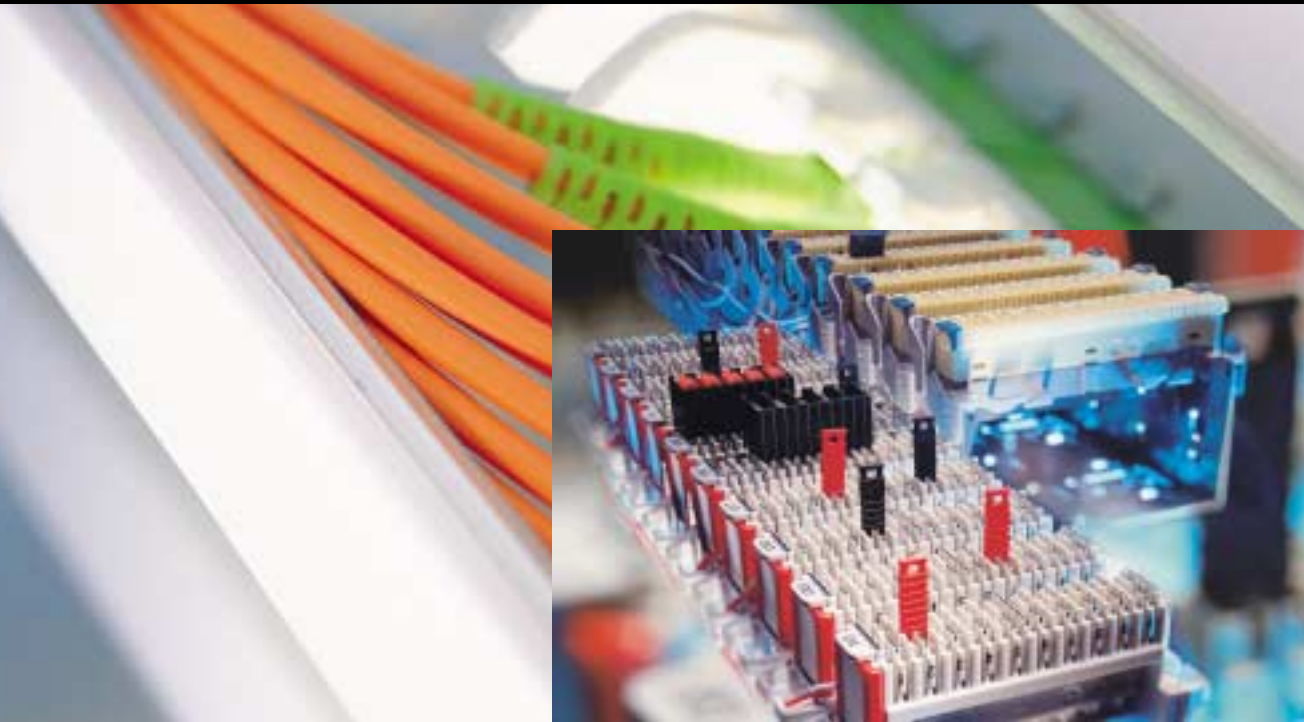


Systems with a future



Solutions for carrier networks
Fiber optic and copper technology



Convincing cabling solutions

R&M – a decision with a future

PACEMAKER OF THE COMMUNICATIONS TRADE

A perfect communications system must be modular and flexible in design in order to meet future requirements. Just as important are network availability, investment protection and ease of installation and maintenance. The R&M cabling system ensures that the vision of unlimited communication becomes reality for everyone.

READY FOR THE FUTURE

The volume of communication is constantly growing; bandwidth requirement is doubled every 100 days, infrastructures need to be ready for the ever-increasing quantities of data. R&M provides innovative solutions to prevent transmission bottlenecks in the long term.

READY FOR SPEED

R&M develops and provides key components for the fast growing information technology market. Our products connect entry and exit communications cable at the nodes of the networks. Adaptability is vital and an advantage that we can guarantee, being a flexible and independent family enterprise. Compared with large, unwieldy corporations we have distinct competitive advantages.

CONVINCING CABLING SOLUTIONS

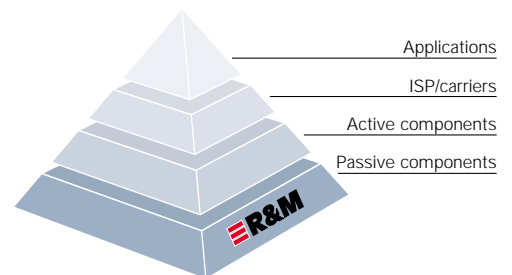
Since the founding of the company 38 years ago, cabling technology has been our core business. "We don't do anything that others can do better" is our proven philosophy. This is how we have established ourselves as supplier of top quality cabling solutions in enterprise and carrier cabling. We will make good use of our experience positioning ourselves in residential and industrial cabling, two important segments of the future.

FUTURE TECHNOLOGY FOR COPPER AND FIBER OPTIC

Network failures cause enormous costs. 70% of all communication disturbances trace back to layer 1. R&M prevents such problems occurring by supplying top-quality products, which also meet the demands and requirements of the future. In this way, customers can avoid costly breakdowns and protect their investments.

ONE-STOP SHOP

In strategic partnerships and co-operations R&M develops customer-oriented overall solutions for data networks. Thanks to these first-rate partner enterprises from layers 1-4 we can ensure demand-specific evaluation and implementation for our customers.



