10th tour

Roadshow

Data Center LAN

Data Center / LAN Roadshow 2022

www.rdm.com/roadshow/

R&M

With two dedicated trucks, R&M presents for the 10th time its latest solutions for the LAN (Office Cabling) and Data Center fields as well as for FTTX network infrastructures. During the 2022 anniversary Roadshow, customers and partners all over Europe in more than 20 countries will be visited and provided with first-hand information.

Expert exchange in a hands-on environment – focused and informative

Today's converging communication networks, regardless if private or public, already preparing for 5G services, considering current and future needs of smart cities, connected smart homes or other forward-looking applications – they all need high-quality and future-proof communication network infrastructures.

As an experienced market leader, long-term partner and innovation driver, R&M is keen to discuss at first-hand the latest trends, features and technologies around modern connectivity solutions at the DC/LAN and FTTH roadshow with its customers.
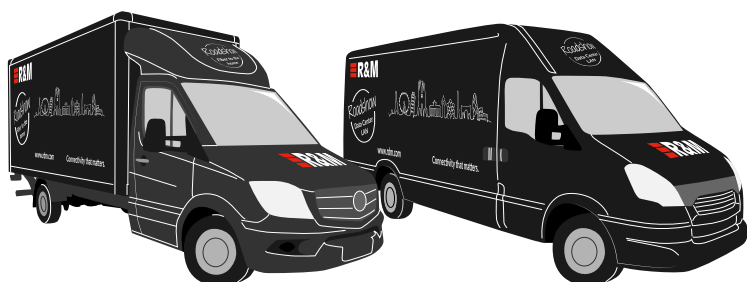
In recent years, the R&M roadshow tour has become increasingly well known and an appreciated meeting place for expert discussions and sharing latest information on actual challenges and related solutions around cabling and connectivity in communication networks.

This is why R&M continues with this successful format of customer interaction. Three years ago, the company has invested in a second vehicle. One presents LAN and Data Center applications, the other one FTTX solutions.

From March to November 2022 the two trucks are touring for the 10th time. There will be plenty of information provided to planners, installers, project managers, distributors, system integrators and other interested parties. The visitors meet-up in a casual and practice-oriented atmosphere.

In this environment they can swap stories and share experiences with R&M experts about product features, challenges and resolutions they mastered, while latest developments in network technology and current product news are presented by the R&M roadshow team.

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Try out the latest connectivity technology

In small meetings between racks, patch cords and other exciting R&M products, the visitors are able to test products and features and familiarize themselves with the solutions and technologies. While obtaining first-hand explanation and information from R&M experts, they can give direct feedback on user-experience or input for potential customization needs.

Consulting and training for customers

Planners regularly use the trucks to consult building owners and project customers and can live-demonstrate how to use R&M solutions which often facilitate the decision-making process. The R&M roadshow teams also can combine the truck tour with training sessions on-site. This saves time and is an appreciated opportunity to update partners and distributors on new products and all the latest findings.

New

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Netscale 48   Spash Outlet   FO Field Butterfly

Content

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R&M

Data Center
For agility reliability and high performance

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As a global Swiss developer and provider of connectivity systems for high quality, high performance data center networks with operations in more than 30 countries, R&M offers trusted advice and tailor-made solutions that help Infrastructure and Operation Managers delivering agile, reliable and cost-effective services for a business oriented IT infrastructure.

R&M's Smart Networks platform converges connectivity infrastructure with the digital world to monitor and manage their physical IT infrastructure. Our fiber optic, copper and infrastructure monitoring systems create end-to-end solutions for IP and storage area networks consisting of modules, panels, RFID sensors, trunks, harnesses and jumpers. With a modular platform approach, intelligent infrastructure management, and field-proven migration paths to 40 G and 100 G Ethernet, customers can get the flexibility to adapt their physical networks and easily respond to ever occurring change.

If you are looking for trusted advice, high-performance connectivity, and long-term growth with increasingly short-term deployment times – **R&M is the right partner for you.**

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Your goal: A structured cabling solution that makes it easy to maintain your passive network infrastructure, whether your site is an office building, an apartment or a dedicated installation like a hotel, a recreational facility, a social/ health care institution, a factory – or even a ship. R&M is the ideal partner for you. Our local area network (LAN) solutions provide planners, installers and operators with end-to-end support for all their data network and communication infrastructure needs, with future-proof design, trouble-free implementation and high-reliability operation. Our modular, scalable R&Mfreenet cabling system lets you put together a complete solution with

assured quality , regardless of the size of your project or specific applications, and also goes that extra step in user friendliness and ease of installation. All our products are application-neutral and have the ability to manage current and future transmission methods. R&Mfreenet was designed to be a best-in-class solution and thus surpasses the minimum requirements of all relevant standards. Thanks to R&M's worldwide QPP Partner Program, certified partners receive priority support no matter where they are located and they can grant their end customers R&M's long-term system and application warranties.

R&M

Netscale BCM

- One solution for vertical and horizontal modular slots
- Removes the need for cable management at the side of the cabinet
- Pre-configured staggered cabling that matches port distances
- Cabling routes directly from switch to ports to patch panels below or above the switch

Switch Cabling. Made Neat.

The Netscale Blade Cabling Manager (BCM) is specifically designed for high port density switches, providing a reliable, flexible and highly efficient cable infrastructure throughout the data center. This is switch cabling. Made neat. By moving from traditional low-density cabling to high-density structured cabling solutions, data centers can implement the physical network infrastructure in a much more manageable and flexible manner. The Netscale BCM routes cables directly from switch ports to the patch panel ports below the switch, above it or on its side.

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Netscale 120

- World's densest fiber solution, offering 67 % higher density than competing systems
- Unmatched cable management with rear-cabling manager
- First ultra-high density platform with infrastructure management function
- Smallest diameter uniboot patch cord minimizes the cabling bulk

Delivering the highest fiber density

R&M's Netscale solutions combine unmatched fiber cable management with automated connectivity tracking and an innovative tray design to deliver the world's highest port density for 10/40/100 G Ethernet. Most existing high-density fiber solutions for data centers offer up to 72 LC duplex ports per rack unit and pose great difficulties for management. Thanks to R&MinteliPhy technology, Netscale delivers a density of up to 80 RFID-monitored LC duplex or MPO ports, and even 120 standard LC duplex or MPO ports per rack unit.

