Rosenberger

We are Cabling Competence.

WELCOME
TO THE WORLD
OF ROSENBERGER OSI

MORE THAN 200 PAGES OF CABLING COMPETENCE:
AN OVERVIEW

Rosenberger

FIELDS OF APPLICATION

In data centers, at live events, or anywhere else where large volumes of data must be transmitted quickly and reliably, you'll find our products.

CABLING SERVICES

Excellent products do not automatically guarantee the successful outcome of a project. For this reason, we also provide a wide range of services.

CABLING PRODUCTS

Here you'll find about 3,000 products from a total of 40,000, including the best the cabling industry has to offer. Clearly arranged and with all the important properties.

USEFUL INFORMATION

Here you will find a range of useful information - including a small glossary of technical terms, our product index and a list of all Rosenberger OSI contact addresses worldwide.

WHERE YOU CAN FIND OUR PRODUCTS:
FIELDS OF APPLICATION

Cabling by Rosenberger OSI is found wherever high data transmission rates, low susceptibility against interference and exceptional longevity are crucial. In our world, data traffic is increasing daily – and that applies more and more outside of data centers as well.

DATA CENTERS
Modern data centers are the control rooms of today's world. Especially when used in communication, cabling must fulfill rigorous reliability requirements.

PAGE 6

NETWORK CABLING
Companies today, whether they are highly automated manufacturers or IT startups, cannot afford faults in their data networks. Cabling from Rosenberger OSI makes them fit for the future.

PAGE 10

INDUSTRY

Data streams can come from many different sources: mobile infotainment, quality checks via HDTV, complex machine control systems. Our products have the versatility to handle these tasks.

PAGE 14

MINING

Raw materials must be extracted under extremely harsh conditions. In underground mines, surface mines and offshore platforms, heavy-duty products demonstrate their extraordinary capabilities.
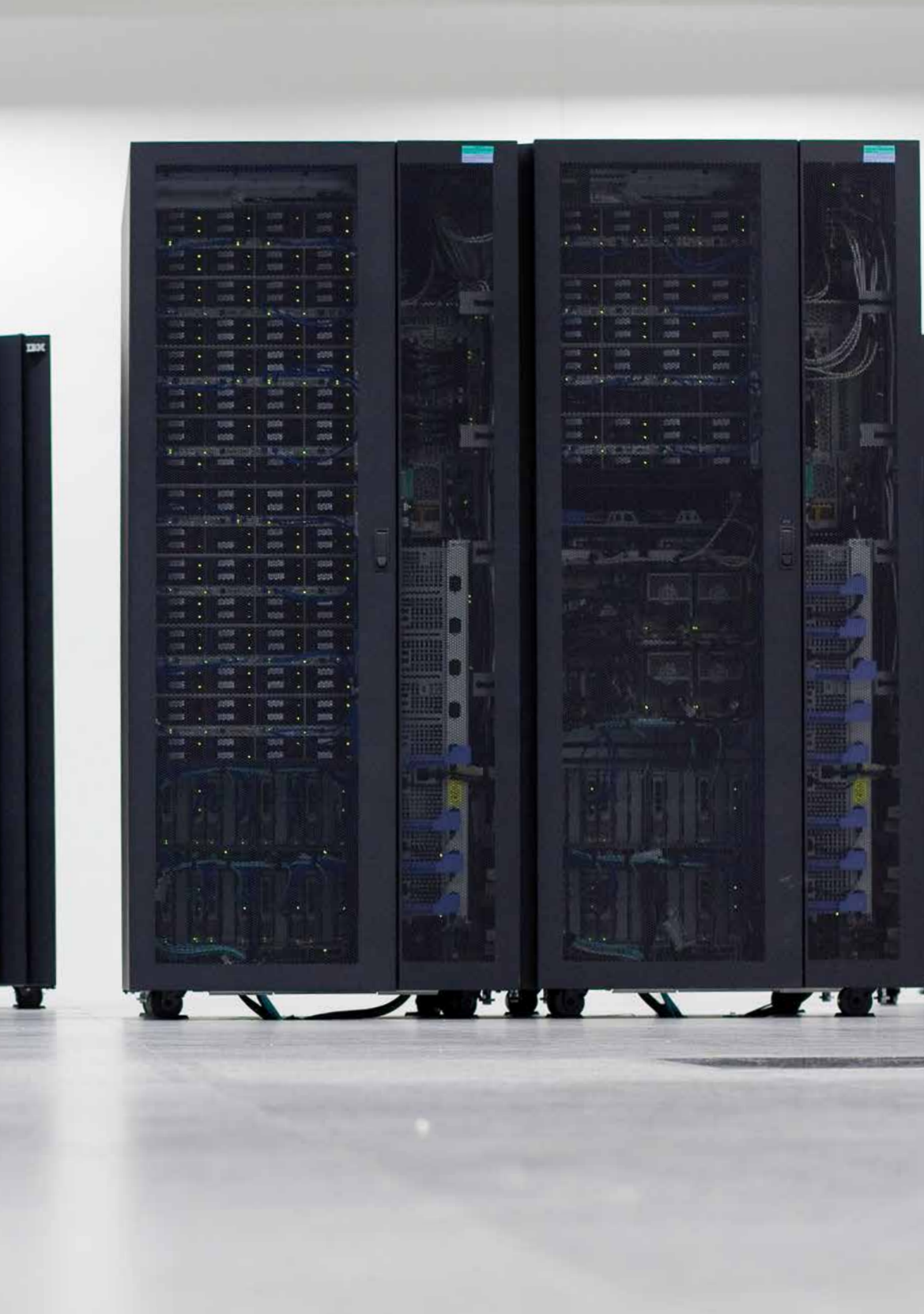
PAGE 18

