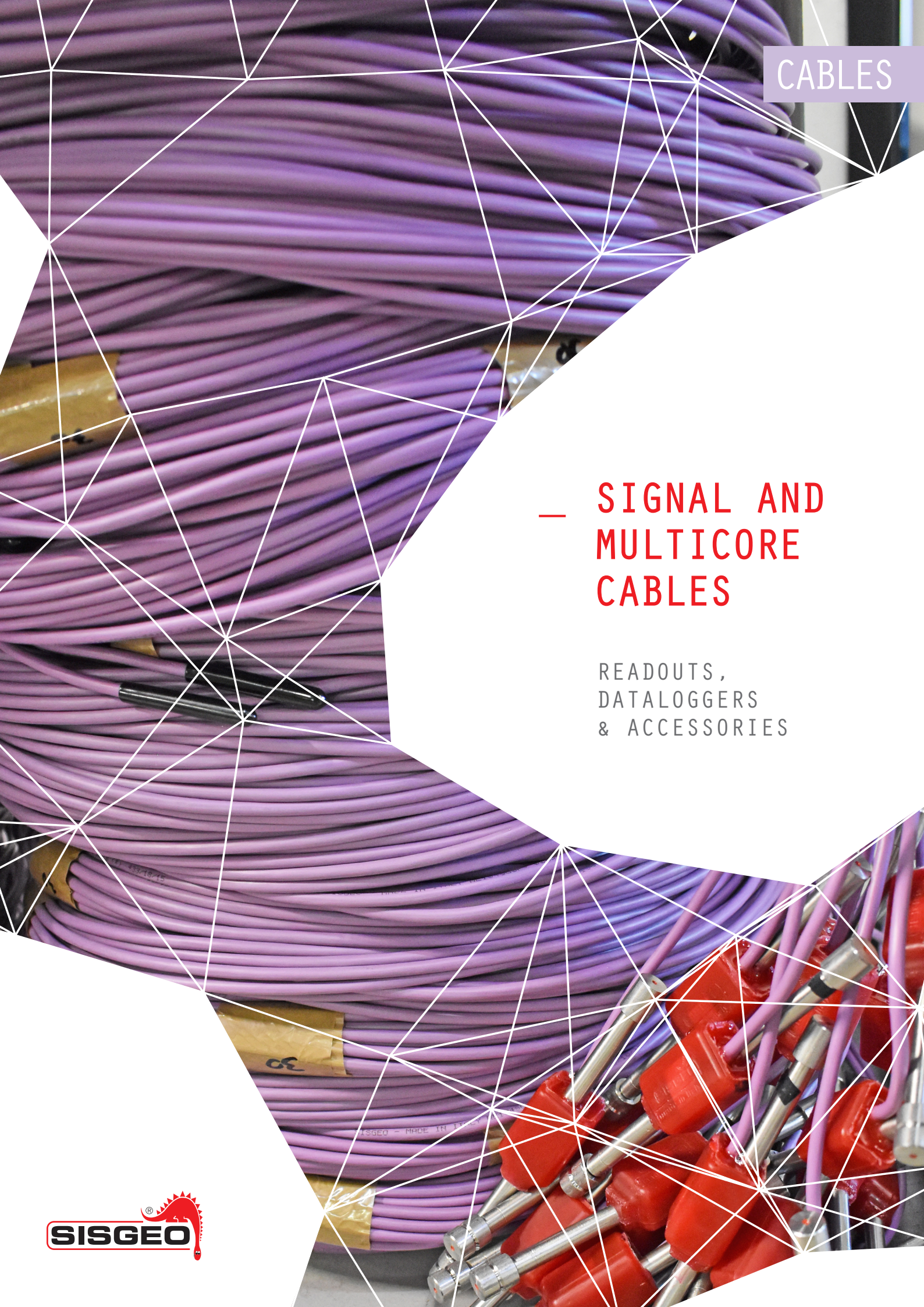
