



RJ45 patch cords

Secure connections
in a new era

Get more

Flexibility

Comprehensive product range

Performance

Reliable signal transmission

Quality

Uncompromising manufacturing



Convincing cabling solutions

The future.

Networks in transition.

Patch cords for a new era

Networks move into a new era. Transmission rates of 10 Gigabit Ethernet via generic cabling becomes common place from data center to applications in offices, shops and factories. That means: ten times more power, ten times more dynamics, a hundred times more demanding than in the previously familiar Gigabit era.

“Network professionals need patch cords that support and allow all of this.”

Highest performance, absolute reliability and convenient handling are way up on the list of requirements. Similarly, backward compatibility is expected so that legacy applications can also

be integrated. Future-proof, so that many new and future applications are supported. High-quality patch cords should be capable of long-term and sustainable use.

Nowadays logistical flexibility is also expected. Network professionals want to plan their patch cord equipment individually and procure it as required. Nevertheless, the range of components must be structured consistently and leanly in order to simplify administration, warehousing and budgeting.

The answer to the versatile challenges of the new era is the RJ45 patch cord program from R&M for twisted-pair or Ethernet copper cabling. In combination with the R&Mfreenet cabling system users are provided with the best overall performance of a network cabling system. Because R&M components comply with international standards, they can also be used interoperably.



Flexibility.

Structured product range.

High-end solution

For professional use and for tailor-made high-performance in applications data centers, office buildings, hospitals and industrial plants, the powerful, proven high-end patch cord program is recommended. Designed by R&M each component exceeds the values required by the standards. The program supports all categories from Cat. 5e to Cat. 6A ISO.

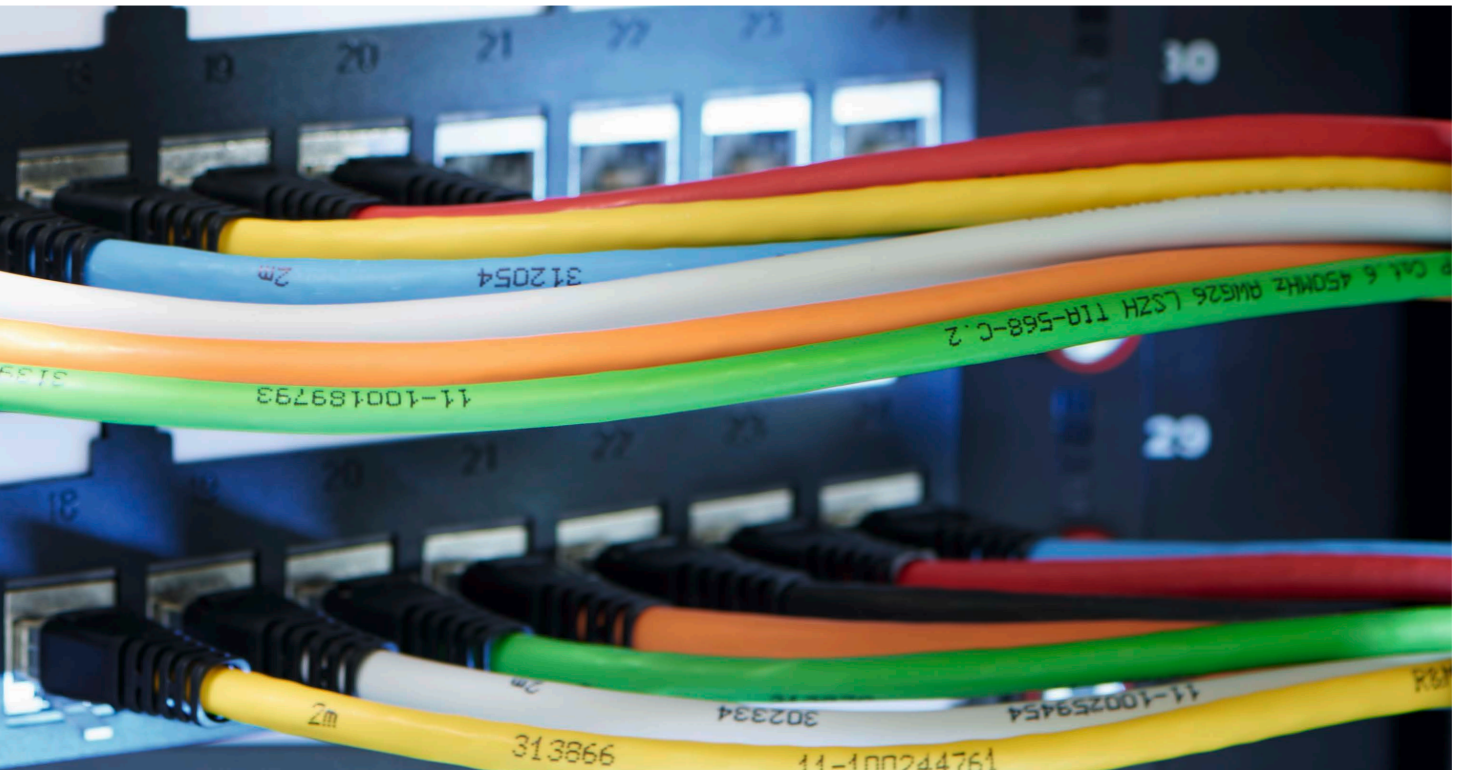
Superior shielding technology protects data transmission in environments with higher electromagnetic loads. Cable types S/FTP and U/UTP are available. A unique feature is the WARP technology which in unshielded copper cables effectively attenuates ANEXT alien crosstalk from one cable to the next. Cable sheaths are halogen-free and offer the highest fire protection level.