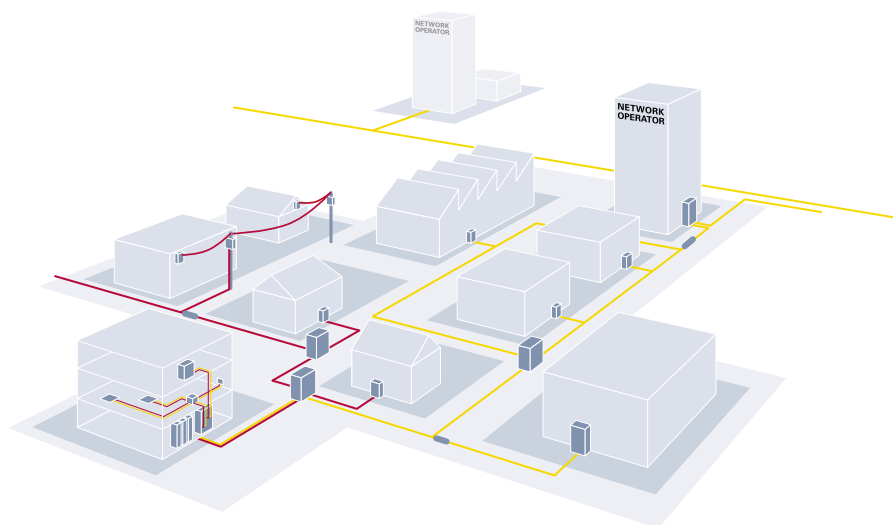
Simplified OSI layer model



ENTERPRISE CABLING

R&Mfreenet ensures reliable voice, data and video transmission for enterprises of all sizes. The system comprises components for fiber optic or copper transmission media. Its design is modular, allowing for all the required flexibility for later expansions, e.g. realising of a security concept or taking additional protective measures against environmental factors.

Our solutions are characterised by top quality and absolute reliability; lifetime system warranties go without saying. Professional planning and documentation tools and regular product training for planners and installers are part of our services package and complement our system solutions.



Flexible system solutions for Carrier-, Enterprise- and Residential Cabling

Our experience is your added value

TAILOR-MADE SOLUTIONS AT ATTRACTIVE PRICES

R&M combines decades of experience and innovative dynamics. Our overall solutions are based on a demand-driven synthesis of products, systems and services. We develop and realise individual solutions for carriers.

CARRIER CABLING

R&M combines decades of experience and innovative dynamics. Our overall solutions are based on a demand-driven synthesis of products, systems and services. We develop and realise individual solutions for carriers.

Among our customers are international and national telecom companies, numerous regional network operators and city carriers. We maintain close contact with these companies who appreciate our flexibility. Not being restricted by any complex corporation structures and being an independent enterprise allows us to act fast and meet customers' demands efficiently and individually. In this way specific solutions are created, results of our experience of many years. Get your added value, too.

Network security is particularly important for carriers. R&M systems increase network security through convenient installation and easy maintenance, both factors supporting interruption-free network operation. Your investment is protected. And thanks to the modular design you are ready for gradual network development or expansion, and your infrastructure is ready for all future requirements!

FIBER OPTIC SYSTEMS

R&M has acquired comprehensive core competences in fiber optic technology. Today, we supply distributor and connector technology for future-proof transmission channels to the whole world. Please see the presentation on page 6 and the following.

COPPER DISTRIBUTION SYSTEMS

Be it conventional telephony or high-speed data transmission via ISDN and xDSL – R&M provides the exact distribution components you need. Take advantage of our vast experience in IDC technology (Insulation Displacement Contact); you will benefit from one of the most substantial and extensive product ranges on the market. Please refer to pages 16 and the following for more information.



1. FLEXIBILITY IS EVERYTHING

The 1-pair dropwire module: individual customer-tailored development in record time.

2. SECURITY RIGHT DOWN TO THE LAST DETAIL

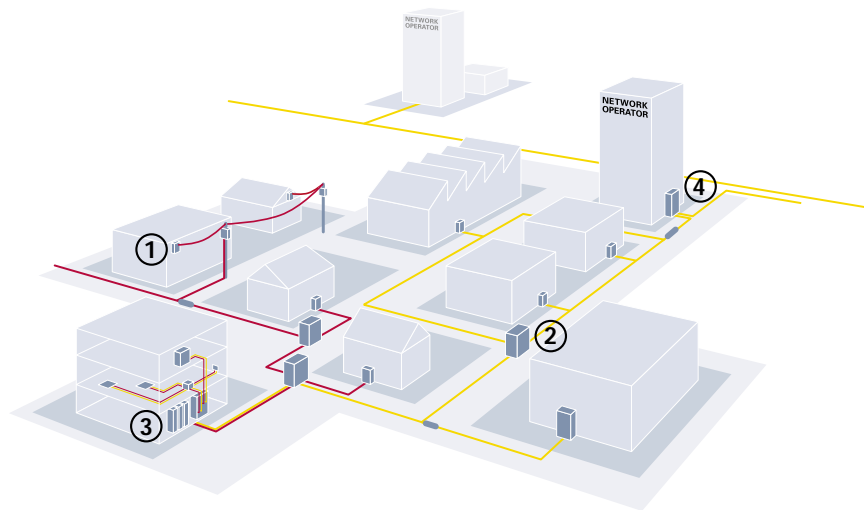
FiberCurb II: ideal cable guiding for highest operational reliability.

