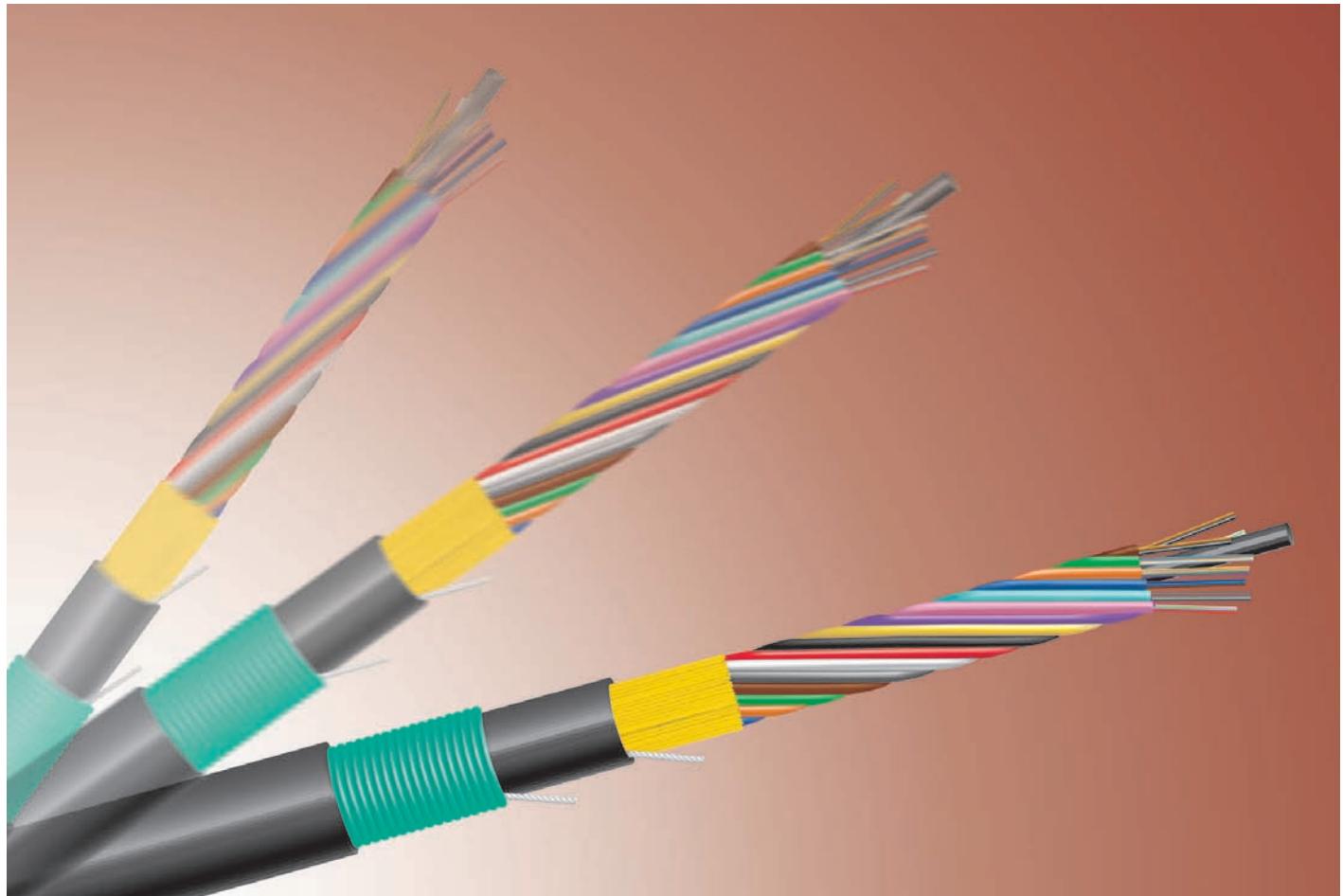


**FITEL**

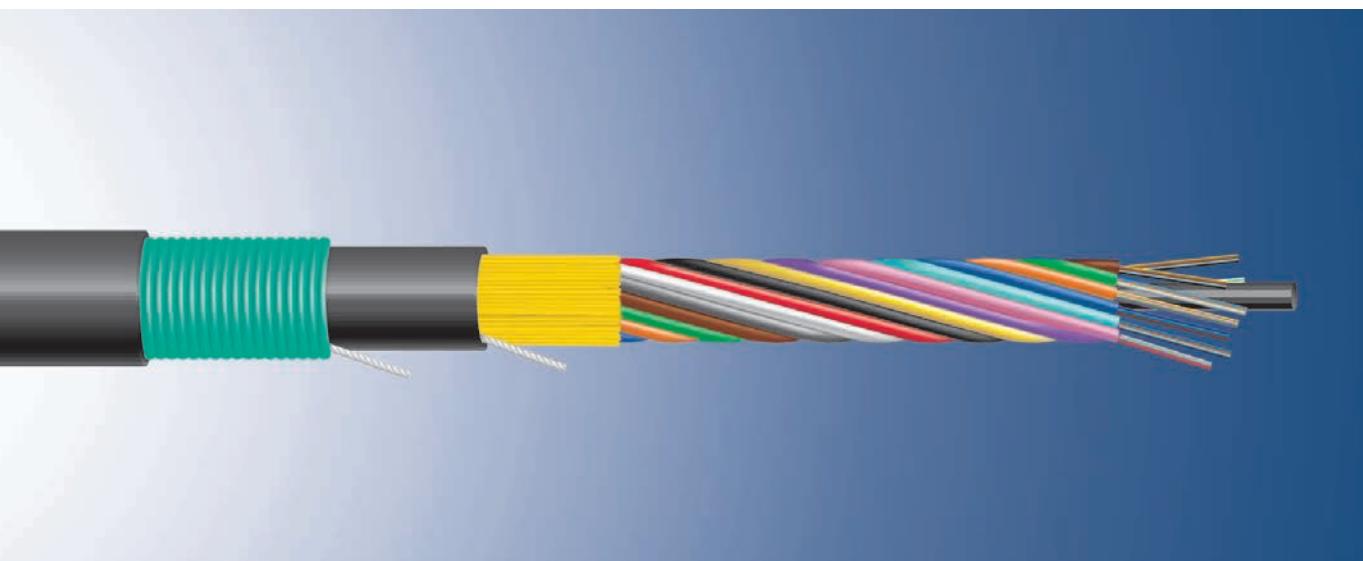
# Optical Fiber Loose Tube Cable

(Armored Structure for Direct Buried Application)



**FURUKAWA ELECTRIC**

# ● Armored Structure for Direct Buried Application



## Outline

The buffer tubes are stranded around a central strength member either metallic or non-metallic, by using the Reverse Oscillating Lay (ROL). Armored structure provides additional compressive strength, designed for direct buried application.

## Features & Advantages

- Metallic or non-metallic central strength member options
- Proven loose tuber design provides outstanding optical fiber protection
- ROL buffer tube stranding technique permits quick and easy mid-span fiber access
- Armored structure provides outstanding mechanical strength and enhance rodent protection
- Ripcord allows easy sheath removal

## Remarks

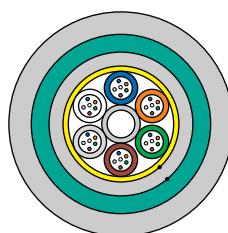
- Dry or flooded water blocking structure are available
- Corrugated stainless steel armor is also available
- Stripe(s) on the sheath for discernment (Optional)

\* Abbreviation

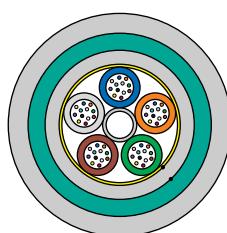
DC: Dry Core (Dry Water Blocking)  
JF: Jelly Filled (Flooded Water Blocking)