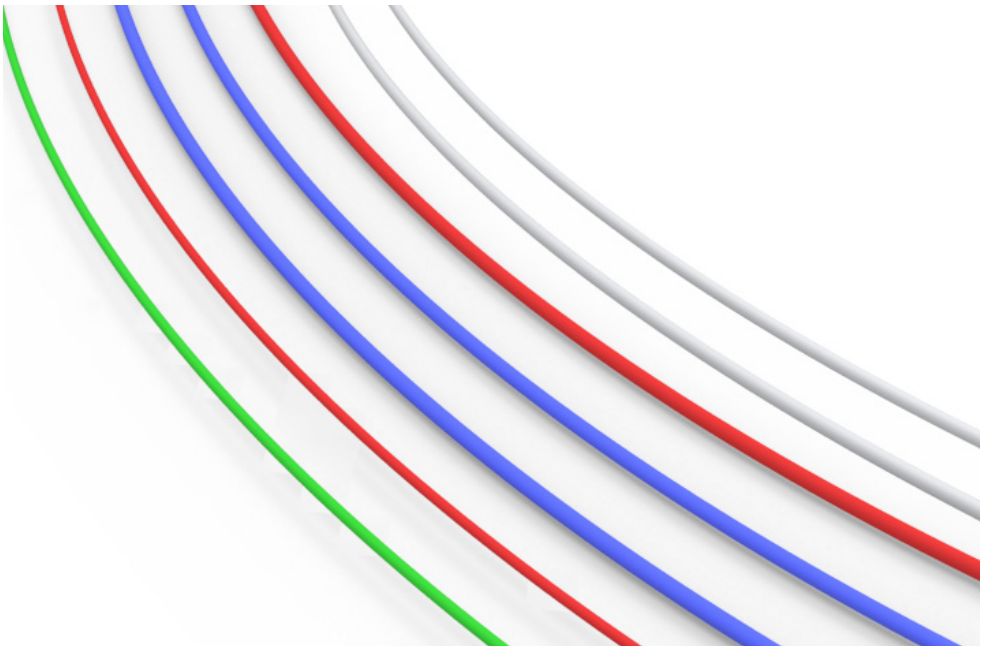
CABLES