3. SPACE SAVING CHAMPION

VS Compact: one of the world's most compact copper connecting hardware systems.

4. INVESTMENT PROTECTION

FOM System: the intelligent fiber-optic cable management lowers network failure risk.



The latest generation of FO network

FO SYSTEMS

R&M provides overall FO solutions for future-proof transmission networks. Numerous network operators in telecommunications, industry, chemical and energy industry, railways and transport industry put their trust in products from R&M.

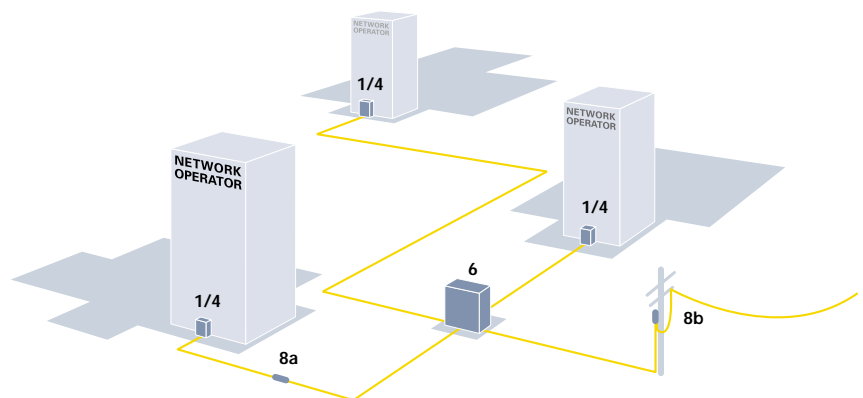
1 19" PATCH PANELS

AND 19" MODULE TECHNOLOGY

The 19" patch panels in 1U or 2U versions are ideal platforms for your FO termination. The modular concept allows different splice tray possibilities: standard with radius 30 or 40 mm or single fiber management. The patch panels feature a low mounting depth and a thought-through, safe cable management. For higher packing densities FO module technology offers its advantages. In 19" sub-racks of 3U up to 120 fibers (8HP Fiberliner) or 144 fibers (7HP Connector Module) can be terminated.

2/3 19" FOCCOS RACKS

These open 19" racks are mainly used as interface between the cabling and the transmission technique. Their design is modular, allowing optimum adaptation to given conditions. Thanks to an open construction they are also easily accessible. The racks are available with 19" fixed frames or swivel frames, to be mounted free-standing or against the wall.



Telecom networks / carrier networks

4 19" FOM CABINET

The Fiber Optic Management System (FOM) increases network security in central distribution locations. The closed 19" cabinet is the basis of the system. It opens up new possibilities for controlled and neat cable and pigtail guiding, depositing patch cable overlengths, cable entries and strain compensation. The closed 19" cabinet is designed for use with R&M 19" 1U patch panels.

5 19" 1U AIRRACK FOR CROSS CONNECTION CABINETS

The 19" 1U AirRack patch panel is designed for use in cross connection cabinets with 19" swivel frames. The housing is made of perforated plate, supporting air circulation within the CCC and protecting active components from overheating.

6 FO CONNECTOR MODULE II FOR CROSS CONNECTION CABINETS

A continuous cable and fiber guide ensures stable network performance. That is why the cross connection cabinets in passive optical networks (PON) are equipped with FO connector modules. They serve as flexible connection and distribution of FO main and branch cables, increasing network security.

7 SMALL DISTRIBUTORS

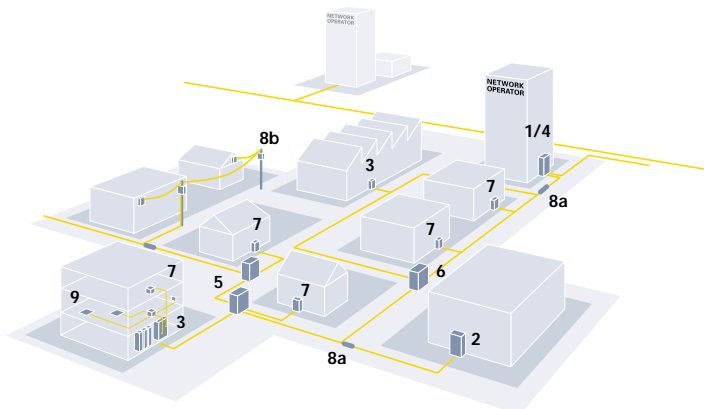
Fiber optic cabling systems in buildings are built with OptoCon or FiberCon small distributors. They can take up to 48 fibers – for the distribution and connection of outdoor and indoor cable and for access protection of network transition points.

8A/8B SPLICE CLOSURES

A very special feature of these splice closures is the well-engineered sealing system. They are quickly and easily installed and their reliability is outstanding. The product range comprises lead-through splice closures (horizontal) for up to 288 FO terminations and dome splice closures (vertical) for up to 144 FO terminations.

9 OUTLETS

In our R&Mfreenet LAN product catalogue, R35027, you find outlets for 2-8 fibers, for pre- and field-terminated cables and for different wall ducts types.



City networks

FO connectors

THE KEY TO PERFORMANCE

Fiber optic connectors are the key components of fiber optic networks. The mechanical and optical precisions of R&M's fiber optic components guarantee minimum transmission loss at fiber junctions, even with broadband data transmission.



The constantly growing demand for ever-higher transmission rates places enormous demands on network technology and future network flexibility, where long-term stability of connectors plays an essential role.