BROADCASTING

Live broadcasting in HDTV generates big data streams. Our fiber-optic cables and connectors must withstand extreme mechanical and thermal stresses.

PAGE 22

BILLIONS OF ARITHMETIC OPERATIONS PER SECOND.
WHAT'S THEIR VALUE
WITHOUT CABLES?

Modern data centers have incredibly powerful hardware, with countless processing units working at blazing speed. Their performance is impressive, but without cabling they cannot fulfill their purpose.

THE LIMITS OF THE PHYSICALLY FEASIBLE

And indeed it is everything but trivial to transport these vast amounts of data quickly and reliably between the different active components of a data center. Constantly rising data rates challenge us to go to the limits of what is physically feasible in cabling.

CABLING:
THE BACKBONE
OF EVERY DATA CENTER

For more than 20 years Rosenberger OSI has managed data center projects of every size, from 30 to 20,000 square meters of IT space. Therefore we can claim without exaggeration to know exactly which challenges have to be met – and which risks are frequently and unnecessarily taken. Efficient cabling is the basis of all processes and has to be considered from the very beginning of the design phase.

**COMPREHENSIVE SOLUTIONS
FROM ONE SOURCE**
Rosenberger OSI ensures maximum operational reliability and performance for your data center. It provides quality-tested components, outstanding know-how and short reaction times. And it offers excellent on-site service that you can rely on in every situation.
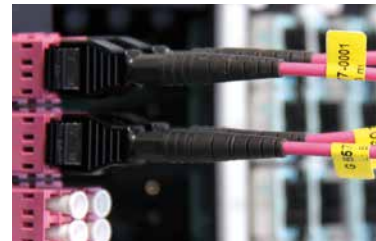

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TOP OF THE RACK CABLING
Our innovative ready-to-use PreCONNECT® COPPER Trunks are perfectly suited for routing above the racks. The high degree of flexibility allows for minimum bending radii.

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LOCAL DATA DISTRIBUTION
Patchcords at the patch panel handle the local data distribution. Here too, our components ensure maximum reliability and operational security. All standard types of fibers and connectors are available. Serial number labels on both sides and individual measurement reports render our quality traceable.

INFRASTRUCTURE CABLING IN RAISED FLOORS
With the PreCONNECT® FIBER Trunks – that are available in a range of variants – Rosenberger OSI established international standards. They are preterminated, ready-to-use and form the heart of state-of-the-art data center cabling.

IN BIG COMPANIES
WHEN THE FLOW OF DATA STOPS
PRODUCTION STOPS TOO

Nowadays almost all big companies are dependent on an unimpeded flow of data. This is especially true of highly automated manufacturing operations. Disruption of the data network can quickly bring production to a halt, with severe economic consequences. Thus an investment in reliable network cabling pays for itself very quickly. Rosenberger OSI helps companies to define technical guidelines that are fine-tuned to their individual processes. As a rule, it is necessary to go well beyond what is required by European standards. With our renowned delivery capability and high-end products we can ensure smooth installation and stable performance over the long term.

ESTABLISH

A BACKBONE THAT YOU CAN
BUILD YOUR FUTURE ON

When laying cable on large premises, companies face the problem of transmitting large volumes of data over long distances. As a rule of thumb, copper cable can transmit at a rate of 10 Gbit/s over a distance of up to 100 meters without significant losses – a limit that is usually very quickly exceeded. Another frequent problem is potential differences between different buildings and facilities.

THE SOLUTION: FIBER OPTIC TECHNOLOGY

Rosenberger OSI fiber-optic cabling provides continuous maximum data rates in primary cabling over distances ranging from several hundred meters to several kilometers - depending on the fiber type and bandwidth. For secondary cabling between floors, PreCONNECT® Trunks or breakout cables are used. For floor distributors (tertiary cabling) we provide copper patch cables. These products have one thing in common: extremely high quality, ensuring a long life for your company's vital operations.

