



# 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
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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

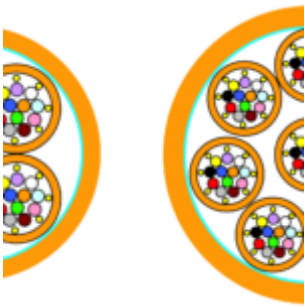
**Patch cords** : APS LIIN-25 series

**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 Intrabuilding 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

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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