The high-end program offers exceptional flexibility. Lengths, termination schemes, wiring and even the label on the cable jacket can be configured individually. In addition to the standard color of gray, cable jackets in different colors are available on request.

Easy Line solution

Easy Line is the second range in the R&M patch cord program. Or in short: EL. The quality solution supports network professionals in application areas where standard compliance is the typical requirements. EL patch cords are suitable for many office situations, for home networks in residential buildings or similar application scenarios. The R&M EL patch cords that are available in Cat. 6 and Cat. 6A are suitable for Power over Ethernet (PoE and PoE+).

EL patch cords bring color into the network. The worldwide stock range includes seven RAL cord colors. EL patch cords are provided in lengths of 1, 2, 3 and 5 meters. The EL-segment comprises cords with foil shield (U/FTP) and unshielded cords (U/TP). The production process of Easy Line patch cords is subject to stringent R&M design and quality standards. The assembly of the cords is done on R&M owned production facilities.



Performance.

Reliable data transmission.

Performance is key

Patch cords are used in the generic cabling of local area networks as an agile link between the fixed network cabling and active equipment such as switches and servers. Their significance for reliable data transmission cannot be overestimated. For this mass product reliability and performance are of the highest importance.

That is why R&M devotes such attention to patch cords. We have decided to offer the highest performance in twisted pair copper cabling, so users obtain the best and most sustainable benefits from their investment.

Large reserves

Thanks to the RJ45 plug developed by R&M, its RJ45 patch cords are standing out by an industry-leading signal-to-noise ratio. Due to the unique design of the R&M plug the assembly work of the cord has no influence on transmission quality. In this way exceptionally large performance reserves can also be achieved in the customer installation. The independent measurement results prove it.

This means factory assembled R&M patch cords are capable of tolerating the stress of all types of applications. For shielded and unshielded patch cords R&M guarantees a consistently stable, crystal clear signal transmission. Regardless of category, type and length.

In addition, there is the convenient handling: The small shape of the RJ45 plug allows the use of the patch cords in even the tightest of spaces and in fully equipped panels.



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Quality.

Uncompromising production.



Good contacts are worth their weight in gold

The sensitive signals of high-frequency data transmission place high demands on the patch cord materials. The lower the electrical resistance at the contact surfaces, the smoother the flow of bits and bytes. Good contacts are worth their weight in gold.

Gold provides an excellent contact surface. The precious metal does not corrode. Its resistance values are low. The friction properties are excellent, especially on the rolled contact surface of the R&M connector. R&M equip RJ45 patch cords exclusively with gold plated contacts. The gold is applied with a defined thickness to produce a long-lasting product. The multi-layer plating process ensures strong adhesion and deep anchoring of the gold molecules in the metallic base material.

Stability in every detail

The design of the plug takes into account all electromagnetic and mechanical factors. It starts with the two-layer arrangement of the contacts. The largest distance between wires contribute to minimizing crosstalk. The assembly process is designed in such a way that

during the crimping process the contacts are neither touched nor moved. The height of the contact point remains stable regardless of which conductor type and wire cross-section is terminated.

R&M's use of IDC technology ensures a reliable connection of the plug contact to the conductor and ensures a consistently stable contact resistance.

“Moisture, dust and vibrations cannot harm the connection.”

Thus, patch cords from R&M are ideal for applications such as PoE or PoEP with constant current load on the contact point. In these applications, it is crucial to avoiding excessive heating due to increased contact resistance.

Safety.

Scalable protection.

Well protected

Also the connections between plug and cable supports the claim for superior quality and performance. The shield termination is 360° around the cord and it contacts every shield element of the cord. This is the basis for a complete system of protection against electromagnetic interference.