SIGNAL AND MULTICORE CABLES

READOUTS,
DATALOGGERS
& ACCESSORIES



SISGEO



SIGNAL AND MULTICORE CABLES

Sisgeo cables are designed for a variety of geotechnical, structural and hydro-geological applications, to be embedded in concrete or buried into the soil. Cables are available with two different outer jackets: LSZH and PVC.

When exposed to fire, LSZH cables (Low Smoke Zero Halogen) produce very low levels of smoke and toxic fume and no acid gases. They are therefore often specified indoors, especially in public areas, and in other hazardous environments and poorly ventilated areas.

The benefits of PVC cable (Polyvinyl Chloride) include its chemical stability, robustness and durability.

MAIN APPLICATIONS

- NATM and TBM tunnels
- Skyscrapers and central offices
- Railway monitoring
- Embankment dams
- Gravity and arch dams
- Bridges and viadutcs
- Deep excavations
- Landslides

FEATURES

- Overall screen protects low electric signals
- Tensil loads are supported by the internal stress member (where applicable)
- Armoured cables grant high mechanical protection
- Multicore cable can group up to 16 analogue instruments

CE *Manufactured in compliance with RoHS 2 UE 2011/65/CE directives and according to the 2014/35/EU directives (where applicable).*

STANDARD CABLES

	MODEL 0WE104K00PV	MODEL 0WE104SG0ZH	MODEL 0WE104X20PV
Cable type	PVC signal cable	LSZH signal cable	PVC armoured signal cable
Cable layout	2 twisted pairs - 22 AWG (4x0.34 mm²)	2 twisted pairs 22 AWG (4x0.34 mm²)	2 twisted pairs - 22 AWG (4x0.34 mm²)
Single conductor	tinned copper type Cu ETP 5649/88	tinned copper type Cu ETP 5649/88	tinned copper type Cu ETP 5649/88
Conductor insulation sheath	polyolefin	polyolefin	polyolefin
Stress member or armour	-	-	galvanized steel braid
Overall screen	aluminium/polyester tape	aluminium/polyester tape	aluminium/polyester tape
Inner jacket	-	-	-
Outer jacket	**PVC**, violet	technopolymer M1 **LSZH** flame retardant type, red	**PVC**, violet
Overall diameter (mm)	7.6 ± 0.2	4.7 ± 0.2	7.8 ± 0.2
Temperature operating range	from -30°C to +80°C	from -30°C to +80°C	from -30°C to +80°C
Conductor resistance (Ω/Km at 20°C)	< 58	< 58.7	< 59,4
Insulation resistance (MΩxKm)	> 8.000	> 8.000	> 8.000
Weight (Kg/Km)	80 kg/km	36 kg/km	93
Maximum applicable load	-	-	1000 N
Minumum bending radius	10 x outer diameter	10 x outer diameter	10 x outer diameter

	MODEL 0WE203KEOZH	MODEL 0WE205KEOPV
Cable type	LSZH vented cable	PVC vented cable
Cable layout	2 conductors 20 AWG (2x0.60 mm²) nylon tube (ID/OD 1.4/2.4 mm)	2 twisted pairs 24 AWG (2x0.22 mm²) nylon tube (ID/OD 1.4/2.2 mm)
Single conductor	tinned copper type Cu ETP 5649/88	tinned copper type Cu ETP 5649/88
Conductor insulation sheath	polyolefin	polyolefin
Stress member or armour	kevlar fiber	kevlar fiber
Overall screen	aluminium/polyester tape	aluminium/polyester tape
Inner jacket	flame retardant polyolefin	flame retardant polyolefin
Outer jacket	technopolymer M1, **LSZH** flame retardant type, white	**PVC**, black
Overall diameter (mm)	8.1 ± 0.2	8.3 ± 0.2
Temperature operating range	from -30°C to +80°C	from -30°C to +80°C
Conductor resistance (Ω/Km at 20°C)	< 33.7	< 93.7
Insulation resistance (MΩxKm)	> 9.300	> 10.000
Weight (Kg/Km)	83 kg/km	80 kg/km
Maximum applicable load	900 N	1000 N
Minumum bending radius	10 x outer diameter	10 x outer diameter

SPECIAL CABLES

	MODEL 0WE102KEOZH	MODEL 0WE104PH100	MODEL 0WE1060LSZH
Cable type	LSZH signal cable	Cable for titanium piezometers	LSZH signal cable
Cable layout	2 conductors 20 AWG (2x0.60 mm²)	2 twisted pairs - 22 AWG (4x0.34 mm²)	6 conductors 24 AWG (6x0.22 mm²)
Single conductor	tinned copper type Cu ETP 5649/88	tinned copper type Cu ETP 5649/88	tinned copper type Cu ETP 5649/88
Conductor insulation sheath	polyolefin	polyolefin	polyolefin
Stress member or armour	kevlar fiber	-	aluminium/polyester tape, coverage 100%
Overall screen	aluminium/polyester tape	aluminium/polyester tape	-
Inner jacket	flame retardant polyolefin	-	flame retardant polyolefin
Outer jacket	technopolymer M1, **LSZH** flame retardant type, dark yellow	elastomer compound for **environments up to PH=1**	technopolymer M1, **LSZH** flame retardant type, green
Overall diameter (mm)	7.7 ± 0.2	7.8 ± 0.2	7.6 ± 0.2
Temperature operating range	from -30°C to +80°C	from -20°C to +60°C	from -30°C to +80°C
Conductor resistance (Ω/Km at 20°C)	< 33.7	< 59.4	< 91.5
Insulation resistance (MΩxKm)	> 9.000	> 8000	> 11.000
Weight (Kg/Km)	78	76	81
Maximum applicable load	1800 N	-	-
Minumum bending radius	10 x outer diameter	15 x outer diameter	10 x outer diameter

