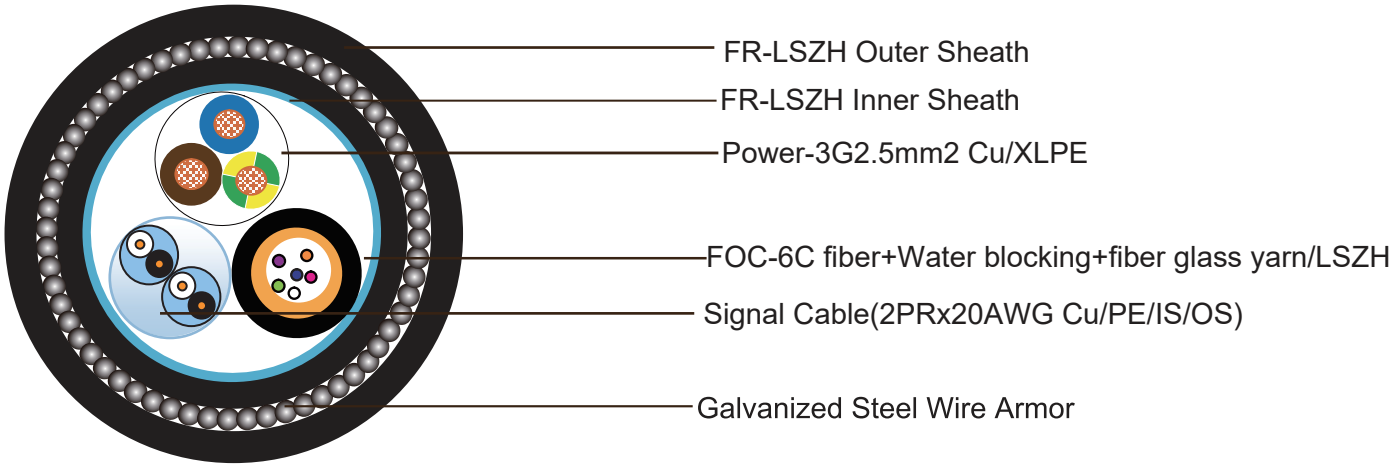
Operating: 15×OD Installation: 28×OD

Compressive load:

Short term: 5500N Long term: 3500N

Composite Cable Armoured (Power 3G2.5+Signal 2PR+FO 6C)/FRLSZH/ SWA/FRLSZH

Construction:



Power Cable 3G2.5mm2

Conductor	2.5mm² Stranded copper wire
Strands	7/0.68mm
Insulation	Halogen free XLPE. Nominal thickness 0.7mm, diameter 3.55mm
Insulation Color	Blue,Brown, Green/Yellow as the ground core

Twisted Pair Signal Cable

Conductor	Solid copper conductor 20AWG=1/0.81mm to IEC 60228 Class1
Insulation	XLPE, nom. diameter 1.6+/-0.2 mm
Individual Screen	Individual Al-foil pair screen with tinned copper drain wire,coverage>100%
Overall Screen	Overall Al-foil screen, the aluminum side contact with the drain wire
Sheath	Without sheath

6C Optic Fiber Cable, Single-mode

No. of fibers in loose tube	9/125um fibers meet or exceed the requirements of ITUT G.652 D
Loose tube	Central loose tube cable contains one tube with 6 single mode fibers, which are filled with thixotropic water blocking Gel.
Strength member	Water blocking fiber glass strength yarn
Sheath	FR-LSZH.Overall diam. 6+/-1.5mm.

Element Assembly

Filler	PE or PP material
Binder	Wrapping tape
Inner Sheath	FR-LSZH, thickness 1.2mm nominal
Armour	Galvanized steel wire armour, diameter of steel-1.25mm
Outer Sheath	FR-LSZH, thickness 1.6mm, nominal outer diameter 23±3mm
Sheath color	Black,approx. weight 319kg/km

Electrical and Physical Properties @20°C:

1) Power Cable

Electrical Resistance: <7.41 ohm/km
Insulation Resistance:>1000 MOhm.km
Rated voltage: 0.6/1KV
Testing voltage:3500V

2) 2 Pair Signal Cable

Conductor Resistance: <35.8 Ohm/km
Insulation Resistance: >1000MOhm.km
Operating Voltage: 150/250V
Test Voltage: 1500 V/5mins

Operating Temperature: -25°C--- +90°C
Minimum bending radius during installation (mobile state): 12 x Overall Diameter
Minimum bending radius during operation (fixed state): 9 x Overall Diameter

Optical Characteristics:

The Single-mode fibers meet the ITU G.65D specification, as listed below

Parameter		Standard Single Mode Fiber per ITU-T G.652D	Non-zero Dispersion Shifted fiber per ITU-T G.655	Non-zero Dispersion Shifted fiber per ITU-T G.656	Units
Fiber Code		9	8	7	
Attenuation, Loose Tube Cables		Standard	Metro Area	Long Haul	
	@1310nm	≤0.35	-	-	dB/km
	@1550nm	≤0.22	≤0.22	≤0.22	dB/km
	@1625nm	≤0.26	≤0.26	≤0.26	dB/km
Attenuation, Tight Buffer or Semi-Tight Cables					
	@1310nm	≤0.38	-		dB/km
	@1550nm	≤0.28	-		dB/km
Chromatic Dispersion	between 1260 and 1360nm (O Band)	≤3.5	NA-	-	ps/(nm*km)
	between 1460 and 1530nm (S Band)	-	-	2.0-7.0	ps/(nm*km)
	between 1530 and 1565nm (C Band)	≤18	1.0-10.0	7.0-10.0	ps/(nm*km)
	between 1565 and 1625nm (L Band)	≤22	7.0-12.0	10.0-14.0	ps/(nm*km)
Zero Dispersion Wavelength		1310±11	≤1520	≤1420	nm
Zero Dispersion Slope		0.093	0.093	0.093	ps/(nm2.km)
Point Discontinuity at 1300nm& 1550nm		0.1	0.1	0.1	dB
Mode Field Diameter	@1300nm	9.3±0.5	-		um
	@1550nm	10.4±0.8	8.5±0.6	9.0±0.5	um
Cable Cut-off Wavelength		≤1260	≤1450	≤1310	nm
PMD (Individual fiber)		≤0.2	≤0.2	≤0.2	ps/km 1/2
Cladding Diameter		125±1	125±1	125±1	um

Parameter		Standard Single Mode Fiber per ITU-T G.652D	Non-zero Dispersion Shifted fiber per ITU-T G.655	Non-zero Dispersion Shifted fiber per ITU-T G.656	Units
Core/Cladding Concentricity Error		≤0.5	≤0.5	≤0.6	um
Cladding Non-Circularity		≤1.0	≤1.0	≤1.0	%
Coating Non-Circularity		≤6.0	≤6.0	≤6.0	%
Primary Coating Diameter		245±10	245±10	245±10	um
Proof-Test Level		100 (0.7)	100 (0.7)	100 (0.7)	Kpsi/GN/m^2
Fatigue Coefficient		≥20	≥20	≥20	
Temperature Dependence between 0°C ~ +70°C @ 1310 & 1550nm		0.1	0.1	0.1	Db/km

Standards:

Flame Retardance	IEC 60332-1
Reduced Fire Propagation (Vertically-mounted bundledtest)	IEC 60332-3-244
Halogen Free	IEC 60754-1
No Corrosive Gas Emission	IEC 60754-2
Minimum Smoke Emission	IEC 61034-1,2
Design Standard	IEC 60079-14; RoHS 3 2015/863/EU ; EN 50288-7

