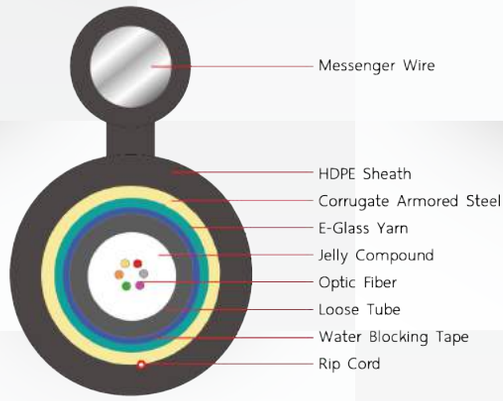
Drop Wire

SINGLE LOOSE TUBE

Model : FOWSxAx

Features

- Good mechanical and temperature performance
- High strength loosetube that is hydrolysis resistant
- Special tube filling compound ensure a critical protection of fiber
- Crush resistance and flexibility
- Self - supporting aerial outdoor installation
- Outer jacket protection Ultra-violet (UV)
- Stablest & waterproof
- Transfer long length and low price



Standard

- ISO/IEC 9001 : 2008, ISO/IEC 11801
- ANSI/TIA/EIA-568-B.3, ANSI/TIA-568-C.3
- Telcordia (Bellcore) GR-20-CORE, GR-409-CORE
- ANSI/ICEA 696, ANSI/ICEA 596
- ITU-T G.651 (Multi Mode)
- ITU-T G.652D (Single Mode)
- IEEE802.3 ATM FDDI
- IEC60332-3, IEC60332-1
- IEC61034-2, IEC60754-2
- IEC60793, IEC60794-1-2
- IEA-455 ICEA 640
- EN 50173-1 IEC 60793
- RoHS Compliant

LIMITED 30 years WARRANTY

RoHS · WEEE Compliant

Specification

Table 1 : Geometrical Performance

Item		Specification
Attennuation (dB/km) Single Mode (OS2)		≤ 0.34 @ 1310 nm
		≤ 0.21 @ 1550 nm
		≤ 0.23 @ 1625 nm
Mode Field Diameter		9.2 ± 0.4 m @ 1310 nm 10.4 ± 0.5 µm @ 1550 nm
Material	Core	Germanium doped silica glass
	Cladding	Silica glass
Armor Material		Corrugated steel tape
Cladding Diameter		125 ± 1.0 µm
Core Non-circularity (%)		≤ 5
Cladding Non-circularity		≤ 1.0%
Core-Cladding Concentricity error		≤ 0.8 µm
Primary Coating		2 layers of UV curable resin
Coating Diameter (µm)		245 ± 10
Colored Fiber Diameter (µm)		255 ± 10
Coating/Cladding Concentricity error		≤ 12 µm
Zero Dispersion Wavelength (λ_0)		1,300 ≤ λ_0 ≤ 1,324 nm

Table 2 : The construction of the cable

Item		Specification
Fiber Count		4, 6, 12
Filling Compound		Thixotropic Jelly Compound
Loose tube	Material	(PBT) Polybutylene Terephthalate
	Diameter	Nom. 4.2 mm.
	Assembly	Fibers are brought together with the filling compound and placed in the extruded tube
Strength Member		E-Glass Yarns
Water Blocking Tape		Thickness 0.3 mm
Rip Cord		Aramid cords
Outer Sheath	Material	High density Polyethylene (HDPE)
	Thickness	1.5 mm
Messenger Wire	Material	Galvanized steel wire
	Diameter	1.6 mm
Temperature Range	Operation	-40˚C to + 70˚C
	Installation	-40˚C to + 70˚C
	Storage	-40˚C to + 75˚C
Maximum Span Length		50 m
Minimum installation Sag		0.1 % of Maximum Span Length
Maximum Tensile Load Short/Long Term		1,600 N / 600 N
Maximum Span Length	Installation	20 x External Diameter of Cable
	Operation	10 x External Diameter of Cable
TIA-EIA-455-33A and IEC 60794-1-2-E1A		Tensile loading Test
TIA-EIA-455-41A and IEC 60794-1-2-E3		Compression Test
TIA-EIA-455-104A and IEC 60794-1-2-E6		Repeated Bending Test
TIA-EIA-455-25B and IEC 60794-1-2-E4		Impact Test
IEC 60794-1-2-E11B		Cable Bending Test
TIA-EIA-455-85A and IEC 60794-1-2-E7		Cable Twist or Torsion Test
TIA-EIA-455-3A and IEC 60794-1-2-F1		Temperature Cycling Test
TIA-EIA-455-82B and IEC 60794-1-2-F5		Water Penetration Test