	MODEL 0WE106IP0ZH	MODEL 0WE606IPDZH
Cable type	LSZH signal cable	LSZH digital sens. elong. cable
Cable layout	6-conductors (6x0.22 mm²) 24 AWG	2 twisted pairs (4x0.22 mm²) 1 twisted pairs (2x2.0 mm²)
Single conductor	tinned copper type Cu ETP 5649/88	tinned copper type Cu ETP 5649/88
Conductor insulation sheath	polyolefin	polyolefin
Overall screen	aluminium/polyester tape	aluminium/polyester tape
Inner jacket	flame retardant polyolefin	flame retardant polyolefin
Outer jacket	polyurethane **LSZH** flame retardant type, light green	polyurethane **LSZH** flame retardant type, black
Overall diameter (mm)	5.0 ± 0.2	8.6 ± 0.2
Temperature operating range	from -30°C to +80°C	from -30°C to +80°C
Conductor resistance (Ω/Km at 20°C)	< 83.7	< 8.6 (for 2.0 mm² cond.) < 78.4 (for 0.22 mm² cond.)
Insulation resistance (MΩxKm)	> 11.000	> 5.000
Weight (Kg/Km)	34	102
Minumum bending radius	10 x outer diameter	10 x outer diameter

	MODEL 0WE1160LSZH	MODEL 0WE1320LSZH	MODEL 0WE610MUXZH
Cable type	LSZH Multicore cable	LSZH Multicore cable	External MUX-OMNIA cable
Cable layout	8 twisted pairs (16x0.22 mm²) 24 AWG	16 twisted pairs (32x0.22 mm²) 24 AWG	4 twisted pairs (8x0.35 mm²) 2-conductors pairs (2x1.5 mm²)
Single conductor	tinned copper type Cu ETP 5649/88	tinned copper type Cu ETP 5649/88	tinned copper type Cu ETP 5649/88
Conductor insulation sheath	polyolefin	polyolefin	polyolefin
Overall screen	aluminium/polyester tape,	aluminium/polyester tape,	aluminium/polyester tape,
Inner jacket	flame retardant polyolefin	flame retardant polyolefin	flame retardant polyolefin
Outer jacket	technopolymer M1, **LSZH** flame retardant type, gray	technopolymer M1, **LSZH** flame retardant type, gray	technopolymer M1, **LSZH** flame retardant type, gray
Overall diameter (mm)	9.2 ± 0.2	12.2 ± 0.2	11.1 ± 0.2
Temperature operating range	from -30°C to +80°C	from -30°C to +80°C	from -30°C to +80°C
Conductor resistance (Ω/Km at 20°C)	< 88.0	< 88.0	< 51.4 (for 0.35 mm² cond.) < 11.9 (for 1.5 mm² cond.)
Insulation resistance (MΩxKm)	> 8.600	> 8.600	> 8.700 (for 0.35 mm² cond.) < 6800 (for 1.5 mm² cond.)
Weight (Kg/Km)	115	189	178
Minumum bending radius	10 x outer diameter	10 x outer diameter	10 x outer diameter

