



Fibre Optic Excellence from KRONE

Fibre Optic Distributors

FO distributors

In order to accommodate and distribute the optical fibres and their components, junctions, terminating boxes, cross connection cabinets, etc. are used at the line end. These components are similar to those used for copper-based systems.

If one compares the technical development of fibre optic connection components to that of copper connection equipment, one finds that special solutions have always been looked for and installed in FO applications. This was originally justified by the special care that had to be taken when handling optical fibres. This is no longer completely valid. Thanks to technical progress, FO cables are almost as easy to handle as copper cables. One special requirement which must be taken into consideration is the minimum bending radius necessary to ensure that the fibre does not break or lose part of its transmission properties due to mechanical stress. Connection systems and components are also subject to special requirements.

FO main distribution frames

The FO main distribution frame (ODF) can, for example, be used as an interface between cable systems and transmission equipment. It is where line technology and fibre optic transmission technology meet. Standardised splice cassettes are used to accommodate the splice connections; these cassettes are then mounted individually in separate cassette housings.

These cassette housings are designed to specifically accommodate a max. of 3 bundles with a total of 12 fibres (1 x 12 or 3 x 4 fibres) as well as the related fibre optic connections. The accommodation capacity for the working length totals approx. 1.5m. This length is necessary in order connect the splice cassette (from the cassette housing in the mounting position in the distributor) to the splice table. These cassette housings have already been successfully tried and tested by various network operators.

The ODF 100 by KRONE is the basic model from a series of FO distributors with modular design. These distributors can be adapted to various forms of application in modern network architecture, for example, with additional units in order to accommodate through-adaptor modules or wavelength multiplexers.



FO main distribution frame



FO cross connection cabinets



FO cross connection cabinet

FO cross connection cabinets (FO CCCs) serve as network distribution points; they were used as "passive star distributors" in the OPAL projects by German Telekom AG.

The FO system distributor N by KRONE AG is a perfected version developed on the basis of our experience with the fibre optic (FO) network distributors for the OPAL project. Similar to the FO network distributor, in the FO cassette housings of the new FO system distributor N, the splice connections and reserve cable lengths - necessary between the main and distribution cables - can be terminated and stored. The so-called patch unit of the FO system distributor N additionally permits the termination of optical plug connections - an application which is increasingly demanded for an ever-growing number of network configurations.

The FO system distributor N is designed in such a manner that it can be easily adapted for installation in different cross connection cabinet enclosures. This applies to all enclosures with a minimum depth of 210mm and a minimum height of 800mm. If optical couplers are used in the FO system distributor N, these modules can be additionally fixed at the cassette housing level. If space is required for a larger number of coupler modules, these can be installed at a separate level which can be exclusively reserved for coupler modules.

FO terminating distributors



FO terminating distributor

The FO terminating distributor is the final link in the chain of switching components. It is the interface component nearest the subscriber. This is where the outdoor cables from the FO cross connection cabinet are connected to the installation cables for the subscriber. The FO terminating distributor, which KRONE AG installs in the tried-and-tested KRONNECTION box A 100, accommodates a Telekom-standard cassette for splices. This cassette is stored in an extra storage unit in order to protect the optical fibres during mounting.

In addition, 12 optical fibres can be connected to plug connectors; the termination of 10 pairs (copper), with or without over-voltage protection is also optional.

The FO terminating distributor is designed for the following uses:

- for indoor and outdoor mounting,
- in moderate and tropical climates,
- in dry and wet rooms,
- with exposure to direct sunlight.

It is dust and splash-proof (according to IP 55) and suitable for mounting on walls or wooden poles.