Table 3 : The color code of the loose tubes Identification (Standard : TIA/EIA-598-A)

No.	Fiber Color	No.	Fiber Color
1	Blue	7	Red
2	Orange	8	Black
3	Green	9	Yellow
4	Brown	10	Violet
5	Slate	11	Rose
6	White	12	Aqua

Table 4 : Part Number

No.	Description
W-FOWS4A1	“Widen” Fiber optie Dropwire 4F,SM Single loose tube with Armoured
W-FOWS6A1	“Widen” Fiber optie Dropwire 6F,SM Single loose tube with Armoured
W-FOWS12A1	“Widen” Fiber optie Dropwire 12F,SM Single loose tube with Armoured

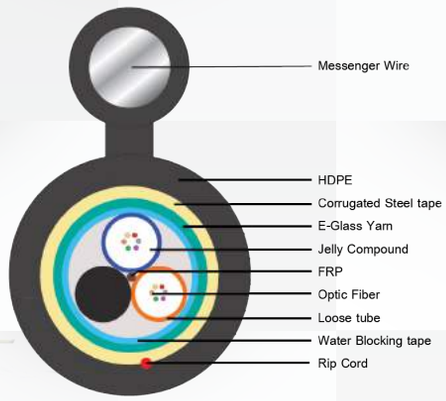
Drop Wire

MULTI LOOSE TUBE

Model : W-FOWMxNx

Features

- Good mechanical and temperature performance
- High strength loosetube that is hydrolysis resistant
- Special tube filling compound ensure a critical protection of fiber
- Crush resistance and flexibility
- Self - supporting aerial outdoor installation
- Outer jacket protection Ultra-violet (UV)
- Stablest & waterproof
- Transfer long length and low price



Standard

- ISO/IEC 9001 : 2008, ISO/IEC 11801
- ISO/IEC 11801:2011(Ed.2.2)
- ANSI/TIA/EIA-568-B.3, ANSI/TIA-568-C.3
- Telcordia (Bellcore) GR-20-CORE, GR-409-CORE
- ANSI/ICEA 696, ANSI/ICEA 596
- ITU-T G.651 (Multi Mode)
- ITU-T G.652D (Single Mode)
- IEEE802.3 ATM FDDI
- IEC60332-3, IEC60332-1
- IEC61034-2, IEC60754-2
- IEC60793, IEC60794-1-2
- IEA-455 ANSI/ICEA 640
- EN 50173-1 IEC 60793
- RoHS Compliant
- TIS. 2166-2548

LIMITED 30 years WARRANTY

RoHS · WEEE Compliant

Specification

Table 1 : Geometrical Performance

Item		Specification
Attennuation (dB/km) Single Mode (OS2)		≤ 0.34 @ 1310 nm
		≤ 0.21 @ 1550 nm
		≤ 0.23 @ 1625 nm
Mode Field Diameter		9.2 ± 0.4 m @ 1310 nm 10.4 ± 0.5 µm @ 1550 nm
Material	Core	Germanium doped silica glass
	Cladding	Silica glass
Armor Material		Corrugated steel tape
		Thickness >0.25 mm
Cladding Diameter		125 ± 1.0 µm
Core Non-circularity (%)		≤ 5
Cladding Non-circularity		≤ 1.0%
Core-Cladding Concentricity error		≤ 0.8 µm
Primary Coating		2 layers of UV curable resin
Coating Diameter (µm)		245 ± 10
Colored Fiber Diameter (µm)		255 ± 10
Coating/Cladding Concentricity error		≤ 12 µm
Zero Dispersion Wavelength (λ0)		1,300 ≤ λ_0 ≤ 1,324 nm

