



LIIN-25 FO Distribution cable TB FTMS 2-24 Universal



Features

- Easy to Strip, Direct Termination
- Non-Metallic Strength Members
- Dry, All Dielectric Non-Metallic design
- Halogen Free Fire Retardant / Low Smoke Zero Halogen
- Flexible
- Low Installation Cost

Standards of reference and applications

- DIN VDE 0888 Part 6; IEC 61034; IEC 60332-1&2; IEC 60754-2; IEC 60794-1&2
- Inter Building and Intrabuilding Voice and Data/LAN Communication Networks
- Interconnection of Distribution Boxes, Distribution Frames and Customer Equipment and between the floors
- Direct Connection to Terminal Equipments
- Installation in Ducts & Conduits
- Vertical Riser and General Horizontal Applications
- FTTx Cabling

Installation Features

Store at -5 to +50 °C
Install at -0 to +50 °C
Operate at : -10 to +70 °C
Bend minimum : 10 times O.D.
Bend minimum : 10 times O.D.

Design

Optical fiber : 125/250µm Single Mode or Multi Mode
Buffer : 900µm tight, colour coded (see table 1)
Cable core : 2 to 24 optical fibers
Protection : glass or aramide yarns
Outer jacket : fire retardant LSZH material, UV resistant
Marking : APS Finland - ww/yy - Fiber Optic Cable TB FTMS fiber count x fiber type - LSZH-FR UVR IEC60332-3-24 - /lot + meter

Environmental properties and Fire Performances

Degree of acidity of gases : IEC 60754-1, IEC 60754-2 (pH arvo $\geq 4,3$ ja sähkönjohtavuus $\leq 10\mu\text{S}/\text{mm}$)
Halogen acid gas : IEC 60754-1, IEC 60754-2 ($\leq 0.3\%$)
Smoke Emission : IEC 61034-2, EN 50268-2 ($\geq 60\%$)
Toxicity of evolved gas : NES 713, CEI 20-37/7
Flame retardant : IEC 60332-1-2
Fire retardant : IEC 60332-3-24 Cat.C
UV resistant : UL1581, IEC11801

Fiber Optic characteristics

See detailed specification of optical fibers.

Colour code of fibers

1	2	3	4	5	6	7	8	9	10	11	12
Blue	Orange	Green	Brown	Grey	White	Red	Black	Yellow	Violet	Pink	Aqua

13	14	15	16	17	18	19	20	21	22	23	24
Blue/Black	Orange/Black	Green/Black	Brown/Black	Grey/Black	White/Black	Red/Black	Natural	Yellow/Black	Violet/Black	Pink/Black	Aqua/Black

Ordering and delivery information

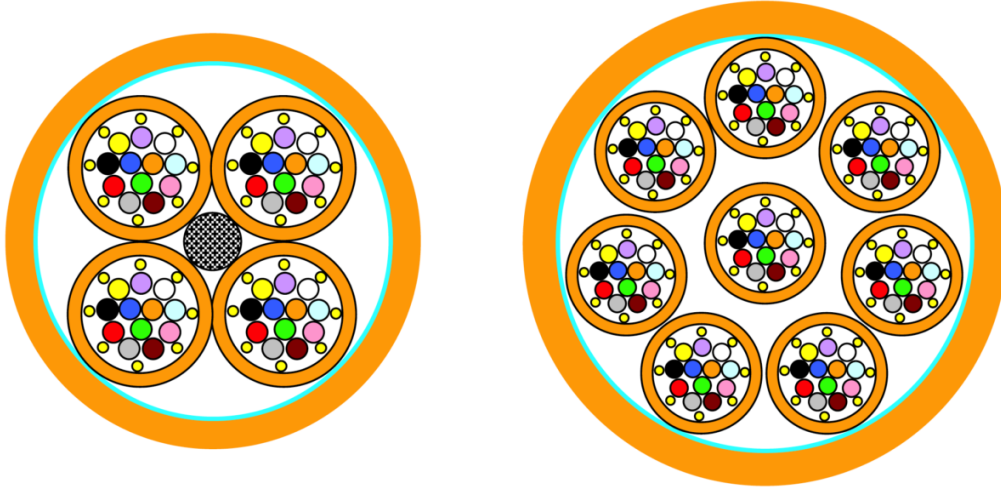
Fiber count	P/N	O.D [mm]	Pulling tension (perm/inst)	Crush (N)	Impact	Weight (kg/km)	Packaging
2	FTMS02xxc	4.5	400/600	1000	3J	26	2000m / 6561ft
4	FTMS04xxc	5.5	400/600	1000	3J	31	2000m / 6561ft
6	FTMS06xxc	6.0	600/1000	1000	5J	42	2000m / 6561ft
8	FTMS08xxc	6.8	600/1000	1000	5J	48	2000m / 6561ft
12	FTMS12xxc	7.2	800/1200	1000	5J	54	2000m / 6561ft
16	FTMS16xxc	8.0	1000/1600	1000	5J	67	2000m / 6561ft
24	FTMS24xxc	8.6	1200/2000	1000	5J	85	2000m / 6561ft

