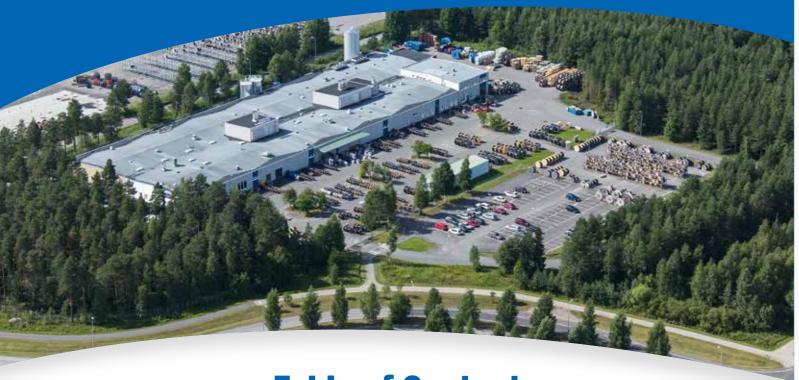
# nestor -cables

## **Quality from Finland**



## nestor cables



#### **Table of Contents**

ADSS 6 KI	N FZOIVIRIVIO-SD33
FYOHBMU	JK35
Indoor — Outd	oor cables
FZOMSU-	SD37
FZOMSU-	SD Mini39
<b>Indoor cables</b>	
FTMS	41
FMS 1F	43
FY2RMS.	45
FY2RMS F	Flex47
FTMS+Ca	t649
<b>Cables for ind</b>	ustrial premises
FZOMSU-	SD (OM1)51
FZOMSU-	SD (OM3)53
FYOVD2P	MU (OM1)55

ADOC O LAI EZOMBALLOD

# NESTOR CABLES Innovative optical products and solutions

NESTOR CABLES LTD. is a global provider of telecommunication products and solutions. Communication networks are the vital part of today's world and based mostly on the optical networks. Nestor Cables provides all needed passive components to the optical network and we feel to be privileged to develop this vital sector in forefront providing our customers continuously developing product portfolio. Additionally we also provide copper telecommunication cables for all applications and industrial copper cables for automation and control purposes.

Our location in Scandinavia close to the Arctic Circle has taught us to design and manufacture our products and solutions for the most demanding conditions. Basing on our long and strong experience together with the latest manufacturing and testing technology we are definitely confident that our products are fulfilling even the hardest quality and reliability requirements.

Main sales and marketing unit is located in Vantaa, in the Southern Finland. Other sales and representative offices are located close to the customers in the different market areas.

Operative functions are centralized in the factory which is located in Oulu. Strong and innovative R&D unit continuously improves the existing products and creates new solutions to meet tomorrow's demands. We are fast and flexible in product modification and solution adjustment to meet special customer requirements, thanks to the experienced personnel and



All operations are certified in accordance with the international standards: ISO9001 (Quality), ISO14001 (Environment) and OHSAS18001 (Health&Safety).

type test laboratory where can be made all needed tests according to the international standards efficiently for pilot series.

Quality assurance is monitoring 24h/day manufacturing processes, raw materials, semi-products and naturally final products to meet designed values and fulfill the requirements. Manufacturing processes are also developed continuously in cooperation with the world's leading machine supplier and new innovative manufacturing applications are tested in our factory.







### **FZVD2PMU Flex**

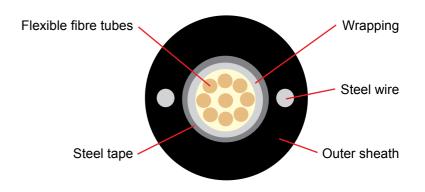
# New direct buried fibre optic cable with improved durability and handling capabilities

FZVD2PMU is a fibre optic cable with a new kind of flexible construction. The fibres are housed in thin walled loose tubes made of soft elastomeric material and therefore the cable can be bended significantly more than cables with traditional PBT loose tubes. FZVD2PMU also lacks memory so it is 100 % reversible.

#### **Properties**

Maximum tension during	5 000 N	
Tomporeture renge	Operation	-45 - +70 °C
Temperature range	Installation	-15 - +70 °C
Crush strength with 100	6 000 N	

Construction	
Optical fibres	Coloured single-mode fibres according to the ITU-T G.652.D.
Secondary coating	Flexible colour coded fibre modules. Fibres are housed in thin walled tubes made of soft elastomeric material.
Wrapping	Water blocking tape.
Rip cords	Two non-metallic rip cords are applied under the outer sheathing layers.
Protection / Moisture barrier	Polymer coated corrugated steel tape applied longitudinally with an overlap. The nominal thickness of the steel tape is 0,15 mm.
Strength members	Two 1,6 mm high tensile strength steel wires in the sheath.
Outer sheath	UV resistant black polyethylene compound (HDPE). Nominal sheath thickness is 3,0 mm.
Sheath marking	Marking printed on the sheath at one meter interval: Nestor Cables - cable type - lot number - year of manufacture - length marking



Nestor	STK		Diameter	Minimum bendi ameter Weight		ding radius mm	Length	
code	code	Cable size	mm	kg/km	During installation	Installed	m	Drum
L10628	0217340	4×12xSML	13,8	179	260	130	6 000	K20
L10629	0217341	8×12xSML	14,8	201	280	140	6 000	K22
L10630	0217342	16×12xSML	16,8	246	320	160	6 000	K22
L10631	0217343	12×24xSML	17,8	269	340	170	6 000	K22





### FZOMVDMU-SD

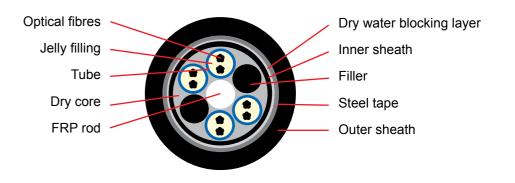
## **Stranded optical fibre cable for challenging conditions.**

FZOMVDMU-SD is an fibre optic cable for direct buried installation which can be used as a main cable in telecommunications networks. The secondary coating tubes are stranded around the central strength member and the fibres are protected by polymer coated corrugated steel tape between two sheaths.

#### **Properties**

Maximum tension	24-96 fibres	3 500 N
during installation	192 fibres	5 000 N
Tomporeture renge	Operation	-45 - +70 °C
Temperature range	Installation	-15 - +70 °C
Crush strength with 100	7 000 N	

Construction	
Optical fibres	Coloured single-mode fibres according to the ITU-T G.652.D standard.
Secondary coating	Jelly filled loose tubes made of thermoplastic polymer.
Fillers	Plastic fillers when applicable.
Central strength member	Glass fibre reinforced plastic (FRP).
Cable core stranding	The secondary coating tubes and fillers (when needed) are SZ-stranded around the central strength member. 192 fibre cable has two stranding layers.
Inner sheath	UV resistant black LLDPE. Nominal sheath thickness is 1,0 mm.
Water blocking	Dry water blocking elements.
Rip cords	Non-metallic rip cords are applied under the sheathing layers.
Moisture barrier	Polymer coated corrugated steel tape applied longitudinally with an overlap. The nominal thickness of the steel tape is 0,15 mm.
Outer sheath	UV resistant black HDPE. Nominal sheath thickness is 1,5 mm
Sheath marking	Marking printed on the sheath at one meter interval: Nestor Cables - cable type - lot number - year of manufacture - length marking



Nestor	STK		Diameter Weight		Minimum bending radius mm		Length	
code	code	Cable size	mm	kg/km	During installation	Installed	m	Drum
L10454	0217500	2x12xSML	15,6	216	320	160	4 000	K20
L10455	0217501	4x12xSML	15,6	216	320	160	4 000	K20
L10420	0217502	8x12xSML	17,4	262	340	170	4 000	K22
L10458	0217503	16x12xSML	21,2	371	400	210	3 000	K22





### **FYOVD2PMU**

# The most durable cable at the market for direct buried installation

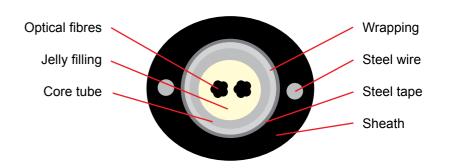
FYOVD2PMU is a universal fibre optic cable with central tube construction for direct buried or duct installation. The cable is protected by polymer coated corrugated steel tape.

