

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

Part 6: Connecting components

It makes no difference whether you lay copper cables or glass fibre cables, the cables have to end somewhere. In residential buildings that means connecting them to outlets. Preferably small, elegant and as inconspicuous as possible, at best invisible but still all over the place. Technology is still not fully able to fulfil this wish of many architects and owners of quality residential objects. But clever



*Design capable RJ45
Outlet AMJ45*

solutions are available with which the connecting components can be fitted discretely and inconspicuously – with full performance, naturally.

Here's the situation: The outlet is never where you really need it. And if it is, you have so many appliances to connect that you have to use multiple connectors. The number and distribution of outlets is critical in both old and new buildings. The architect wants them to be as inconspicuous as possible (preferably invisible), the owner wants to pay as little as possible for them and the residents would like to have three in every corner.



LSA+ connection and module technology

Designable FO and RJ45 outlets can solve many of these problems. They can be integrated harmoniously in different switch programs and can be used universally in size 50 x 50 mm.

Outlets are available both in LSA+ board technology and modularly. In the LSA+ board technology the RJ45 outlets are

soldered permanently in small boards in the outlet. This enables a sturdy structure which is greatly appreciated by installers, especially in Germany.

Next to the classic LSA+ connection technology, the module technology in which every cable is terminated by its own RJ45 module has established itself. The pre-assembled module is simply

snapped into a designable module carrier of the outlet so that assembly and connection are much easier and quicker.



*Design capable triple
gang module carrier*

All well-known switch program manufacturers now also offer central plates and frames for LSA+ or module technology. RJ45 modules of these formats can therefore be integrated attractively not only in standard programs but also in quality designs with metal or glass frames.

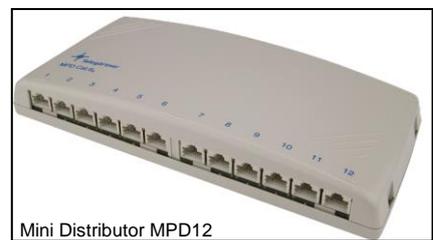
The space saved by the module technology allows double and triple outlets which are especially suitable for multimedia applications. TV, Internet and telephone connection in one compact outlet. For applications such as home offices or small offices and agencies which require more than three connections despite the confined space, compact, inconspicuous mini-distributors are available. They offer six, eight or twelve connections in a compact space and can be fitted inconspicuously to the wall, the underside of a table or in furniture.



Mini Distributor MPD6



Mini Distributor MPD8 AMJ/UMJ



Mini Distributor MPD12

Telegärtner has done the pioneering work again. The AMJ45 outlet was the world's first LSA+ outlet in board technology to be certified by the independent measuring and test laboratory GHMT according to Category 6_A ISO/IEC. Modules and outlets of Category 6_A for data speeds of 10 Mbit/s to 10 Gbit/s are no exaggeration when you consider that common terminating devices are already being delivered today with Gigabit-Ethernet connections. The trend towards multimedia applications in homes is only just beginning and is increasing from year to year. Cabling should be able to provide sufficient data rates not only for today' but also for future equipment generations. Otherwise cabling might easily have to be replaced in a few years. The same applies for Power over Ethernet (PoE) and the more efficient version PoE+, in which 600 mA flow through the data cable. If the plug is accidentally pulled out during operation, the fragile contacts of the RJ45 outlet can be damaged. In many cases, you have no other choice but to change the module. To prevent that, Telegärtner has designed its RJ45 outlets so that the pull-off spark occurs outside the range of the contact tongues used for the data transmission. Thanks to this design, the plug can be pulled out more than 800 times under full load even on PoE+ and the outlet still offers the full 10 Gbit/s – we promise!

Another revolutionary detail that is especially important for office and home applications is the

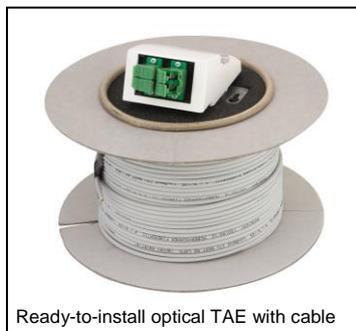


AMJ Module K with RJ12 plug

integrated contact overbending protection of all RJ45 outlets patented by Telegärtner. Telephones and fax machines are often delivered with RJ11 or RJ12 plugs which are difficult to distinguish from the slightly bigger RJ45 by the layman. However, if an RJ11 or RJ12 plug is plugged into an RJ45 socket, the outer contacts of the socket could be damaged by the housing edge of the smaller plug. With integrated

contact overbending protection, repeated false connections are possible without impairing the socket contacts - we promise that too.

Cabling with glass fibres (fibre optic cables or FO for short) are also possible. Glass fibre cables usually end at the house transition point or in the respective sub-distributors of the apartments in apartment buildings. If the glass fibres are to be laid as far as the rooms, they end like the copper cables in appropriate outlets. Twin outlets are also available for glass fibres; quadruple outlets even when using the space-saving LC connector. Since most terminating devices have no glass fibre connection, they are connected by a media converter which converts the light pulses of the glass fibres into conventional electrical data signals and vice versa.



Ready-to-install optical TAE with cable

The optical telecommunications connection unit (opt. TAE) OAD/S developed by Telegärtner serves as a glass fibre termination of the appropriate apartment cabling in FTTH/FTTB networks. The FITH outlet can accommodate up to 4 fibres with optimised bending radius with pre-assembled LC/APC plugs. The optical outlet offers space for up to two LC/APC duplex couplings with integrated metal laser protection flap in addition to the captive dust flap. The height compensation and the dimensions of the cover cap guarantee the designable combination with frame of the common switch programs, surface mounted and flush installation is possible.

No matter whether you choose cabling with copper or glass fibre cables – Telegärtner has the right products.