

KRONE
AccessNET

FiberPLUS®
Line Management System
(LMSys)
Modularity-designed Fibre-
optic Distribution Point



KRONE

The FiberPLUS Line Management System (LMSys) is a flexible distribution point within a fibre-optic network where splices and/or connectors are used for establishing connections between cables.

The LMSys comprises different functional units which can be combined within a unit. The basic version is designed to accommodate 96 connections and splices, and consists of a splice unit, a patch unit with a cable guide between. The basic version can be expanded by additional patch and splice units, a loose-tube depot for unused fibres and an LSA-PLUS unit for copper terminations.

This allows an optimal configuration of distribution points - dependant on the requirements of the local area and the number of fibres required - by combinations of the same units.

Applications

- Distributor for medium-sized and large facilities
- For outdoor and indoor distribution points
- Up to 192 connections per LMSys; capacity can be increased by connecting several LMSys together to form a bank
- Can be wall-mounted or installed in a cabinet

Advantages

- The modular design ensures a high flexibility: Splice unit, patch unit, cable management elements, loose-tube depot, LSA-PLUS unit
- Large selection of combinations for jumpering, patching or splicing
- Compact patch field - accommodates all commonly available connector types
- Universal application: LMSys can be installed in all commonly available outdoor cabinets or wall-mounted
- Accommodation for unused loose tubes
- Hybrid solutions fibre/copper with LSA-PLUS connection components
- Tray housings with FAME, the Single-Fibre Management System from KRONE, can also be installed:
 - Data security together with a high ease in handling
 - Allows "open network maintenance"
- Additional space for fibre-optic coupler modules, which are often required in cable TV networks



Pict 1: Patch field swivelled open and open tray housing with FAME6

Benefits for the Customer

- Reduction in costs thanks to
 - simple handling leading to reduced installation times
 - the use of identical functional units for different configurations
 - compatibility with other distribution systems from KRONE

The LMSys is designed to be installed in both outdoor cabinets and indoors, including the possibility for direct wall-mounting. For cabinet installation a corresponding cabinet adapter is required. The inner dimensions of the cabinet have to be at least 200 mm in depth and 780 mm in height and, for the basic version a width of approx. 330 mm. Expansion, by adding additional functional units, requires a correspondingly greater width. A standard outdoor configuration would be a fibre-optic cross-connection cabinet, such as the UniCAB Solo from KRONE, with the LMSys installed inside.

Configuration examples:

Cabinet	Number of patch units (max. number of connections)	Number of splice units (max. number of splices)	Cable guides	Loose-tube depot or LSA-PLUS components
UniCab Solo KVz 82 or KVz 59	-	5 (480)	-	-
	1 (96)	1 (96)	1	1
	1 (96)	2 (192)	1	1
	1 (96)	4 (384)	1	-
	2 (192)	2 (192)	1	-
KVz 83	1 (96)	5 (480)	1	-
	2 (192)	2 (288)	1	1

Functional Units of the LMSys:

The basic version consists of a splice unit, a patch unit and between these two units a cable guide.

Splice Unit:

The splice unit accommodates the splice connections between two loose tubes or between the fibres of a single loose tube and the pigtails leading to the patch unit.

The central element of the splice unit is the tray housing; a maximum of 8 pieces can be installed per splice unit. The tray housing serves to accommodate the fibre excess lengths and the splice tray. The tray housings can also be fitted as needed after the initial system set-up.

An integrated horizontal cable channel serves to guide the pigtails into the cable guide and from there to the patch unit. Several splice units can be installed next to each other, which can serve as either connections to the patch unit or for direct fibre connection via splices.

Accessories (to be ordered separately):

An installation aid can be used to fix an opened tray housing to the splice unit, facilitating placing of the splices and the working lengths. It can be attached as needed to the splice unit to be terminated.

A set of fixing elements can be used for additional securing of 1 to 8 tray housings at sites with a high risk of vibration and impact.

In addition, the splice unit offers the possibility of integrating coupler modules with the aid of a tray fixing element.

Patch Unit:

One LMSys can accommodate a maximum of 2 patch units for a total of 192 connections.