Netscale 72

- Flexibility with only one platform for Base-12 and Base-8
- Best in Class density with 72 ports per U for 100% fiber utilization
- Automated documentation and visual guidance of patch work orders thanks to inteliPhy

- Support of patch and splice cable termination up to 72 MPO per unit
- Superior patch cord management
- Outstanding documentation opportunities

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Flexible. Dense. And automated.

Netscale 72 provides a single platform with best-in-class density, Base-8 and Base-12 fiber solutions for building large spine and leaf data center networks. It offers RFID-based automated port documentation and visual guidance of work orders. Netscale 72 solutions' split-tray design provides easy installation while minimizing network downtime. If you splice with Netscale 72, you are independent of cable types and fiber counts and can even splice a 144-fiber ribbon cable onto a 12-port MPO cassette. R&M takes a big step into the future with Netscale 72. It marks the world premiere of numerous technical innovations. They enable flexible, modular cable management on a new level plus a new dimension in automated infrastructure management – among other things.

Netscale 48

- Modular cassette system so that the insertion positions can be freely selected
- Copper and fiber per cassette enables gradual expansion
- Patch panel housing in straight or angled version to fit optimally into your cable organization

- inteliPhy can be easily retrofitted at any time during operation, even when fully extended, thus eliminating downtime
- Only one height unit per patch panel, thus 48 ports of any type can be reached
- New FO adapters allow even higher compressions for even more space savings

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Perfect flexibility mixed media patch panel

Data center infrastructure, airports, public buildings, co-locations or in-house highsecurity infrastructure at banks and insurances or in the chemical and pharmaceutical industry – Netscale 48 covers the whole spectrum. The most flexible mixed media patch panel with the best cable management system combines everything and offers everything on a single height unit in the rack. Thus, it fulfills the most diverse wishes with ease.

R&M

Intelligent infrastructure management

R&M*inteliPhy* opens up a new era for network managers. Now, they can manage their physical infrastructure intelligently and fully automatic. Neither special patch cords nor new patch panels are needed. Notepads are things of the past, as are hard-to-manage tables. With R&M*inteliPhy*, data centers immediately improve the capacity utilization, profitability and availability. IT managers gain control over all ports and more. This is because R&M*inteliPhy* helps with analysis and documentation, with the introduction of standardized processes and with all typical management tasks associated with passive infrastructure.

RFID on the connectors

An RFID tag on the connector knows all there is to know about the cable. It is the source of information for the infrastructure management system. The retrofittable clip with the tag fits all R&M copper and fiber optic patch cords.

Sensors on the patch panel

A Sensorbar contactlessly reads the information contained on the RFID tags. It can be mounted on all R&M HD patch panels. The Sensorbar records connectors and connections. LEDs signal the operating state and show where patching is needed.

Visibility. End to end.

R&M*inteliPhy* Port Monitoring Cables extend cabling visibility to server, switch and storage ports. They deliver visibility end to end, automate network documentation, continuously monitor connectivity and supervise changes. The Port Monitoring Cables bridge a crucial segment of automated cabling management: the link between patch panel and equipment port.

Analyzer in the cabinet

The Analyzer links Sensorbars with the Server. It monitors one or more cabinets, reading information from the Sensorbars via a bus cable and delivering the data to the Server. It is installed in a 19'' cabinet or, to save space, on top hat rails.
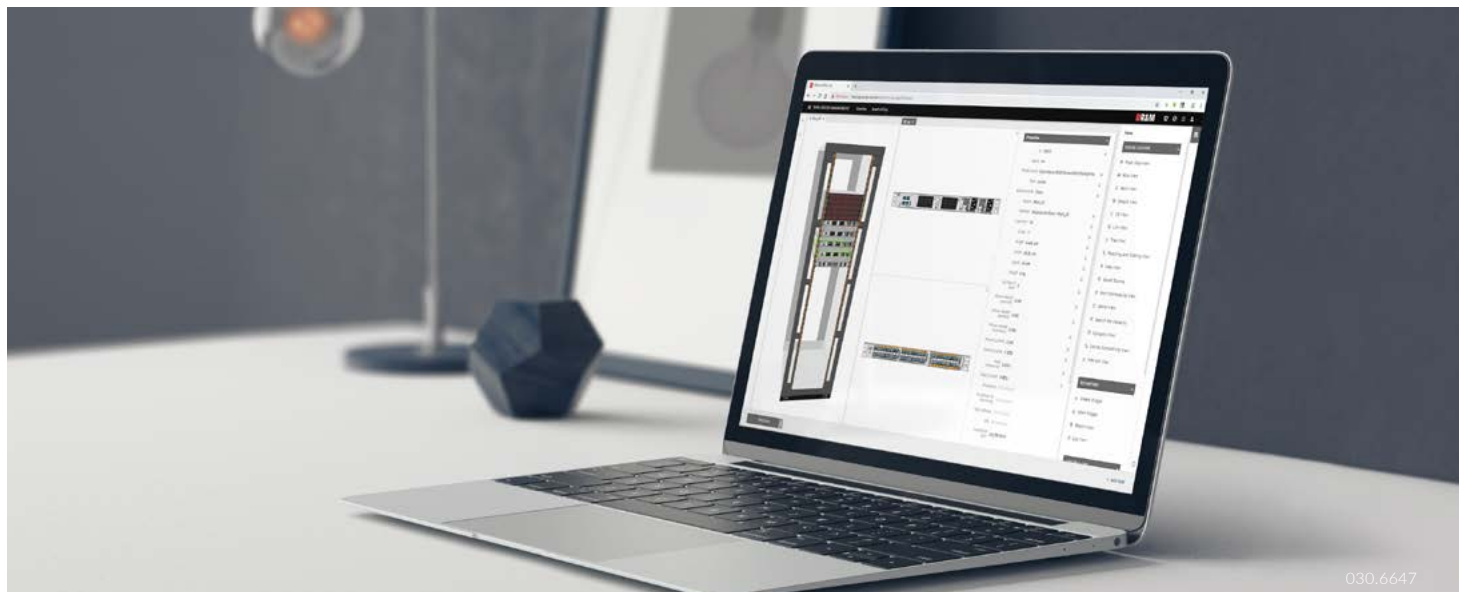
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inteliPhy net is your easy to use DCIM solution for asset, capacity and change management. Reduce deployment time and ensure high data quality of your documentation with great IT infrastructure visualization.