Table 2 : The construction of the cable

Item		Specification
Fiber Count		6, 12, 24
Filling Compound		Thixotropic Jelly Compound
Loose tube	Material	(PBT) Polybutylene Terephthalate
	Diameter	Nom. 4.2 mm.
	Assembly	Fibers are brought together with the filling compound and placed in the extruded tube
Strength Member		Fiber-reinforced plastic (FRP)
		Thickness 0.5 mm
Water Blocking Tape		Thickness 0.3 ± 0.05 mm.
Water Blocking Yarn		E-Glass yarn
Rip Cord		2 Wire Polyester Cord
Outer Sheath	Material	High density Polyethylene (HDPE)
	Thickness	1.5 mm
Messenger Wire	Material	Galvanized steel wire
	Diameter	1.6 mm
Temperature Range	Operation	-40˚C to + 70˚C
	Installation	-40˚C to + 70˚C
	Storage	-40˚C to + 75˚C
Maximum Span Length		50 m
Minimum installation Sag		0.1 % of Maximum Span Length
Maximum Tensile Load Short/Long Term		1,600 N / 600 N
Maximum Bending Radius	Installation	20 x External Diameter of Cable
	Operation	10 x External Diameter of Cable
TIA-EIA-455-33A and IEC 60794-1-2-E1A		Tensile loading Test
TIA-EIA-455-41A and IEC 60794-1-2-E3		Compression Test
TIA-EIA-455-104A and IEC 60794-1-2-E6		Repeated Bending Test
TIA-EIA-455-25B and IEC 60794-1-2-E4		Impact Test
IEC 60794-1-2-E11B		Cable Bending Test
TIA-EIA-455-85A and IEC 60794-1-2-E7		Cable Twist or Torsion Test
TIA-EIA-455-3A and IEC 60794-1-2-F1		Temperature Cycling Test
TIA-EIA-455-82B and IEC 60794-1-2-F5		Water Penetration Test

Table 3 : The color code of the loose tubes Identification (Standard : TIA/EIA-598-A)

No.	Fiber Color	No.	Fiber Color
1	Blue	7	Red
2	Orange	8	Black
3	Green	9	Yellow
4	Brown	10	Violet
5	Slate	11	Rose
6	White	12	Aqua

Table 4 : Part Number

No.	Description
W-FOWM6A1	“Widen” Fiber optie Dropwire 6F,SM Multi loose tube with Armoured
W-FOWM12A1	“Widen” Fiber optie Dropwire 12F,SM Multi loose tube with Armoured
W-FOWM24A1	“Widen” Fiber optie Dropwire 24F,SM Multi loose tube with Armoured

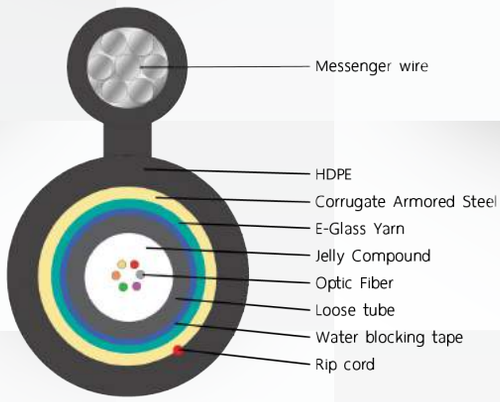
Figure 8

SINGLE LOOSE TUBE

Model : FOFSxAx

Features

- Good mechanical and temperature performance
- High strength loosetube that is hydrolysis resistant
- Special tube filling compound ensure a critical protection of fiber
- Crush resistance and flexibility
- Self - supporting aerial outdoor installation
- Outer jacket protection Ultra-violet (UV)
- Stablest & waterproof
- Transfer long length and low price



Standard

- ISO/IEC 9001 : 2008, ISO/IEC 11801
- ANSI/TIA/EIA-568-B.3, ANSI/TIA-568-C.3
- Telcordia (Bellcore) GR-20-CORE, GR-409-CORE
- ANSI/ICEA 696, ANSI/ICEA 596
- ITU-T G.651 (Multi Mode)
- ITU-T G.652D (Single Mode)
- IEEE802.3 ATM FDDI
- IEC60332-3, IEC60332-1
- IEC61034-2, IEC60754-2
- IEC60793, IEC60794-1-2
- IEA-455 ICEA 640
- EN 50173-1 IEC 60793
- RoHS Compliant

