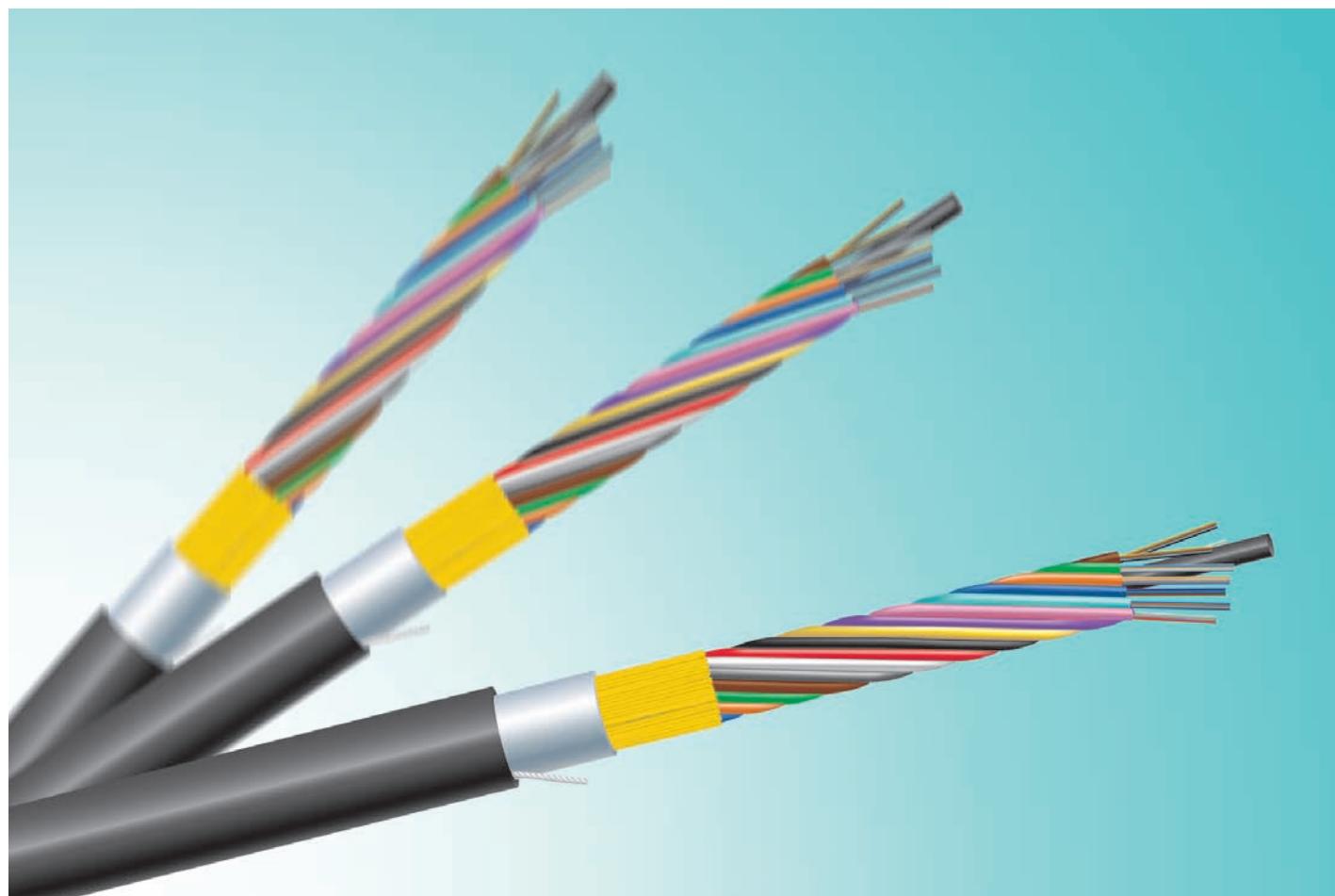


**FITEL**

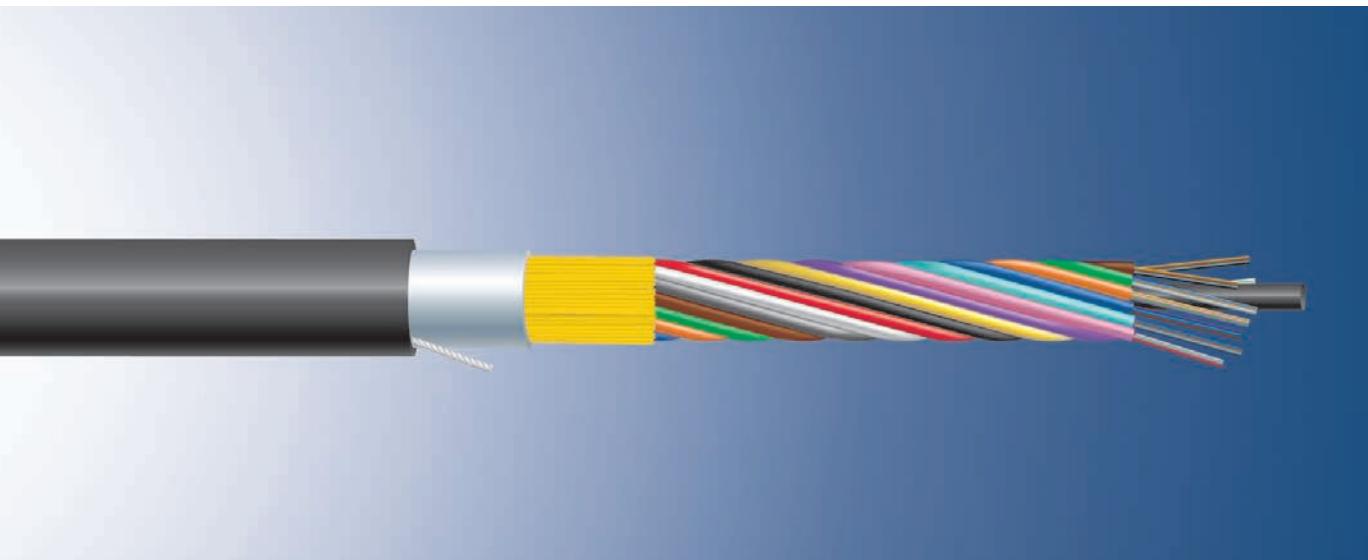
# **Optical Fiber Loose Tube Cable**

**(Laminated Aluminum Polyethylene Sheath Structure  
for Duct Application)**



**FURUKAWA ELECTRIC**

# Laminated Aluminum Polyethylene Sheath Str



## Outline

The buffer tubes are stranded around a central strength member either metallic or non-metallic, by using the Reverse Oscillating Lay (ROL).

## 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
- Aluminum tape provides additional moisture barrier
- Ripcord allows easy sheath removal

## Remarks

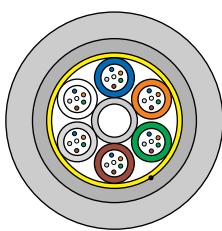
- Dry or flooded water blocking structure are available
- Stripe(s) on the sheath for discernment (Optional)

\* Abbreviation

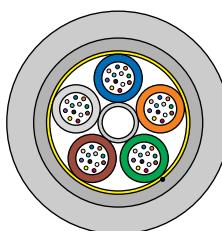
DC: Dry Core (Dry Water Blocking)  
JF: Jelly Filled (Flooded Water Blocking)  
LAP : Laminated Aluminum Polyethylene