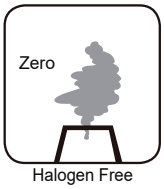
Standard


Flame Retardancy
IEC60332-1


Reduced Fire Propagation
EN 60332-3-24


Low Corrosivity
IEC60754-2
EN50267-2-2/3
NF C 32-074

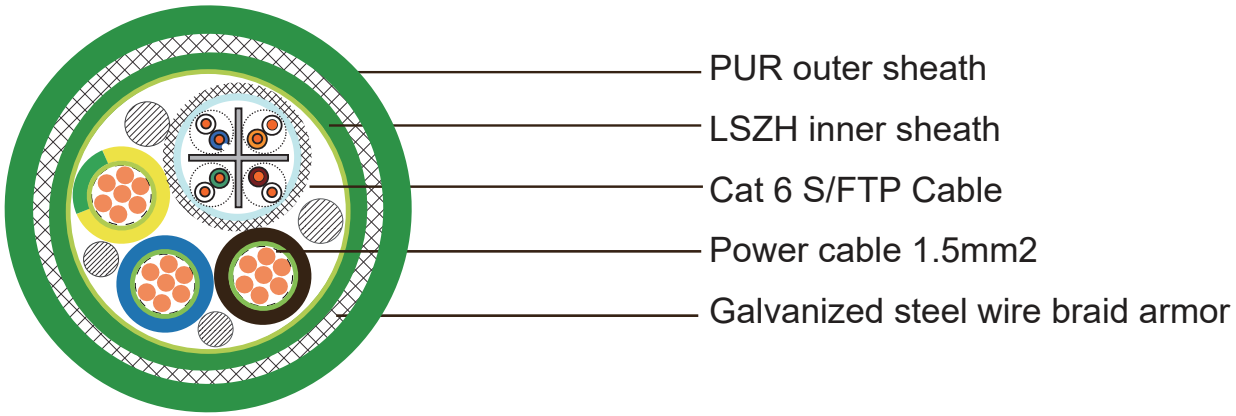

Low Smoke Emission
IEC 61034-1&2
EN 50268-1&2/NF C32-073



Halogen Free
IEC60754-1
EN50267-2-1

Composite Cable Armoured 3G1 .5mm2+ Cat6 S/FTP (4x2x23AWG Cu/PE/ Al-foil pair screen/TCWB) /LSZH/GSWB/PUR

Consturction:



CAT6 4x2x23AWG

Conductor	Solid copper conductor 23AWG
Insulation	Foam PE, nom. diameter 1.43 ± 0.2 mm
Twisted pair	4 twisted pairs as the cable core,individual Al-foil pair screen,coverage>100%
Screen	Tinned copper wire braiding, 0.1mm tinned copper diameter
Sheath	Without sheath

3x1.5mm² Power Cable

Conductor	1.5mm² Stranded copper wire
Strands	30/0.25mm
Insulation	Halogen free XLPE. Nominal thickness 0.6mm, diameter 2.3+/-0.5mm
Insultion Color	Blue,Brown, Green/Yellow as the ground core

Element Assembly

Filler	PE or PP material
Binder	Wrapping tape
Inner Sheath	LSZH, thickness 1.0mm nominal
Armor	Galvanized steel wire braid, coverage 85%
Outer Sheath	PUR, thickness 1.1mm, nominal outer diameter 15.9±1.5mm
Sheath Color	Green,approx. weight 319kg/km

Electrical and Physical Properties @20°C:

1) Cat6 S/FTP Data Cable

Characteristic Impedance:100 +/- 5 ohm
Conductor Resistance: 75 Ohm/km; Loop resistance<: 140 Ohm/km
Insulation Resistance: 5G MOhm.km; Operating capacity: 55+/-5 nF/km
Operating voltage: 100V
Test voltage: 1000 V

2) Power Cable

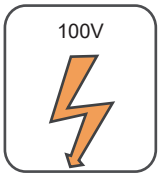
Electrical Resistance: 12.1Ohm/km
Insulation Resistance: ≥5GOhmxkm
Rated voltage: 0.6/1KV; Testing voltage:3500V
Minimum bending radius during installation (mobile state): 9 x Overall Diameter
Minimum bending radius during operation (fixed state): 7 x Overall Diameter
Operating Temperature: -30°C--- +85°C

Transmission Properties-Typical:

FREQ MHz	NEXT dB/100m	Attenuation dB/100m	RL dB/100m	ELFEXT dB/100m	PSNEXT dB/100m	PSELFEXT dB/100m
1.0	74.3	2.0	20.0	67.8	72.3	64.8
4.0	65.3	3.8	23.0	55.8	63.3	52.8
8.0	60.8	5.3	24.5	49.7	58.8	46.7
10.0	59.3	6.0	25.0	47.8	57.3	44.8
16.0	56.2	7.6	25.0	43.7	54.2	40.7
20.0	54.8	8.5	25.0	41.8	52.8	38.8
25.0	53.3	9.5	24.3	39.8	51.3	36.8
31.3	51.9	10.7	23.6	37.9	49.9	34.9
62.5	47.4	15.4	21.5	31.9	45.4	28.9
100.0	44.3	19.8	20.1	27.8	42.3	24.8
200.0	39.8	29.0	18.0	21.8	37.8	18.8
250.0	38.3	32.8	17.3	19.8	36.3	16.8
300.0	37.1	36.4	16.8	18.3	35.1	15.3
350.0	36.1	39.8	16.3	16.9	34.1	13.9
400.0	35.3	43.0	15.9	15.8	33.3	12.8
450.0	34.5	46.3	15.5	14.7	32.5	11.7
500.0	33.8	48.9	15.2	13.8	31.8	10.8

Standards:

Oil Resistance	IEC 60811-404 (7x24h at 90°C)
Flame Retardance	IEC 60332-1
Halogen Free	IEC 60754-1
No Corrosive Gas Emission	IEC 60754-2
Minimum Smoke Emission	IEC 61034-2
Design Standard	IEC 60079-14

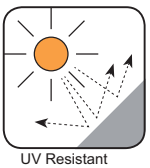


Rated Voltage

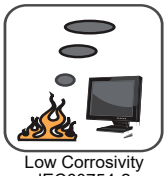
Standard


Flame Retardancy
IEC60332-1


IRM 902
Mineral Oil Resistant


UV Resistant


Low Toxicity
NES 02-713/NF C 20-454

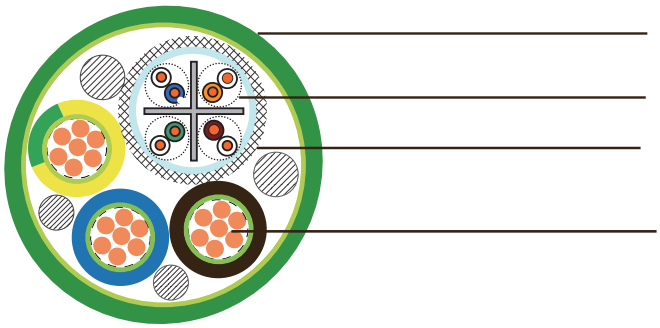

Low Corrosivity
IEC60754-2
EN50267-2-2/3
NF C 32-074


Low Smoke Emission
IEC 61034-1&2
EN 50268-1&2/NF C32-073

Halogen Free
IEC60754-1
EN50267-2-1

Composite Cable:3G1.5mm2+ Cat6 S/FTP (4x2x23AWG Cu/PE/Al-foil pair screen/ TCWB) /PUR

Construction:



CAT6 4x2x23AWG

Conductor	Solid copper conductor 23AWG
Insulation	Foam PE, nom. diameter 1.43 ± 0.2 mm
Twisted pair	4 twisted pairs as the cable core,individual Al-foil pair screen,coverage>100%
Screen	Tinned copper wire braiding, 0.1mm tinned copper diameter
Sheath	Without sheath