Pages 62 – 65
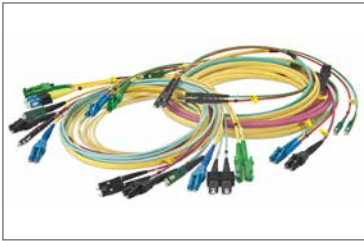
TERTIARY CABLING

Individual workstations or machines can be connected via copper or fiber-optic patch cables. Our patch cables are available with a wide range of connectors and cable types.

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PRIMARY CABLING: BUILDING / BUILDING

The data backbone must be designed in such a way that it will still be able to transmit all of the company's data five or ten years from now. For this purpose, PreCONNECT® Trunks with high fiber counts and the newest fiber types are recommended, either in the Universal version or the Outdoor version.

SECONDARY CABLING: FLOOR DISTRIBUTORS

Owing to exponential increases in data rates, fiber-optic cabling is also increasingly being used for distribution of data within buildings. The PreCONNECT® FIBER Trunk multijumper with up to 144 fibers is typically used for infra-structure cabling.

IN INDUSTRY THE PACE OF CHANGE
IS FAST, BUT THERE'S NO COMPARISON TO
THE GROWTH IN DATA TRAFFIC

Manufacturers and operators in industry, traffic engineering and plant construction today have to cope with a flood of data, and it is growing day by day. "Big data" and "Industry 4.0" are universally regarded as key factors for long-term corporate success. No wonder that high-performance fiber-optic cabling is attracting increasing interest.

FROM SIGNAL PROCESSING TO MULTIMEDIA
The sources of this rapidly growing flood are many and varied: Trains are equipped with infotainment and Wi-Fi, printed circuit boards are checked using high-resolution video cameras, and chemical plants transmit huge amounts of data to control rooms.

VARYING ENVIRONMENTAL CONDITIONS,
DIFFERENT KINDS OF SIGNAL.
EFFECTIVE ANYWHERE: FIBER OPTICS

Data transmission via high-performance fiber-optic cables has three key characteristics that are critically important to industry. First, "built-in" galvanic isolation of the sender and receiver: Potential differences between different subsystems or components make no difference. Second, complete insensitivity to electromagnetic interference: In industry extreme voltage peaks and strong electromagnetic fields are not unusual. And third, the ability to transmit data at high rates over long distances: Lengths of several hundred meters to several kilometers, for example along railroad lines or between turbines in a wind farm, are typical.
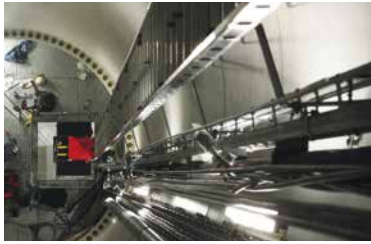
CUSTOMIZED, HIGH-END QUALITY
Every industrial project holds special challenges. It's good to know that Rosenberger OSI's engineers, with the help of flexible production facilities, are able to adapt products to suit the special needs of each customer.
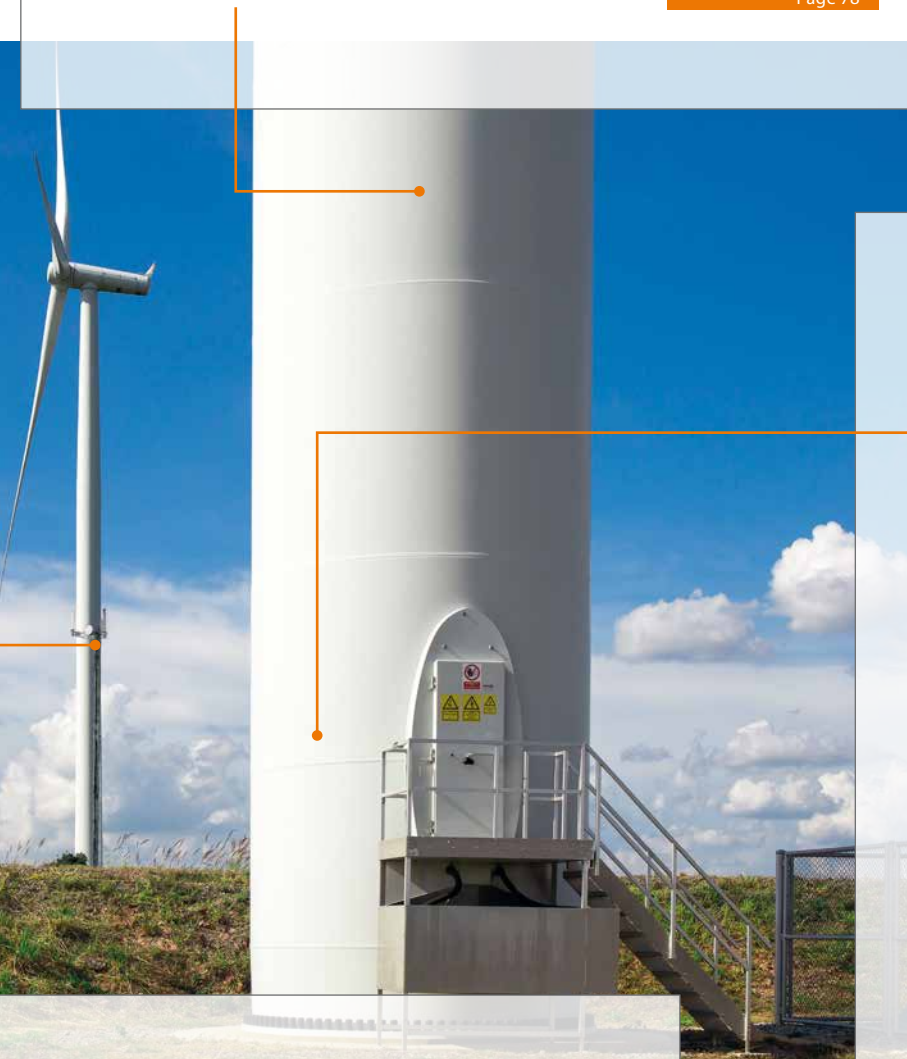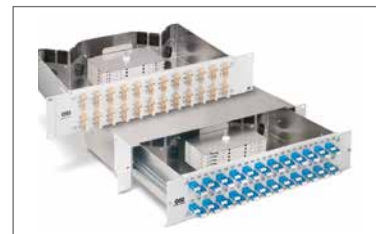
Pages 82/83