FYOVD2PMU is also available with multimode fibres and as hybrid cable (SM+MM).

#### **Properties**

Maximum tension during	5 000 N	
Temperature range	Operation	-45 - +70 °C
	Installation	-15 - +70 °C
Crush strength with 100	8 000 N	

Construction	
Optical fibres	Coloured single-mode fibres according to the ITU-T G.652.D standard. Also available with multimode fibres.
Secondary coating	A plastic core tube with jelly filling.
Wrapping	The cable core is wrapped longitudinally with a swellable tape.
Protection	Polymer coated corrugated steel tape applied longitudinally with an overlap. The nominal thickness of the steel tape is 0,15 mm.
Strength members	Two 1,6 mm diameter steel wires in the sheath
Outer sheath	The cable sheath consists of UV resistant black PE. Nominal sheath thickness is 2,5 mm.
Sheath marking	Marking printed on the sheath at one meter interval: Nestor Cables - cable type - lot number - year of manufacture - length marking



Nestor	STK		Diameter Weight		Minimum bending radius mm		Length	
code	code	Cable size	mm	kg/km	During installation	Installed	m	Drum
L10075	0217100	6xSML	13,8	171	230	115	6 000	K20
L10076	0217101	12xSML	13,8	171	230	115	6 000	K20
L10077	0217102	2x12xSML	13,8	171	230	115	6 000	K20
L10412	0217510	4x12xSML	14,3	192	260	130	6 000	K20
L10413	0217511	2x4x12xSML	15,2	214	280	140	6 000	K22





### **FYO2PMU Mini**

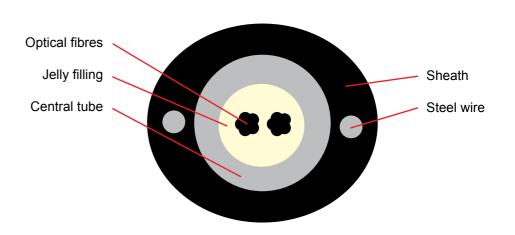
# **Lightweigh fibre optic cable** with quick installation

FYO2PMU Mini is a central tube cable whose improved features result in lightness and remarkably faster installation.

#### **Properties**

Maximum tension during	3 500 N	
Tomporoturo rongo	Operation	-45 - +70 °C
Temperature range	Installation	-15 - +70 °C
Crush strength with 100	5 000 N	
Crush stregth sideways plate	3 500 N	

Construction	
Optical fibres	Coloured single-mode fibres according to the ITU-T G.652.D standard.
Secondary coating	A plastic core tube with jelly filling.
Strength members	Two 1,2 mm diameter steel wires in the sheath.
Outer sheath	The cable sheath consists of UV resistant black LLDPE. Minimum sheath thickness is 1,2 mm.
Sheath marking	Marking printed on the sheath at one meter interval: Nestor Cables - cable type - lot number - year of manufacture - length marking.



Nestor	STK		Maximum	Weight	Minimum bending radius mm		Length	
code	code	Cable size	diameter mm	kg/km	During installation	Installed	m	Drum
L10612	0217337	4xSML	8,9	57	150	60	2 000	K8
L10613	0217338	6xSML	8,9	57	150	60	2 000	K8
L10614	0217339	12xSML	8,9	57	150	60	2 000	K8





### FY02PMU

#### **Lightweigh fibre optic cable**

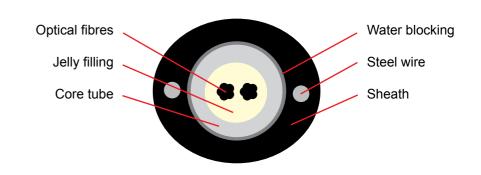
FYO2PMU is a central tube cable that is suitable for direct buried and duct installation.

The cable can be used to connect the end-user to access network in Fibre to the Home applications.

#### **Properties**

Maximum tension during	3 500 N	
T	Operation	-45 - +70 °C
Temperature range	Installation	-15 - +70 °C
Crush strength with 100	5 000 N	

Construction	
Optical fibres	Coloured single-mode fibres according to the ITU-T G.652.D standard.
Secondary coating	A plastic core tube with jelly filling.
Water blocking	The cable core is surrounded with water blocking yarns.
Strength members	Two 1,2 mm diameter steel wires in the sheath.
Outer sheath	The cable sheath consists of UV resistant black PE. Nominal sheath thickness is 1,5 mm.
Sheath marking	Marking printed on the sheath at one meter interval: Nestor Cables - cable type - lot number - year of manufacture - length marking.



Nestor	STK		Maximum	Weight	Minimum bend	ling radius mm	Length	
code	code	Cable size	diameter mm	kg/km	During installation	Installed	m	Drum
L10080	0217106	4xSML	10,7	86	160	100	2 000	K10
L10081	0217107	6xSML	10,7	86	160	100	2 000	K10
L10083	0217109	12xSML	10,7	86	160	100	2 000	K10
L10474	0217513	2x12xSML	10,7	86	160	100	2 000	K10





## FZOVDMU-SD

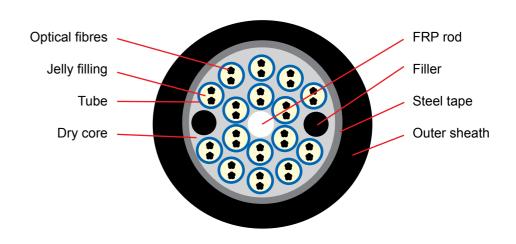
#### **Cable with high fibre count**

FZOVDMU-SD is a stranded cable with even 432 fibres. It is suitable for direct buried and duct installation. The fibres are protected by polymer coated corrugated steel tape.

#### **Properties**

Maximum tension during	6 000 N	
Tomporatura rango	Operation	-45 - +70 °C
Temperature range	Installation	-15 - +70 °C
Crush strength with 100	5 000 N	

Construction	
Optical fibres	Coloured single-mode fibres according to the ITU-T G.652.D standard.
Secondary coating	Jelly filled loose tubes made of thermoplastic polyester.
Fillers	Plastic fillers when applicable.
Central strength member	Glass fibre reinforced plastic (FRP).
Cable core stranding	The secondary coating tubes and fillers (when needed) are SZ-stranded around the central strength member. 192 fibre cable has two stranding layers.
Wrapping	The cable core is wrapped longitudinally with a swellable tape.
Rip cord	Non-metallic rip cord is applied under the sheathing layers.
Protection	Polymer coated corrugated steel tape applied longitudinally with an overlap. The nominal thickness of the steel tape is 0,15 mm.
Outer sheath	UV resistant black HDPE. Nominal sheath thickness is 1,8 mm.
Sheath marking	Marking printed on the sheath at one meter interval: Nestor Cables - cable type - lot number - year of manufacture - length marking.