3x1.5mm² Power Cable

Conductor	1.5mm² Stranded copper wire
Strands	30/0.25mm
Insulation	Halogen free XLPE. Nominal thickness 0.6mm, diameter 2.3+/-0.5mm
Insultion Color	Blue,Brown, Green/Yellow as the ground core

Element Assembly

Filler	PE or PP material
Binder	Wrapping tape
Outer Sheath	PUR, thickness 1.0mm, nominal outer diameter 12.8±1.5m
Sheath Color	Green,approx. weight 215kg/km

Electrical and Physical Properties @20°C:

1) Cat6 S/FTP Data Cable

Characteristic Impedance:100 +/- 5 ohm
Conductor Resistance: 75 Ohm/km
Loop resistance<: 140 Ohm/km
Insulation Resistance: 5G MOhm.km
Operating capacity: 55+/-5 nF/km
Operating voltage: 100V
Test voltage: 1000 V

2) Power Cable

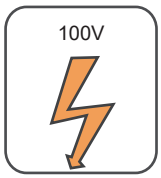
Electrical Resistance: 12.1Ohm/km
Insulation Resistance: ≥5GOhmxkm
Rated voltage: 0.6/1KV; Testing voltage:3500V
Minimum bending radius during installation (mobile state): 8 x Overall Diameter
Minimum bending radius during operation (fixed state): 4 x Overall Diameter
Operating Temperature: -**30**°C**---** +**85**°C

Transmission Properties-Typical:

FREQ MHz	NEXT dB/100m	Attenuation dB/100m	RL dB/100m	ELFEXT dB/100m	PSNEXT dB/100m	PSELFEXT dB/100m
1.0	74.3	2.0	20.0	67.8	72.3	64.8
4.0	65.3	3.8	23.0	55.8	63.3	52.8
8.0	60.8	5.3	24.5	49.7	58.8	46.7
10.0	59.3	6.0	25.0	47.8	57.3	44.8
16.0	56.2	7.6	25.0	43.7	54.2	40.7
20.0	54.8	8.5	25.0	41.8	52.8	38.8
25.0	53.3	9.5	24.3	39.8	51.3	36.8
31.3	51.9	10.7	23.6	37.9	49.9	34.9
62.5	47.4	15.4	21.5	31.9	45.4	28.9
100.0	44.3	19.8	20.1	27.8	42.3	24.8
200.0	39.8	29.0	18.0	21.8	37.8	18.8
250.0	38.3	32.8	17.3	19.8	36.3	16.8
300.0	37.1	36.4	16.8	18.3	35.1	15.3
350.0	36.1	39.8	16.3	16.9	34.1	13.9
400.0	35.3	43.0	15.9	15.8	33.3	12.8
450.0	34.5	46.3	15.5	14.7	32.5	11.7
500.0	33.8	48.9	15.2	13.8	31.8	10.8

Standards:

Oil Resistance	IEC 60811-404 (7x24h at 90°C)
Flame Retardance	IEC 60332-1
Halogen Free	IEC 60754-1
No Corrosive Gas Emission	IEC 60754-2
Minimum Smoke Emission	IEC 61034-2
Design Standard	IEC 60079-14

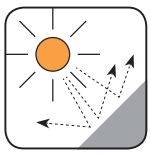


Rated Voltage

Standard


Flame Retardancy
IEC60332-1


IRM 902
Mineral Oil Resistant


UV Resistant


Low Toxicity
NES 02-713/NF C 20-454

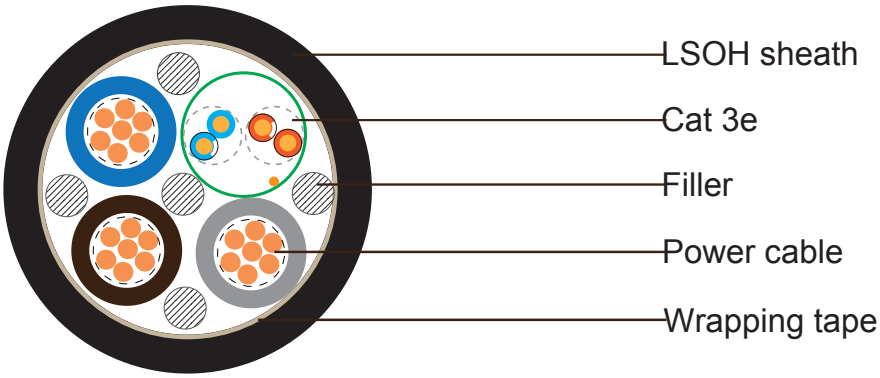

Low Corrosivity
IEC60754-2
EN50267-2-2/3
NF C 32-074


Low Smoke Emission
IEC 61034-1&2
EN 50268-1&2/NF C32-073

Halogen Free
IEC60754-1
EN50267-2-1

Cat3e+3x16AWG Power Cable LSZH Sheathed Unarmored Composite Cable

Construction:



CAT3E 2x2x24AWG

Conductor	1/1.5mm Solid copper conductor
Insulation	Polyethylene, nominal thickness 0.2mm
Color	1st Pair: Blue White / Blue Stripe 2nd Pair: Orange White / Orange Stripe
Overall screen	100% Al/polyester foil screen with 0.5mmsq tinned copper drain wire. A 23 micron polyester tape is applied over the screening tape with a minimum 25% overlap, Nominal outer diameter 3.15mm

3x16AWG Power Cable

Conductor	7/0.49mm stranded tinned copper wire
Insulation	XLPE. Nominal thickness 0.6mm☒verall diameter 2.7mm
Insultion Color	Blue, Brown and Grey, or as per client's requirement

Element Assembly

Wrapping Tape	Polyester tape or woven tape with PE or PP material filler(optional)
Outer Sheath	LSZH, thickness 1.2mm, nominal outer diameter 10.6±2.0mm
Sheath Color	Black

Electrical and Physical Properties @20°C:

Power Cable

Temperature rating: -20 to +90☒

Minimum bending radius: 6 x Overall diameter

Nom. conductor resistance at 20 ☒:

Power core: ≤14.7Ohm/Km

Data core: ≤89.3 Ohm/Km

Rated voltage: 300V

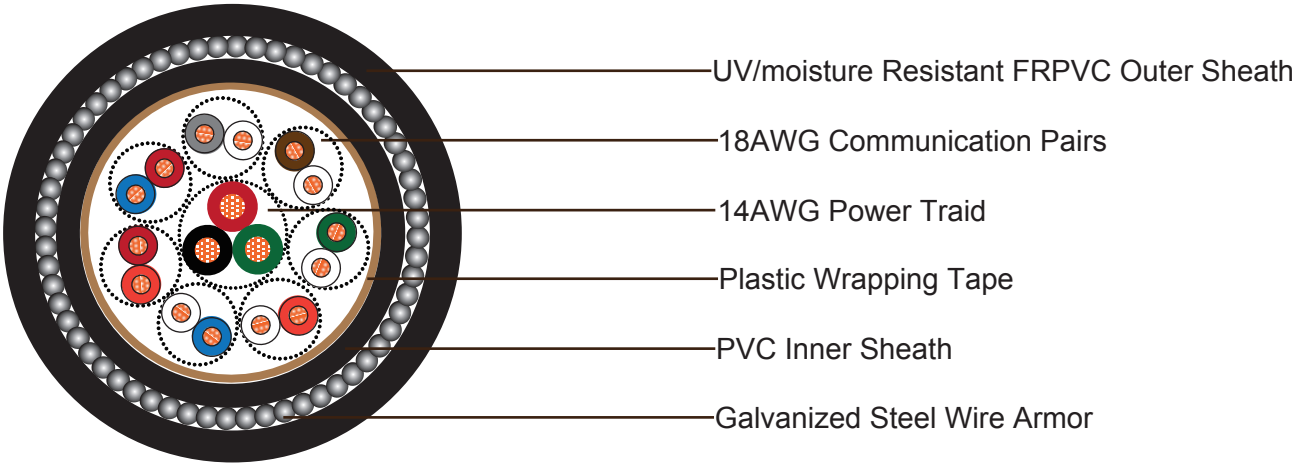
Test voltage: 1000V

Fire Performance:

