



# LIIN-25 24 Way SC Duplex / LC Quad Fibre Optic Panel - Empty



## Standards of reference and applications

EIA19"

Data centers

LAN/SAN

CATV networks

Fiber-to-the-home (FTTH) applications

## Installation Features

**Store at** -0 to +70 °C

**Install at** -0 to +50 °C

**Operate at** : -20 to +60 °C

**Fitting** : designed for 24 adapters (SC Simplex or LC Duplex)

## Design

**Material** : powder painted steel

**Colour** : black

**Features** : built-in splice management

**Number of adaptors:** 24

**Type of adaptors:** SC Duplex or LC Quad

**Number of cores:** up to 48 with SC DX or up to 96 with LC QD

**Size** : 19", 1 Unit / Width: 483mm x Height 44mm x Depth 205mm

## Ordering and delivery information

P/N	Weight (kg/km)	Packaging
ODF124SCD	2.1	1 pc / ctn

## Recommended connectivity

**Adaptors** : all LIIN-25 adaptors SC and LC, SM and MM

**Pigtails** : all LIIN-25 pigtails SC and LC, SM and MM

**Patchcords** : all LIIN-25 patchcords SC and LC, SM and MM

## 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.

**Every effort has been put so that this document is most reliable and free from errors. However, AP Solutions Oy cannot be considered responsible for any mistake in this document and users should consult AP Solutions Oy for any information needed. AP Solutions Oy reserves the right to make changes to the documents at any time, without prior notice.**



# LIIN-25 24 Way SC Simplex / LC Duplex Fibre Optic Panel - Empty



## Standards of reference and applications

EIA19"

Data centers

LAN/SAN

CATV networks

Fiber-to-the-home (FTTH) applications

## Installation Features

**Store at** -0 to +70 °C

**Install at** -0 to +50 °C

**Operate at** : -20 to +60 °C

**Fitting** : designed for 24 adapters (SC Simplex or LC Duplex)

## Design

**Material** : powder painted steel

**Colour** : black

**Features :** built-in splice management

**Number of adaptors:** 24

**Type of adaptors:** SC Simplex or LC Duplex

**Number of cores:** up to 24 with SC SX or up to 48 with LC DX

**Size :** 19", 1 Unit / Width: 483mm x Height 44mm x Depth 205mm

## Ordering and delivery information

P/N	Weight (kg/km)	Packaging
ODF124SCS	2.1	1 pc / ctn

## Recommended connectivity

**Adaptors :** all LIIN-25 adaptors SC and LC, SM and MM

**Pigtails :** all LIIN-25 pigtails SC and LC, SM and MM

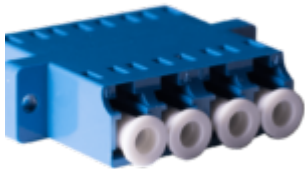
**Patchcords :** all LIIN-25 patchcords SC and LC, SM and MM

## Extended System Warranty

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## **LIIN-25 Adaptor LC Duplex and Quad**



## Features

- Single Mode and Multi Mode
- Test Certificate on each package
- ISO9001, RoHS Compliant
- Batch number tracking
- Dust cover
- 25 years system warranty

## Standards of reference and applications

ITU.T G652.D, ISO/IEC 11801, EIA/TIA 568 B.3, IEC60874, IEC EN 61754-4, EN 61754-20, EN 61755-3-2, EN 61755-2-2/B, EN 61755-2-2/1, EN-50173-1  
Telecommunication, LAN, FTTx Cabling, CCTV

## Installation Features

**Store at** +10 to +50 °C

**Install at** 0 to +50 °C

**Operate at :** -10 to +70 °C

## Design

**Material :** plastic

**Connection A :** LC

**Connection B :** LC

**Fastening :** clip

**SM UPC colour :** blue

**SM APC colour :** green

**MM UPC colour :** OM1 and OM2 = beige, OM3 = turquoise, OM4 = purple.

## Fiber Optic characteristics

	<b>MM</b>	<b>SM PC</b>	<b>SM UPC</b>	<b>SM APC</b>
Insertion Loss dB (typical)	≤ 0,2	≤ 0,2	≤ 0,2	≤ 0,2
Return Loss dB (typical)	≥ 35	≥ 45	≥ 45	≥ 55
Repeatability dB (typical)	≤ 0,2	≤ 0,2	≤ 0,2	≤ 0,2
Changeability dB (typical)	≤ 0,2	≤ 0,2	≤ 0,2	≤ 0,2