Nestor	STK	STK		Weight	Minimum bend	ling radius mm	Length	
code	code	Cable size	Diameter mm	kg/km	During installation	Installed	m	Drum
L10555	0217332	12x2x12xSML	22,5	404	300	200	3 000	K22
L10556	0217333	16x2x12xSML	22,5	409	300	200	3 000	K22
L10475	0217521	18x2x12xSML	22,5	411	300	200	3 000	K22





### FZOVD2PMU+Cu

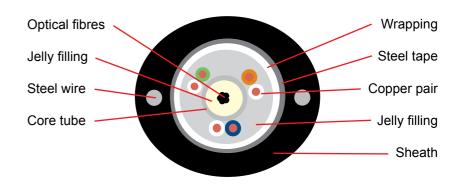
# Hybrid optical fibre and copper pair cable for direct buried or duct installation

FZOVD2PMU+Cu consists of optical fibres in a jelly filled loose tube and three twisted copper pairs which are stranded together into unit.

#### **Properties**

Maximum tension during	5 000 N	
Tomporatura rango	Operation	-45 - +60 °C
Temperature range	Installation	-15 - +60 °C
Crush strength with 100	6 000 N	

Construction	
Optical unit	
Optical fibres	Coloured single-mode fibres according to the ITU-T G.652.D.
Secondary coating	Jelly filled loose tube made of thermoplastic polyester.
Copper unit	
Conductor	Annealed copper wire, nominal diameter 0,5 mm.
Insulation	Foam-skin PE.
Pair twisting	Two insulated conductors are twisted together to form a pair.
Cable core stranding	The secondary coating tube and pairs are SZ-stranded together to form a unit.
Water blocking	Filling compound is applied to the cable core.
Wrapping	The cable core is wrapped longitudinally with an insulating water blocking tape.
Protection	Polymer coated corrugated steel tape applied longitudinally with an overlap.  Minimum overlap is 3 mm. The nominal thickness of the steel tape is 0,15 mm.
Strength members	Two 1,6 mm high tensile strength steel wires in the sheath.
Cable	
Outer sheath	The cable sheath consists of UV resistant black polyethylene compound (LDPE). Nominal sheath thickness is 2,5 mm.
Sheath marking	Marking printed on the sheath at one meter interval: Nestor Cables - cable type - lot number - year of manufacture - length marking.



Nestor	STK		Minimum bending radius m		ling radius mm	Length		
code	code	Cable size	mm	kg/km	Durig installation	Installled	m	Drum
L10569	0217334	6xSML+ 3x2x0,5 Cu	13,6	188	260	130	1 000	K12





## FZOMU-SD

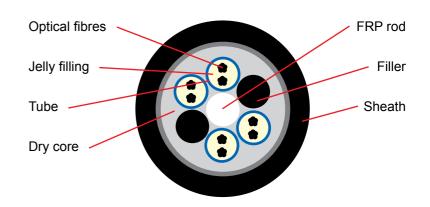
# Non-metallic optical fibre cable for duct installation either by pulling or blowing

FZOMU-SD is a duct fibre optic cable, whose fibres are stranded around the central strength member in jelly filled tubes. There are dry water blocking elements and water blocking tape in the cable.

#### **Properties**

Maximum tension	12-48 fibres	1 500 N
during installation	96-192 fibres	2 800 N
Town over the venue	Operation	-45 - +70 °C
Temperature range	Installation	-15 - +70 °C
Crush strength with 100	2 000 N	

Construction	
Optical fibres	Coloured single-mode fibres according to the ITU-T G.652.D standard.
Secondary coating	Jelly filled loose tubes made of thermoplastic polymer.
Fillers	Black plastic fillers when applicable.
Central strength member	Glass fibre reinforced plastic (FRP).
Cable core stranding	The secondary coating tubes and fillers (when needed) are SZ-stranded around the central strength member.
Water blocking	Dry water blocking elements.
Rip cord	A non-metallic rip cord is applied under the sheath.
Outer sheath	The cable sheath consists of UV resistant black HDPE. Nominal sheath thickness is 1,5 mm.
Sheath marking	Marking printed on the sheath at one meter interval: Nestor Cables - cable type - lot number - year of manufacture - length marking.



Nestor	STK		Diameter	Weight	Minimum bend	ling radius mm	Length	
code	code	Cable size	mm	kg/km	During installation	Installed	m	Drum
L10644	0217128	2x12SML	8,9	66	180	90	4 000	K12
L10600	0217196	4x12xSML	8,9	66	180	90	4 000	K12
L10587	0217197	8x12xSML	10,6	101	220	110	4 000	K14
L10503	0217523	8x2x12xSML	14,7	155	300	150	4 000	K18





### FY02RMU

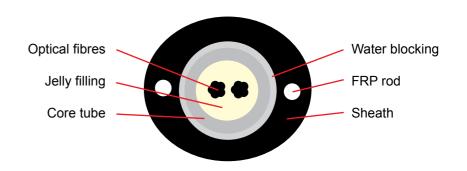
#### Non-metallic fibre optic cable

FYO2RMU is a duct cable with central tube construction. It is also suitable for direct buried installation in trench filled with sand.

#### **Properties**

Maximum tension during	1500 N	
Tomporature range	Operation	-45 - +70 °C
Temperature range	Installation	-15 - +70 °C
Crush strength with 100	5 000 N	

Construction	
Optical fibres	Coloured single-mode fibres according to the ITU-T G.652.D standard.
Secondary coating	A plastic core tube with jelly filling.
Water blocking	The cable core is surrounded with water blocking yarns.
Strength members	Two 1,6 mm glass fibre reinforced plastic rods (FRP) in the sheath.
Outer sheath	The cable sheath consists of UV resistant black LLDPE. Nominal sheath thickness is 2,5 mm.
Sheath marking	Marking printed on the sheath at one meter interval: Nestor Cables - cable type - lot number - year of manufacture - length marking.



Nestor	STK		Maximum	Weight	Minimum bend	ling radius mm	Length	
code	code	Cable size	diameter mm	kg/km	During installation	Installed	m	Drum
L10084	0217110	6xSML	12,0	95	200	100	6 000	K18
L10085	0217111	12xSML	12,0	97	200	100	6 000	K16
L10086	0217112	2x12xSML	12,0	97	200	100	6 000	K16
L10087	0217113	4x12xSML	14,0	134	240	120	6 000	K20
L10088	0217114	2x4x12xSML	14,0	135	240	120	6 000	K20





### **FZOHBMU-SD**

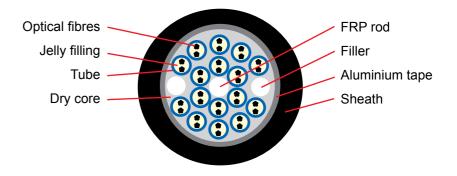
# Fibre optic cable with aluminium tape for duct installation

FZOHBMU-SD is a cable suitable for duct installation either by pulling or blowing. Its secondary coating tubes are SZ-stranded around the central strength member and the cable is protected by polymer coated aluminium tape.

#### **Properties**

Maximum tension during	3 000 N	
Tompovotuvo vongo	Operation	-45 - +70 °C
Temperature range	Installation	-15 - +70 °C
Crush strength with 100	3 000 N	

Construction	
oonstruction	
Optical fibres	Coloured single-mode fibres according to the ITU-T G.652.D standard.
Secondary coating	Jelly filled loose tubes made of thermoplastic polymer.
Fillers	Plastic fillers when applicable.
Central strength member	Glass fibre reinforced plastic (FRP).
Cable core stranding	The secondary coating tubes and fillers (when needed) are SZ-stranded around the central strength member in two layers.
Water blocking	Dry water blocking elements.
Rip cord	A non-metallic rip cord is applied under the sheathing layers
Moisture barrier	Polymer coated aluminium tape applied longitudinally with an overlap. The nominal thickness of the tape is 0,15 mm.
Outer sheath	The cable sheath consists of UV resistant black HDPE. Nominal sheath thickness is 1,5 mm (≥ 288F 1,8 mm).
Sheath marking	Marking printed on the sheath at one meter interval: Nestor Cables - cable type - lot number - year of manufacture - length marking.