Flame retardant: IEC60332 -1

Flame Retardant SWA 17 Conductors UV/ Moisture Resistant PVC Sheahted Composite Cable

Construction:



14AWG Power cable

Conductor	14AWG(19/0.38mm) annealed copper
Insulation	PVC material. Thickness 0.8mm
Insulation Color	Red, black and green

18AWG Communication pairs

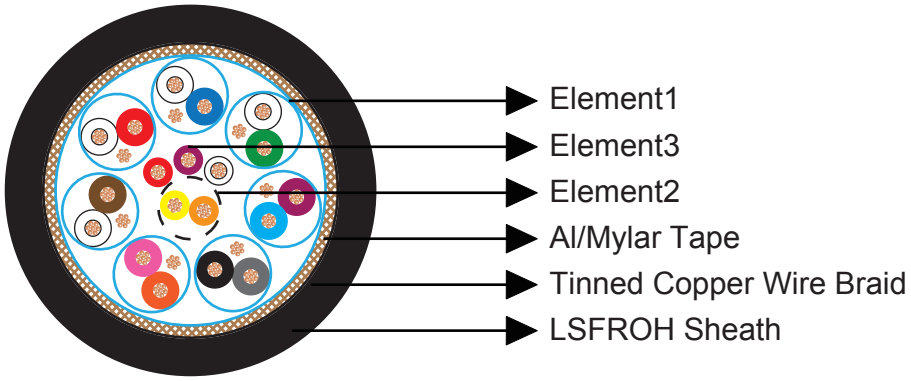
Conductor	18AWG(16/0.27mm) annealed copper
Insulation	PVC material. Thickness 0.8mm
Insulation Pair Color	White & Blue, White & Orange, White & Green, White&Brown, White & Grey, Red & Blue, Red & Orange

Element Assembly

Core make-up	Seven pairs and one triad are wrapped with plastic tape
Bedding	1.2mm PVC compound
Armour	1.6mm Galvanized steel wire
Sheath	1.65mm UV/moisture resistant FRPVC, Overall diameter 33.0±1.5mm
Sheath Color	Black

DVI Rolling Stock Cable (7P+1P+3C)

Construction:



Element 1: 7PR×24AWG(Cu/PE/Individual Al-mylar Screen+ TC Drain Wire)

Conductor	Stranded annealed tinned copper wire, 7/0.20mm
Insulation	Polyethylene. Thickness 0.28mm. Outer diameter 1.16±0.05mm
Core Identification	1PR=White/Brown; 2PR=White/Red, 3PR=White/Green; 4PR=White/Blue, 5PR=Grey/Black, 6PR=Pink/Orange, 7PR=Light Blue/Purple
Twisting	The cores shall twisted together in pair, the lay between each twist shall not exceed 100 mm
Individual Shield	Aluminum/ mylar laminated tape applied with the metallic side down in electrical contact with a 24AWG tinned copper drain wire (7 strands formation). A 23 micron mylar tape is applied over the screening tape with a minimum 25% overlap.

Element 2: 1PR×24AWG(7/0.2mm) Stranded TC/PE

Conductor	Stranded annealed tinned copper wire, 7/0.20mm
Insulation	High density polyethylene. Thickness 0.15mm. Outer diameter 0.9mm
Insulation Color	Yellow and orange
Twisting	The cores shall twisted together in pair, the lay between each twist shall not exceed 100 mm

Element 3: 3C×24AWG(7/0.2mm) Stranded TC/PE

Conductor	Stranded annealed tinned copper wire, 7/0.20mm
Insulation	High density polyethylene.Thickness 0.15mm. Outer diameter 0.9mm
Insulation Color	Red/Purple/White

Element Assembly

Overall Screen	Aluminum/ mylar tape
Braid Shield	Braid of tinned copper wire. Coverage ≥ 85%
Outer Sheath	LSFROH elastomeric sheath,Thickness 1.0mm. Outer diameter 12.5±1mm, other materail is optional
Sheath Color	Black or as per the client's requirement

Physical Properties:

Temperature rating: -25°C to +80°C

Minimum bending radius: 3 x Overall Diameter

Electrical Properties:

Rated voltage: 30V

Max conductor resistance at 20°C: ≤89.2 Ohm/Km

Min insulation resistance: ≥100M Ohm/m

Test voltage: Min. AC 250V/1second

Nom. mutual capacitance at 1KHz: 57 pF/m

Fire Performance in General:

Vertical flame propagation for a single insulated wire or cable

EN 50265-2-1; IEC 60332-1-2; NF C 32-070 2.1 (C2)

Vertical flame spread of vertically mounted bunched wires or cables

EN 50266-2-4; EN 50305; IEC 60332-3-24; NF C 32-070 2.2 (C1); VDE 0472 Teil 804

Low Smoke Emission

EN 50268-2; IEC 61034-2; NF C 32-073 ;NF C 20-902; NF F 16 101; VDE 0472 Teil 816

Halogen Free

EN 50267-2-1; IEC 60754-1; NF C 32-074; NF C 20-454; VDE 0472 Teil 815

Low Corrosivity (Acidity & Conductivity)

EN 50267-2-2/3; IEC 60754-2; NF C 32-074; NF C 20-453; VDE 0472 Teil 813

Low Toxicity

EN 50305; NF X 70-100; NF F 63 808; TM1-04; BS6853

Smoke Index

NF F 63 808; BS6853; NF F 16 101

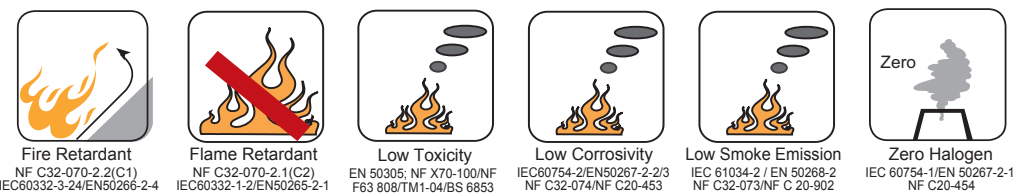
Fire Performance Relating to Rolling Stock Application:

DIN 5510-2

BS 6853

NF F16 101

NF F 63 808



Fire Retardant
NF C32-070-2.2(C1)
IEC60332-3-24/EN50266-2-4

Flame Retardant
NF C32-070-2.1(C2)
IEC60332-1-2/EN50265-2-1

Low Toxicity
EN 50305; NF X70-100/NF F63 808/TM1-04/BS 6853

Low Corrosivity
IEC60754-2/EN50267-2-2/3
NF C32-074/NF C20-453

Low Smoke Emission
IEC 61034-2 / EN 50268-2
NF C32-073/NF C 20-902

Zero Halogen
IEC 60754-1/EN 50267-2-1
NF C20-454

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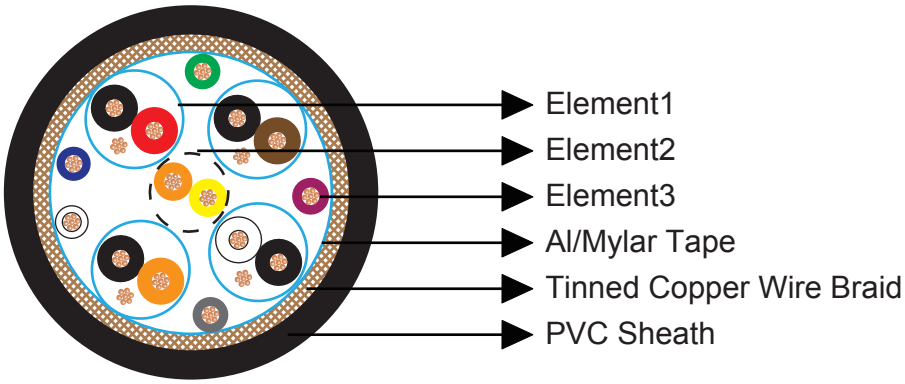
HDMI Bulk Cable(5 Pairs + 5 Conductors)

