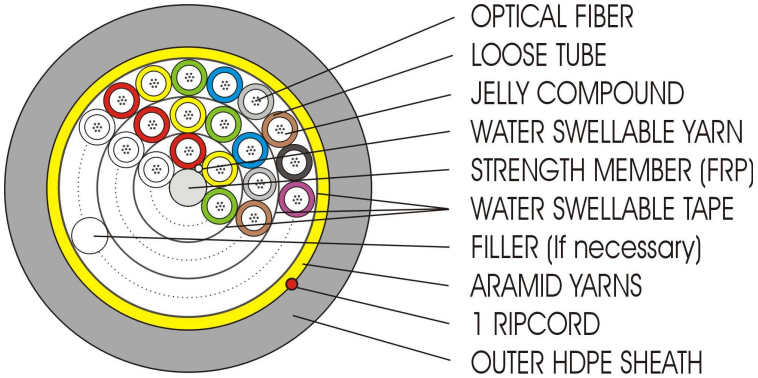
■ SMALL DIAMETER DUCT INSTALLATION CABLE (372C ~ 432C)



- **SINGLE MODE OPTICAL FIBER (ITU-T G.652D, LWPF ; Low Water Peak Fiber)**
- **LOOSE TUBE (JELLY FILLED)**
- **CENTRAL STRENGTH MEMBER (FRP) + ADDITIONAL STRENGTH MEMBER (Aramid yarns)**
- **DRY CORE TYPE, SZ STRANDING**
- **3 LAYER STRUCTURE**
- **SD_APE* SHEATH FOR DUCT INSTALLATION (Halogen free PE)**

Fiber Counts		372C	384C	396C	408C	420C	432C
Nom. cable diameter (mm)		18.8	18.8	18.8	18.8	18.8	18.8
Fibers per tube		12	12	12	12	12	12
Nom. loose tube diameter (mm)		2.2	2.2	2.2	2.2	2.2	2.2
Nom. outer sheath thickness (mm)		1.0	1.0	1.0	1.0	1.0	1.0
Min. bend radius (mm)	No load	188	188	188	188	188	188
	Under load	376	376	376	376	376	376
Max. pulling tension (N)	Installation	4000	4000	4000	4000	4000	4000
	Operation	2000	2000	2000	2000	2000	2000
Cable weight (kg/km)		234	235	236	236	237	238
Recommended temperature range		-40℃ ~ +70℃ (Transportation & Storage) -10℃ ~ +50℃ (Installation) -40℃ ~ +70℃ (Operation)					

Note) SD_APE* : Small Diameter_Aramid yarns + PE Sheath

● **Mechanical and Environmental Properties**

Item	Test Method	Test Condition	Acceptance Criteria
Tensile strength	IEC 794-1-E1	- Load: 4000 N (see table)	Note 1), 2)
Crush	IEC 794-1-E3	- Load: 1000 N/100mm	Note 1), 2)
Impact	IEC 794-1-E4	- Impact energy : 0.5kg×1m - Impact diameter: 25mm	Note 1), 2)
Repeated bending	IEC 794-1-E6	- Bending radius: 20×cable diameter - Bending cycles: 20	Note 1), 2)
Torsion	IEC 794-1-E7	- Test length: 2m - Twist angle: ±180 degrees - Twist cycles: 10	Note 1), 2)
Temperature cycling	IEC 794-1-F1	- Temperature change: -40℃→+70℃	Note 3)
Water penetration	IEC 794-1-F5	- Cable length: 3m, Water height: 1m - Duration time: 24 hrs	No water leak

Note 1) Attenuation : ≤ 0.1dB 2) No mechanical damage
3) Attenuation : ≤ 0.2dB/km (each procedure), ≤ 0.1dB/km (after test)

Annex 1. Color Code of Optical Fiber and Loose Tube

No.	1	2	3	4	5	6	7	8	9	10	11	12	13~18
Color	White	Red	Yellow	Green	Blue	Grey	Brown	Black	Violet	Turquoise	Orange	Pink	Natural

Annex 2. Optical Fiber Cable Unit Composition

Cable Core		The count of optical fiber per loose tube and unit composition																	
		U1	U2	U3	U4	U5	U6	U7	U8	U9	U10	U11	U12	U13	U14	U15	U16	U17	U18
372C	1 layer	12	12	12	12	12	12												
	2 layer	12	12	12	12	12	12	12	12	12	12	12	12						
	3 layer	12	12	12	12	12	12	12	12	12	12	12	12	12	F	F	F	F	F
384C	1 layer	12	12	12	12	12	12												
	2 layer	12	12	12	12	12	12	12	12	12	12	12	12						
	3 layer	12	12	12	12	12	12	12	12	12	12	12	12	12	12	F	F	F	F
396C	1 layer	12	12	12	12	12	12												
	2 layer	12	12	12	12	12	12	12	12	12	12	12	12						
	3 layer	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	F	F	F
408C	1 layer	12	12	12	12	12	12												
	2 layer	12	12	12	12	12	12	12	12	12	12	12	12						
	3 layer	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	F	F
420C	1 layer	12	12	12	12	12	12												
	2 layer	12	12	12	12	12	12	12	12	12	12	12	12						
	3 layer	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	F
432C	1 layer	12	12	12	12	12	12												
	2 layer	12	12	12	12	12	12	12	12	12	12	12	12						
	3 layer	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12

Note) F: Filler (Natural color)