The patch field is designed for installation of up to 96 through-adapters of all commonly available connector types. For ease of handling the patch unit can be pivoted, enabling the pigtails coming from the cable guide to be terminated on the through-adapters from the rear.

Patchcords can then be used, from the front, for termination within a patch field or between two patch fields. Two vertical cable channels ensure clear and secure cable management.

Accessories (to be ordered separately):

For equipping the patch unit, connectors of type SC, E2000, FC, and DIN in various polishings are available from KRONE. The through-adapters are inserted into the patch fields. The pigtailed leading from the splice unit to the patch unit should have a length of 5m. A length of 2m is recommended for the patchcords used for termination within a patch field or between two patch units. A cable support plate can be installed for accommodation of possible patchcord excess lengths.

Cable guide:

The function of the cable guide is to ensure a secure passage of the pigtailed from the splice unit to the patch unit. It has a capacity of 192 fibres. A minimum bend radius of 30mm is maintained.

Additional functional units provide further options:

Loose tube depot:

The loose-tube depot provides safe accommodation for those loose tubes in a fibre-optic cable not used for jumpering or patching.

LSA-PLUS unit:

Where there is an additional need for copper connectivity, the various LSA-PLUS connection components with corresponding accessories can be installed. LSA-PLUS Series 2 offers a capacity of 300 pairs per unit and LSA-PLUS NT a capacity of 400 pairs.

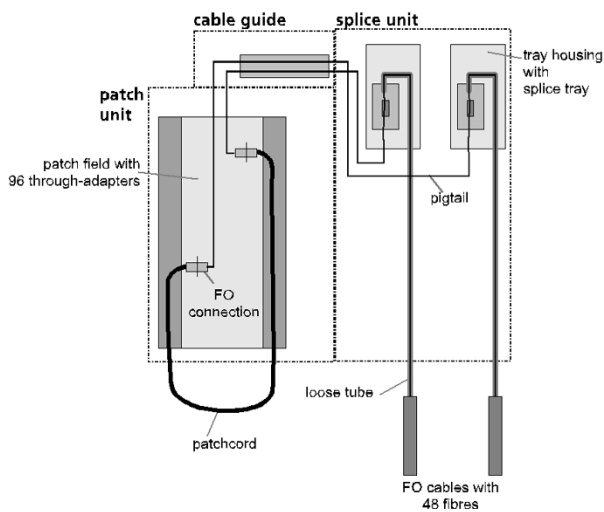


Figure 1: Basic version

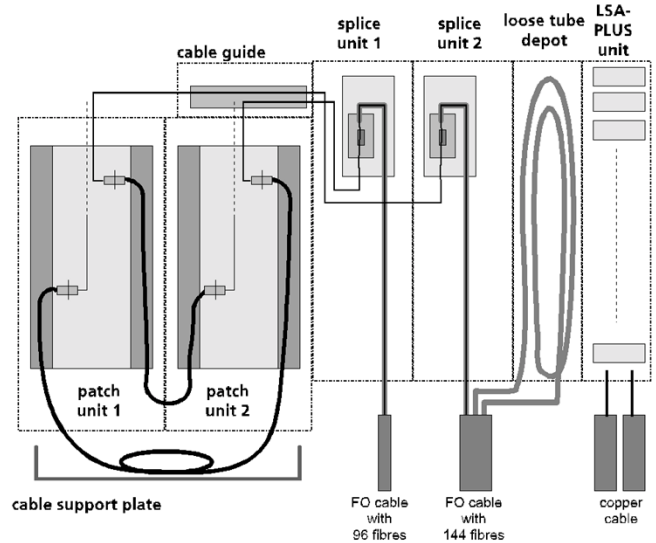


Figure 2: Expansion to 192 connectors, with a loose-tube depot and an LSA-PLUS unit