Explore your data center from a bird's eye view to the depths of your cabinets, and drill into interdependences with pre-defines views – without leaving your desk. Experience unexpected simplicity in buying, deploying, using and maintaining inteliPhy net. Understand current usage of space, power and ports as compared to capacity limits.

Document your entire cabling plant and map physical relationships between all IT decives so you can easily see how everything is physically connected – down to the individual port level.

Benefits

More security
- Continuous supervision of physical layer connectivity
- Supervised moves, adds and changes
- Fewer patch mistakes
- Logging of all changes

More efficiency
- Automated network cabling documentation end to end
- Simple planning of changes
- Visual guidance at the patch panel

More profitability
- Greater availability
- Better capacity utilization
- Reduced operating expenses

Features

inteliPhy net Software

Designed for simplicity
- Intuitive
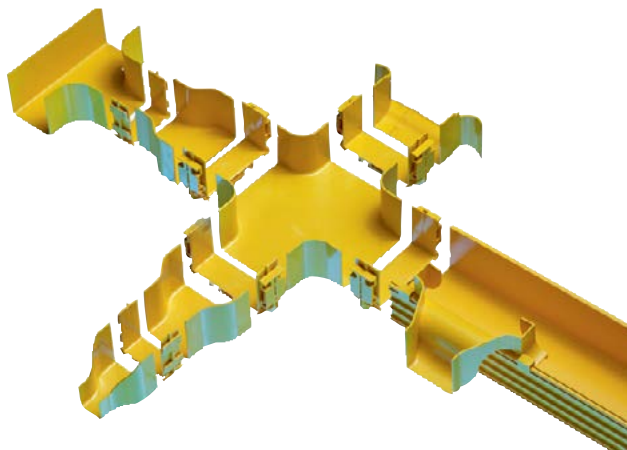- Little Training
- Simple pricing

Full feature set
- Network Visualization
- Asset Management
- Capacity Management
- Connectivity Management
- Change Management
- Reporting

inteliPhy Monitor Hardware
- Retro-fit on R&M patch panels
- System warranty on cabling retained
- Modular patch panels, connector type detection

R&M

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Raceway

- Higher network availability
- Fast snap-in installation
- Seamless expansion and retrofitting
- Reductions of up to 60 % in installation and maintenance costs
- All-round protection for optical fibers
- Guaranteed bending radius of 30 mm
- Flexible, modular system

### Rely on smart cable raceways

Installation and re-equipping of fiber optic raceway systems have to proceed as smoothly as possible to save time for productive tasks. You can now switch to the passing lane when it comes to cable raceways. With the Fiber Optic Raceway System from R&M, you take the lead in managing fiber optic links while adding benefits for your own operation. The R&M Raceway System has a smart design: safe, fast, efficient, modular, customized and easy to handle.

Unirack2 and Fiber Easy2

- No tool required for opening the box
- Pigtails and loos tube cable are supported separately
- Weight reduction of the complied body ~ 30 %
- Installation philosophy is selfexplanatory and retained
- Sliding technology for splicing and break-out cable
- Customised assemblies' (acc. Colour-code TIA-598-C)

- Sliding plate for tilting
- Rodent protected
- Splice R40 and Break-out
- Each port numbered
- R&M label and also laser warning sticker
- Front plate made out of plastic will be suitable for InteliPhy and LSH, SC, LCD, MPO

Generation 2 makes everything simpler

Fibereasy UniRack Generation 2 from R&M enables splice and breakout cabling on a single 19" platform. Planning, initial installation or Move, Add & Change (MAC) projects can be implemented very simply and in the usual manner. The most striking feature is the practical, infinitely variable slide-out loose tube tray, which is inclined at 30°. Much simpler to handle, large number of configuration options with standardized adapter solutions, various customizing possibilities for the front panels, safety features and compatibility of the version 24 LCD/LSH/SCV with the unique network monitoring system R&M*inteliPhy*.
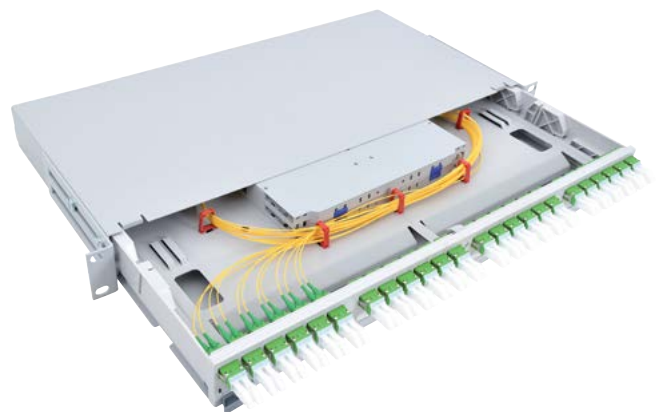

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24-port Panel

- Hybrid plastic and metal construction allowing for sturdy design with top handling capabilities
- Built-in cable strain release
- Modular solution for Copper and FO
- Shielded and unshielded version 24-port for Cat.5e / Cat.6 and Cat.6A EL / Cat.6A / LC-D / SC

- Automatic grounding system for RJ45 modules
- Fast and easy installation
- Supports the automatic management system R&M*inteliPhy*

Ingenious quick installation technique

The 24-port panels serve as the standard distribution solution for LAN and DC environments. With it's modern lean design, the small installation depth and compact design fits for every application. The quick installation technique and other built in features to optimize handling make these panels ideal to support move, add and changes. The sturdy hybrid design of the panels and the automatic grounding make these panels very reliable in use and attractive and lasting investment.