CONNECTION OF THE NACELLE

Cabling inside the tower must satisfy tough requirements when it comes to temperature resistance and torsional strength. This is a task for our outdoor products like PreCONNECT® Trunk Eco. They are also resistant to acids, alkaline solutions and common machine oils.

CONNECTING THE TOWERS TO ONE ANOTHER

Fiber-optic cables are laid in underground shafts to connect the towers to one another. To protect against harsh environmental conditions, products with outdoor cladding are used. Splice panels with or without telescopic pullouts distribute the fibers to the connectors in the control cabinet at the base of the tower.

CONNECTIONS TO TRANSMITTERS

Cell towers and directional radio antennas have to process more and more data. They have practically no alternative to fiber-optic cables. To permit outdoor use of classical fiber-optic connectors, we offer the Rosenberger Fiber Enclosure (RFE) and other products.

DUST, MECHANICAL STRAIN, EXPLOSION HAZARD.
THE PERFECT ENVIRONMENT FOR
ROSENBERGER OSI HEAVY DUTY.
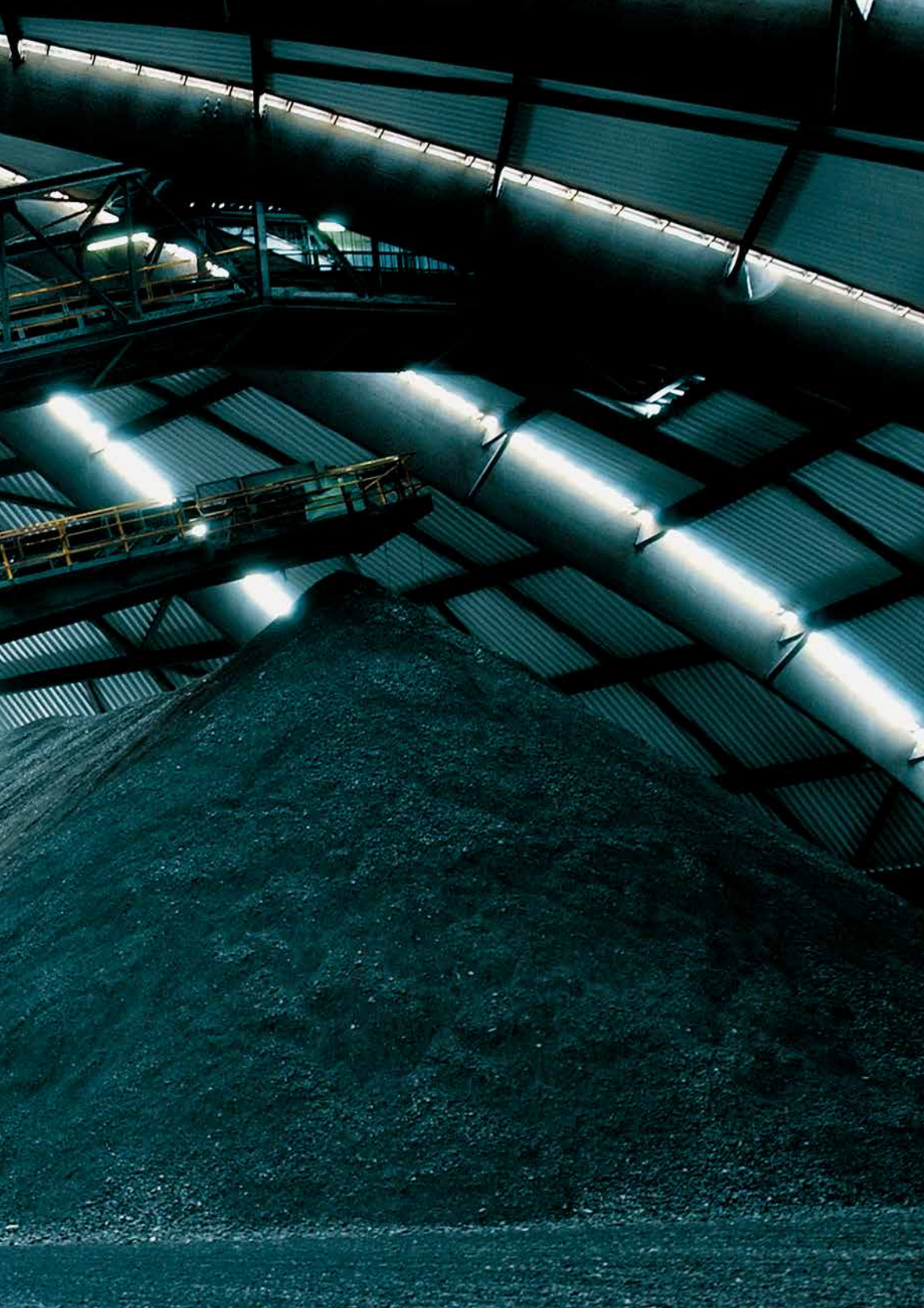
Optical fibers are highly susceptible to contamination and mechanical strain. Anyone who has assured himself of the fragility of a single optical fiber and the specific attenuation of a dust particle knows why. Therefore we are really proud of the fact that our products can also be found in mine shafts.