Construction:



Element 1:4PR×30AWG(Cu/Foam Skin/Individual Al-mylar Screen+ TC Drain Wire)

Conductor	Stranded bare copper wire, 30AWG(7/38AWG)
Insulation	Foam skin. Thickness 0.235mm. Outer diameter 0.76±0.05mm
Core Identification	1PR=Black/White; 2PR=Black/Brown, 3PR=Black/red; 4PR=Black/Orange
Twisting	The cores shall twisted together in pair, the lay between each twist shall not exceed 100 mm
Individual Shield	Aluminum/ mylar laminated tape applied with the metallic side down in electrical contact with a 30AWG tinned copper drain wire (7 strands formation). A 23 micron mylar tape is applied over the screening tape with a minimum 25% overlap.

Element 2: 1PR×30AWG(7/38AWG) Stranded TC/PP

Conductor	Stranded bare copper wire, 30AWG(7/38AWG)
Insulation	PP. Thickness 0.13mm. Outer diameter 0.55±0.05mm
Insulation Color	Yellow and orange
Twisting	The cores shall twisted together in pair, the lay between each twist shall not exceed 100 mm

Element 3: 5C×30AWG(7/38AWG) Stranded TC/PP

Conductor	Stranded bare copper wire, 30AWG(7/38AWG)
Insulation	PP. Thickness 0.13mm. Outer diameter 0.55±0.05mm
Insulation Color	Blue, Green, Violet, Grey and White

Element Assembly

Overall Screen	Aluminum/ mylar tape
Braid Shield	Braid of tinned copper wire. Coverage ≥ 90%
Outer Sheath	LSFROH elastomeric sheath,Thickness 0.41mm. Outer diameter 5.2+0.19mm, other materail is optional
Sheath Color	Black or as per the client's requirement

Physical Properties:

Temperature rating: -25°C to +80°C

Minimum bending radius: 3 x Overall Diameter

Electrical Properties:

Rated voltage: 30V

Max conductor resistance at 20°C: ≤376 Ohm/Km

Min insulation resistance: ≥100M Ohm/m

Spark test: Min. AC 500V/0.15second

Nom. differential impedance: 100±5 Ohm

Fire Performance in General:

Vertical flame propagation for a single insulated wire or cable

EN 50265-2-1; IEC 60332-1-2; NF C 32-070 2.1 (C2)

Vertical flame spread of vertically mounted bunched wires or cables

EN 50266-2-4 + EN 50305; IEC 60332-3-24; NF C 32-070 2.2 (C1); VDE 0472 Teil 804

Low Smoke Emission

EN 50268-2; IEC 61034-2; NF C 32-073 ;NF C 20-902; NF F 16 101; VDE 0472 Teil 816

Halogen Free

EN 50267-2-1; IEC 60754-1; NF C 32-074; NF C 20-454; VDE 0472 Teil 815

Low Corrosivity (Acidity & Conductivity)

EN 50267-2-2/3; IEC 60754-2; NF C 32-074; NF C 20-453; VDE 0472 Teil 813

Low Toxicity

EN 50305; NF X 70-100; NF F 63 808; TM1-04; BS6853

Smoke Index

NF F 63 808; BS6853; NF F 16 101

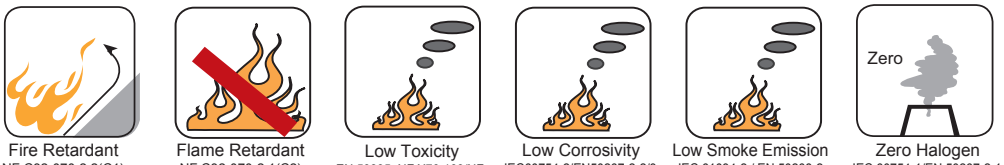
Fire Performance Relating to Rolling Stock Application:

DIN 5510-2

BS 6853

NF F16 101

NF F 63 808



Fire Retardant
NF C32-070-2.2(C1)
IEC60332-3-24/EN50266-2-4

Flame Retardant
NF C32-070-2.1(C2)
IEC60332-1-2/EN50265-2-1

Low Toxicity
EN 50305; NF X70-100/NF F63 808/TM1-04/BS 6853

Low Corrosivity
IEC60754-2/EN50267-2-2/3
NF C32-074/NF C20-453

Low Smoke Emission
IEC 61034-2 / EN 50268-2
NF C32-073/NF C 20-902

Zero Halogen
IEC 60754-1/EN 50267-2-1
NF C20-454

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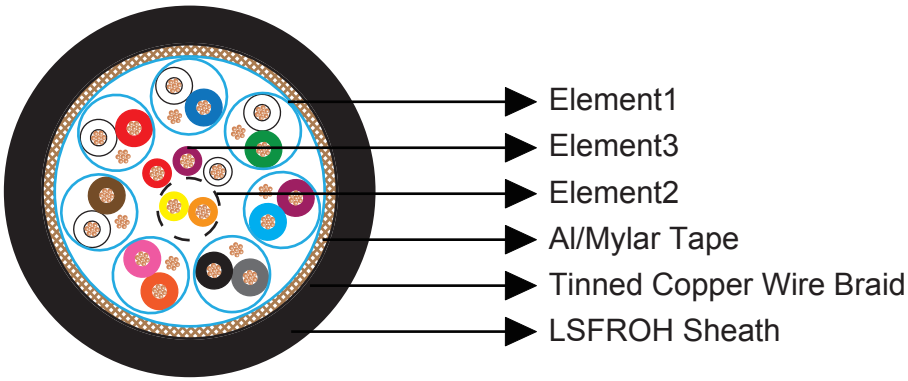
DVI Digital Dual Link Cable(8 Pair + 3C)

Construction:



Element 1: 7PR×28AWG(Cu/S.S. cell/Individual Al-mylar Screen+ TC Drain Wire)

Conductor	Stranded annealed tinned copper wire, 7/36AWG
Insulation	S.S. cell. Thickness 0.305mm. Outer diameter 0.98±0.05mm
Core Identification	1PR=White/Green; 2PR=White/Blue, 3PR=White/Red; 4PR=White/Brown, 5PR=Pink/Orange, 6PR=Black/Grey, 7PR=Light Blue/Purple
Twisting	The cores shall twisted together in pair, the lay between each twist shall not exceed 100 mm
Individual Shield	Aluminum/ mylar laminated tape applied with the metallic side down in electrical contact with a 28AWG tinned copper drain wire (7 strands formation). A 23 micron mylar tape is applied over the screening tape with a minimum 25% overlap.