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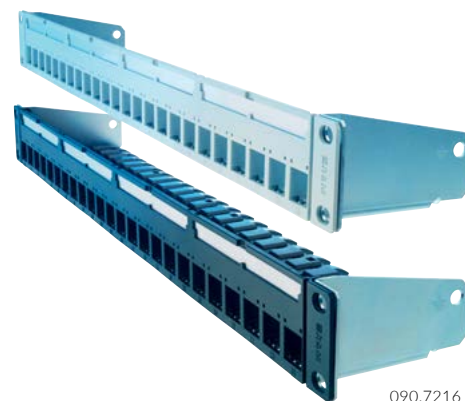
48-port HD ELISO Panel

- Slim and high density
- Robust hybrid construction with sturdy metal frame
- Easy maintenance with front release system
- Modular solution for Copper and FO
- 48 ports on 1 HU
- Shielded or unshielded

- Cat.6$_A$ EL or Cat.6$_A$ (ISO) module
- Black or grey front available
- Buit-in cable tray
- InteliPhy ready
- Optional re-usable cable guides
- FO-capability

The HD ELISO patch panel family is the perfect partner

The HD patch panel family is complete. Whether angled or straight – the philosophy is the same. Slim, robust, simple and fast. Even the isolated use of a fiber optic connection is possible. Reusable cable guides facilitate fast assembly. Labeling, security systems or the R&M*inteliPhy* electronic infrastructure management system are supported.

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R&M

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LC-QR Patch Cord

- Smallest diameter uniboot minimizes the cabling bulk
- Available in OS2, OM3, OM4 and OM5
- Twinfiber cable
- Available with 1.4 mm and 2 mm diameter
- Uniboot push-pull connector
- Pulling grip
- Quick and easy polarity conversion

Delivering the highest fiber density

R&M's Netscale solutions combine unmatched fiber cable management with automated connectivity tracking and an innovative tray design to deliver the world's highest port density for 10/40/100G Ethernet. Netscale delivers a density of up to 80 RFID-monitored LC duplex or MPO ports, and even 120 standard LC duplex or MPO ports per rack unit.

MPO Assemblies

- Multimode fiber optic cabling offers low latency and longest distance support in the computer room
- All lengths available
- Conform to TIA-568 Type B polarity and hence allow smooth migration to 40G applications with no inversions needed

- Available in OS2, OM3, OM4 and OM5
- Optional pulling grip
- Male connectors to support easy migration to parallel options

Backbone of any data center

MPO trunks provide the cabling backbone of any data center. With male, pinned MPO connectors on both ends of the cable, these trunks are designed to interface with the Netscale LC-to-MPO Modules, MPO harness cables or MPO jumpers.

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Smart Bandwidth Conversion

MPO-LC harness cables connect to MPO trunks and directly to the optical transceivers in the switch, storage or server equipment. In this way, switch port replication in a crossconnect can easily be created.

FO Field

- Tool less assembling
- Fast and secure assembling saves installation costs
- Easy logistic: all cable and tube types with one plug
- Reduces maintenance costs
- 60dB RL plugged, >55dB unplugged

- Grade C_f, IL typ. 0.25dB
- 35dB RL and Grade Bm_f for MM
- Available as LC and SC
- Perfect solution for FITH, FTTD
- Flexible, modular system

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A genuine alternative to splicing – the FO Field from R&M

FO Field can be used to assemble tight and compact tubes of 0.6 to 0.9 mm diameter. Crimp-free strain relief cables of up to ø 3.0 mm and butterfly drop cable. Time is money, especially for installers who have limited installation time during a FTTH rollout. Here the advantage of R&Ms FO Field connector becomes handy. Due to its fast and easy assembly process, the installation time can be massively reduced.
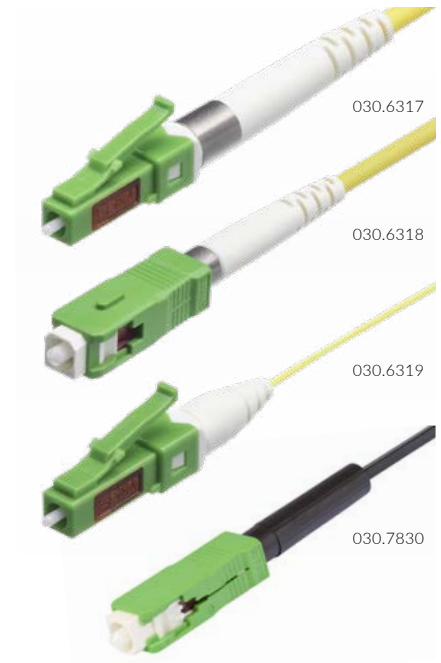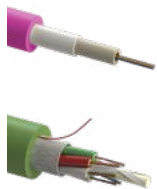
Fiber Optic Cables