FIBER OPTICS FOR INDUSTRY

Products that withstand such extreme conditions can also cope with other harsh environments. Cabling by Rosenberger OSI is chosen when high bandwidth and extraordinary robustness are required: on offshore platforms, in military applications and in aviation.

THIS IS WHERE
FIBER OPTIC TECHNOLOGY
IS REALLY PUT TO THE TEST.

Underground mining is a tremendously challenging endeavor. Complex conveyor systems push their way forward, remotely managed from control rooms hundreds of meters above them on the surface. The operations are monitored by video cameras and extensive sensor systems. Human beings are hardly ever present. One can easily imagine what the stresses are like on cables and connectors.

CUSTOMER-SPECIFIC HIGH-END TECHNOLOGY
Depending on what is mined, the components have to be protected against extreme influences: acid in copper mining, salt in potash mining or explosion hazards in coal mining. With our wide experience we are able to offer our customers individualized end-to-end systems that can deal with any of these challenges.

CONNECTION OF THE MINE CONTROL ROOM
Specially adapted PreCONNECT® FIBER Trunks with singlemode fibers transmit vast amounts of data over many kilometers with as little loss as possible.

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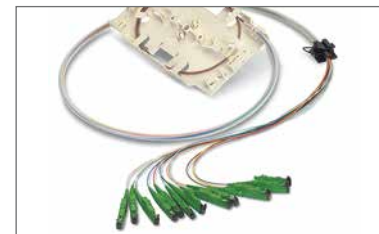
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EXPLOSION-PROOF DISTRIBUTION BOXES
Underground, at the mining face, data and signal lines are brought together at patch panels in explosion-proof housings. Inside, factory-assembled splice cassettes or patchcords are used. The connector for the trunk on the outside must withstand tremendous loads.

CUSTOMIZED COMPONENTS
The already durable Heavy Duty connectors can be armored with a steel shell as protection against extreme mechanical strain – just one example of customization.

LIVE AT THE SCENE.
WITH HIGH-SPEED CABLING
BY ROSENBERGER OSI.

Modern media technology permits high-resolution motion pictures for almost all end devices. For live sports events vast amounts of data must be processed on site in the mobile production unit and delivered in the shortest time from the place of origin to the consumer's screen.

MANY MATING CYCLES, HARSH CONDITIONS

The special challenge for fiber-optic cabling is the incredible number of mating cycles the complex connectors are subjected to. Moreover, the cables get very rough treatment on site. Our Heavy Duty series is made for just such conditions.

TO WIN ON THE FIELD YOU NEED
TOP PERFORMANCE, STRATEGY AND PERSISTENCE
THE SAME APPLIES TO CABLING.

Eight cameras, four stage boxes, one outside broadcast van: a typical setting for a big event such as a match in Germany's top soccer league. Plus monitors, microphones and reporter booths. Each interface of this complex network has to be connected by high-speed cables. The connections must be fast, simple and absolutely reliable. Given the extreme environmental conditions, frantic activity and severe mechanical strain, this definitely means a challenge.