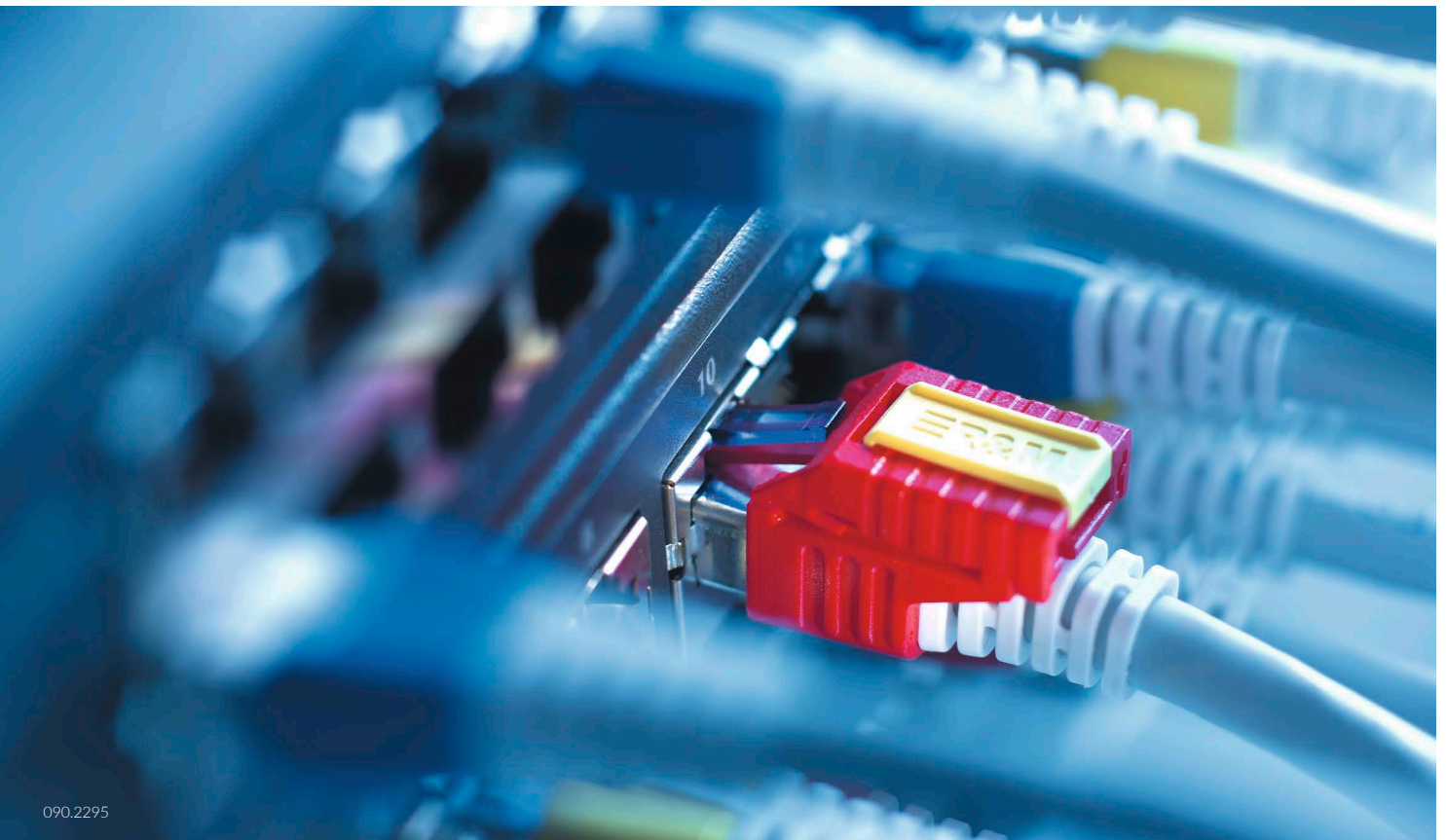
The strain relief with anti-kink protection forms a unified, robust unit. It is crimped around the cord and withstands any tensile force that may occur with reasonable handling. An intelligently shaped anti-kink protection stabilizes the cord when moving in any direction. It reliably prevents buckling or crushing of the sheath in the bending radius. An endurance test in the R&M lab confirms this. Thus, the transmission quality is maintained even in tight spaces or during frequent mating operations. In addition, the sleeve with maximum grip facilitates handling of the patch cord. Fingers grip securely and can insert the plug precisely.

Designed in Switzerland

The RJ45 patch cords are manufactured according to the design and quality requirements of the R&M's development center in Switzerland. Also parts from suppliers are subject to the strict specifications of R&M. As an independent manufacturer R&M always sets the bar higher than the relevant standards.