Optimal Cable Design for Every Application

R&M offers a broad cable portfolio tailored to the «Data Center» and «Local Area Network» sectors. Regardless of whether the cables are pulled into duct systems, simply laid on cable trays or requiring higher CPR classification, R&M has the right cable for the job.
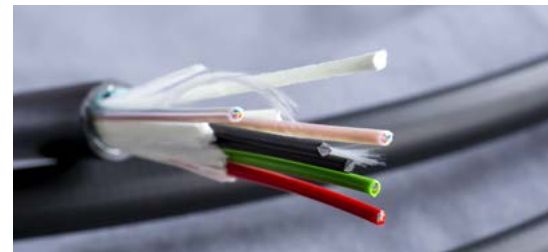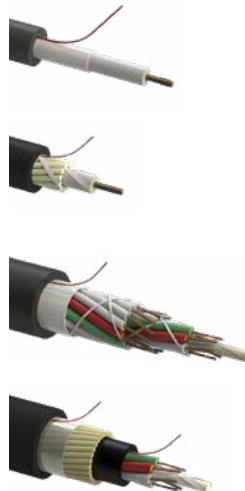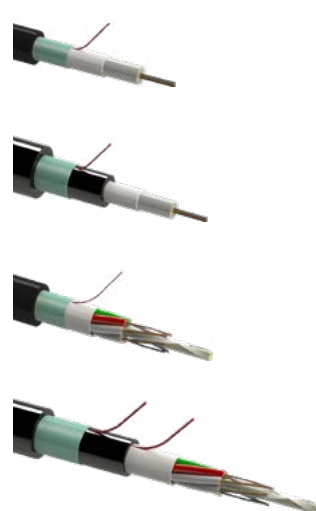
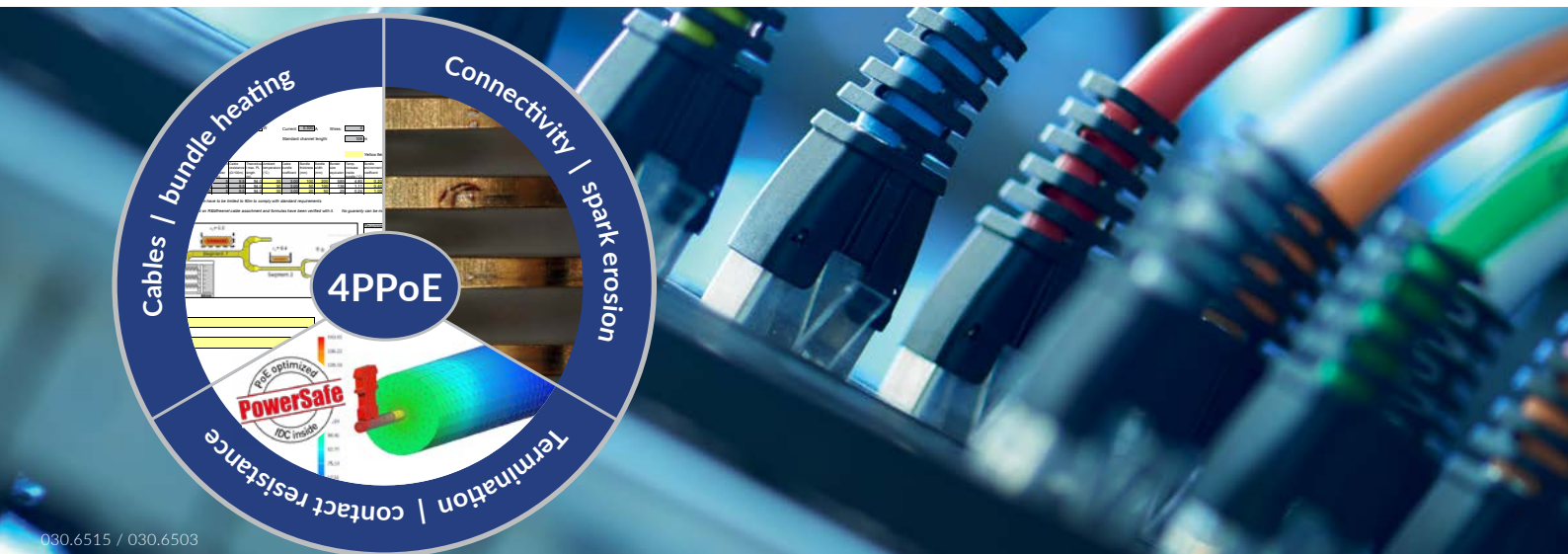**Gel-free duct cables**
rodent protected

Duct cables
rodent protected

Duct cables
rodent safe

R&M

The *PowerSafe* Quality Seal

Cables | bundle heating

Connectivity | spark erosion

Termination | contact resistance

4PPoE

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Its name: *PowerSafe*

To assist customers, partners, planners and installation companies towards selecting suitable PoE products, R&M launched a new quality seal in 2017. It is used to mark R&M products that have special characteristics optimized for PoE transmission. With PowerSafe products, PoE can be transmitted stably and reliably on levels 1–4 (15–90 W) over the entire lifecycle.

The *PowerSafe* portfolio comprises:
- Patch cords
- Cable assemblies (CP and trunk cables)
- RJ45 connection modules
- Cable couplers
- Field-terminable FM45 connectors.

All products labeled *PowerSafe* are suitable for continuous transmission of Power over Ethernet at the highest level.

Safe current transmission

Supplying power remotely using Power over Ethernet (PoE) is electrifying the network market. Now PoE can supply power for LED lighting of entire concert halls and shopping malls – plus IP cameras, access control systems, WLAN antennas, checkouts, building sensors and a lot more. The more PoE applications the more current flows through the data cables. It is putting a strain on the individual cabling components more than ever before.

RJ45 Connectivity from R&M

The RJ45 connectivity is the core component of the twisted pair structured cabling system and is mainly responsible for its reliability. Thanks to its advanced, installation-friendly connection and distribution technology, R&M*freenet* connectivity is the optimum platform for all transmission classes and the applications of both today and tomorrow. Depending on the Category of the connectors, transmission rates of up to 40GBit/s are supported.

All R&M RJ45 modules are manufactured on R&M owned fully automatic assembly lines. They are 100% functionality tested and of topmost quality. The complete range of shielded and unshielded cabling solutions is available as part of R&M*freenet* – it provides optimal cabling components for reliable, high-performance networks.

Of course, all R&M*freenet* RJ45 modules are optimized for 4PPoE transmission and *PowerSafe*.
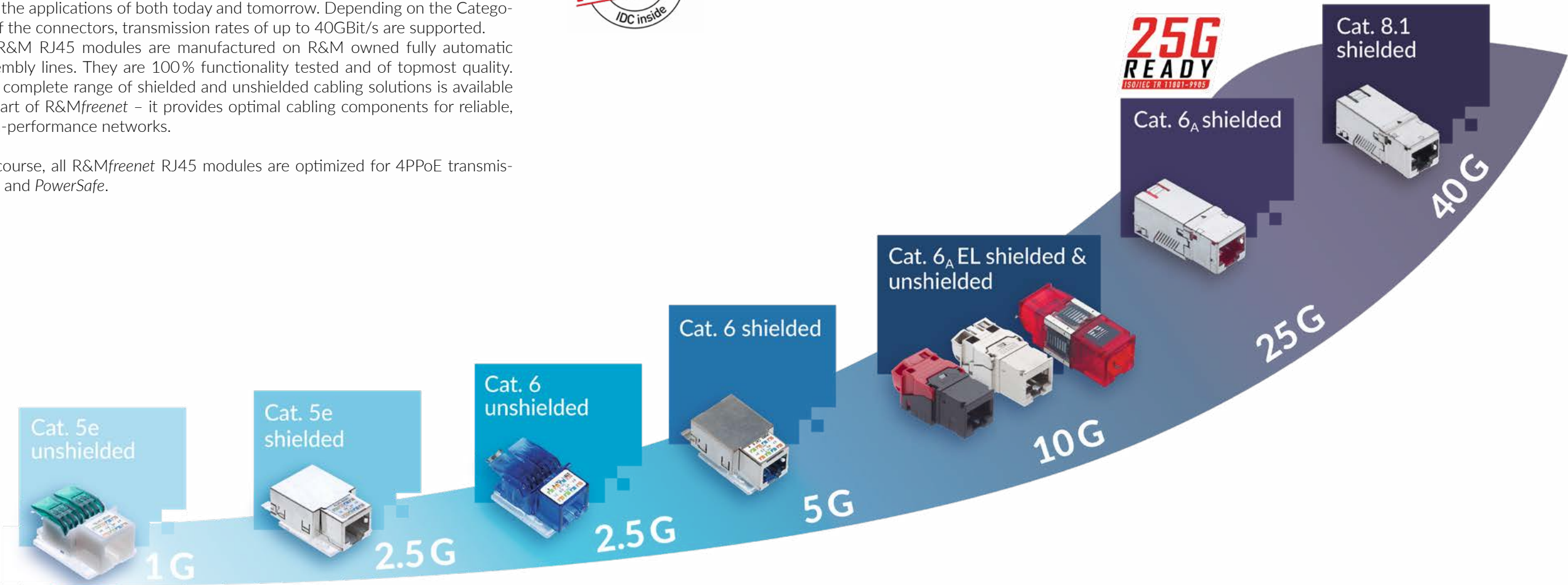
Norms, Channels and Transmission Distances