The quality grade of a connector is determined by insertion loss (IL) and return loss (RL). The smaller the IL and the higher the RL value, the better the signal transmission in fiber optic connections. R&M's top range connectors are manufactured in innovative procedures, including methods of thorough quality assurance.

BEST TRANSMISSION

CHARACTERISTICS

- High-precision ceramic ferrules and guide sleeves
- Tuned interfaces for better insertion and return losses
- APC 8° ferrules for high return loss requirements

OUTSTANDING QUALITY

- R&M's connectors fulfil European and internationally relevant standards (CECC/EN/ IEC)

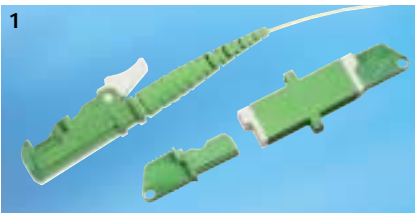
SECURITY AND PRECISION

- LSOH (Low Smoke Zero Halogen) cable jacket for top security and personal protection.
- E-2000™* connectors for proven long-term precision and system flexibility for future requirements.

* E-2000™, manufactured under licence from Diamond SA, CHE 6612 Losone



FO CONNECTORS PRODUCT RANGE



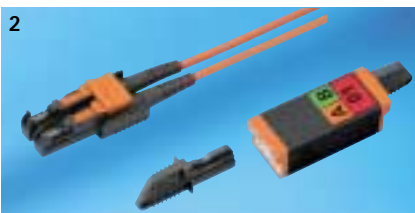
1 E-2000™* SIMPLEX

Applications:

WAN, LAN, CATV, city networks (MAN), metrology, railways, industrial applications.

Features:

Ferrule/mating sleeve made of zirconia (ceramic), completely protected, latched push-pull locking system, self-closing blind and dust cover, long guiding section in connector body, return loss SM APC 8°, typical value: 86 dB¹⁾.



2 E-2000™* COMPACT (SMALL FORMFACTOR)

Applications:

Fiber-to-the-desk solutions.

Features:

High packing density, world's smallest E-2000™* in accordance with international standard IEC 61754-15 connector interface, RJ45 design, push-click-pull mechanism for a fast and easy mounting, ferrule/mating sleeve made of zirconia (ceramic), completely protected, latched push-pull locking system, self-closing blind and dust cover, long guiding section in connector body, return loss SM APC 8°, typical value: 86 dB¹⁾.



3 SC SIMPLEX

Applications:

WAN, LAN, CATV, city networks (MAN).

Features:

Ferrule/mating sleeve made of zirconia (ceramic), latched push-pull locking system, return loss SM APC 8°, typical value: 86 dB¹⁾.



4 FC SIMPLEX

Applications:

WAN, CATV, city networks (MAN).

Features:

Ferrule/mating sleeve made of zirconia (ceramic), screwed locking system.

¹⁾ Tested under laboratory conditions

* E-2000™, manufactured under licence from Diamond SA, CHE 6612 Losone

FO 19" platforms

FLEXIBILITY IS EVERYTHING

You are looking for a modular 19" solution for a passive optical network (PON), you require very high packing densities or you just want a simple installation, R&M's FO patch panels 1U / 2U are just the right thing for you.



19" 1U/2U PATCH PANELS

The sliding tray technique of these patch panels allows easy access to connectors and pigtails, making it unnecessary to remove patch panels. The splice version allows the termination of max. 72 fibers – to any FO singlemode or multimode cable. Depending on the requirements various splice trays come into use: standard radius 30 mm, multifunction module radius 40 mm, and single fiber management radius 32 mm. The breakout version offers max. 24 fibers with any type of adaptor.

Convenient installation and simplified maintenance are guaranteed thanks to guide elements and the integration of all fiber overlengths. Loose tube reserve: 2.5 m; pigtail reserve 3 m; 2 to 6 stackable splice trays, guide for patch cables.

The well-engineered cable management ensures absolute security. The small mounting depth of 230 mm, lateral or rear cable entry, a depth adjustable slide-in unit and the 45° adaptor exit are further advantages of these patch panels.



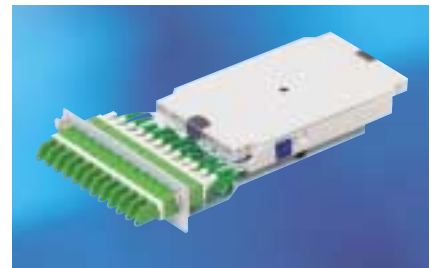


**FO 19" 3U 8HP FIBERLINER / 7HP
CONNECTOR MODULE**

This system provides an enormous packing density: up to 144 fibers on 3U in 19" sub-rack. Thanks to its modular basis of 12 connectors per module the capacity can be steadily increased – allowing you to save investments and still leaving all options open.

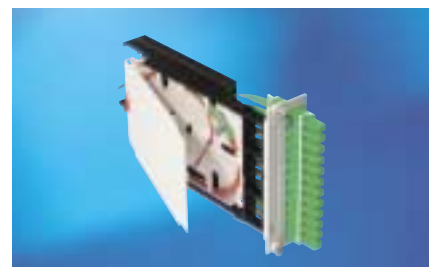
SPLICE VERSION

Up to 120 fibers (10 x 8HP Fiberliner) or 144 fibers (12 x 7HP connector module) can be terminated on the 19" 3U patch panels from R&M – to any fiber optic singlemode or multimode cable. Further advantages of this splice version are the neat storing of loose tube reserves and the clear guiding or patch cables, respecting minimum bending radii.