LIMITED 30 years WARRANTY

RoHS · WEEE Compliant

Specification

Table 1 : Geometrical Performance

Item		Specification
Attennuation (dB/km) Single Mode (OS2)		≤ 0.34 @ 1310 nm
		≤ 0.21 @ 1550 nm
		≤ 0.23 @ 1625 nm
Mode Field Diameter		9.2 ± 0.4 m @ 1310 nm 10.4 ± 0.5 µm @ 1550 nm
Material	Core	Germanium doped silica glass
	Cladding	Silica glass
Armor Material		Corrugated steel tape
Cladding Diameter		125 ± 1.0 µm
Core Non-circularity (%)		≤ 5
Cladding Non-circularity		≤ 1.0%
Core-Cladding Concentricity error		≤ 0.8 µm
Primary Coating		2 layers of UV curable resin
Coating Diameter (µm)		245 ± 10
Colored Fiber Diameter (µm)		255 ± 10
Coating/Cladding Concentricity error		≤ 12 µm
Zero Dispersion Wavelength (λ_0)		1,300 ≤ λ_0 ≤ 1,324 nm

Table 2 : The construction of the cable

Item		Specification
Fiber Count		4, 6, 12
Filling Compound		Thixotropic Jelly Compound
Loose tube	Material	(PBT) Polybutylene Terephthalate
	Diameter	Nom. 4.2 mm.
	Assembly	Fibers are brought together with the filling compound and placed in the extruded tube
Strength Member		E-Glass Yarns
Water Blocking Tape		Thickness 0.3 mm
Rip Cord		Aramid cords
Outer Sheath	Material	High density Polyethylene (HDPE)
	Thickness	1.5 mm
Messenger Wire	Material	Galvanized steel wire
	Diameter	7 x 1.0 mm or 7 x 1.2 mm.
Temperature Range	Operation	-40˚C to + 70˚C
	Installation	-40˚C to + 70˚C
	Storage	-40˚C to + 75˚C
Maximum Span Length		80 m
Minimum installation Sag		0.1 % of Maximum Span Length
Maximum Tensile Load Short/Long Term		7,000 N / 4,000 N
Maximum Span Length	Installation	20 x External Diameter of Cable
	Operation	10 x External Diameter of Cable

Table 3 : The color code of the loose tubes Identification (Standard : TIA/EIA-598-A)

No.	Fiber Color	No.	Fiber Color
1	Blue	7	Red
2	Orange	8	Black
3	Green	9	Yellow
4	Brown	10	Violet
5	Slate	11	Rose
6	White	12	Aqua

Table 4 : Part Number

No.	Description
W-FOFS4A1	“Widen” Figure8 Fiber optic4F,SM Single loose Tube with Armored
W-FOFS6A1	“Widen” Figure8 Fiber optic6F,SM Single loose Tube with Armored
W-FOFS12A1	“Widen” Figure8 Fiber optic12F,SM Single loose Tube with Armored

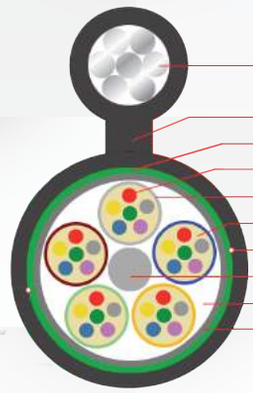
Figure 8

MULTI LOOSE TUBE

Model : FOFMxAx

Features

- Good mechanical and temperature performance
- High strength loosetube that is hydrolysis resistant
- Special tube filling compound ensure a critical protection of fiber
- Crush resistance and flexibility
- Self - supporting aerial outdoor installation
- Outer jacket protection Ultra-violet (UV)
- Stablest & waterproof
- Transfer long length and low price