Cat. 5e / u	1 G	2.5 G	5 G	10 G	25 G	40 G
Cat. 5e / s	90 m	*				
Cat. 6 / u	90 m	90 m				
Cat. 6 / s	90 m	90 m	*			
Cat. 6$_A$ EL / u	90 m	90 m	90 m			
Cat. 6$_A$ EL / s	90 m	90 m	90 m	90 m		
Cat. 6$_A$ / u	90 m	90 m	90 m	90 m		
Cat. 6$_A$ / s	90 m	90 m	90 m	90 m	24 m**	
Cat. 8.1	90 m	90 m	90 m	90 m	50 m***	24 m

* 90 m may be possible, depending on the characteristics and installation coditions of the installation cables
** compl. with TR11801-9905
*** compl. with DTR11801-9909

Cat.5e

Provide reliable and robust connections

The well proven Cat. 5e and Cat. 6 RJ45 connection modules provide reliable, robust connections for applications up to 1GBase-T. The patented contact design without PCB and internal connections provides the ultimate in durability. The tool less termination technology offers direct access to the IDC and full control capabilities to the installer. They fit to a large variety of R&M platforms and are part of the R&M*freenet* warranty and QPP.

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- Tool less and proven termination
- Extremely robust design
- Reliable performance (100% function tested)

- Cat.5e and Cat.6 performance in shielded and unshielded version
- Fits into R&M*freenet* and Snap-in interfaces
- Straight and 90° cable entry

Cat. 6$_A$ EL

The ideal solution for Class E$_A$ applications

The Cat.6$_A$ EL connection module is the ideal solution for Class E$_A$ application like 10GBase-T in the LAN environment. Easily terminated, flexible in use and with reliable performance, it is the standard solution for every day use in the LAN. With this RJ45 module you can reach record termination times. It is fully integrated in the R&Mfreenet warranty system and the R&M QPP.
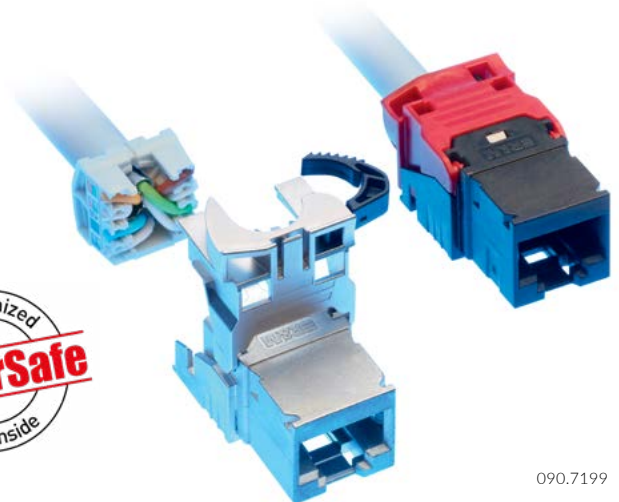
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- Intuitive and quick termination
- Reliable Cat.6A performance (100% function tested)
- Small form factor, compatible to several platform interfaces

- Shielded and unshielded version
- Integrated strain relief and easy shield termination
- 90° degree cable entry option

R&M

Cat. 6$_A$

The best performing RJ45 module

With the Cat. 6$_A$ you choose the best performing RJ45 module on the market. The resulting link reserves allow for a certain degradation of the channel due to the influence of other components and still ensures 10GBase-T compatibility. Each pair is terminated in it's own separated compartment, minimizing the influence of differences in the cable routing during the terminaton process.
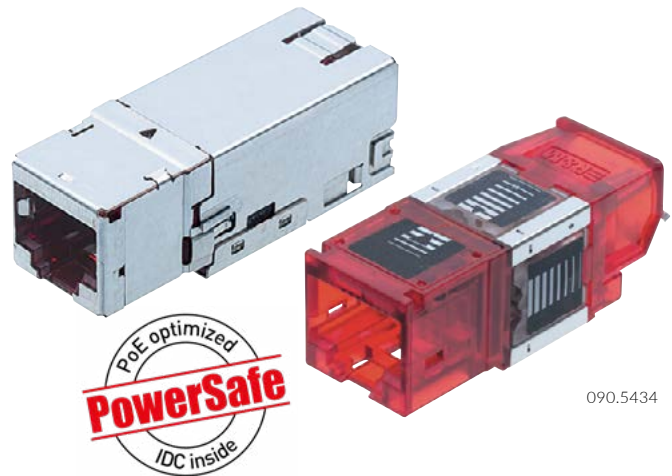
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- Large performance reserves. Best in class Cat.6$_A$ performance (100% function tested)
- Little influence of installation on performance due to central shield cross
- Small form factor, compatible to several platform interfaces

- Shielded and unshielded version
- Automatic cutting of excess wire
- Straight and 90° degree cable entry possibility

Cat. 8.1

The new LAN standard also suitable for data centres

After years of development in the LAN environment R&M sets out to offer the new LAN standard for future proof installations and data centre applications alike. Not only is bandwidth a crucial thing but also the overall costs of any installation. Copper offers some advantages in every field of applications for instance PoE or compatibility due to one single interface the RJ45.