During the manufacturing process every single patch cord runs through a quality test based on the parameters of the corresponding ISO-categories. Serial numbers are printed and documented. They can be traced back for decades as part of the R&M warranty programs. In addition, all cords are labeled with length, category, type of cable and item number.

Depending on the customer's requirement, the patch cords are low-smoke, flame-retardant, free of halogen and heavy metal in accordance with the relevant standards and guidelines. Certificates of independent laboratories confirm conformity to the standards.



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Three-level program

Direct access to the patch panel or the simple operation at the faceplate are some of the big advantages of using patch cords. But how easy is it to unplug a cord that carries an important data transmission? This happens unintentionally, but can trigger a cascade of misunderstandings and alarms.

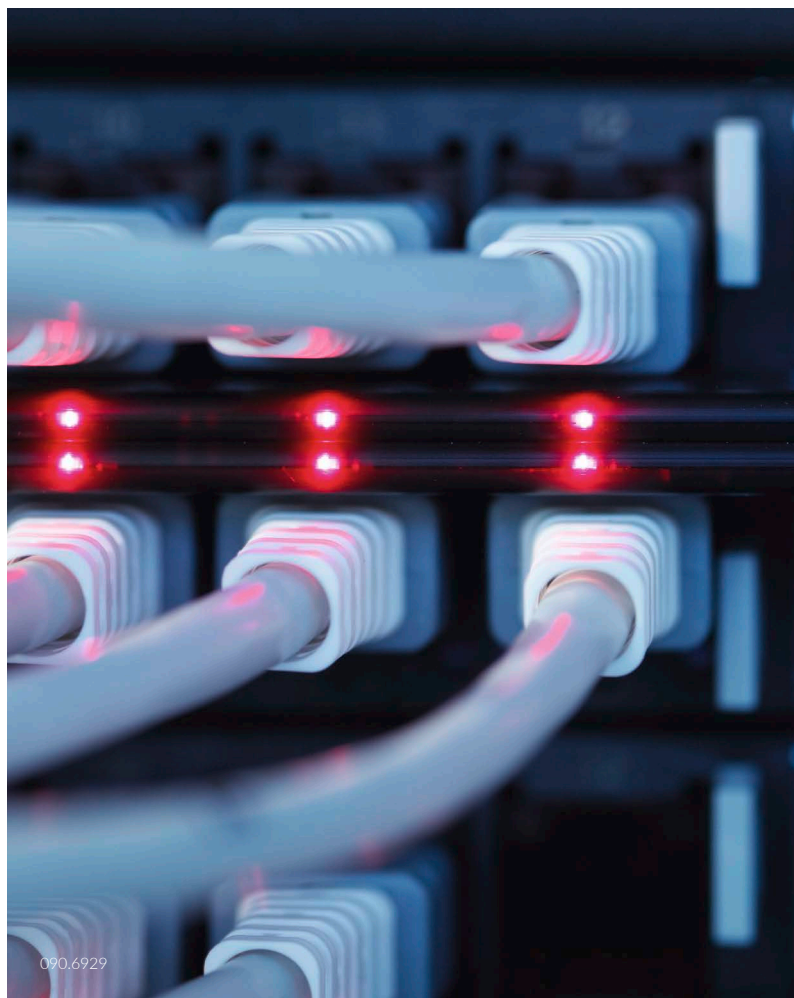
The three-level R&M safety system for RJ45 patch cords and connections helps avoid such mishaps. Color coding and locking systems form the building blocks of the unique accessories program. All components can be retrofitted in next to no time.

- 1. Level: Color coding.
Colored caps for patch cord plugs and flanges for patch panels highlight functions or areas of the network. Clear assignment enables errors and patch errors to be avoided.
- 2. Level: Mechanical and optical coding.
Colored frames and adapters on plugs and ports ensure clear allocation and prevent incorrect insertion.
- 3. Level: Locking systems.
The mechanical plugging and unplugging protection by key can only be operated by authorized persons and prevents inadvertent manipulation.

The R&M splash sleeve can be added to the cord in no time. In combination with the splash flange, the elastic rubber cap protects against the ingress of dust and moisture. Thus, the connection points meet the requirements of the IP54 protection index. With the V06 plastic cap even the protection class IP67 is achieved.

Monitoring made easy

A simple but essential step toward an automated infrastructure management system (AIM): The RFID clips of the R&MinteliPhy monitoring system can be easily snapped onto the RJ45 plug of the patch cord, if necessary during operation. This means that nothing stands in the way of 100% network monitoring.



For more information and products, visit
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Convincing cabling solutions