## Cross Sectional View

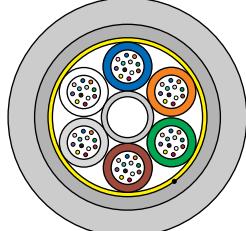
36 Fibers



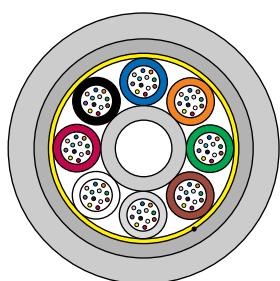
60 Fibers



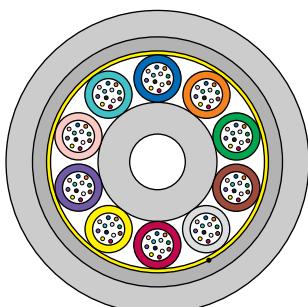
72 Fibers



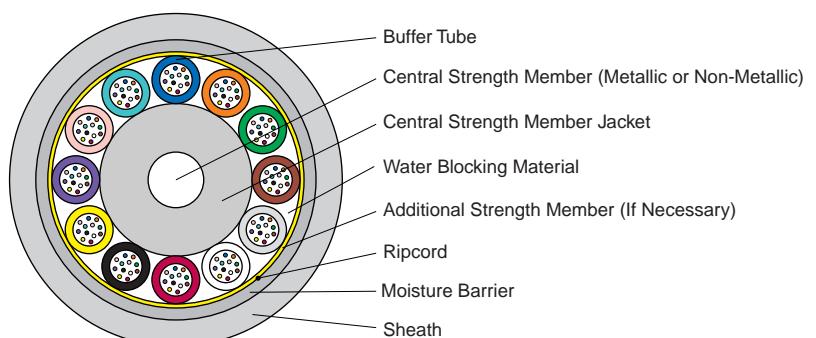
96 Fibers



120 Fibers



144 Fibers



# Structure for Duct Application

## 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)								
Moisture Barrier	Material	Aluminum Tape with Polymer Coating								
Sheath	Material	Polyethylene, Black Color								
	Thickness (Nominal)	1.70mm (Including Moisture Barrier)								
Overall Diameter (Approx.)		13.0mm	14.0mm	14.5mm	16.5mm	18.5mm	21.0mm			
Cable Weight (Approx.) DC (JF) Structure		145kg/km (160kg/km)	155kg/km (175kg/km)	175kg/km (195kg/km)	215kg/km (245kg/km)	270kg/km (305kg/km)	325kg/km (365kg/km)			
Maximum Pulling Tension		2700N								
Minimum Bending Radius	Static	130mm	140mm	145mm	165mm	185mm	210mm			
	Dynamic	195mm	210mm	220mm	250mm	280mm	315mm			
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.

1) Manufacturer's name and/or trademark

2) Year of manufacture

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

## Specification (Non-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	FRP					
	Diameter (Nominal)	2.0mm	2.5mm		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)					
Moisture Barrier	Material	Aluminum Tape with Polymer Coating					
Sheath	Material	Polyethylene, Black Color					
	Thickness (Nominal)	1.70mm (Including Moisture Barrier)					
Overall Diameter (Approx.)		13.0mm	14.0mm	14.5mm	16.5mm	18.5mm	21.0mm
Cable Weight (Approx.) DC (JF) Structure		130kg/km (145kg/km)	140kg/km (160kg/km)	160kg/km (180kg/km)	210kg/km (235kg/km)	260kg/km (295kg/km)	320kg/km (360kg/km)
Maximum Pulling Tension		2700N					
Minimum Bending Radius	Static	130mm	140mm	145mm	175mm	185mm	210mm
	Dynamic	195mm	210mm	220mm	250mm	280mm	315mm
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.

1) Manufacturer's name and/or trademark

2) Year of manufacture

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

# Ordering Information

S · [S1] · [S2]	x	[S3]	/	[S4]	[S5]	[S6]	[S7]	[S8]	[S9]	
S : Stripe(s)										Sheath Option [S9]
L : Laminated Aluminum with polyethylene										Sheath Type [S8]
LT : Loose tube										Core Type [S7]
DC : Dry core (Dry water blocking structure) JF : Jelly filled (Flooded water blocking structure)										Water Blocking Structure [S6]
6F : Up to 6 fibers per tube 12F : Up to 12 fibers per tube										Tube Size [S5]
M : Metallic central strength member (Steel wire) NM : Non-metallic central strength member (FRP)										Central Strength Member Type [S4]
Fiber Count : Up to 144										Fiber Count [S3]
030 : 0.30 dB/km 025 : 0.25 dB/km										Maximum Attenuation @ 1550nm [S2]
040 : 0.40 dB/km 035 : 0.35 dB/km										Maximum Attenuation @ 1310nm [S1]

S : Single mode optical fiber

## Example

S-040-030x96/M12FDCLTLS:

96 single mode optical fiber loose tube cable.

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

<http://www.furukawa.co.jp>