BREAKOUT VERSION

Up to 120 fibers can be terminated on the 19" 3U patch panel (8HP Fiberliner) to any adaptor. The patch panel for copper applications is also ideal for copper and fiber optic hybrid solutions; the 8HP Fiberliner finds its place in the 3U adapter housing.



FO 19" frames, cabinets

DE LUXE DISTRIBUTORS

R&M's frames and cabinets for the nodes in fiber optic networks fulfil different requirements. There are two product lines to choose from: open 19" frames for highly flexible solutions or closed 19" FOM cabinets for a professional cable management and increased network security.



19" FRAME, OPEN

The open 19" frame is equally suitable for telecom, carrier or city networks as for industrial networking. Depending on requirements the connection points are joint by connectors or one-sided splicing.

The frames are designed for a maximum capacity of 1584 connectors on 46 height units. The construction without side walls or doors lets heat generated by equipment dissipate quickly and the built-in components are easily accessible.





19" FOM CABINET, CLOSED

R&M developed the FOM system for the cable management in state-of-the-art high-speed distribution networks. It is ideal for all connection, termination, and distribution applications.

The closed FOM cabinet offers up to 888 plugged connections on 37 height units. There is controlled guiding of fibers plus generous reserve deposits – for pigtails in the FO 19" 1U patch panels as well as for patch cables and loose tubes. The latter are safely managed with radius guards and generous overlengths deposits.

FOM, fiber optic management, guarantees highest network availability and ensures simple and safe installation, adaptation and modification thanks to its modular design. All individual fibers can be fast and reliably identified in all deposits – a fact that cuts down on expenses for maintenance and updates.



FO in outdoor and indoor housing

SAFE INDOOR AND OUTDOOR FO CONNECTIONS

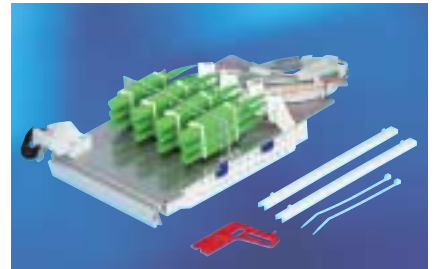
R&M developed the module FiberCurb II for the termination, inter-connection and distribution of FO cables for outdoor applications (cross connection cabinets). For indoor applications we recommend – next to our 19" technology – our FO small distributors.



FIBERCURB II FOR OUTDOOR DISTRIBUTORS (CCC)

In cross connection cabinets with ONUs (Optical Network Units), FiberCurb II is used for the flexible connection and distribution of main and branch cables. The module is mostly used in MANs, where it ensures maximum network availability.

The FiberCurb modules' security concept for the protection of fibers and cables is unique. It is available in different versions: one connector module for 12 optical terminations, one lead-through module for the connection of 12 optical pre-terminated patch cables and one splice module for max. 12 optical cable-to-cable splicings. All this ensures maximum network availability.



FiberCurb II: guaranteed minimum bending radii of 40 mm and mechanical protection for patch cables.



Security concept for fiber and cable protection: min. bending radius (40 mm) of pigtailed guarantees optimum transmission. Loose tube protection at insertion in and removal from mounting channel. Mechanical protection is provided by lamella.



FO SMALL DISTRIBUTORS FOR INDOOR APPLICATIONS

In optical telecommunications engineering the small distributor serves FO earth cable termination, functioning as interface to the in-house area. The small distributors are usually used in network structures such as FTTB (fibre to the building) and FTTH (fibre to the home), when no 19" distribution cabinet is available and where only a limited number of fibers need to be managed.



SPLICE AND PATCHING DISTRIBUTOR FOR 12 AND 24 FIBERS

The small distributor OptoCon has a rated capacity of 12 or 24 splice connections in one or two standard splice trays. They feature prefabricated knock-out cable entries. Additional connector holders for 12 E-2000TM/SC* or ST/FC adaptors are available.



In addition to the housing lock, a separate locking option for the tray stacks is offered, allowing individual access to the fibers from both network operator and user side.

* E-2000™ (LSH)/E-2000™ Compact (LSHRJ).
Manufactured under licence from Diamond SA,
CHE 6612 Losone

Copper distribution systems

THE RIGHT PRODUCT FOR EVERY APPLICATION

R&M provides comprehensive solutions for the entire network between subscriber and public exchange. You will find various systems in our assortment that are custom-tailored to the different requirements:

VS COMPACT

This highly compact system is ideal for locations with limited space. Typical operational areas are remote access applications, CCCs or PABX. Remarkable features of the VS Compact are highest transmission values (DDF) and excellent coverage in the designs of 2, 5, 8, 10, 16, 20 and 25 pairs. Moreover, VS Compact allows wiring in double and with stranded wires.

VS STANDARD

This generously designed system offers space for cable jumpering and handling. VS Standard features rear protection, a rear contact, allows parallel wiring, and is Cat. 5e-capable.