COMPREHENSIVE PRODUCT PORTFOLIO
We have developed a multitude of cabling components through longtime cooperation with broadcasting companies, system integrators and manufacturers of mobile production units. Thus we are able to cover almost every application. Moreover, our customers appreciate the option of customization, short delivery times and efficient training.
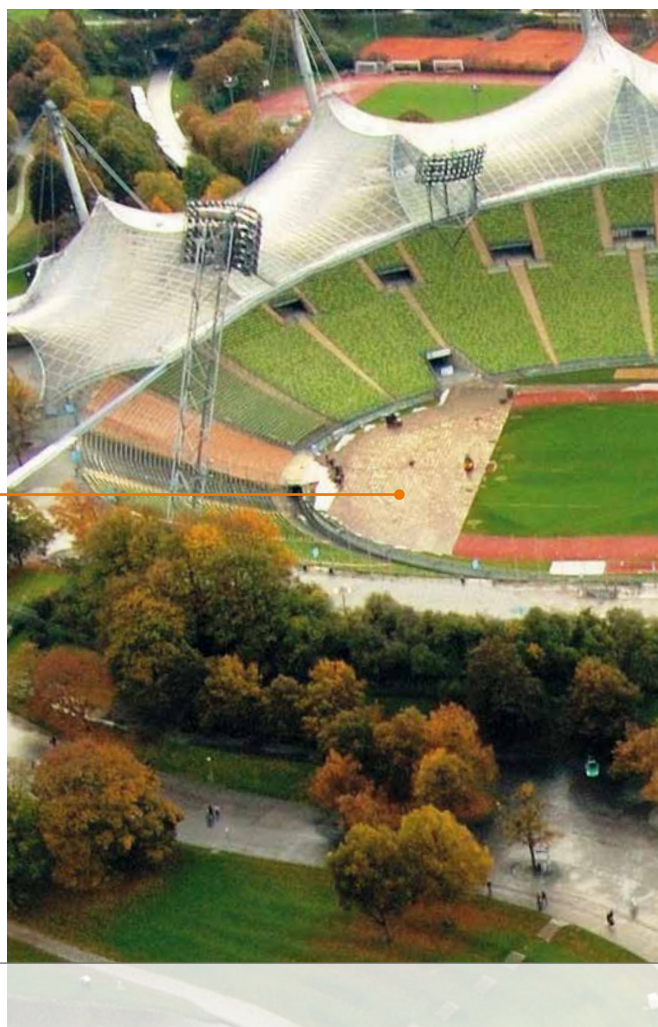
CAMERA CONNECTION
The hybrid Heavy Duty 600 connector is for power supply and data transport. With two, four or six optical fibers and up to four electrical contacts depending on the customer's requirements.

MOBILE PRODUCTION UNIT
This is where the signals converge and are cut and edited before the final stream is transmitted via satellite. Depending on vehicle size, the data run up to a patch panel or directly to the editing suite. Here our patchcords with LC duplex connectors are usually applied.
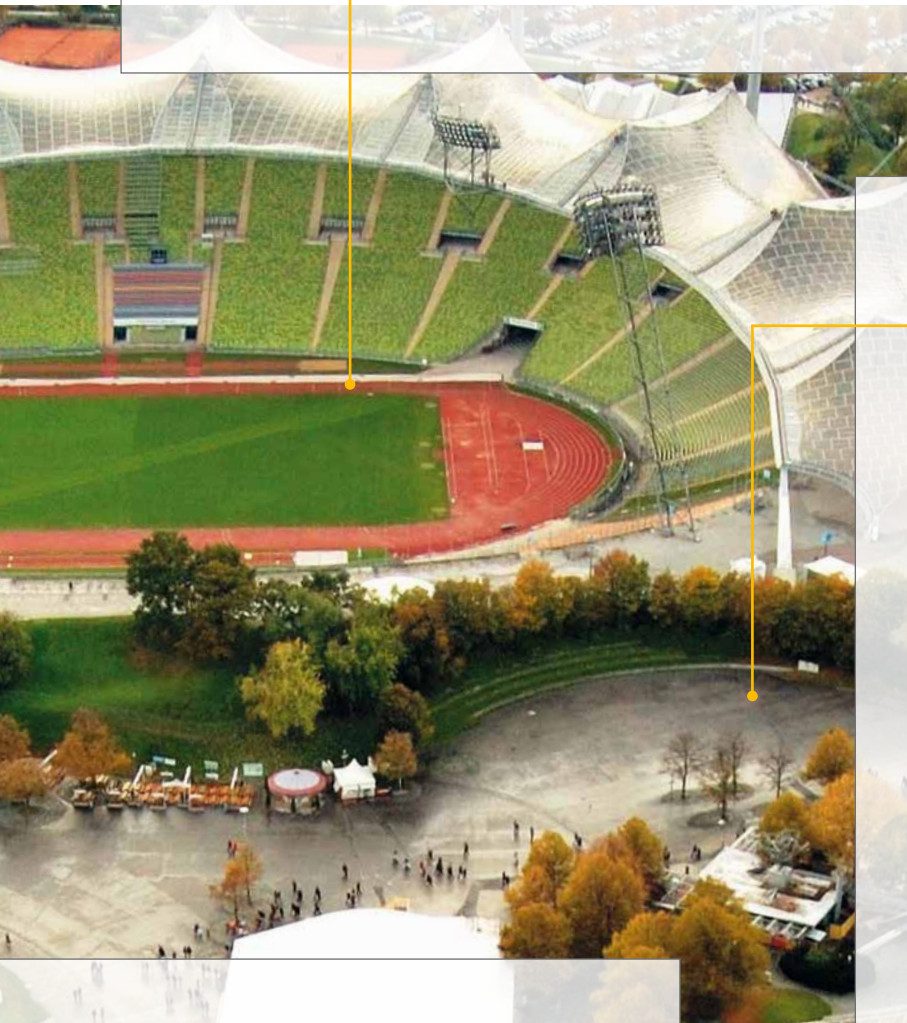
STAGE BOXES AS INTERMEDIATE DISTRIBUTORS
These local intersections for attachment of devices like monitors and microphones are connected with our mobile PreCONNECT® FIBER Trunks. These hermaphrodite Heavy Duty connectors permit easy and direct connection from cable to cable.