xx = fiber type ex. OS2=S2, OM1=M1, OM2=M2, OM3=M3, OM4=M4
 c = colour ex. White=W, Yellow=Y, Orange=O, Grey=G, Turquoise=T, Purple=P

Recommended connectivity

- Pigtails** : APS LIIN-25 series
- Patch cords** : APS LIIN-25 series
- Adapters** : APS LIIN-25 series
- Patch Panels** : APS LIIN-25 series

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LIIN-25 FO Distribution cable TB FTMS 48-96 cores Universal



Features

- Easy to Strip, Direct Termination
- Non-Metallic Strength Members
- Dry, All Dielectric Non-Metallic design
- Halogen Free Fire Retardant / Low Smoke Zero Halogen
- Flexible
- Low Installation Cost

Standards of reference and applications

- DIN VDE 0888 Part 6; IEC 61034; IEC 60332-1&2; IEC 60754-2; IEC 60794-1&2, EN 187000
- Inter Building and Intrabuilding Voice and Data/LAN Communication Networks
- Interconnection of Distribution Boxes, Distribution Frames and Customer Equipment and between the floors
- Direct Connection to Terminal Equipments
- Installation in Ducts & Conduits
- Vertical Riser and General Horizontal Applications
- FTTx Cabling

Installation Features

Store at -5 to +50 °C

Install at -0 to +50 °C, **Bend minimum** : 15 times O.D.

Operate at : -10 to +70 °C, **Bend minimum** : 12 times O.D.

Design

Optical fiber : 125/250µm Single Mode or Multi Mode

Buffer : 900µm tight, colour coded (see table 1)

Cable core : 12 or 24 optical fibers

Protection : glass or aramide yarns

Sub-unit jacket : fire retardant LSZH material, UV resistant

Marking : numbering 1 to 8

Assembling: from 4 up to 8 sub-units assembled together into a compact core

Wrapping: polyester tape

Outer jacket : fire retardant LSZH material, UV resistant (nominal thickness 1.2mm)

Marking : APS Finland - ww/yy - Fiber Optic Cable TB FTMS "fiber count and type" - LSZH IEC60332-3-24 Cat.C - lot no - meter

Environmental properties and Fire Performances

Degree of acidity of gases : IEC 60754-1, IEC 60754-2 (pH arvo $\geq 4,3$ ja sähkönjohtavuus $\leq 10\mu\text{S}/\text{mm}$)

Halogen acid gas : IEC 60754-1, IEC 60754-2 ($\leq 0.5\%$)

Smoke Emission : IEC 61034-2, EN 50268-2 ($\geq 60\%$)

Toxicity of evolved gas : NES 713, CEI 20-37/7

Flame retardant : IEC 60332-1-2

Fire retardant : IEC 60332-3-24 Cat.C

UV resistant : UL1581, IEC11801

Fiber Optic characteristics

See detailed specification of optical fibers.

Colour code of fibers

1	2	3	4	5	6	7	8	9	10	11	12
Blue	Orange	Green	Brown	Grey	White	Red	Black	Yellow	Violet	Pink	Aqua
13	14	15	16	17	18	19	20	21	22	23	24
Blue/Black	Orange/Black	Green/Black	Brown/Black	Grey/Black	White/Black	Red/Black	Natural	Yellow/Black	Violet/Black	Pink/Black	Aqua/Black