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- Well known by installers and based on iF award-winning design
- Easy handling, no special tool required
- Depending on Permanent Link length, different bandwidth (speed zones) can be achieved
- Forward investment for applications to come (e.g. multi WLAN APs)

- Fully backward compatible RJ45 interface
- Various adapters for outlets and patch panels available
- Angled or straight installation possible
- Integrated wire cutting blade

R&M

FM45 Cat.5e and Cat.6$_A$

- Flexible application due to wide acceptable wires range for termination
- Fit into most applications due to small form factor
- Part of R&M*freenet* warranty system

- Highly reliable IDC termination
- Different housing options for different environments
- Top performance of either Cat.5e or Cat.6$_A$ and intuitive handling

Easy handling and quick termination

FM45 offers the total freedom of implementation. Highly flexible in their use, FM45 allows for totally new cabling structures to be built up. With the easy handling and quick termination time it is also the ideal product for maintenance and service situations. With different housing options the FM45 can be used in multiple environments and applications.

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Connection Kit

Connection cable RJ45 for use with the single plug connection model (Modular Plug Terminated Link (MPTL). The reliable R%M freenet patch cable with a small RJ45 plug is equipped with a cable coupler for connection to all common installation cables. This allows the easy connection of passive & active devices, where space is not sufficient for the field assembled FM45 connector.

R&M
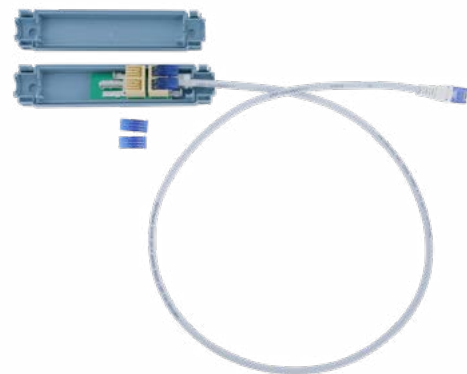
RJ45 Patch Cords

- Features highly reliable IDC plug
- Consistent high transmission performance (100% tested)
- Small form factor plug
- Available in a high-end and Easy Line solution

- Available in Cat.5e, Cat.6 and Cat.6A version, both shielded and unshielded
- Featuring interface to R&MinteliPhy tag, R&M Security system 1 – 3 and R&M environment protection

R&M*thinLine*

- Thin - 65 vs. 119 cables in 90 mm cable ring (+83 %)
- Suitable for 4PPoE
- PowerSafe

- Full R&M*inteliPhy* and Security Level Compatibility
- Integrated serial numbering

R&M meets these requirements

Patch cords are most underestimated performance factor in the transmission channel. Exposed to harsh handling by the operators, stability and reliability of a patch cord should be a main focus point for the IT responsible. With the R&M designed RJ45 plug on the patchcords R&M meets these requirements n an optimal way. To accommodate customers requirements in the best possible way, R&M offers two lines of patch cords with different cable properties. Both lines offer best quality, but differentiate by the fire performance and EMC protection they offer.

R&M*thinLine* patch cord

3.8 – 4.7 mm

R&M*freenet* patch cord

6.5 mm

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Coupler Module Cat.6_A

- Enables plug & play operation with pre-terminated cable assemblies
- High mechanical stability / Very compact
- Basic interface DA (Direct Attached)
- With adapters (Freenet / Key-Stone / Snap In and Adapter No.1)

- Fully shielded zinc die-cast housing
- Compact version
- Various adapters available
- Supports 4PPoE (IEEE 802.3bt)
- Complies with ISO/IEC 11801 Class EA requirements

RJ45 Coupler for Plug & Play operation

The female to female RJ45 Cat. 6A coupler is one of the most compact RJ45 couplers on the market. With the different adapters (Key-Stone / Snap In / Adapter No.1 and Freenet) the coupler can be used in almost all platforms. It is suitable for the fastest LAN transmission technology 10GBase-T. Designed with flexibility in mind, this coupler is a problem solver for many different applications, such as consolidation points, cross connects, to extend a patch cord or in furniture applications such as the DeskBox.

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Copper Installation Cables

- Performance optimized after installation
- R&M*freenet* Warranty system
- Wide assortment to fit optimally to customer requirements
- U/UTP, F/UTP, SF/UTP, U/FTP, F/FTP and S/FTP constructions
- Cat.5e, Cat.6, Cat.6$_A$, Cat.7 and Cat.7$_A$ performance options
- PVC, LSZH and LSFRZH jacket material options
- Different fire protection classes per European Construction Products Regulation (CPR) available

Optimized and tested to survive

The R&M*freenet* installation cables are optimized and tested to survive in todays demanding installation environment. Used in the R&M*freenet* system these cables offers 25 years system and life long application warranty. There is a wide range of cables for generic cabling as well as special tailor-made, application specific cables and cables for special environments.

Security Level 1 – 3

Protect your network

Color coding with the help of color clips to be attached to panels, outlets or patch cords can help managing the complexities of many variants to keep on stock. Instead of stocking all different patch cords in multiple cable colors, one can simply decide the color by attaching a color clip when the cable is needed. With a plug in / plug out protection the availability of a network system can be improved. Investigations show that a significant number of network failures are caused by accidental or mistaken disconnection of patch cords. R&M offers multiple possibilities of these level 3 kind of protection.

010.1696

090.2713

010.1885

- Visual cable management
- Helps to reduce stock level
- Improves network downtime
- Color coding in 8 colors for panels, outlets and patch cords
- Plug in and plug out protection for plug and outlet to allow operation for authorized persons with key only

010.1880

R&M

Global Outlets

- Universal, neutral design
- Sturdy fixation of RJ45 modules
- Smart Holes to interface with special R&M features
- Available in 1 to 4 ports
- Suitable for Cat.5e, Cat.6, Cat.6$_A$ EL and Cat.6$_A$ RJ45 modules as well as for FO couplers
- Flush mount, wall mount and duct mount versions available

090.2086   090.2084   090.5302

Reliable and sturdy platform

The R&M global outlet assortment offers a universally usable, neutral face-plate design. It can be flexibly used in many different installation conditions. They are esthetic and offer a reliable and sturdy platform for the different RJ45 modules. The R&Mfreenet mounting interface used in the global outlets allows for modular connection with a wide range of R&M products.

041.0639

041.0638

DA-Connection Box IP67 & IP54

- Flush mount and surface mount 2 port versions available
- Protection & splash cover already fitted
- Suitable for indoor & outdoor applications, UV / Ozone resistance
- Suitable for cat.6A s/u ISO and EL modules

Environmental protected Telecommunication Outlets

The IP54 & IP67 outlets have been redesigned and optimized for easy in-stallation and high reliability. This was achieved by reducing the number of single parts and closed cable entries.