EXPECT MORE THAN THE BEST PRODUCTS:
OUR CABLING SERVICES

CABLING SERVICES: OUTSOURCING THAT MAKES GOOD SENSE

Our high-end products deliver maximum performance in data centers, but they must be installed properly, applied and maintained. We'll support you with our broad experience and practical know-how in each project phase.

PHASE 1: CABLING DESIGN

The closer the data rates get to the physical limits, the more important it is to consider transmission paths when designing a data center. We'll tell you how to avoid mistakes.

PHASE 2: CABLING INSTALLATION

In the critical phase before commissioning, we'll stay cool and calm. On request, we'll coordinate work on other parts of the infrastructure, install the equipment and perform the final measurements.

PHASE 3: MANAGED CABLING

If a data center no longer delivers the performance expected of it, cabling might be the reason. Possible causes are wrong dimensioning, contamination or damage. We'll conduct analyses, eliminate defects and ensure normal operation.

CABLING SERVICES:
OUTSOURCING
THAT PAYS

To perform at the highest level, a data center must have state-of-the-art cabling products. But proper installation, application and maintenance are just as important. Our products perform at the limits of what is physically possible, and IT applications are becoming less and less fault-tolerant as their sophistication increases. Even a minor flaw can adversely affect overall performance. But data centers often underestimate the importance of cabling or fail to take it into account when looking for ways to overcome poor performance.

Transmission paths and attenuation budgets must be considered right from the start in the design of a modern data center. Installation requires the utmost care and thorough documentation. And during operation it is critical to have comprehensive know-how and the necessary resources available.

For this reason we provide support in every phase of your project. With the practical experience gained from more than 20 years in business.
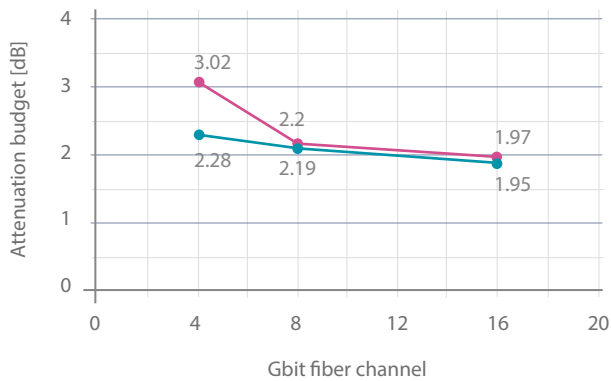
The optical output of transceivers decreases with increasing bandwidth.
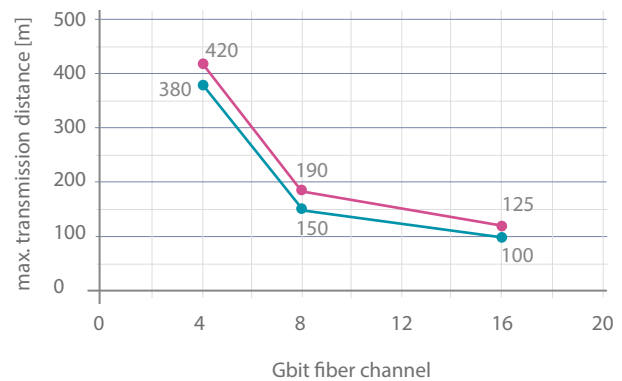
Transmission lengths are steadily shrinking.

— OM3
— OM4

TROUBLESHOOTING:
WHAT ARE THE CAUSES OF POOR
CABLING PERFORMANCE?

1. DUST:
Soiling of contact points significantly increases attenuation.

2. BENDING RADIUS:
If the bending radius of a cable goes below the minimum, attenuation is increased.

3. PRESSURE/TENSION:
Longitudinal or lateral pressure on fibers impairs their transmission characteristics.

4. DAMAGE:
A cracked fiber can make the whole connection fail.

5. FIBER TYPE:
Antiquated fiber types make migration to higher bandwidths impossible.

PreCONNECT® PURE prevents contamination of the transmission path and makes your attenuation budget plannable.