## Ordering and delivery information

<b>Fiber count</b>	<b>P/N</b>	<b>Packaging</b>
Duplex UPC	AD xxx LC U DX	25 pcs / box
Duplex APC	AD xxx LC A DX	25 pcs / box
Quad UPC	AD xxx LC U QD	25 pcs / box
Quad APC	AD xxx LC A QD	25 pcs / box

xxx = fiber type = OS2, OM1, OM2, OM3, OM4.



## **Recommended connectivity**

**Cables** : APS LIIN-25 series

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

**Pigtails** : 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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# LIIN-25 Adaptor SC Simplex and Duplex



## Features

- Single Mode and Multi Mode
- Test Certificate on each package
- ISO9001, RoHS Compliant
- Batch number tracking
- Dust cover
- 25 years system warranty

## Standards of reference and applications

ITU.T G652.D, ISO/IEC 11801, EIA/TIA 568 B.3, IEC60874, IEC EN 61754-4, EN 61754-20, EN 61755-3-2, EN 61755-2-2/B, EN 61755-2-2/1, EN-50173-1

Telecommunication, LAN, FTTx Cabling, CCTV

## Installation Features

**Store at** +10 to +50 °C

**Install at** 0 to +50 °C

**Operate at** : -10 to +70 °C

## Design

**Material** : plastic

**Connection A** : SC

**Connection B** : SC

**Fastening** : clip and screw

**SM UPC colour** : blue

**SM APC colour** : green

**MM UPC colour** : beige

## Fiber Optic characteristics

	<b>MM</b>	<b>SM PC</b>	<b>SM UPC</b>	<b>SM APC</b>
Insertion Loss dB (typical)	≤ 0,2	≤ 0,2	≤ 0,2	≤ 0,2
Return Loss dB (typical)	≥ 35	≥ 45	≥ 45	≥ 55
Repeatability dB (typical)	≤ 0,2	≤ 0,2	≤ 0,2	≤ 0,2

	<b>MM</b>	<b>SM PC</b>	<b>SM UPC</b>	<b>SM APC</b>
Changeability dB (typical)	≤ 0,2	≤ 0,2	≤ 0,2	≤ 0,2

## Ordering and delivery information

<b>Fiber count</b>	<b>P/N</b>	<b>Packaging</b>
Simplex UPC	AD xxx SC U SX	25 pcs / box
Simplex APC	AD xxx SC A SX	25 pcs / box
Duplex UPC	AD xxx SC U DX	25 pcs / box
Duplex APC	AD xxx SC A DX	25 pcs / box

xxx = fiber type = OS2, OM1, OM2, OM3, OM4.

oo = connector type = SC, LC, FC, ST.

a = U for UPC, A for APC

bb = SX, DX or QU (for QUAD)

## Recommended connectivity

**Cables** : APS LIIN-25 series

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

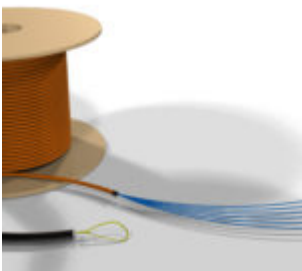
**Pigtails** : APS LIIN-25 series

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

## Extended System Warranty

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## LIIN-25 Fiber Optic Preterminated cables



## Features

70% faster to install

Very Low Installation Cost

No termination failures.

No waste of cables and connectors and termination materials.

Better attenuation values.

Pre-tested and test reports available for each single fiber.

Made after the customer's requirements, tailored to the specific case.

Pulling socks, strength elements and protection tubes available.