Nestor	STK		Minimum bending		ling radius mm	Height		
code	code	Cable size	mm	kg/km	During installation	Installed	m	Drum
L10542	0217316	1x12xSML	13,0	125	260	130	4 000	K16
L10543	0217317	2x12xSML	13,0	126	260	130	4 000	K16
L10544	0217318	4x12xSML	13,0	129	260	130	4 000	K16
L10528	0217319	8x12xSML	14,8	170	300	150	4 000	K18
L10459	0217508	16x12xSML	18,6	256	300	200	4 000	K22
L10514	0217320	12x2x12xSML	20,5	298	300	200	4 000	K22
L10512	0217321	16x2x12xSML	20,5	303	300	200	4 000	K22
L10379	0217509	18x2x12xSML	20,5	310	300	200	4 000	K22



### **FZORMU-SD**

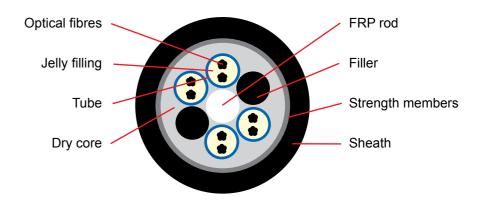
#### E-glass strengthened non-metallic optical fibre cable for duct installation either by pulling or blowing

FZORMU-SD is a duct fibre optic cable, whose fibres are stranded around the central strength member in jelly filled tubes. A layer of E-glass yarns under the sheath work as a strength member.

#### **Properties**

	12-48 fibres	3 400 N
Maximum tension during installation	96 fibres	5 000 N
	144-288 fibres	6 000 N
Tompovotuvo vongo	Operation	-45 - +70 °C
Temperature range	Installation	-15 - +70 °C
Crush strength with 100	2 000 N	

Construction	
Optical fibres	Coloured single-mode fibres according to the ITU-T G.652.D standard.
Secondary coating	Jelly filled loose tubes made of thermoplastic polymer.
Fillers	Black plastic fillers when applicable.
Central strength member	Glass fibre reinforced plastic (FRP).
Cable core stranding	The secondary coating tubes and fillers (when needed) are SZ-stranded around the central strength member.
Water blocking	Dry water blocking elements.
Strength members	A layer of E-glass yarns under the sheath.
Rip cord	A non-metallic rip cord is applied under the sheath.
Outer sheath	The cable sheath consists of UV resistant black HDPE. Nominal sheath thickness is 1,5 mm.
Sheath marking	Marking printed on the sheath at one meter interval: Nestor Cables - cable type - lot number - year of manufacture - length marking.



Nestor	STK		Diameter	Minimum Diameter Weight		mum bending radius mm		
code	code	Cable size	mm	kg/km	During installation	Installed	Length m	Drum
L10375	0217524	1x12xSML	9,0	69	180	90	4 000	K12
L10376	0217525	2x12xSML	9,0	69	180	90	4 000	K12
L10377	0217526	4x12xSML	9,0	64	180	90	4 000	K12
L10378	0217527	8x12xSML	10,7	98	220	110	4 000	K14





### **FYORMU Micro**

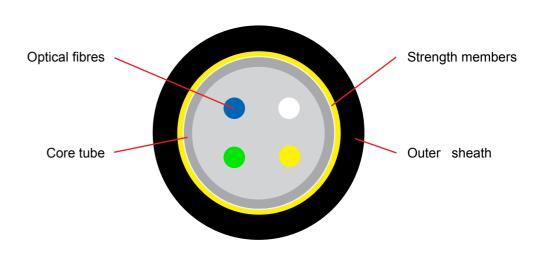
# Optical fibre cable with 4-12 fibres for microduct installation by blowing

FYORMU Micro is a fibre optical cable for microducts. The cable has a core tube and under the sheath of the cable aramide yarns act as strength elements.

#### **Properties**

Maximum tension	300 N	
Tamanawatuwa wana	Operation	-30 - +60 °C
Temperature range	Installation	-15 - +60 °C
Crush strength with 100	1 000 N	

Construction	
Optical fibres	Coloured single-mode fibres according to the ITU-T G.652.D.
Secondary coating	A plastic core tube with jelly filling.
Strength members	Aramide yarns under the sheath.
Outer sheath	The cable sheath consists of UV resistant black polyethylene compound (HDPE). Nominal sheath thickness is 0,5 mm.
Sheath marking	Marking printed on the sheath at one meter interval: Nestor Cables - Cable type - lot number - year of manufacture - length marking.



Nestor	STK		Diameter	Weight	Minimum bending radius mm			
code	code	Cable size	mm	kg/km	During installation	Installed	Length m	Drum
L10422	0217313	1x4xSML	4,5	18	90	65	4 000	K7
L10527	0217314	1x6xSML	4,5	18	90	65	4 000	K7
L10519	0217315	1x12xSML	4,5	18	90	65	4 000	K7



### **FZOMU-SD Micro**

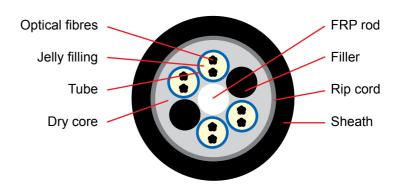
# Optical fibre cable for microduct installation by blowing

FZOMU-SD Micro is a cable for microducts. Its secondary coating tubes are stranded around the central strength member and water blocking is achieved through dry water blocking elements.

#### **Properties**

Maximum tension	24-72 fibres	750 N
during installation	96 fibres	1 000 N
Tomporatura ranga	Operation	-40 - +60 °C
Temperature range	Installation	-15 - +60 °C
Crush strength with 100	500 N	

Construction				
Optical fibres	Coloured single-mode fibres according to the ITU-T G.652.D.			
Secondary coating	Jelly filled loose tubes made of thermoplastic polyester.			
Fillers	Plastic fillers when applicable.			
Central strength member	Glass fibre reinforced plastic (FRP).			
Cable core stranding	The secondary coating tubes and fillers (when needed) are SZ-stranded around the central strength member.			
Water blocking	Dry water blocking elements are applied to the cable core.			
Rip cord	A non-metallic rip cord is applied under the sheath.			
Outer sheath	The cable sheath consists of UV resistant black polyethylene compound (HDPE). Nominal sheath thickness is 0,6 mm.			
Sheath marking	Marking printed on the sheath at one meter interval: Nestor Cables - cable type - lot number - year of manufacture - length marking.			



Nestor	STK		Diameter	Weight	Minimum bend	ling radius mm	Length	
code	code	Cable size	mm	kg/km	During installation	Installed	m	Drum
L10496	0217528	2x12xSML	6,0	28	120	80	4 000	K9
L10421	0217529	4x12xSML	6,0	28	120	80	4 000	K9
L10497	0217530	6x12xSML	6,0	29	120	80	4 000	K9
L10498	0217531	8x12xSML	6,4	34	130	120	4 000	K10



## ADSS 3 kN FYORMU

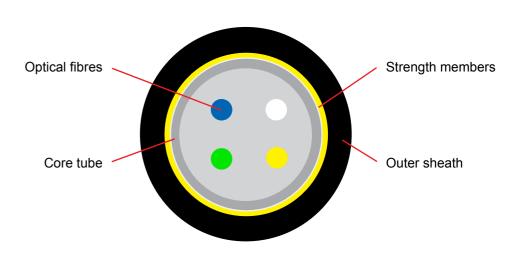
# Lightweigh optical fibre cable for aerial installation for short span power lines

ADSS 3 kN FYORMU is an optical fibre cable with 4-12 fibres. ADSS (All-Dielectric Self Supporting) cables are non-metallic so they are free from lightning and overvoltage problems when used along electrical power lines.