IP67-Mini Box for 1xRJ45

- Industry grade, gasoline, oil & UV resistant materials
- Compatible with RJ45 Module Cat.6A ISO & EL s/u with Freenet adapter plate

Protected Outlet for tight spaces

030.7762   030.7763

The IP67 Mini Box is ideal for connections in exposed location with very limi-ted available space (e.g. in lamp posts or small ducts). It allows field mounting of RJ45 modules with IP67 sealing from the environment. The entry M20x1.5 cable gland can be adapted to cables with diameter from 4 - to 13 mm, ma-king the mini box ideal for a wide application range.

R&M

Wall mounted box IP54/66

- Fiber-glass-reinforced plastic (PC) Housing
- 1-port and 2-port version
- IP66 and IP 54 versions according to IEC 60529
- Temperature range from - 50° to + 100°

Protected wall mounting box

Universal wall mounting box for one or two ports with prepared cutouts for either IP54 & IP67 protected Freenet flange adapters. The cable entry is pre-cut to accept M20 cable glands as required by the selected cable.

030.7763

090.7874

090.2390

DRM45 & 1TE

- Earth spring does not need to be removed for unshielded assembly
- Front release for changing the assembled components
- Service and maintenance possible in the connected state
- Colored administration marking by means of HD hinged dust protection

Standard DRM45

- Very robust design
- For harsh environment
- Easy installation and service
- designed for components with freenet adapter
- Colored administration marking

Slim-line – Top Hat Rail Adapter

The second-generation top hat rail features a slim-line design. It makes space for greater packing density on standard rails. Installers can now accommodate considerably more network connections in switch cabinets and small building distributors. The new variant is two thirds slimmer than the first generation. Its 18 mm width corresponds to 1 HP (horizontal pitch), the typical pitch pattern on top hat rails. This boosts packing density enormously. The broader first-generation DRM45 will remain available.

- Front activated & deactivated earth spring
- Compatible with RJ45 modules/ coupler & FO adapter
- Assembly of up to 12 DRM45 1TE in standard electrical distribution

R&M

U-Box Advanced

- Modular design offers flexibility for different application needs
- Allows for hybrid data cabling and power installation
- Robust design
- Available in 4 different sizes and 2 different height options
- Free configurable cable entry and faceplate options
- Boxes can be stacked or snapped together

Multitude of applications

The highly versatile U-Box Advanced portfolio can be used for a multitude of applications. Be it as a CP-Point or as a MUTO, in the raised floor or suspended from the ceiling, in a small, a middle or a big installation: with the U-Box Advanced you will always be able to find an optimum solution. Especially in situations where data and power cabling should be combined in a common user service point, the U-Box advanced offers unique benefits.

POLAN floor distributor

- Unique segmentation of vertical and horizontal cabling
- Willful port activation
- Clear visibility and control
- Quick set-up
- Easy installation
- Pre-assembled Pigtail simplifies installation
- Up to 32 split and 5 direct connection ports
- Overall and radius protected cable management

030.5657

Venus FLA2-POL-32/16-SPL

The floor distributor designed for POLAN is easy to install and its clearly presented quick-assembly technology makes every installers live comfortable. And planners will gain the certainty of being able to comply with the guidelines of structured cabling thus a complete solution from an experienced single source.

POLAN Consolidation Point Enclosur

- Easy and reliable installation
- Creates order and safety
- Short distances from ONT to workstations
- Permanent installation of access links to workstation
- Two areas for incoming fiber and outgoing copper cables
- Splice tray with fiber overlength management for incoming fiber cable
- Up to 4 free equipable RJ45 connection ports
- Integrated and simple ONT mounting support

U-Box 4210 CP-POL 1FO/4RJ-SPL

The universal connection box (U-Box) designed for POLAN simply is used as a consolidation point. It basically supports two functions: terminating the fiber of the horizontal cabling and serving as a zone cabling distributor. This means that copper twisted pair cables lead from the U-Box to RJ45 outlets on the desk or on the wall. The ONT is mounted near or even on the U-Box, not directly accessible to the operator. Patch Cords from the ONT to the U-Box then activate the appropriate RJ45 connection. Thus the U-Box creates order and safety in the work area and is flexible enough to be moved if needed.

090.7792

R&M generates added value
Connectivity that matters

Cabling solutions with added value. That is what R&M (Reichle & De-Massari AG) stands for. This is the added value customers experience during the effortless installation of R&M cables and over several generations of use without interruption.

Since 1964, R&M has been developing and producing exclusively high-quality and future-proof connecting and distributive technology. As an independent Swiss family company, R&M is one of the world's leading suppliers of innovative cabling systems for data and communication networks.

Thanks to the innovative strength of the company, R&M now covers the entire range of copper-based and fiber optic connectivity. R&M systems can be used in telecom networks, Fiber to the Home, data centers and local data networks for buildings and campus facilities. Software for network management rounds out the portfolio.

Together with certified partners, R&M carries out pioneering work worldwide. The cabling solutions are tailored precisely to user requirements. Clients who opt for R&M invest in sustainably reliable, scalable and migration-capable infrastructures. The result: Networks with guaranteed, measurably superior performance.
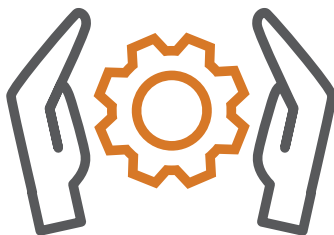
Quality
Every bits reaches its goal.
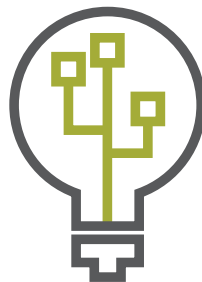
Innovation
Excellent and effortless wiring.
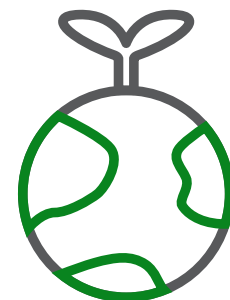
System warranty
A life-long commitment.

Protection of investment
Install just once and enjoy permanent use.

Customer focus
Responsible experts on site.

Sustainability
People, nature and the market in harmony.

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