Element 2: 1PR×28AWG(7/36AWG) Stranded TC/PE

Conductor	Stranded annealed tinned copper wire, 7/36AWG
Insulation	High density polyethylene. Thickness 0.165mm. Outer diameter 0.7±0.03mm
Insulation Color	Yellow and orange
Twisting	The cores shall twisted together in pair, the lay between each twist shall not exceed 100 mm

Element 3: 3C×28AWG(7/36AWG) Stranded TC/PE

Conductor	Stranded annealed tinned copper wire, 7/36AWG
Insulation	High density polyethylene. Thickness 0.165mm. Outer diameter 0.7±0.03mm
Insulation Color	Red/Purple/White

Element Assembly

Overall Screen	Aluminum/ mylar tape
Braid Shield	Braid of tinned copper wire. Coverage ≥ 85%
Outer Sheath	LSFROH elastomeric sheath,Thickness 0.97mm. Outer diameter 8.6 +0.2mm, other materail is optional
Sheath Color	Black or as per the client's requirement

Physical Properties:

Temperature rating: -25°C to +80°C

Minimum bending radius: 3 x Overall Diameter

Electrical Properties:

Rated voltage: 30V

Max conductor resistance at 20°C: ≤237 Ohm/Km

Min insulation resistance: ≥100M Ohm/m

Spark test: Min. AC 500V/0.15second

Nom. differential impedance: 100±5 Ohm

Mutual capacitance: 46pF/m

Fire Performance in General:

Vertical flame propagation for a single insulated wire or cable

EN 50265-2-1; IEC 60332-1-2; NF C 32-070 2.1 (C2)

Vertical flame spread of vertically mounted bunched wires or cables

EN 50266-2-4 + EN 50305; IEC 60332-3-24; NF C 32-070 2.2 (C1); VDE 0472 Teil 804

Low Smoke Emission

EN 50268-2; IEC 61034-2; NF C 32-073 ;NF C 20-902; NF F 16 101; VDE 0472 Teil 816

Halogen Free

EN 50267-2-1; IEC 60754-1; NF C 32-074; NF C 20-454; VDE 0472 Teil 815

Low Corrosivity (Acidity & Conductivity)

EN 50267-2-2/3; IEC 60754-2; NF C 32-074; NF C 20-453; VDE 0472 Teil 813

Low Toxicity

EN 50305; NF X 70-100; NF F 63 808; TM1-04; BS6853

Smoke Index

NF F 63 808; BS6853; NF F 16 101

Fire Performance Relating to Rolling Stock Application:

DIN 5510-2

BS 6853

NF F16 101

NF F 63 808

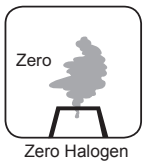

Fire Retardant
NF C32-070-2.2(C1)
IEC60332-3-24/EN50266-2-4


Flame Retardant
NF C32-070-2.1(C2)
IEC60332-1-2/EN50265-2-1


Low Toxicity
EN 50305; NF X70-100/NF F63 808/TM1-04/BS 6853


Low Corrosivity
IEC60754-2/EN50267-2-2/3
NF C32-074/NF C20-453


Low Smoke Emission
IEC 61034-2 / EN 50268-2
NF C32-073/NF C 20-902

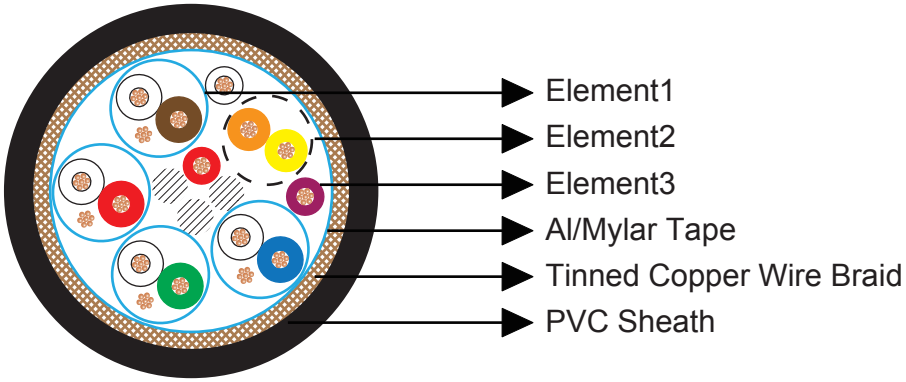


Zero Halogen
IEC 60754-1/EN 50267-2-1
NF C20-454

* The data included in the present catalogue are merely indicative; Caledonian Cables Limited reserves to itself the right to change them as its own discretion in any time.

DVI Digital Single Link Cable(5 Pair + 3C)

Construction:



Element 1: 4PR×28AWG(Cu/S.S. cell/Individual Al-mylar Screen+ TC Drain Wire)

Conductor	Stranded annealed tinned copper wire, 7/36AWG
Insulation	S.S. cell. Thickness 0.305mm. Outer diameter 0.98±0.07mm
Core Identification	1PR=White/Brown, 2PR=White/Red, 3PR=White/Green, 4PR=White/Blue
Twisting	The cores shall twisted together in pair, the lay between each twist shall not exceed 100 mm
Individual Shield	Aluminum/ mylar laminated tape applied with the metallic side down in electrical contact with a 28AWG tinned copper drain wire (7 strands formation). A 23 micron mylar tape is applied over the screening tape with a minimum 25% overlap.

Element 2: 1PR×28AWG(7/36AWG) Stranded TC/PE

Conductor	Stranded annealed tinned copper wire, 7/36AWG
Insulation	High density polyethylene. Thickness 0.15mm. Outer diameter 0.7±0.03mm
Insulation Color	Yellow and orange
Twisting	The cores shall twisted together in pair, the lay between each twist shall not exceed 100 mm, Outer diameter 1.4mm

Element 3: 3C×28AWG(7/36AWG) Stranded TC/PE

Conductor	Stranded annealed tinned copper wire, 7/36AWG
Insulation	High density polyethylene. Thickness 0.15mm. Outer diameter 0.7±0.03mm
Insulation Color	Red/Purple/White

Element Assembly

Overall Screen	Aluminum/ mylar tape
Braid Shield	Braid of tinned copper wire. Coverage ≥ 85%
Outer Sheath	PVC sheath,Thickness 0.87mm. Outer diameter 7.3±0.2mm, other materail is optional
Sheath Color	Black or as per the client's requirement

Physical Properties:

Temperature rating: -25°C to +80°C

Minimum bending radius: 3 x Overall Diameter

Electrical Properties:

Rated voltage: 30V

Max conductor resistance at 20°C: ≤237 Ohm/Km

Min insulation resistance: ≥100M Ohm/m

Spark test: Min. AC 500V/0.15second

Nom. differential impedance: 100±5 Ohm

Mutual capacitance: 46pF/m

Fire Performance in General:

Vertical flame propagation for a single insulated wire or cable

EN 50265-2-1; IEC 60332-1-2; NF C 32-070 2.1 (C2)

Vertical flame spread of vertically mounted bunched wires or cables

EN 50266-2-4 + EN 50305; IEC 60332-3-24; NF C 32-070 2.2 (C1); VDE 0472 Teil 804

Low Smoke Emission

EN 50268-2; IEC 61034-2; NF C 32-073 ;NF C 20-902; NF F 16 101; VDE 0472 Teil 816

Halogen Free

EN 50267-2-1; IEC 60754-1; NF C 32-074; NF C 20-454; VDE 0472 Teil 815

Low Corrosivity (Acidity & Conductivity)

EN 50267-2-2/3; IEC 60754-2; NF C 32-074; NF C 20-453; VDE 0472 Teil 813

Low Toxicity

EN 50305; NF X 70-100; NF F 63 808; TM1-04; BS6853

Smoke Index

NF F 63 808; BS6853; NF F 16 101

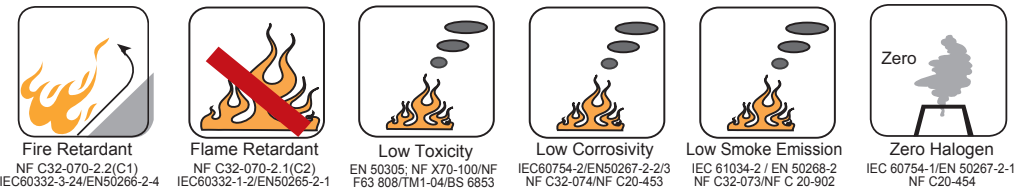
Fire Performance Relating to Rolling Stock Application:

DIN 5510-2

BS 6853

NF F16 101

NF F 63 808



Fire Retardant
NF C32-070-2.2(C1)
IEC60332-3-24/EN50266-2-4

Flame Retardant
NF C32-070-2.1(C2)
IEC60332-1-2/EN50265-2-1

Low Toxicity
EN 50305; NF X70-100/NF F63 808/TM1-04/BS 6853

Low Corrosivity
IEC60754-2/EN50267-2-2/3
NF C32-074/NF C20-453

Low Smoke Emission
IEC 61034-2 / EN 50268-2
NF C32-073/NF C 20-902

Zero Halogen
IEC 60754-1/EN 50267-2-1
NF C20-454

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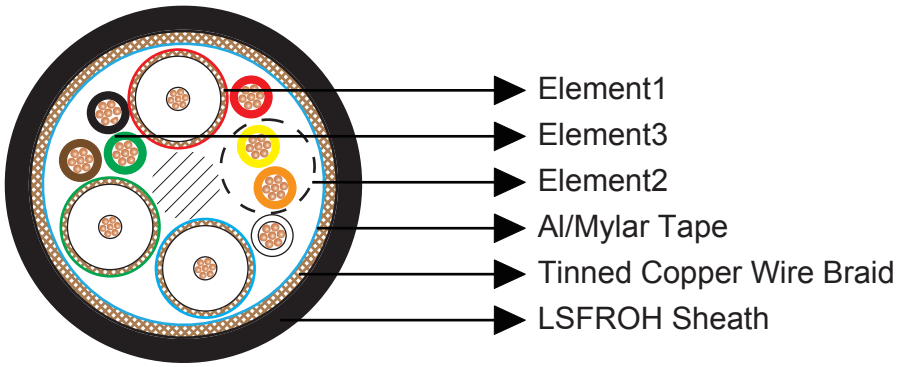
DVI Analog Cable(3 Coax, 1 Pair + 5C)

Construction:



Element 1: 3 Coaxial(Cu/S.S. cell/TC Braid+ PVC)

Conductor	Stranded annealed tinned copper wire, 30AWG(7/38AWG)
Insulation	S.S. cell. Thickness 0.505mm. Outer diameter 1.3±0.07mm
Shield	Tinned copper braid, 0.1mm, 90% coverage
Sheath	PVC, Thickness 0.219mm. Outer diameter 2.15mm
Sheath Color	Green/Blue/Red

Element 2: 1PRx28AWG(7/36AWG) Stranded TC/Foam PE+Skin

Conductor	Stranded annealed tinned copper wire, 7/36AWG
Insulation	High density polyethylene. Thickness 0.15mm. Outer diameter 0.7±0.05mm
Insulation Color	Yellow and orange
Twisting	The cores shall twisted together in pair, the lay between each twist shall not exceed 100 mm. Outer diameter 1.4mm

Element 3: 5Cx28AWG(7/36AWG) Stranded TC/PE

Conductor	Stranded annealed tinned copper wire, 7/36AWG
Insulation	High density polyethylene. Thickness 0.15mm. Outer diameter 0.7±0.03mm
Insulation Color	Red/Purple/White/Green/Black

Element Assembly

Overall Screen	Aluminum/ mylar tape
Braid Shield	Braid of tinned copper wire. Coverage ≥ 85%
Outer Sheath	LSFROH elastomeric sheath,Thickness 0.87mm. Outer diameter 7.3 +0.2mm, other materail is optional
Sheath Color	Black or as per the client's requirement

Physical Properties:

Temperature rating: -25°C to +80°C

Minimum bending radius: 3 x Overall Diameter

Electrical Properties:

Rated voltage: 30V

Max conductor resistance at 20°C: ≤237 Ohm/Km

Min insulation resistance: ≥100M Ohm/m

Spark test: Min. AC 500V/0.15second

Nom. differential impedance: 100±15 Ohm

Mutual capacitance: 46pF/m

Fire Performance in General:

Vertical flame propagation for a single insulated wire or cable

EN 50265-2-1; IEC 60332-1-2; NF C 32-070 2.1 (C2)

Vertical flame spread of vertically mounted bunched wires or cables

EN 50266-2-4 + EN 50305; IEC 60332-3-24; NF C 32-070 2.2 (C1); VDE 0472 Teil 804

Low Smoke Emission

EN 50268-2; IEC 61034-2; NF C 32-073 ;NF C 20-902; NF F 16 101; VDE 0472 Teil 816

Halogen Free

EN 50267-2-1; IEC 60754-1; NF C 32-074; NF C 20-454; VDE 0472 Teil 815

Low Corrosivity (Acidity & Conductivity)

EN 50267-2-2/3; IEC 60754-2; NF C 32-074; NF C 20-453; VDE 0472 Teil 813

Low Toxicity

EN 50305; NF X 70-100; NF F 63 808; TM1-04; BS6853

Smoke Index

NF F 63 808; BS6853; NF F 16 101

Fire Performance Relating to Rolling Stock Application:

DIN 5510-2

BS 6853

NF F16 101

NF F 63 808


Fire Retardant
NF C32-070-2.2(C1)
IEC60332-3-24/EN50266-2-4


Flame Retardant
NF C32-070-2.1(C2)
IEC60332-1-2/EN50265-2-1


Low Toxicity
EN 50305; NF X70-100/NF F63 808/TM1-04/BS 6853


Low Corrosivity
IEC60754-2/EN50267-2-2/3
NF C32-074/NF C20-453


Low Smoke Emission
IEC 61034-2 / EN 50268-2
NF C32-073/NF C 20-902

Zero Halogen
IEC 60754-1/EN 50267-2-1
NF C20-454

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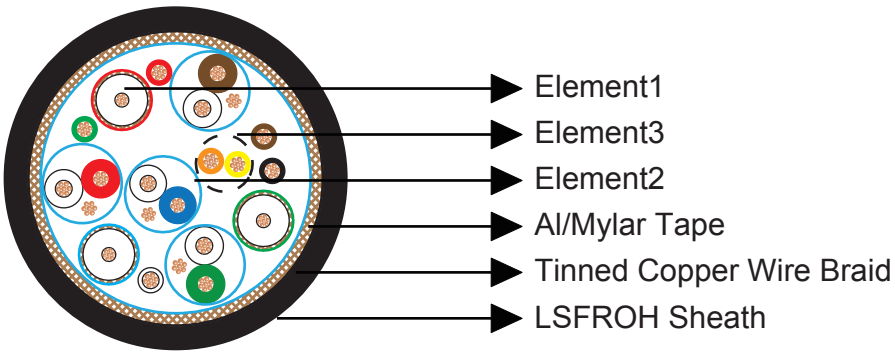
DVI Analog Cable(3 Coax, 4 Pair + 1Pair+5C)

Construction:



Element 1: 3 Coaxial(Cu/Foam PE+Skin/TC Braid+ PVC)

Conductor	Stranded annealed tinned copper wire, 30AWG(7/38AWG)
Insulation	Foam PE+Skin. Thickness 0.505mm. Outer diameter 1.3±0.07mm
Shield	Tinned copper braid, 0.1mm, 90% coverage
Sheath	PVC, Thickness 0.219mm. Outer diameter 2.15mm
Sheath Color	Green/Blue/Red

Element 2: 4PRx28AWG(7/36AWG) Stranded TC/Foam PE+Skin

Conductor	Stranded annealed tinned copper wire, 7/36AWG
Insulation	Foam PE+Skin. Thickness 0.25mm. Outer diameter 0.98±0.05mm
Insulation Color	Yellow and orange
Individual Shield	Aluminum/ mylar laminated tape applied with the metallic side down in electrical contact with a 28AWG tinned copper drain wire (7 strands formation). A 23 micron mylar tape is applied over the screening tape with a minimum 25% overlap.