	MODEL 0WE116000PV	MODEL 0WE132000PV
Cable type	PVC Multicore cable	PVC Multicore cable
Cable layout	8 twisted pairs 24 AWG (16x0.22 mm²)	16 twisted pairs 24 AWG (32x0.22 mm²)
Single conductor	tinned copper type Cu ETP 5649/88	tinned copper type Cu ETP 5649/88
Conductor insulation sheath	polyolefin	polyolefin
Overall screen	aluminium/polyester tape	aluminium/polyester tape
Inner jacket	-	-
Outer jacket	**PVC**, black	**PVC**, black
Overall diameter (mm)	8.2 ± 0.2	11.2 ± 0.2
Temperature operating range	from -30°C to +80°C	from -30°C to +80°C
Conductor resistance (Ω/Km at 20°C)	< 88	< 88
Insulation resistance (MΩxKm)	> 8.600	> 8.600
Weight (Kg/Km)	87	154
Maximum applicable load	-	-
Minumum bending radius	10 x outer diameter	10 x outer diameter

CABLES AVAILABLE UPON REQUEST*

	MODEL 0WE104K00ZH	MODEL 0WE104X20ZH
Cable type	LSZH signal cable	LSZH armored signal cable
Cable layout	2 twisted pairs 22 AWG (4x0.34 mm²)	2 twisted pairs (4x0.34 mm²) 22 AWG
Single conductor	tinned copper type Cu ETP 5649/88	tinned copper type Cu ETP 5649/88
Conductor insulation sheath	polyolefin	polyolefin
Overall screen	aluminium/polyester tape	aluminium/polyester tape
Inner jacket	flame retardant polyolefin	flame retardant polyolefin
Armour	-	stainless steel wire braid
Outer jacket	technopolymer M1, **LSZH** flame retardant type, blue	technopolymer M1, **LSZH** flame retardant type, blue
Overall diameter (mm)	7.4 ± 0.2	7.8 ± 0.2
Temperature operating range	from -30°C to +80°C	from -30°C to +80°C
Conductor resistance (Ω/Km at 20°C)	< 58.0	< 58.0
Insulation resistance (MΩxKm)	> 8.000	> 8.000
Weight (Kg/Km)	75	94
Maximum applicable load	-	1000 N
Minumum bending radius	10 x outer diameter	10 x outer diameter

	MODEL 0WE132XLSZH	MODEL 0WE116XLSZH
Cable type	LSZH armored multicore cable	LSZH armored multicore cable
Cable layout	16 twisted pairs (32x0.22 smm²) 24 AWG	8 twisted pairs (16x0.22 mm²) 24 AWG
Single conductor	tinned copper type Cu ETP 5649/88	tinned copper type Cu ETP 5649/88
Conductor insulation sheath	polyolefin	polyolefin
Overall screen	aluminium/polyester tape	aluminium/polyester tape
Inner jacket	flame retardant polyolefin	flame retardant polyolefin
Armour	galvanized steel wire braid	galvanized steel wire braid
Outer jacket	technopolymer M1, **LSZH** flame retardant type, gray	technopolymer M1, **LSZH** flame retardant type, gray
Overall diameter (mm)	14.8 ± 0.2	11.4 ± 0.2
Temperature operating range	from -30°C to +80°C	from -30°C to +80°C
Conductor resistance (Ω/Km at 20°C)	< 88.0	< 88.0
Insulation resistance (MΩxKm)	> 8.600	> 8.600
Weight (Kg/Km)	296	180
Maximum applicable load	2700 N	1800 N
Minumum bending radius	10 x outer diameter	10 x outer diameter

* cables available upon request with minimum supply time of 16 weeks

ACCESSORIES AND SPARE PARTS

WOODEN REEL FOR SIGNAL CABLE 1000BOBINAO

Wooden reel for signal cable.
Maximum cable length allowed 1000m.

WOODEN REEL FOR MULTICORE CABLE 1000BOBINAM

Wooden reel for multicore cable.
Maximum cable length allowed 1000m.

PLASTIC REEL FOR SIGNAL CABLE 1000BOBINAP

Plastic reel for signal cable.
Maximum cable length allowed 300m.

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TECHNICAL ASSISTANCE

SISGEO offers customers e-mail and phone assistance to ensure proper use of instruments and readout and to maximize performance of the system.

For more information, email us: ***assistance@sisgeo.com***