Standard

- ISO/IEC 9001 : 2008, ISO/IEC 11801
- ANSI/TIA/EIA-568-B.3, ANSI/TIA-568-C.3
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- ITU-T G.652D (Single Mode)
- IEEE802.3 ATM FDDI
- IEC60332-3, IEC60332-1
- IEC61034-2, IEC60754-2
- IEC60793, IEC60794-1-2
- IEA-455 ICEA 640
- EN 50173-1 IEC 60793
- RoHS Compliant

LIMITED 30 years WARRANTY

RoHS · WEEE Compliant

Specification

Table 1 : Geometrical Performance

Item		Specification
Attennuation (dB/km) Single Mode (OS2)		≤ 0.34 @ 1310 nm
		≤ 0.21 @ 1550 nm
		≤ 0.23 @ 1625 nm
Mode Field Diameter		9.2 ± 0.4 m @ 1310 nm 10.4 ± 0.5 µm @ 1550 nm
Material	Core	Germanium doped silica glass
	Cladding	Silica glass
Armor Material		Corrugated steel tape
Cladding Diameter		125 ± 1.0 µm
Core Non-circularity (%)		≤ 5
Cladding Non-circularity		≤ 1.0%
Core-Cladding Concentricity error		≤ 0.8 µm
Primary Coating		2 layers of UV curable resin
Coating Diameter (µm)		245 ± 10
Colored Fiber Diameter (µm)		255 ± 10
Coating/Cladding Concentricity error		≤ 12 µm
Zero Dispersion Wavelength (λ_0)		1,300 ≤ λ_0 ≤ 1,324 nm

Table 2 : The construction of the cable

Item		Specification
Fiber Count		12, 24, 36, 48, 60
Filling Compound		Thixotropic Jelly Compound
Loose tube	Material	(PBT) Polybutylene Terephthalate
	Diameter	Nom. 4.2 mm.
	Assembly	Fibers are brought together with the filling compound and placed in the extruded tube
Strength Member		Fiber-reinforced plastic (FRP)
Water Blocking Tape		Thickness 0.3 mm
Water blocking element	material	Dry swellable materials such as tape or yarn on equivalents
Rip Cord		Aramid cords
Armour	material	corrugated steel tape coated with polymer on both sides
	thickness	Steel tape : 0.15 mm. Polymer : 0.05 mm.
Outer Sheath	Material	High density Polyethylene (HDPE)
	Thickness	1.5 mm
Messenger Wire	Material	Galvanized steel wire
	Diameter	7 x 1.0 mm or 7 x 1.2 mm.
Temperature Range	Operation	-40 ˚C to + 70 ˚C
	Installation	-40 ˚C to + 70 ˚C
	Storage	-40 ˚C to + 75 ˚C
Maximum Span Length		80 m
Minimum installation Sag		0.1 % of Maximum Span Length
Maximum Tensile Load Short/Long Term		7,000 N / 4,000 N
Maximum Bending Radius	Installation	20 x External Diameter of Cable
	Operation	10 x External Diameter of Cable

Table 3 : The color code of the loose tubes Identification (Standard : TIA/EIA-598-A)

No.	Fiber Color	No.	Fiber Color
1	Blue	7	Red
2	Orange	8	Black
3	Green	9	Yellow
4	Brown	10	Violet
5	Slate	11	Rose
6	White	12	Aqua

Table 4 : Part Number

No.	Description
W-FOFM12A1	“Widen” Figure 8 Fiber optic 12F,SM Multi loose tube with Armoured
W-FOFM24A1	“Widen” Figure 8 Fiber optic 24F,SM Multi loose tube with Armoured
W-FOFM48A1	“Widen” Figure 8 Fiber optic 48F,SM Multi loose tube with Armoured
W-FOFM60A1	“Widen” Figure 8 Fiber optic 60F,SM Multi loose tube with Armoured

