

House cabling made the easy way - the trend towards structured cabling in residential buildings

Part 5: Multimedia Distributor

The multimedia distributor is the central component in house cabling. The horizontal cables of the whole apartment meet here and the cables are switched ("patched") to the electronic components such as switches or routers. However, despite its importance, the distributor in residential buildings



ODB 54 as „termination passive line technology" (TPL)

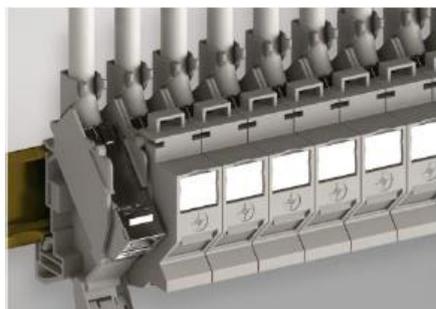
must be as inconspicuous as possible.

In single family homes, the multimedia distributor is usually installed in the cellar near to the house transition point, the so-called "optical line termination (OLT)".

In the surface-mounted version it is freely accessible and does not interfere with anyone between the transition points for electricity, telephone and cable TV. If a central distributor is to be installed in the cellar of an apartment house, the principle is

the same but it is slightly larger.

However, the installation of the multimedia distributor in the house connection room of an apartment house has certain disadvantages. When copper wires are laid over several floors there

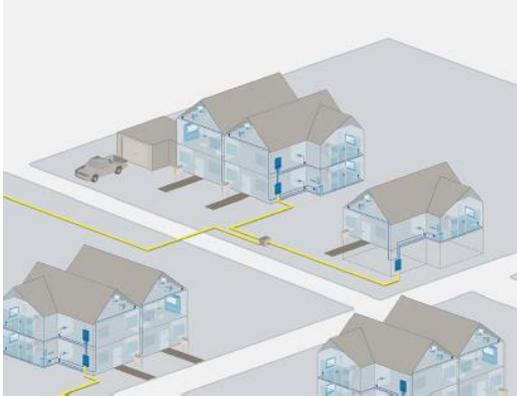


Multimedia distributor with TS45 Outlet

is a risk of potential drag which leads to undesirable compensation currents through the cable shield. In addition, cables are routed to all the apartments from here so that there is a risk of manipulation if the house connection room is accessible to everyone. And, of course, there are reservations about the data security. On the other hand, if the room is not accessible, the inhabitants always have to call in a specialist if something needs to be changed, even if it's just a matter of re-

patching a connection. That costs time and money.

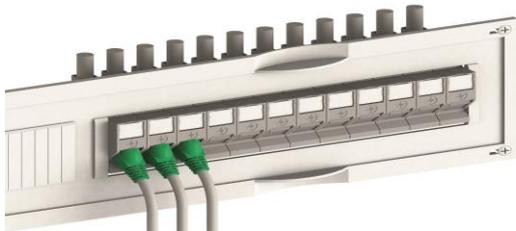
Equipping every apartment with its own small distributor has therefore proven to be the best solution for apartment houses. A splitter is installed near to the house transition point in the house connection room. Glass fiber cables lead from there to the individual apartments. The splitter passes on the data signals of the glass fibers from "the outside" to the apartments and viceversa.



FTTH/B connection draft for single family/apartment houses

Multimedia distributors in apartments should be as inconspicuous as possible. They are usually designed as a separate panel in electrical distributors, isolated from the electrical installation by a partition wall according to the valid regulations. The copper wires from the wall outlets in the rooms also terminate here in addition to the glass fiber cable. These can be connected to mini distributor panels with several RJ45 terminals or to individual modules. Mounting rail outlets are available for both options with which they are fixed

to the top-hat rails of the distributor. The active components such as switch and router are also installed there if there is enough room.



Mounting rail outlet TS45



Mini Distributor MPD8 AMJ/UMJ

If fine glass fiber cables are laid in the rooms instead of copper cables for space reasons or in the course of renovations, the multimedia distributor contains another splitter which splits the glass fiber from the house connection room into further fibers to the rooms. A switch/router with glass fiber connections can be used instead of a splitter. Glass fiber outlets or installation switches for flush-mounted installation are then installed in the rooms - see the next part of the series of articles for this.

No matter whether you want copper cables or glass fiber cables, surface-mounted distributors or top-hat rail assembly in the electrical distributor - Telegärtner always has the right solution.