Different cables design available

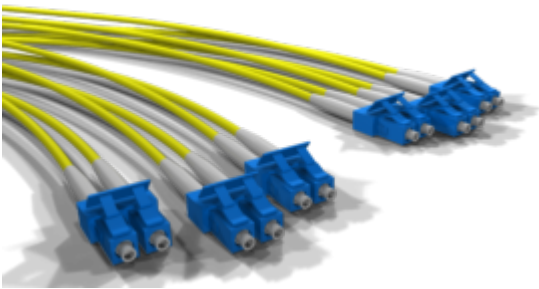
SC, LC, MU, ST, FC, MT-RJ, and MTP connectors available.

Halogen Free Fire Retardant / Low Smoke Zero Halogen available.

## **Maximise your project with the APS failure-free, installation-ready preterminated fiber optic cables.**

APS designs and delivers factory terminated fiber optic cables for various projects, from the biggest data center to the smaller LAN or industrial networks, with no minimum quantity required. Cables are made from high quality components, according the latest editions of the applicable standards or customer's requirements, with each single terminated fiber tested. The use of APS factory terminated cables minimizes the risks of the installation failures that might happen when terminating cables on site, due to the often non-optimal conditions at the site. Our pre terminated cables are available with both modular connectors than with MTP

connectors and they are always done in accordance to the customer's specification or requirements, to answer fully to the needs of each specific installation.



## **Prime quality and long lasting reliability**

The high standards of our manufacturing and testing processes ensure the installation will benefit from products of the highest quality. At APS we are very strict with the quality of our polishing process and with the compliance of each single terminated fiber with our own internal as well as with the applicable standards. In fact, we pay a lot of attention that the mechanical connections, the reflection coefficient, the attenuation values and the geometry of the connector's head are up to the standards and requirements.

Tests are done in accordance with ISO standards. The geometry of the fiber is tested with interferometer.

## The largest scope, tailored to you

APS is offering a range of options that are virtually covering all requirements and applications.

Our scope of supply includes both silica fiber SM (G652, G657, G655) and MM (50 and 62,5 OM1, OM2, OM3, OM4, OM5) than Plastic Fibers (POF) while the cable used are as much as possible tailored to the customers' or project requirements, be for indoor, indoor/outdoor or outdoor applications.

**Product configurator** : for a faster response please download APS "Preterm Configurator", fill it in with your requirements and email it to your sales representative.

## Optical cables innovation

Always up to date with the latest trends and technologies, APS keeps designing optical fiber cables to meet the new challenges of the telecommunication and data industries. Being space and growing data traffic being these days the main issue others, we have designed cables like MCHF and MIFFE for the installation of high fiber counts in packed indoor environments like datacenters. These cables are available in range from 4 to 288 cores. These cables save significant amount of the space that cables are taking in the group of typical sisä- ulkocables. These valmiskaapelit can be used also for the teollisuus standard MPO (MTP®). This way we are making sure of the highest kuitutiheyden and joustavimman runkoverkon liitettävyyden ratkaisut datakeskuksiin ja lähiverkon asennuksiin.



## **Fiber Optic characteristics**

See detailed specification of optical fibers.

## **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 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

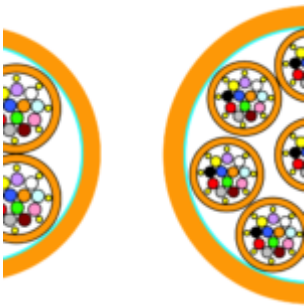
**Patch cords** : APS LIIN-25 series

**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 Pigtail LC



## Features

- G.652.D OS2 Single and Multi Mode
- Simplex and duplex
- ISO9001, RoHS Compliant
- Test Certificate for each item
- Batch number tracking

## Standards of reference and applications

ITU.T G652.D, ISO/IEC 11801, EIA/TIA 568 B.3, IEC60874, IEC EN 61754-20, EN 61755-3-2, EN 61755-2-2/B, EN 61755-2-2/1  
Telecommunication, LAN, FTTx Cabling, CCTV