## Cross Sectional View

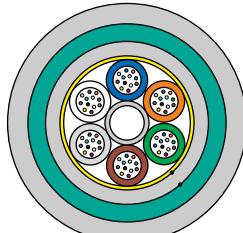
36 Fibers



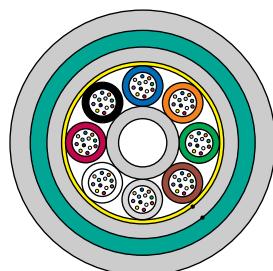
60 Fibers



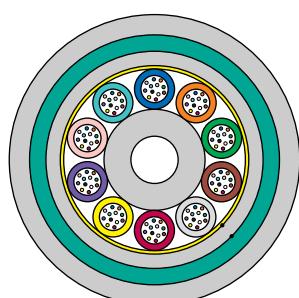
72 Fibers



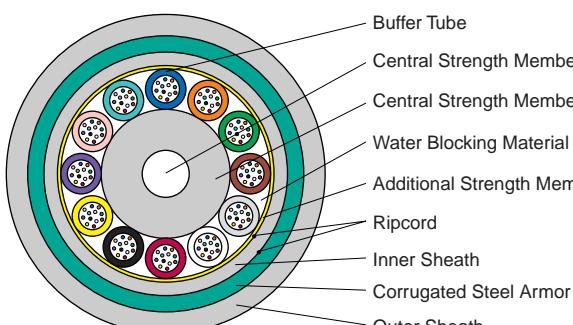
96 Fibers



120 Fibers



144 Fibers



## Specification (Metallic Central Strength Member)

Item		Description					
Fiber Count		Up to 36	48 & 60	72	84 & 96	108 & 120	132 & 144
Loose Tube	Fiber per Tube	6 Fibers	12 Fibers				
	Number	1 to 6	4 or 5	6	7 or 8	9 or 10	11 or 12
Filler Rod	Spec.	Plastic Rod, Natural Color					
	Number	5 to 0	1 or 0	—	1 or 0		
Central Strength Member	Material	Steel Wire					
	Diameter (Nominal)	2.0mm					
Central Strength Member Jacket	Material	Polyethylene, Black Color					
	Diameter (Nominal)	2.8mm	2.6mm	3.4mm	5.4mm	7.5mm	9.6mm
Cable Core	Material	Dry or Flooded Water Blocking Material					
Additional Strength Member	Material	Dielectric Strength Member (If Necessary)					
Ripcord	Material	Plastic Thread(s)					
Inner Sheath	Material	Polyethylene, Black Color					
	Thickness (Nominal)	1.00mm					
Ripcord	Material	Plastic Thread(s)					
Armor	Material	Corrugated Steel Tape with Polymer Coating					
Outer Sheath	Material	Polyethylene, Black Color					
	Thickness (Nominal)	1.30mm					
Overall Diameter (Approx.)		16.0mm	16.5mm	17.5mm	19.5mm	21.5mm	23.5mm
Cable Weight (Approx.)		225kg/km (245kg/km)	245kg/km (270kg/km)	270kg/km (290kg/km)	325kg/km (350kg/km)	385kg/km (420kg/km)	460kg/km (500kg/km)
Maximum Pulling Tension		2700N					
Minimum Bending Radius	Static	160mm	165mm	175mm	195mm	215mm	235mm
	Dynamic	240mm	250mm	265mm	295mm	325mm	355mm
Operating Temperature Range		-40°C ~ +70°C					

Manufacturer may use additional suitable tape(s), thread(s) or filler(s) for manufacturer's reason.

The identification marking shall be applied on a suitable place.

Length marking shall be printed on the cable sheath in one-meter interval.