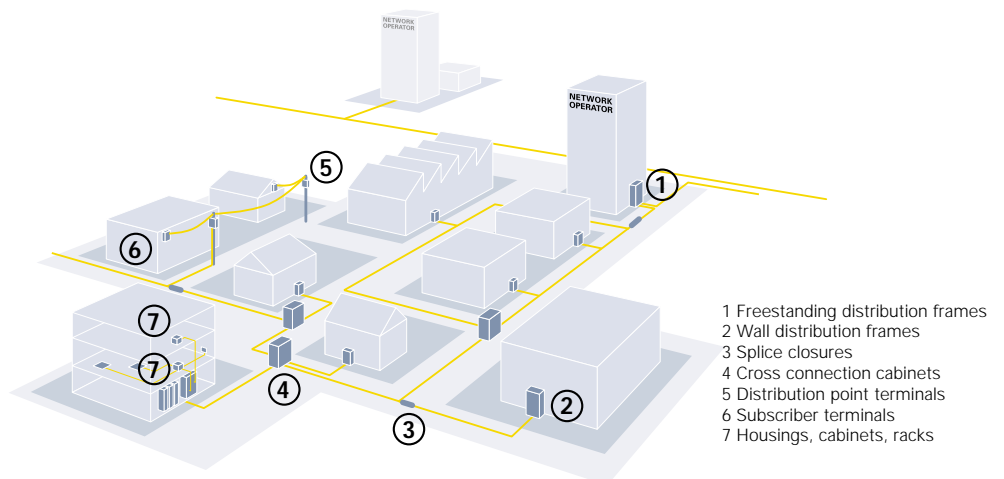
Typical operational areas are PABX applications, cabling systems and partly MDFs.

VS MODULAR

This classic main distributor system offers all the comfort options: rear protection, EMC protection and cable guiding. It allows double wiring, too. Its main fields of application are MDFs and PABX.

DROPWIRE MODULE

An absolutely professional connection system for outdoor use in extreme conditions, providing full protection from dust, humidity, and industrial environment. It is mainly used in outside plant applications (CCCs, distribution point terminals, subscriber terminals).



Distribution system Features	VS Compact	VS Standard	VS Modular	Dropwire Module
Design	Connection modules	Connection modules	Connection modules	Connection/disconnection module
Functions	Disconnection modules Normally open modules DDF modules	Disconnection modules Normally open modules	Disconnection modules EMC modules	
Sizes No. of pairs	2, 5, 8, 10, 16, 20 and 25 pairs	8 and 10 pairs	10 and 12 pairs	1 pair
Wires per contact				
Cable side	1	1	1 (2 in Mod. 83)	1
Jumper side	2	2 (parallel)	2 (parallel)	1
Repeated wiring	100	200	200	20
Cable types				
Conductor Ø				
Cable/jumper side	0.35 – 0.80 (0.80)	0.40 – 0.80 (0.65)	0.40 – 0.80 (0.65)	0.40 – 1.00 (1.00)
Insulation Ø				
Cable/jumper side	0.60 – 1.60	0.85 – 1.60 (1.40)	0.85 – 1.60 (1.40)	0.85 – 1.60 (1.60)
Stranded wire capable	Yes	No	No	No
Weather protection				
Filled with soft polymer	No	No	No	Yes
Transmission rate				
Cat. 3	Yes	–	–	Not applicable
Cat. 5e	With booster/DDF	Yes	Yes	Not applicable
Packing density				
Grid size	17.5/20/25 mm	22.5/25 mm	30 mm	DIN35 rail
Pairs per m ²	up to 4300 pairs	up to 2100 pairs	up to 1800 pairs	
Protection concept				
Rear protection	No	Voltage	Voltage	Integral arrester
Front protection	Voltage/current	Current	Current	
EMC/DDF				
Rear shield plate	Yes	No	Yes	No
Materials				
Module body	Polycarbonate	Polycarbonate	Polycarbonate	Polycarbonate
Contacts	CuSn6	CuSn6	CuSn6	CuSn6
Surface treatment	Ni 1-2 µm	Ag 5-10 µm	Ag 5-10 µm	Sn 5-8 µm
Disconnection and rear contact	AuCo > 0.8 µm			
IDC	SnPb 2-4 µm			

Please also refer to the individual technical data sheets.

VS Compact

TOP PERFORMANCE ON LITTLE SPACE

Little space is available for the required applications, yet it is absolutely vital that highest performance is maintained? VS Compact provides flexibly mounted high-performance modules of the smallest design.



Optimum use of space thanks to the highly compact design of the VS Compact module family. Packing densities of up to 4200 pairs/m² are achieved.



Highest packing density

Reducing maintenance costs. Thanks to the integral wire cutter in all modules, complex tools are no longer needed.



Wiring without complex tools

Reducing network failure costs, too, thanks to the gold-plated displacement contacts, guaranteeing long-term reliability and long operational life.



Highest reliability, long operational life

The Cat. 5e-capable DDF module provides even more bandwidth – and the option of connecting shielded cables. Up to 8 channels can be connected.



High transmission rates for xDSL applications

Special protection components for persons and equipment. Maintenance work can be performed when mounted, a fact which increases network failure safety immensely.



Jumpering without having to remove protection components

The VS Compact, 8 pairs and 16 pairs, bring absolutely clear arrangement to the distributors. The connection modules' connection density and number system are identical to the subscriber cards at the exchange.



Binary code for absolute clarity

Thanks to the slide-in booster print, the VS Compact modules are suitable for Cat. 5e. The result: partial upgrading of the VS Compact distribution system.



Suitable for Cat. 5e (100 MHz)

More remarkable features of the VS Compact distribution system are its high modularity and flexibility. Existing distribution frames can be very cost-effectively expanded.