#### **Properties**

Maximum tension during	3 000 N	
Temperature range	Operation	-30 - +60 °C
	Installation	-15 - +60 °C
Crush strength with 100	4 000 N	

Construction	
Optical fibres	Coloured single-mode fibres according to the ITU-T G.652.D standard.
Secondary coating	A plastic core tube with jelly filling.
Water blocking	The cable core is surrounded with water blocking yarns.
Strength members	A helically stranded layer of high modulus aramide yarns.
Rip cord	A non-metallic rip cord is applied under the sheath.
Outer sheath	The cable sheath consists of UV resistant black PE. Nominal sheath thickness is 1,3 mm.
Sheath marking	Marking printed on the sheath at one meter interval: Nestor Cables - cable type - lot number - year of manufacture - length marking.



Nestor	STK		Diameter	Weight	Minimum bend	ling radius mm	Length	
code	code	Cable size	mm	kg/km	During installation	Installed	m	Drum
L10532	0217295	4xSML	8,5	57	170	85	6 000	K14
L10533	0217296	6xSML	8,5	57	170	85	6 000	K14
L10534	0217297	12xSML	8,5	57	170	85	6 000	K14



## ADSS 3 kN FZORMU-SD

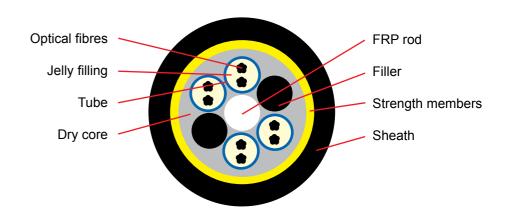
# Lightweigh optical fibre cable for aerial installation for short span power lines

ADSS 3 kN FYORMU is an optical fibre cable with 24-96 fibres. ADSS (All-Dielectric Self Supporting) cables are non-metallic and therefore free from lightning and overvoltage problems when used along electrical power lines.

#### **Properties**

Maximum tension during	3 000 N	
Tompovotuvo vongo	Operation	-45 - +70 °C
Temperature range	Installation	-15 - +70 °C
Crush strength with 100	2 000 N	

Construction					
Optical fibres	Coloured single-mode fibres according to the ITU-T G.652.D.				
Secondary coating	lelly filled loose tubes made of thermoplastic polyester.				
Fillers	lastic fillers when applicable.				
Central strength member	Glass fibre reinforced plastic (FRP).				
Cable core stranding	The secondary coating tubes and fillers (when needed) are SZ-stranded around the central strength member.				
Water blocking	Dry water blocking elements are applied to the cable core.				
Strength members	A helically stranded layer of high modulus aramide yarns.				
Rip cord	A non-metallic rip cord is applied under the sheath.				
Outer sheath	The cable sheath consists of UV resistant black polyethylene compound (HDPE). Nominal sheath thickness is 1.5 mm.				
Sheath marking	Marking printed on the sheath at one meter interval: Nestor Cables - cable type - lot number - year of manufacture - length marking.				



Nestor	STK		Diameter	Weight	Minimum bend	ling radius mm	Length	
code	code	Cable size	mm	kg/km	During installation	Installed	m	Drum
L10535	0217298	2x12xSML	10,2	77	200	100	6 000	K16
L10536	0217299	4x12xSML	10,2	78	200	100	6 000	K16
L10538	0217307	8x12xSML	11,2	100	220	110	6 000	K18



## ADSS 8 kN FZOMRMU-SD

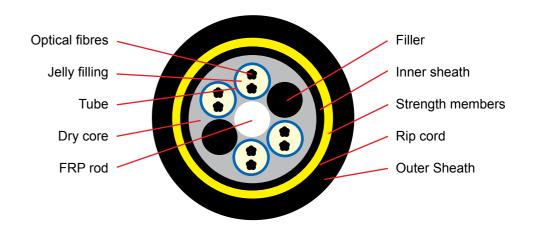
# Optical fibre cable for aerial installation for longer span (even 150 metres) power lines

ADSS 3 kN FYORMU is an optical fibre cable with 24-96 fibres. ADSS (All-gDielectric Self Supporting) cables are non-metallic so they are free from lightning and overvoltage problems when used along electrical power lines.

#### **Properties**

Maximum tension during	8 000 N	
Temperature range	Operation	-45 - +70 °C
	Installation	-15 - +70 °C
Crush strength with 100	4 000 N	

Construction	
Optical fibres	Coloured single-mode fibres according to the ITU-T G.652.D.
Secondary coating	Jelly filled loose tubes made of thermoplastic polyester.
Fillers	Plastic fillers when applicable.
Central strength member	Glass fibre reinforced plastic (FRP).
Cable core stranding	The secondary coating tubes and fillers (when needed) are SZ-stranded around the central strength member.
Water blocking	Dry water blocking elements are applied to the cable core.
Rip cord	A non-metallic rip cord is applied under the sheath.
Inner sheath	UV resistant black polyethylene compound (LLDPE). Nominal sheath thickness is 1,0 mm
Strength members	A helically stranded layer of high modulus aramide yarns.
Rip cord	A non-metallic rip cord is applied under the sheath.
Outer sheath	UV resistant black polyethylene compound (HDPE). Nominal sheath thickness is 1.5 mm.
Sheath marking	Marking printed on the sheath at one meter interval: Nestor Cables - cable type - lot number - year of manufacture - length marking.



Nestor	STK		Minimum bending radius Diameter Weight		ding radius mm	Length		
code	code	Cable size	mm	kg/km	During installation	Installed	m	Drum
L10520	0217308	2x12xSML	13,1	135	260	130	6 000	K20
L10521	0217309	4x12xSML	13,1	135	260	130	6 000	K20
L10523	0217311	8x12xSML	14,8	171	300	150	6 000	K22



## **FYOHBMUK**

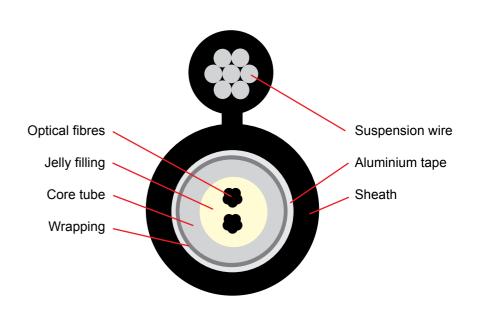
# Classic fibre optic cable with a suspension wire for aerial installation

FYOHBMUK is a cable with self-supporting figure-8 construction. The maximum span length of the cable is 60 metres. The fibres of FYOHBMUK are in a plastic core tube and the cable is protected by a longitudinally applied polymer coated aluminium tape. The suspension wire is made of steel wires.