1) Manufacturer's name and/or trademark

2) Year of manufacture

## Specification (Non-Metallic Strength Member)

Item		Description					
Fiber Count		Up to 36	48 & 60	72	84 & 96	108 & 120	132 & 144
Loose Tube	Fiber per Tube	6 Fibers	12 Fibers				
	Number	1 to 6	4 or 5	6	7 or 8	9 or 10	11 or 12
Filler Rod	Spec.	Plastic Rod, Natural Color					
	Number	5 to 0	1 or 0	—	1 or 0		
Central Strength Member	Material	FRP					
	Diameter (Nominal)	2.0mm	2.0mm		3.5mm		
Central Strength Member Jacket	Material	Polyethylene, Black Color					
	Diameter (Nominal)	2.8mm	—	3.4mm	5.4mm	7.5mm	9.6mm
Cable Core	Material	Dry or Flooded Water Blocking Material					
Additional Strength Member	Material	Dielectric Strength Member (If Necessary)					
Ripcord	Material	Plastic Thread(s)					
Inner Sheath	Material	Polyethylene, Black Color					
	Thickness (Nominal)	1.00mm					
Ripcord	Material	Plastic Thread(s)					
Armor	Material	Corrugated Steel Tape with Polymer Coating					
Outer Sheath	Material	Polyethylene, Black Color					
	Thickness (Nominal)	1.30mm					
Overall Diameter (Approx.)		16.0mm	16.5mm	17.5mm	19.5mm	21.5mm	23.5mm
Cable Weight (Approx.)		215kg/km (230kg/km)	230kg/km (255kg/km)	255kg/km (280kg/km)	315kg/km (345kg/km)	380kg/km (420kg/km)	450kg/km (495kg/km)
Maximum Pulling Tension		2700N					
Minimum Bending Radius	Static	160mm	165mm	175mm	195mm	215mm	235mm
	Dynamic	240mm	250mm	265mm	295mm	325mm	355mm
Operating Temperature Range		-40°C ~ +70°C					

Manufacturer may use additional suitable tape(s), thread(s) or filler(s) for manufacturer's reason.

The identification marking shall be applied on a suitable place.

Length marking shall be printed on the cable sheath in one-meter interval.

1) Manufacturer's name and/or trademark

2) Year of manufacture

# Ordering Information

S · [S1] · [S2] × [S3] / [S4] [S5] [S6] [S7] [S8] [S9] — [S10] [S11] [S12]	Outer Sheath Option [S12]
Z : Stripe(s)	Outer Sheath Type [S11]
ZE : Polyethylene	Armor Type [S10]
SP : Corrugated steel armor H : Corrugated stainless armor	Inner Sheath Option [S9]
S : Stripe(s)	Inner Sheath Type [S8]
E : Polyethylene	Core Type [S7]
LT : Loose tube	Water Blocking Structure [S6]
DC : Dry core (Dry water blocking structure) JF : Jelly filled (Flooded water blocking structure)	Tube Size [S5]
6F : Up to 6 fibers per tube 12F : Up to 12 fibers per tube	Central Strength Member [S4]
M : Metallic central strength member (Steel wire) NM : Non-metallic central strength member (FRP)	Fiber Count [S3]
Fiber Count : Up to 144	Maximum Attenuation @ 1550nm [S2]
030 : 0.30 dB/km 025 : 0.25 dB/km	Maximum Attenuation @ 1310nm [S1]
040 : 0.40 dB/km 035 : 0.35 dB/km	

S : Single mode optical fiber

## Example

S-040-030x96/M12FDCLTE-SPZES:

96 single mode optical fiber loose tube cable.

Steel wire for central strength member, up to 12 fiber per tube, dry water blocking structure,

Polyethylene inner sheath, corrugated steel tape armor, outer polyethylene sheath with stripe(s)

Please contact us for additional fiber and options.

**ISO 9001 Certified Manufacturer**



**FURUKAWA ELECTRIC CO., LTD.**

Furukawa Electric reserves the right to improve, enhance and modify the features and specifications of this product without prior notification.

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