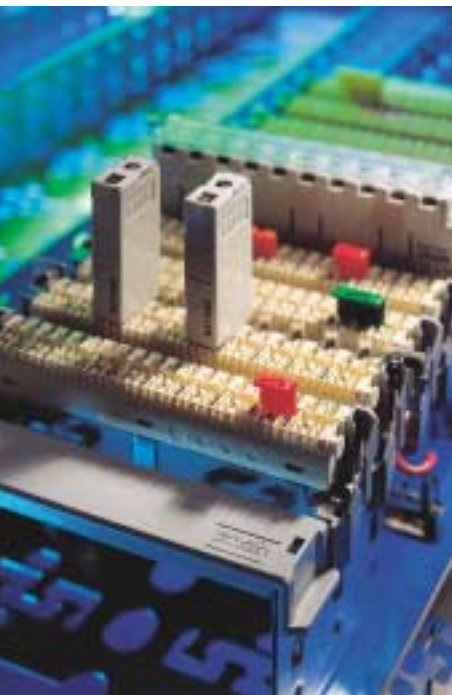


Modular and flexible

VS Standard

NICE AND EASY MAINTENANCE

Primary protection inserted at the rear and the parallel contact option for jumper wires are but two features which facilitate maintenance considerably. Uninterrupted switching is possible without additional adapter.



The rearside primary protection means perfect ease of handling; jumpering and testing are carried out at the frontside – with secured permanent personal protection, of course.

The protection magazine can stay plugged in for cabling expansions; any mix-up is effectively prevented. The generous space provided for cable guiding, strain relief and the tying of reserve loops allow later capacity expansions.



Full access for jumpering and testing Permanent protection of persons and equipment

The VS Standard with its double contact system allows jumpering without interrupting the line. This is especially important for permanent data lines (modem). A new jumper connection is inserted and connected in parallel, the old jumper connection is then removed.

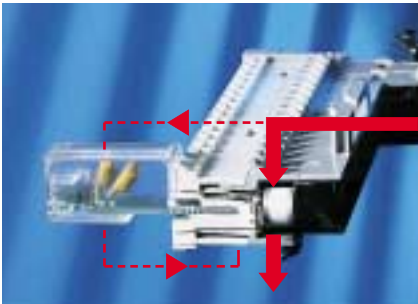


Uninterrupted switching with double contacts

The VS Standard contact technology enhances the reliability of a cabling system and guarantees its long operational life. Thanks to the contact interface for primary protection at the cable side, disconnection and switching contact stay unaffected in case of any disturbance. Moreover, frontside inserted secondary protection components of 1-pair design fulfil all requirements with regards to current and fine voltage protection (multipoint protection).

The standard contact element in VS Standard is used in the assembly of connection and disconnection modules. It is ideal for automatic production and thus ensures a safe manufacturing process.

VS Standard features a separate contact interface at the rear, allowing convenient placing of slide-in prints, connections for ribbon cables and other parts. Custom-tailored special circuits such as diode uncoupling can be easily integrated, contacted in parallel or to the cableside connection. The front stays clear for jumpering and testing work.



Multipoint protection in combination with rearside overvoltage protection magazine for stringent protection requirements



Patented contact technology



Rearside plug-in module for ribbon cable or special circuits

VS Standard virtually eliminates instability in the contact system. Contact resistances are far below the relevant limit of 10 mOhm. Even wide temperature fluctuations combined with high relative humidity have little effect on the contacts.

VS Modular

STRIKING PERFORMANCE FEATURES AND SO EASY TO HANDLE

The VS Modular offers the same level of performance as the VS Standard system, and is even more flexible. The connection module can be retrofitted with a disconnection element. More ease of handling is achieved through the slip-on wire guide, and the slightly larger design – for perfectly safe work at the main distributor.



With VS Modular primary protection is also inserted at the rear; the front is freely accessible for jumpering and testing. Absolute ease of handling and permanent personal and equipment protection are the result.



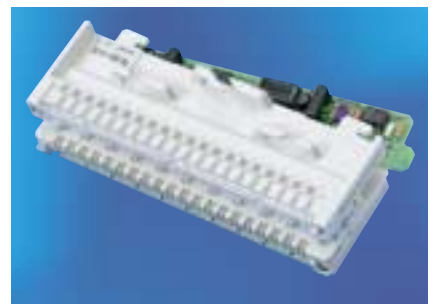
Uninterrupted switching with double contacts



Permanent personal and equipment protection: no removing of the magazine for jumpering and testing

Thanks to a separate contact interface at the rear, slide-in prints, connections for ribbon cables and other parts can be easily inserted. Custom-tailored special circuits such as diode uncoupling or resistor circuits can be easily integrated, contacted in parallel or to the cableside connection. The front stays clear for jumpering and testing work.

The VS Modular with its double contact system allows jumpering without interrupting the line. This is especially important for permanent data lines (modem). A new jumper connection is inserted and connected in parallel, the old jumper protection is then removed.



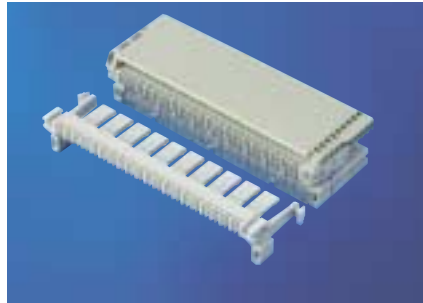
Rearside plug-in module for ribbon cable or special circuits

The VS Modular modules are modular in design. The disconnection module consists of a connection module and the disconnection element. A connection module can be converted into a disconnection module by slipping on a disconnection element.