#### **Properties**

Maximum tension duri	7 000 N	
Temperature range	Operation	-45 - +70 °C
	Installation	-15 - +70 °C
Crush strength with 10	3 000 N	

Construction	
Optical fibres	Coloured single-mode fibres according to the ITU-T G.652.D standard.
Secondary coating	A plastic core tube with jelly filling.
Wrapping	The cable core is wrapped longitudinally with a swellable tape.
Moisture barrier	Polymer coated aluminium tape applied longitudinally with an overlap. The nominal thickness of the tape is 0,15 mm.
Suspension wire	The suspension wire is made of stranded galvanised steel wires. The nominal diameter is 7x1,57 mm.
Outer sheath	The cable sheath consists of UV resistant black PE. Nominal sheath thickness is 1,4 mm. Nominal neck dimensions: height 3,0 mm, width 2,1 mm.
Sheath marking	Marking printed on the sheath at one meter interval: Nestor Cables - cable type - lot number - year of manufacture - length marking.



Nestor	STK		Diameter mm		Weight	Minimum bending radius mm			
code	code	Cable size	Width	Height	kg/km	During installation	Installed	Length m	Drum
L10095	0217134	12xSML	10,0	21,0	230	300	150	6 000	K20
L10096	0217135	2x12xSML	10,0	21,0	230	300	150	6 000	K20
L10100	0217136	4x12xSML	12	23,0	260	300	150	6 000	K22
L10339	0217194	2x4x12xSML	12	23,0	260	300	150	6 000	K22





### **FZOMSU-SD**

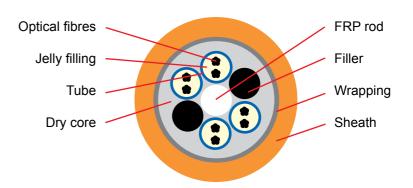
## Halogen free and flame retardant fibre optic cable

FZOMSU-SD is a stranded cable suitable for duct installation outdoors and indoors. The cable is fire retardant according to the IEC 60332-1.

#### **Properties**

Maximum tension	12-48 fibres	1 500 N
during installation	96 fibres	2 800 N
Tomporoturo rongo	Operation	-45 - +70 °C
Temperature range	Installation	-15 - +60 °C
Crush strength with 100	1 500 N	

Construction	
Optical fibres	Coloured single-mode fibres according to the ITU-T G.652.D standard. Also availabe with multimode fibres.
Secondary coating	Jelly filled loose tubes made of thermoplastic polymer.
Fillers	Plastic fillers when applicable.
Central strength member	Glass fibre reinforced plastic (FRP).
Cable core stranding	The secondary coating tubes and fillers (when needed) are SZ-stranded around the central strength member.
Wrapping	The cable core is wrapped longitudinally with a water blocking tape.
Rip cord	A non-metallic rip cord is applied under the sheath.
Outer sheath	Flame retardant, halogen free and UV resistant plastic (LSZH). Colour of the sheath is orange. Nominal sheath thickness is 1,4 mm. Cable is flame retardant according to the IEC 60332-1.
Sheath marking	Marking printed on the sheath at one meter interval: Nestor Cables - cable type - lot number - year of manufacture - length marking.



Nestor	STK		Diameter	Weight	Minimum bend	ling radius mm	Length	
code	code	Cable size	mm	kg/km	During installation	Installed	m	Drum
L10119	0217137	1x6xSML	10,0	80	200	100	2 000	K10
L10592	0217335	12xSML	10,0	80	200	100	2 000	K10
L10593	0217336	2x12xSML	10,0	80	200	100	2 000	K10
L10463	0217518	4x12xSML	10,0	80	200	100	2 000	K10
L10464	0217519	8x12xSML	11,0	110	220	110	2 000	K11
L10465	0217520	8x2x12xSML	15,0	175	300	150	2 000	K14





### **FZOMSU-SD Mini**

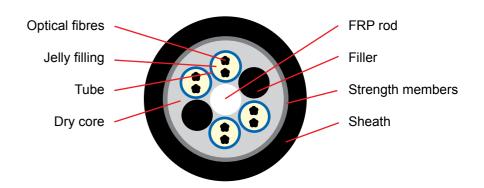
# Lightweigh, halogen free and UV resistant fibre optic cable

FZOMSU-SD Mini is a universal stranded cable suitable for duct installation both indoors and outdoors. The cable is fire retardant according to the IEC 60332-1.

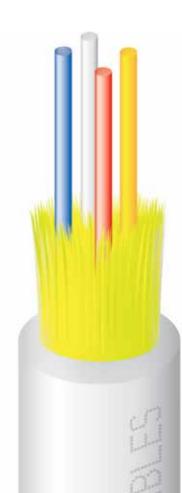
#### **Properties**

Maximum tension	12-48 fibres	1 800 N
during installation	96 fibres	2 700 N
Tomporatura rango	Operation	-40 - +70 °C
Temperature range	Installation	-15 - +60 °C

Construction	
Optical fibres	Coloured single-mode fibres according to the ITU-T G.652.D.
Secondary coating	Jelly filled loose tubes made of thermoplastic polymer.
Fillers	Plastic fillers when applicable.
Central strength member	Glass fibre reinforced plastic (FRP).
Cable core stranding	The secondary coating tubes and fillers (when needed) are SZ-stranded around the central strength member.
Strength members	A helically stranded layer of fiberglass yarns (waterblocking).
Rip cord	A non-metallic rip cord is applied under the sheath.
Outer sheath	Flame retardant, halogen free and UV resistant plastic (LSZH). Colour of the sheath is black. Cable is flame retardant according to the IEC 60332-1.
Sheath marking	Marking printed on the sheath at one meter interval: Nestor Cables - cable type - lot number - year of manufacture - length marking.



Nestor	STK		Diameter	Weight	Minimum bend	ling radius mm	Length	
code	code	Cable size	mm	kg/km	During installation	Installed	m	Drum
L10477	0217514	1x12xSML	8,0	68	160	80	2 000	K10
L10392	0217515	2x12xSML	8,0	68	160	80	2 000	K10
L10393	0217516	4x12xSML	8,0	70	160	80	2 000	K10
L10478	0217517	8x12xSML	8,5	96	160	80	2 000	K10



## **FTMS**

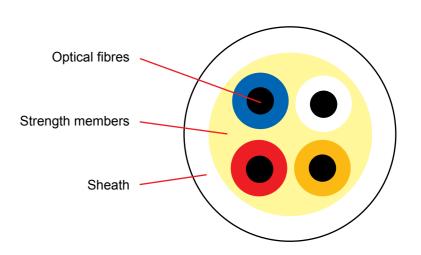
# Halogen free in-house fibre optic cable with 0,9 mm fibres

FTMS is a non-metallic tight-buffered cable for indoor installation. The cable is also available on customized lengths with connectors assembled on one or both ends. FTMS is flame retardant according to the IEC 60332-3.

#### **Properties**

Maximum tension	1 000 N	
Temperature	Operation	-10 - +60 °C
range	Installation	-15 - +60 °C
Crush strength wi	1 000 N	

Construction	
Optical fibres	Single-mode fibres according to the ITU-T G.657.A. Fibres meet also the requirements of ITU-T G.652.D.
Secondary coating	Tight buffer, outer diameter 900 μm.
Central strength member	Glass fibre reinforced plastic (FRP) when applicable.
Strength members	Aramide yarns under the sheath.
Outer sheath	Flame retardant, halogen free plastic (LSZH). Colour of the sheath is white. Cable is flame retardant according to the IEC 60332-3.
Sheath marking	Marking printed on the sheath at one meter interval: Nestor Cables - cable type - year of manufacture - length marking.