Ordering and delivery information

Fiber count	P/N	O.D [mm] Subcable	O.D [mm]	Pulling tension (perm/inst)	Crush (N)	Impact	Weight (kg/km)	Packaging
48	FTMS48xxc	6.5	18.0	1500	1500	4J	350	500m / 1640ft
72	FTMS72xxc	6.5	22.0	1500	1500	4J	450	500m / 1640ft
96 (8x12)	FTMS968xxc	6.5	22.0	1500	1500	4J	550	500m / 1640ft
96 (4x24)	FTMS964xxc	8.6	21.0	1500	1500	4J	550	500m / 1640ft

xx = fiber type ex. OS2=S2, OM1=M1, OM2=M2, OM3=M3, OM4=M4

c = colour ex. White=W, Yellow=Y, Orange=O, Grey=G, Turquoise=T, Purple=P

Recommended connectivity

Pigtails : APS LIIN-25 series

Patch cords : APS LIIN-25 series

Adapters : APS LIIN-25 series

Patch Panels : APS LIIN-25 series

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LIIN-25 FO Universal cable LTH Loose Tube 2-24 cores



Features

Compact, Light Weight and Small Size, Robust
Waterproof, UV- Resistant
All Dielectric, Non-Metallic Armored, Rodent Resistant
Halogen Free Fire Retardant / Low Smoke Zero Halogen
Enforcement with Non-Metallic Strength Members

Applications

Inter Building and Intra Building Voice or Data Communication Networks General Purpose
Installed in Ducts & Conduits
Secondary Distribution
LAN
FTTB Cabling
Campus Cabling
Indoor and Outdoor (Universal Use)
Telecommunication Data Trunk Systems
Interconnection of Distribution Boxes, Distribution Frames and the Panels at Customer Side

Standards of reference

IEC 60754-1, IEC 61034-1&2, IEC 60332-1, IEC 60794-1&2

Installation Features

Store at -5 to +50 °C

Install at -0 to +50 °C, **Bend minimum** : 20 times O.D.

Operate at : -30 to +70 °C, **Bend minimum** : 20 times O.D.

Design

Optical fiber : 125/250µm Single Mode or Multi Mode

Buffer : PBTP loose tube diam. 3.0mm, filled with jelly

Fiber count : 2 to 24

Protection : waterblocking glass yarns

Outer jacket : fire retardant LSZH material, UV resistant

Marking : APS Finland - ww/yy - Fiber Optic Cable CTH fiber count x fiber type - LSZH-FR UVR - lot + meter

Environmental properties and Fire Performances

Degree of acidity of gases : IEC 60754-1, IEC 60754-2

Halogen acid gas : IEC 60754-1, IEC 60754-2

Smoke Emission : IEC 61034-2, EN 50268-2

Toxicity of evolved gas : NES 713, CEI 20-37/7

Flame retardant : IEC 60332-1-2

UV resistant : UL1581, IEC11801

Fiber Optic characteristics

See detailed specification of optical fibers.

Colour code of fibers

Bundle A	1	2	3	4	5	6	7	8	9	10	11	12

	Blue	Orange	Green	Brown	Grey	White	Red	Black	Yellow	Violet	Pink	Aqua
Bundle B	13	14	15	16	17	18	19	20	21	22	23	24
	Blue	Orange	Green	Brown	Grey	White	Red	Black	Yellow	Violet	Pink	Aqua

Ordering and delivery information

Fiber count	P/N	O.D [mm]	Pulling tension (perm/inst)	Crush (N)	Impact	Weight (kg/km)	Packaging
2	CTH02xxc	7.5	1000/2500	1500	3J	62	2000m / 6561ft
4	CTH04xxc	7.5	1000/2500	1500	3J	62	2000m / 6561ft
6	CTH06xxc	7.5	1000/2500	1500	5J	62	2000m / 6561ft
8	CTH08xxc	7.5	1000/2500	1500	5J	62	2000m / 6561ft
12	CTH12xxc	7.5	1000/2500	1500	5J	62	2000m / 6561ft
16	CTH16xxc	8.5	1000/2500	1500	5J	90	2000m / 6561ft
24	CTH24xxc	8.5	1000/2500	1500	5J	90	2000m / 6561ft

xx = fiber type ex. OS2=S2, OM1=M1, OM2=M2, OM3=M3, OM4=M4

c = colour ex. Yellow=Y, Orange=O, Grey=G, Turquoise=T, Purple=P, Black=B

Recommended connectivity

Pigtails : APS LIIN-25 series

Patch cords : APS LIIN-25 series

Adapters : APS LIIN-25 series

Patch Panels : APS LIIN-25 series

Extended System Warranty

The APS System Warranty assures the compliance of the system performance to the applicable class of cabling for a period of 25 years. The warranty may be applied for by an accredited APS Partner who has designed and/or installed the entire system.

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