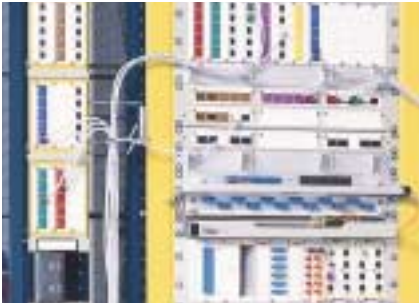
For a simple, fast and convenient jumpering

Verticals can also be equipped with SRV, FO, D-SUB and COAX components – true to the distribution frames' modular and flexible design. The 19" components are added simply with the corresponding integration frame.



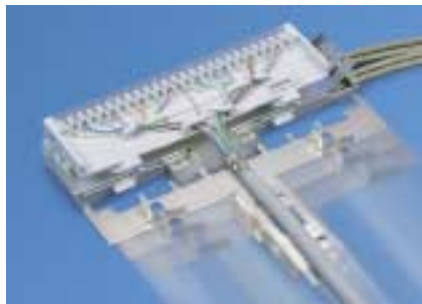
With the disconnection element a connection module can be converted into a disconnection module at any time.

The distribution element VS Modular EMC Series is designed for use in a 2 Mbit/s transmissions having spectral components of up to 150 MHz. In this application the shielded connection module corresponds to EMC requirements according to EN 55022, Class B.



Modular and flexible design

The slip-on wire guide is a further advantage of R&M's VS Modular. The wire guide elements are available with divisions for 2, 3 or 4 wires per channel.



Fulfils EMC requirements according to EN 55022, Class B

Weatherproof modules

SMUG AND SAFE IN ANY ENVIRONMENT

The weather-resistant modules from R&M are used wherever environmental factors endanger a safe operation – for example near coasts, in tropical countries and flood-endangered areas.

INCREASED SECURITY AND LONGER SERVICE LIFE – DROPWIRE MODULES FOR OUTDOOR USE

The 1-pair dropwire modules are mainly used in housings of distribution point terminals and subscriber terminals. The IDC contacts are encapsulated in soft polymer, ensuring long service life of the modules plus long-term operational reliability, even in extreme climatic conditions.

The modules are snapped onto 35 mm DIN rails. This allows demand-specific network expansions – at minimum installation and maintenance costs. On top, thanks to the highly compact design – 14 mm in width – a very high packing density can be achieved.



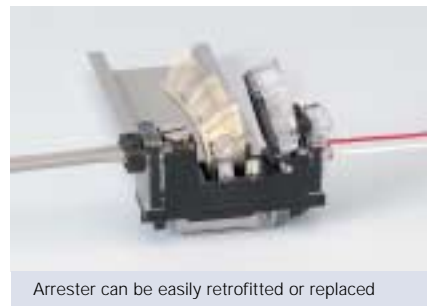
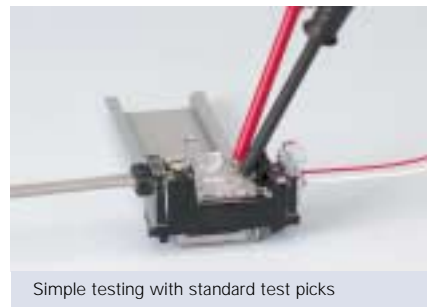
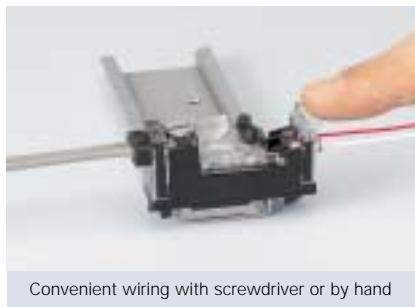
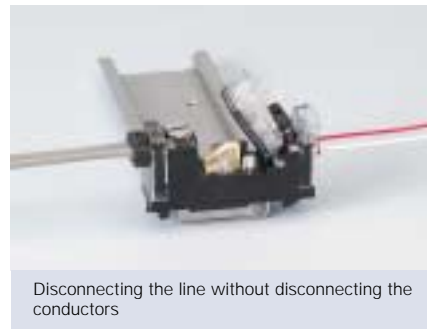
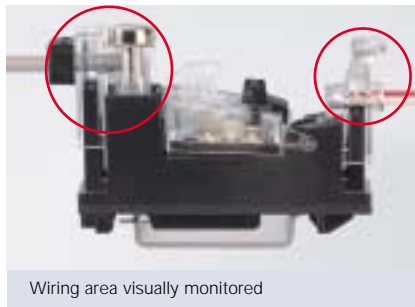
The IDC contacts are designed for a wire diameter of 0.4 to 1 mm. The terminal chamber is protected from any environmental influence with a self-regenerative gel.

The wiring area can be monitored visually, a fact which increases contact reliability. Wiring is performed with a conventional screwdriver, and no tools at all are required at the cable side. The contacts allow repeated wiring.

All exchange and subscriber connections can be easily tested with the integral testing contact interface and a standard testing device.

Contacts can be separated without disconnecting the conductors.

The module can be equipped with an overvoltage protection (standard 3-electrode arrester). The arrester can easily be mounted in wired modules, and can simply be retrofitted at any time.



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