Nestor	tor STK		STK Diameter Weight		Weight	Minimum bend	Length	
code	code	Cable size	mm	kg/km	During installation	Installed	m	Drum
L10394	0217403	4xSMT	4,8	24	100	50	4 000	K6
L10395	0217404	12xSMT	7,3	49	140	70	4 000	K7





### FMS 1F

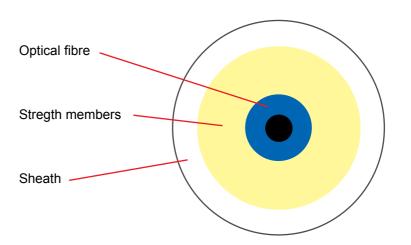
## Non-metallic optical fibre cable for indoor installations

FMS 1F is a fibre optic cable for indoor installation with one fibre. The aramide yarns under the sheath act as stregth members, and the sheath of cable is flame retardant, halogen free and UV resistant plastic.

#### **Properties**

Maximum tension during	200 N		
Temperature range	Operation	-5 - +60 °C	
	Installation	-15 - +60 °C	

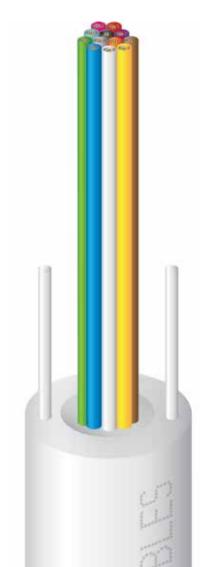
Construction	
Optical fibres	Single-mode fibre according to the ITU-T G.657.A. Fibre meets also the requirements of ITU-T G.652.D
Secondary coating	Tight buffer, outer diameter 900 μm
Strength members	Aramide yarns under the sheath.
Outer sheath	Flame retardant, halogen free and UV resistant plastic (LSZH). Colour of the sheath is white.
Sheath marking	Marking printed on the sheath at one meter interval: Nestor Cables - cable type - lot number - year of manufacture - length marking.



Nestor	STK	Cable	Diameter	Minimum bending radius mm meter Weight Length				
code	code	size	mm	kg/km	During installation	Installed	m	Drum
L10501	*	1xSMT	2,8	8	20	20	*	disposable drum

\* Not yet specified





## FY2RMS

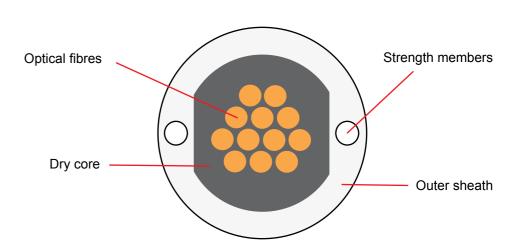
# Non-metallic optical fibre cable for indoor FTTH applications

FY2RMS fibre optic cable has 12 or 24 fibres with tight buffer. The outer sheath of the cable is halogen-free and UV resistant plastic and the cable is flame retardant according to IEC 60332-1.

#### **Properties**

Maximum tension d	500 N	
Tomporeture renge	Operation/installation	-15 - +60 °C
Temperature range	Storage/transport	-30 - +60 °C
Crush strength with	500 N	

Construction	
Optical fibres	Single-mode fibres according to the ITU-T G.657.A1. Fibres meet also the requirements of ITU-T G.652.D.
Secondary coating	Colour coded tight buffer, outer diameter 900 µm.
Wrapping	Glass fibre reinforced plastic rods (FRP) in the sheath. Rod diameter 1,0 mm.
Outer sheath	Flame retardant, halogen free and UV resistant plastic (LSZH). Colour of the sheath is cream white. Nominal sheath thickness is 1,4 mm. Cable is flame retardant according to the IEC 60332-1.
Sheath marking	Marking printed on the sheath at one meter interval: Nestor Cables - cable type - lot number - year of manufacture - length marking



Nestor	STK		Diameter	Weight	Minimum ben	ding radius mm	Length	
code	code	Cable size	mm	kg/km	During installation	Installed	m	Drum
*	*	1×12xSML	9,0	67	180	90	*	*
*	*	1×24xSML	10,7	90	220	110	*	*

\* Not yet specified



### **FY2RMS Flex**

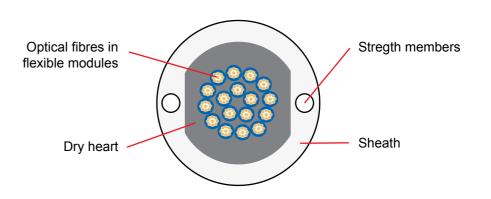
#### Non-metallic optical fibre cable for indoor *Fibre to the Home* applications

FY2RMS utilises a new optical fibre cable construction where the fibres are placed in flexible modules to improve durability and handling capabilities of the cable. The outer sheath of the cable is halogenfree and UV resistant plastic and the cable is flame retardant according to IEC 60332-1.

#### **Properties**

Maximum tension during	500 N	
Tomporoturo rongo	Operation	-15 - +60 °C
Temperature range	Installation	-30 - +60 °C
Crush strength with 100	500 N	

Construction	
Optical fibres	Single-mode fibres according to the ITU-T G.657.A1. Fibres meet also the requirements of ITU-T G.652.D.
Secondary coating	Flexible colour coded fibre modules.
Strength members	Glass fibre reinforced plastic rods (FRP) in the sheath. Rod diameter 1,0 mm.
Outer sheath	Flame retardant, halogen free and UV resistant plastic (LSZH). Colour of the sheath is cream white. Nominal sheath thickness is 1,4 mm. Cable is flame retardant according to the IEC 60332-1.
Sheath marking	Marking printed on the sheath at one meter interval: Nestor Cables - cable type - lot number - year ofmanufacture - length marking.



Nestor	STK		Diameter	Weight	Minimum ben	ding radius mm	Length	
code	code	Cable size	mm	kg/km	During installation	Installed	m	Drum
*	*	4×6xSML	9,0	57	180	90	*	*
*	*	6×6xSML	9,0	57	180	90	*	*
*	*	8×6xSML	9,0	57	180	90	*	*
*	*	10×6xSML	10,7	70	220	110	*	*
*	*	12×6xSML	10,7	70	220	110	*	*
*	*	16×6xSML	10,7	70	220	110	*	*
*	*	24×6xSML	10,7	70	220	110	*	*

\* Not yet specified



### FTMS+Cat6

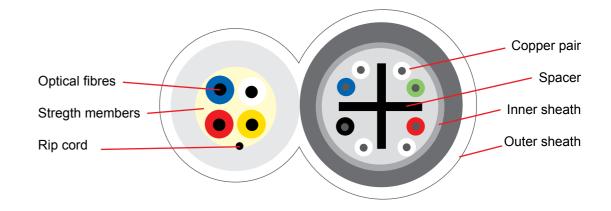
# Hybrid tight-buffered optical fibre + Cat6 U/UTP cable for indoor installation

FTMS+Cat6 consists of fibres and Cat6 cables which are combined in figure-eight sheath. The sheath can be split, which allows the fibre and Cat6 cables to be terminated separately if needed.