## Installation Features

**Store at** +10 to +50 °C

**Install at** 0 to +50 °C and **bend minimum** : 20 times O.D.

**Operate at** : -10 to +70 °C and **bend minimum** : 10 times O.D.

**Short term max. pulling tension** : 6.0N

**Long term max. pulling tension** : 3.0N

## Design

**Optical fiber** : 125/250 Single and Multi Mode

**Buffer :** 900µm tight, colour coded

**Fiber count :** 1

**Outer diameter :** 0.9mm

**UPC connector colour :** blue

**APC connector colour :** green

**Assembly :** glue and polish

**Connection :** physical contact

## Fiber Optic characteristics

	MM	SM PC	SM UPC	SM APC
Insertion Loss dB (typical)	0.15	0.15	0.15	0.15
Return Loss dB (typical)	≥ 35	≥ 45	> 50	> 60
Repeatability dB (typical)	≤0,2	≤0,2	≤0,2	≤0,2
Changeability dB (typical)	≤0,2	≤0,2	≤0,2	≤0,2

## Colour code of fibers

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

## Ordering and delivery information

Fiber count	P/N	Weight (kg/km)	Length (m)	Packaging
1	PT xxx LC a 02	0.9	2.0	12 pcs / ctn
1	PT xxx LC a 00	0.9	custom	custom

oo =connector type = SC, LC, FC, ST

a = U for UPC, A for APC

oo =connector type = SC, LC, FC,

ST 00 = length (standard 2.0mm)

## Recommended connectivity

**Cables** : APS LIIN-25 series

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

**Adapters** : APS LIIN-25 series

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

## Extended System Warranty

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## LIIN-25 FO Pigtail SC



### Features

- Single Mode and Multi Mode
- Easy to strip 900µm
- Easy unpack and identification with 12-colours blister bag
- Test Certificate on each blister bag
- ISO9001, RoHS Compliant

- Batch number tracking
- Dust cover
- Choice of connectors

## Standards of reference and applications

ITU.T G652.D, ISO/IEC 11801, EIA/TIA 568 B.3, IEC60874, IEC EN 61754-4, EN 61754-20, EN 61755-3-2, EN 61755-2-2/B, EN 61755-2-2/1, EN-50173-1  
Telecommunication, LAN, FTTx Cabling, CCTV

## Installation Features

**Store at** +10 to +50 °C

**Install at** 0 to +50 °C and **bend minimum** : 10 times O.D.

**Operate at** : -10 to +70 °C and **bend minimum** : 10 times O.D.

**Short term max. pulling tension** : 6.0N

**Long term max. pulling tension** : 3.0N

## Design

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

**Buffer** : 900µm tight, colour coded

**Fiber count** : 1

**Outer diameter** : 0.9mm

- SM UPC connector colour :** blue
- SM APC connector colour :** green
- MM UPC connector colour :** beige
- Assembly :** glue and polish
- Connection :** physical contact

## Fiber Optic characteristics

	MM	SM PC	SM UPC	SM APC
Insertion Loss dB (typical)	0.2	0.2	0.15	0.15
Return Loss dB (typical)	≥ 35	≥ 45	> 55	> 60
Repeatability dB (typical)	≤0,2	≤0,2	≤0,2	≤0,2
Changeability dB (typical)	≤0,2	≤0,2	≤0,2	≤0,2

## Colour code of fibers

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

## Ordering and delivery information



Fiber count	P/N	Weight (kg/km)	Length (m)	Packaging
1	PT xxx oo a 02	0.9	2.0	12 pcs / ctn
1	PT xxx oo a 00	0.9	custom	custom

xxx = fiber type = OS2, OM1, OM2, OM3, OM4

oo = connector type = SC, LC, FC, ST

a = U for UPC, A for APC

00 = length (standard 2.0mm)

## Recommended connectivity

**Cables** : 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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## **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
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

Fiber count	P/N	O.D [mm]	Pulling tension (perm/inst)	Crush (N)	Impact	Weight (kg/km)	Packaging
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

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