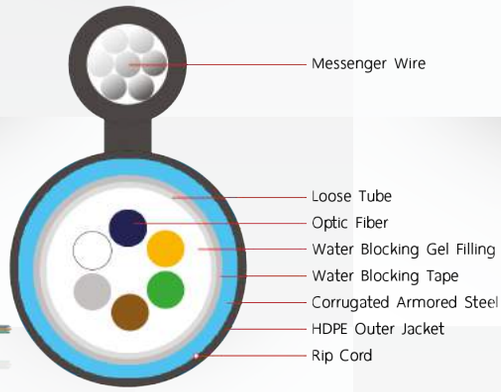
Figure 8 For CCTV

SINGLE LOOSE TUBE

Model : W-FOFCSxxA1

Features

- Good mechanical and temperature performance
- High strength loosetube that is hydrolysis resistant
- Special tube filling compound ensure a critical protection of fiber
- Crush resistance and flexibility
- Self - supporting aerial outdoor installation
- Outer jacket protection Ultra-violet (UV)
- Stablest & waterproof
- Transfer long length and low price



Standard

- ISO/IEC 9001 : 2008, ISO/IEC 11801
- ANSI/TIA/EIA-568-B.3, ANSI/TIA-568-C.3
- Telcordia (Bellcore) GR-20-CORE, GR-409-CORE
- ANSI/ICEA 696, ANSI/ICEA 596
- ITU-T G.651 (Multi Mode)
- ITU-T G.652D (Single Mode)
- IEEE802.3 ATM FDDI
- IEC60332-3, IEC60332-1
- IEC61034-2, IEC60754-2
- IEC60793, IEC60794-1-2
- IEA-455 ICEA 640
- EN 50173-1 IEC 60793
- RoHS Compliant

LIMITED 30 years WARRANTY

RoHS · WEEE Compliant

Specification

Table 1 : Geometrical Performance

Item		Specification
Attennuation (dB/km) Single Mode (OS2)		≤ 0.34 @ 1310 nm
		≤ 0.21 @ 1550 nm
		≤ 0.23 @ 1625 nm
Mode Field Diameter		9.2 ± 0.4 m @ 1310 nm 10.4 ± 0.5 µm @ 1550 nm
Material	Core	Germanium doped silica glass
	Cladding	Silica glass
Armor Material		Corrugated steel tape
Cladding Diameter		125 ± 1.0 µm
Core Non-circularity (%)		≤ 5
Cladding Non-circularity		≤ 1.0%
Core-Cladding Concentricity error		≤ 0.8 µm
Primary Coating		2 layers of UV curable resin
Coating Diameter (µm)		245 ± 10
Colored Fiber Diameter (µm)		255 ± 10
Coating/Cladding Concentricity error		≤ 12 µm
Zero Dispersion Wavelength (λ_0)		1,300 ≤ λ_0 ≤ 1,324 nm

Table 2 : The construction of the cable

Item		Specification
Fiber Count		6, 12
Filling Compound		Thixotropic Jelly Compound
Loose tube	Material	(PBT) Polybutylene Terephthalate
	Diameter	Nom. 4.2 mm.
	Assembly	Fibers are brought together with the filling compound and placed in the extruded tube
Strength Member		E-Glass Yarns
Water Blocking Tape		Thickness 0.3 mm
Rip Cord		Aramid cords
Outer Sheath	Material	High density Polyethylene (HDPE)
	Thickness	1.5 mm
Messenger Wire	Material	Galvanized steel wire
	Diameter	7 x 0.3 mm
Temperature Range	Operation	-40˚C to + 70˚C
	Installation	-40˚C to + 70˚C
	Storage	-40˚C to + 75˚C
Maximum Span Length		60 m
Minimum installation Sag		0.1 % of Maximum Span Length
Maximum Tensile Load Short/Long Term		1,800 N / 800 N
Maximum Span Length	Installation	20 x External Diameter of Cable
	Operation	10 x External Diameter of Cable

Table 3 : The color code of the loose tubes Identification (Standard : TIA/EIA-598-A)

No.	Fiber Color	No.	Fiber Color
1	Blue	7	Red
2	Orange	8	Black
3	Green	9	Yellow
4	Brown	10	Violet
5	Slate	11	Rose
6	White	12	Aqua

Table 4 : Part Number

No.	Description
W-FOFCS6A1	“Widen” Figure 8 for CCTV 6F,SM Simgle loose tube with Armored
W-FOFCS12A1	“Widen” Figure 8 for CCTV 12F,SM Simgle loose tube with Armored