<p>Basic design</p>	<ul style="list-style-type: none"> ■ 3 basic functional units (splice unit, patch unit and cable guide), which can be fit together in various combinations; ■ expandable by a choice of 2 optional functional units (loose-tube depot, LSA-Plus unit) ■ designed to be installed as a wall unit or in an outdoor distributor 	
<p>Materials and surface</p>	<ul style="list-style-type: none"> ■ Aluminium, partly powder-coated ■ High-grade steel 	
<p>Dimensions</p>	<p>Width: Total Patch unit Splice unit Loose-tube depot LSA-PLUS unit</p> <p>Height: Depth:</p>	<p>Depends on user requirements Approx. 220 mm Approx. 100 mm Approx. 120 mm Dependant on the type of LSA-PLUS-connection components chosen</p> <p>780 mm 180 mm</p>
<p>Capacity</p>	<p>Patch unit: Splice unit:</p>	<p>Max. of 2 patch units per LMSys, designed for 96 connections each</p> <p>Number of splice units per LMSys as needed, max. of 8 splice tray housings per splice unit, each with a maximum capacity of 12 splices</p>
<p>Protection class for outdoor installation</p>	<p>IP 54 acc. to EC 529</p>	
<p>Temperature range</p>	<p>Storage Operation</p>	<p>-40 °C to +80 °C ambient temperature -25 °C to +55 °C air temperature</p>

Discription		Order No.	Packing unit	
Splice unit	Splice frame	6812 2 200-00	1 set.	
	Splice tray housing	with splice tray KRONE with Universal tray UK 24 (with integrated crimp splice holders) with FAME6 (with integrated crimp splice holders)	6769 2 253-00 6769 2 251-00 6769 2 255-00	1 pc. 1 pc. 1 pc.
	Accessories:			
	For tray housing with OPAL splice tray: splice protection (crimp) and splice holder (crimp); or splice protection (hot-melt adhesive) and splice holder (hot-melt adhesive)		6800 2 035-15 6800 2 036-02 6800 2 033-10 6800 2 034-02	150 pcs. 2 pcs. 100 pc. 2 pc.
	For tray housing with UK24 splice tray: splice protection (crimp); or splice protection (hot-melt adhesive) and splice holder (hot-melt adhesive)		6800 2 035-15 6800 2 033-10 6800 2 034-02	150 pcs. 100 pcs. 2 pc.
	For tray housing with FAME 6: splice protection (crimp)		6800 2 035-15	150 pcs.
	Installation aid		6812 2 202-00	1 pc.
	Fixing kit for tray housing		6812 2 070-00	1 pc.
	Tray fixing element for coupler modules		6812 2 014-00	1 pc.
	Patch unit	Frame with cable channels	6812 2 210-00	1 set.
Patchfield		for SC and E2000 connections for FC connections (Type RF) for DIN connections for ST connections	6812 2 211-04 6812 2 211-02 6812 2 211-01 6812 2 211-03	1 pc. 1 pc. 1 pc. 1 pc.
Accessories:				
through-adapter		6824 2 300-XX	1 pc.	
Pigtail, 0.9 mm buffered fibre, length 5 or 8 mm		7006 X 1X0-XX	1 pc.	
Patchcord, 3 mm cable, length 2 m		7006 X 2XX-X2	1 pc.	
	Cable support plate	6812 2 212-00	1 pc.	
Cable guide		6812 2 201-00	1 pc.	
Loose-tube depot		6812 2 220-00	1 set.	
LSA-PLUS adapter element for LMSys; for LSA-PLUS profile, 300 pair; for CCC82 and 83		6812 2 066-00	1 set.	
Further accessories:	Cabinet adapters elements for			
	CCC 82		6812 2 062-00	1 set.
	CCC 83		6812 2 063-00	1 set.
	CCC 59		6812 2 060-00	1 set.
	UniCab Solo		6812 2 065-00	1 set.
	Earth kit		6769 2 085-00	1 pc.
Earth rail		6812 2 203-00	1 pc.	

*) Order numbers for through-adapters, pigtails and patchcords with other connectors (E2000, FC, DIN) or polishings on request

KRONE Aktiengesellschaft
Beeskowdamm 3-11
D-14167 Berlin
Phone: (0 30) 84 53-0
Fax: (0 30) 84 53-1703
<http://www.krone.com>
info@krone.com