Element 3: 1P+5Cx28AWG(7/36AWG) Stranded TC/PE

Conductor	Stranded annealed tinned copper wire, 7/36AWG
Insulation	High density polyethylene. Thickness 0.12mm. Outer diameter 0.7±0.05mm
Insulation Color	Black/Brown/Red/Green/White

Element Assembly

Overall Screen	Aluminum/ mylar tape
Braid Shield	Braid of tinned copper wire. 24x9x0.12mm
Outer Sheath	LSFROH elastomeric sheath,Thickness 0.51mm. Outer diameter 8.5 +0.2mm, other materail is optional
Sheath Color	Black or as per the client's requirement

Physical Properties:

Temperature rating: -25°C to +80°C

Minimum bending radius: 3 x Overall Diameter

Electrical Properties:

Rated voltage: 30V

Max conductor resistance at 20°C: 28AWG ≤237 Ohm/Km

30AWG ≤376 Ohm/Km

Min insulation resistance: ≥100M Ohm/m

Nom. differential impedance: Pairs 100±15 Ohm

Coaxial 75 Ohm

Fire Performance in General:

Vertical flame propagation for a single insulated wire or cable

EN 50265-2-1; IEC 60332-1-2; NF C 32-070 2.1 (C2)

Vertical flame spread of vertically mounted bunched wires or cables

EN 50266-2-4 + EN 50305; IEC 60332-3-24; NF C 32-070 2.2 (C1); VDE 0472 Teil 804

Low Smoke Emission

EN 50268-2; IEC 61034-2; NF C 32-073 ;NF C 20-902; NF F 16 101; VDE 0472 Teil 816

Halogen Free

EN 50267-2-1; IEC 60754-1; NF C 32-074; NF C 20-454; VDE 0472 Teil 815

Low Corrosivity (Acidity & Conductivity)

EN 50267-2-2/3; IEC 60754-2; NF C 32-074; NF C 20-453; VDE 0472 Teil 813

Low Toxicity

EN 50305; NF X 70-100; NF F 63 808; TM1-04; BS6853

Smoke Index

NF F 63 808; BS6853; NF F 16 101

Fire Performance Relating to Rolling Stock Application:

DIN 5510-2

BS 6853

NF F16 101

NF F 63 808


Fire Retardant
NF C32-070-2.2(C1)
IEC60332-3-24/EN50266-2-4


Flame Retardant
NF C32-070-2.1(C2)
IEC60332-1-2/EN50265-2-1


Low Toxicity
EN 50305; NF X70-100/NF F63 808/TM1-04/BS 6853


Low Corrosivity
IEC60754-2/EN50267-2-2/3
NF C32-074/NF C20-453


Low Smoke Emission
IEC 61034-2 / EN 50268-2
NF C32-073/NF C 20-902

Zero Halogen
IEC 60754-1/EN 50267-2-1
NF C20-454

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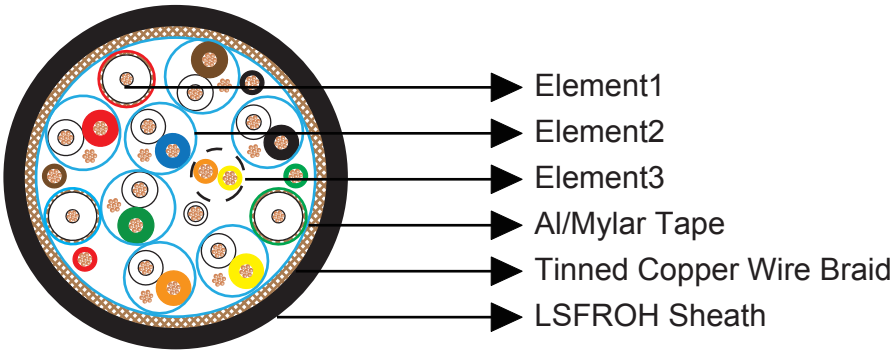
DVI Analog Cable(3 Coax, 7 Pair + 1Pair+5C)

Construction:



Element 1: 3 Coaxial(Cu/Foam PE+Skin/TC Braid+ PVC)

Conductor	Stranded annealed tinned copper wire, 30AWG(7/38AWG)
Insulation	Foam PE+Skin. Thickness 0.50mm. Outer diameter 1.37±0.05mm
Shield	Tinned copper braid, 0.1mm, 90% coverage
Sheath	PVC, Thickness 0.219mm. Outer diameter 2.15mm
Sheath Color	Green/Blue/Red

Element 2: 7PRx28AWG(7/36AWG) Stranded TC/Foam PE+Skin

Conductor	Stranded annealed tinned copper wire, 7/36AWG
Insulation	Foam PE+Skin. Thickness 0.25mm. Outer diameter 0.98±0.05mm
Insulation Color	Yellow and orange
Individual Shield	Aluminum/ mylar laminated tape applied with the metallic side down in electrical contact with a 28AWG tinned copper drain wire (7 strands formation). A 23 micron mylar tape is applied over the screening tape with a minimum 25% overlap.

Element 3: 1P+5Cx28AWG(7/36AWG) Stranded TC/PE

Conductor	Stranded annealed tinned copper wire, 7/36AWG
Insulation	High density polyethylene. Thickness 0.12mm. Outer diameter 0.7±0.05mm
Insulation Color	Black/Brown/Red/Green/White

Element Assembly

Overall Screen	Aluminum/ mylar tape
Braid Shield	Braid of tinned copper wire. 24x10x0.12mm
Outer Sheath	LSFROH elastomeric sheath,Thickness 0.51mm. Outer diameter 9.5 +0.2mm, other materail is optional
Sheath Color	Black or as per the client's requirement

Physical Properties:

Temperature rating: -25°C to +80°C

Minimum bending radius: 3 x Overall Diameter

Electrical Properties:

Rated voltage: 30V

Max conductor resistance at 20°C: 28AWG ≤237 Ohm/Km

30AWG ≤376 Ohm/Km

Min insulation resistance: ≥100M Ohm/m

Nom. differential impedance: Pairs 100±15 Ohm

Coaxial 75 Ohm

Fire Performance in General:

Vertical flame propagation for a single insulated wire or cable

EN 50265-2-1; IEC 60332-1-2; NF C 32-070 2.1 (C2)

Vertical flame spread of vertically mounted bunched wires or cables

EN 50266-2-4 + EN 50305; IEC 60332-3-24; NF C 32-070 2.2 (C1); VDE 0472 Teil 804

Low Smoke Emission

EN 50268-2; IEC 61034-2; NF C 32-073 ;NF C 20-902; NF F 16 101; VDE 0472 Teil 816

Halogen Free

EN 50267-2-1; IEC 60754-1; NF C 32-074; NF C 20-454; VDE 0472 Teil 815

Low Corrosivity (Acidity & Conductivity)

EN 50267-2-2/3; IEC 60754-2; NF C 32-074; NF C 20-453; VDE 0472 Teil 813

Low Toxicity

EN 50305; NF X 70-100; NF F 63 808; TM1-04; BS6853

Smoke Index

NF F 63 808; BS6853; NF F 16 101

Fire Performance Relating to Rolling Stock Application:

DIN 5510-2

BS 6853

NF F16 101

NF F 63 808


Fire Retardant
NF C32-070-2.2(C1)
IEC60332-3-24/EN50266-2-4


Flame Retardant
NF C32-070-2.1(C2)
IEC60332-1-2/EN50265-2-1


Low Toxicity
EN 50305; NF X70-100/NF F63 808/TM1-04/BS 6853


Low Corrosivity
IEC60754-2/EN50267-2-2/3
NF C32-074/NF C20-453


Low Smoke Emission
IEC 61034-2 / EN 50268-2
NF C32-073/NF C 20-902

Zero Halogen
IEC 60754-1/EN 50267-2-1
NF C20-454

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