#### **Properties**

Maximum tension during	500 N	
Tomporatura rango	Operation	-5 - +60 °C
Temperature range	Installation	-15 - +60 °C
Crush strength with 100	1 000 N	

Construction	
Optical unit	
Optical fibres	Single-mode fibres according to the ITU-T G.657.A. Fibres meet also the requirements of ITU-T G.652.D.
Secondary coating	Tight buffer, outer diameter 900 μm.
Strength member	Aramide yarns under the sheath.
Rip cord	Non metallic rip cord under the sheath.
CAT6	
Copper pairs	4 twisted pairs
Spacer	Plastic spacer to sepatate the pairs.
Rip cord	Non metallic rip cord under the sheath.
Inner sheath	Flame retardant, halogen free plastic (LSZH). Nominal thickness is 0,5 mm.
Cable	
Outer sheath	Flame retardant, halogen free plastic (LSZH). Nominal thickness is 0,7 mm. Colour of the sheath is cream white. Cable is halogen free and flame retardant according to the IEC 60332-1.
Sheath marking	Marking printed on the sheath at one meter interval: Nestor Cables - cable type - year of manufacture - length marking



Nestor STK			Diameter Weig		Minimum ben	Length		
code code	Cable size	mm	kg/km	During installation	Installed	m	Drum	
L10539	0217312	4xSMT	7,5x11,8	79	160	80	470	P6





# FZOMSU-SD (OM1)

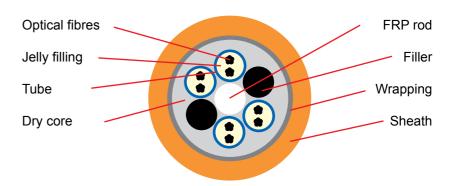
# Halogen free and flame retardant fibre optic cable (LSZH)

FZOMSU-SD is a stranded cable suitable for duct installation outdoors and indoors. The cable is fire retardant according to the IEC 60332-1.

#### **Properties**

Maximum tension	1 500 N	
Tomporeture renge	Operation	-45 - +60 °C
Temperature range	Installation	-15 - +60 °C
Crush strength with 100	1 500 N	

Construction	
Optical fibres	Coloured OM1 multi-mode fibres (GKL, $62,5/125~\mu m$ ). Single-mode fibres according to the ITU-T G.652.D in hybrid cables.
Secondary coating	Jelly filled loose tubes made of thermoplastic polyester.
Fillers	Black plastic fillers when applicable.
Central strength member	Glass fibre reinforced plastic (FRP).
Cable core stranding	The secondary coating tubes and fillers (when needed) are SZ-stranded around the central strength member.
Wrapping	The cable core is wrapped longitudinally with a water blocking tape.
Rip cord	A non-metallic rip cord is applied under the sheath.
Outer sheath	Flame retardant, halogen free and UV resistant plastic (LSZH). Colour of the sheath is orange. Nominal sheath thickness is 1,4 mm. Cable is flame retardant according to the IEC 60332-1.
Sheath marking	Marking printed on the sheath at one meter interval: Nestor Cables - cable type - lot number - year of manufacture - length marking.



	STK	Cable size	Diameter	Weight	Minimum bend	ling radius mm	Length	Drum
	code		mm	kg/km	During installation	Installed	m	
L10311	0217165	4xOM1	10,0	80	200	100	2 000	K10
L10312	0217166	2x4xOM1	10,0	80	200	100	2 000	K10
L10313	0217167	3x4xOM1	10,0	80	200	100	2 000	K10
L10314	0217168	6x4xOM1	10,0	80	200	100	2 000	K10
L10256	0217157	4xSML+ 4xOM1	10,0	80	200	100	2 000	K10
L10258	0217159	2x4xSML+ 2x4xOM1	10,0	80	200	100	2 000	K10
L10260	0217161	3x4xSML+ 3x4xOM1	10,0	80	200	100	2 000	K10





# FZOMSU-SD (OM3)

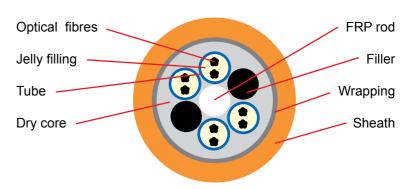
# Halogen free and flame retardant fibre optic cable

FZOMSU-SD is a stranded cable suitable for duct installation outdoors and indoors. The cable is fire retardant according to the IEC 60332-1.

#### **Properties**

Maximum tension during	1 500 N	
Temperature range	Operation	-45 - +60 °C
	Installation	-15 - +60 °C
Crush strength with 100	1 500 N	

Construction	
Optical fibres	Coloured OM3 multi-mode fibres. Single-mode fibres according to the ITU-T G.652.D in hybrid cables.
Secondary coating	Jelly filled loose tubes made of thermoplastic polyester.
Fillers	Black plastic fillers when applicable.
Central strength member	Glass fibre reinforced plastic (FRP).
Cable core stranding	The secondary coating tubes and fillers (when needed) are SZ-stranded around the central strength member.
Wrapping	The cable core is wrapped longitudinally with a water blocking tape.
Rip cord	A non-metallic rip cord is applied under the sheath.
Outer sheath	Flame retardant, halogen free and UV resistant plastic (LSZH). Colour of the sheath is orange. Nominal sheath thickness is 1,4 mm. Cable is flame retardant according to the IEC 60332-1.
Sheath marking	Marking printed on the sheath at one meter interval: Nestor Cables - cable type - lot number - year of manufacture - length marking.



	STK		Diameter	Diameter Weight		Minimum bending radius mm		
	code	Cable size	mm	kg/km	During installation	Installed	Length m	Drum
L10344	0217170	4xOM3	10,0	80	200	100	2 000	K10
L10346	0217171	2x4xOM3	10,0	80	200	100	2 000	K10
L10345	0217172	3x4xOM3	10,0	80	200	100	2 000	K10
L10347	0217173	6x4xOM3	10,0	80	200	100	2 000	K10
L10341	0217174	4xSML+ 4xOM3	10,0	80	200	100	2 000	K10
L10342	0217175	2x4xSML+ 2x4xOM3	10,0	80	200	100	2 000	K10
L10343	0217176	3x4xSML+ 3x4xOM3	10,0	80	200	100	2 000	K10





# FYOVD2PMU (OM1)

# The most durable cable at the market for direct buried installation

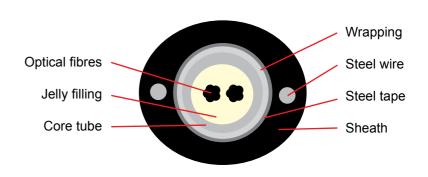
FYOVD2PMU is a universal fibre optic cable with central tube construction for direct buried or duct installation. The cable is protected by polymer coated corrugated steel tape.

FYOVD2PMU is also available with single-mode fibres and as hybrid cable (SM+MM).

#### **Properties**

Maximum tension during	5 000 N	
Temperature range	Operation	-45 - +60 °C
	Installation	-15 - +60 °C
Crush strength with 100	6 000 N	

Construction	
Optical fibres	Coloured OM1 multi-mode fibres (GKL). (And single-mode fibres according to the ITU-T G.652.D in hybrid cables).
Secondary coating	A plastic core tube with jelly filling.
Wrapping	The cable core is wrapped longitudinally with a swellable tape.
Protection	Polymer coated corrugated steel tape applied longitudinally with an overlap. The nominal thickness of the steel tape is 0,15 mm.
Strength members	Two 1,6 mm high tensile strength steel wires in the sheath.
Outer sheath	The cable sheath consists of UV resistant black polyethylene compound (LDPE). Minimum sheath thickness is 1,5 mm.
Sheath marking	Marking printed on the sheath at one meter interval: Name of manufacturer - cable type - lot number - year of manufacture - length marking.



	STK	Diameter	Weight	Minimum bend	Length			
	code	Cable size	mm	kg/km	During installation	Installed	m	Drum
L10306	0217185	4xOM1	13,5	185	250	125	2 000	K14
L10303	0217162	2x4xOM1	13,5	185	250	125	2 000	K14
L10304	0217163	2x4xSML+ 2x4xOM1	13,5	185	250	125	2 000	K14
L10305	0217164	2x6xSML+ 3x4xOM1	13,5	185	250	125	2 000	K14

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