Each project is based on close
consultation and careful planning.

PHASE 1:
CABLING DESIGN

The scope and course of the planning phase depend to a high degree on the initial situation and the surrounding circumstances. Must special conditions be taken into account? Is an existing data center to be expanded, or is a new one to be built? In the latter case, the cable topography must be designed so that future requirements can be met without running into attenuation problems. In the former case, the status quo must be examined very thoroughly.

Whatever the task, the goal is highly efficient cable management – between rooms and racks, and within racks. For this it is necessary to weigh the various options for cable types, connectors,

number of interfaces, routing solutions (top of the rack or in a raised floor) and types of panels and racks. It is critically important to decide how much flexibility will be required and what reserves should be created for higher data rates in the future.

In all of these matters, we're able to keep our eye on the big picture and make due provision for the latest standards.

CUSTOMER-SPECIFIC SOLUTIONS

One of our special strengths in planning is our ability to take special requirements and needs into account. Our advantage here is that we have the flexibility of a medium-sized company but also have decades of experience with data centers. If it becomes necessary during the preparation phase to make adjustments for special requirements or develop in-house solutions, we can present various options and assess the costs and feasibility in each case. Our engineering and customer support teams work closely with the user to ensure that all the practical requirements are fulfilled and implemented in an optimum manner.

In the past we've been able to overcome unusual challenges for many customers – challenges that could not have been met with standard components. Examples are racks with a very small panel depth, project-specific switch cabling and special versions of our PreCONNECT® Trunks.

PHASE 2:
CABLING INSTALLATION

Rosenberger OSI PreCONNECT® FIBER Trunks enable rapid and easy installation.

During the implementation phase we'll support you with project management and coordinate the work on other parts of the infrastructure such as the power supply, safety system and fire alarm system on request. Often cabling is laid before the active components are installed – another case in which a smoothly working interface is essential.

A basic question in installation is how much use to make of splice cabling. Nowadays most big data centers are built with completely preterminated trunks and cables, e.g. our PreCONNECT® FIBER Trunks. The advantages with respect to benefits in time and flexibility are clearly visible. Nevertheless splicing technology can make sense for smaller data centers or an interbuilding solution.

On request, we can also install the actual cabling for you. Our experienced technicians are familiar with every detail and can spot potential malfunctions. We'll label all the cable ends according to your in-house system or help you introduce such a system.

After installing all components and as soon as the complete infrastructure is accomplished, we can perform detailed on-site acceptance measurements with specific emphasis upon the core parameters attenuation and reflection, on request. In spite of meticulous quality assurance tests during manufacturing, only a measurement in the real operation area can ensure perfect performance.

PreCONNECT® cable dividers
The robust PreCONNECT® divider heads can be installed tool-less thanks to their square interface.

Measurements at the patch panel
Measurement data are obtained and evaluated on site to ensure faultless performance of all processes.

PHASE 3:

MANAGED CABLING

Our decades of experience in widely differing practical situations have revealed a great need for expert support during normal operations. The impact of cabling on the overall performance of a data center is often underestimated – and it is steadily increasing.

Each data center is unique. The demands on performance, security and availability of expert know-how can vary widely. For this reason Rosenberger OSI offers three different levels of service based on more than 20 years of experience in the operation of data centers.

BASIC:
- For midsize companies with small server rooms
- The most important standard services for basic operation
- Provision of a technical hotline
- Implementation via individual contracts

PREMIUM:
- For high-performance data centers
- Including on-site availability of experts and technicians
- Extended warranty for installed Rosenberger OSI products
- Implementation via fixed monthly payments

PREMIUM PLUS:
- For high-performance data centers with maximum availability
- Custom warranty and service
- Customer-specific activities
- Implementation via fixed monthly payments

PREMIUM PLUS:
SUMMARY OF
ADDITIONAL SERVICES

The Premium Plus level offers a choice of eleven modules in four service areas, from channel qualification to considerably extended warranty periods. This is the ultimate in professional cabling management for data centers.

Quality assurance	Technical support	Spare parts management	Product-related services
Channel qualification	Extended working hours	Transfer of stocks (customer)	Warranty extension
Channel application test	Local response time (SLA)	Transfer of stocks (OSI)	Guaranteed delivery periods
Basic cleaning of the data center	Technology workshops		Temperature sensor systems

OUR PRODUCTS
BY CATEGORY

OUR PRODUCTS
A DETAILED OVERVIEW

<table>
<tr><td>4</td><td>CONNECTORS</td></tr>
</table>

<table>
<tr><td>5</td><td>ACCESSORIES</td></tr>
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MTP® is a registered trademark of US-Conec Ltd.
E-2000™ is a registered trademark of Diamond S.A.

Rosenberger
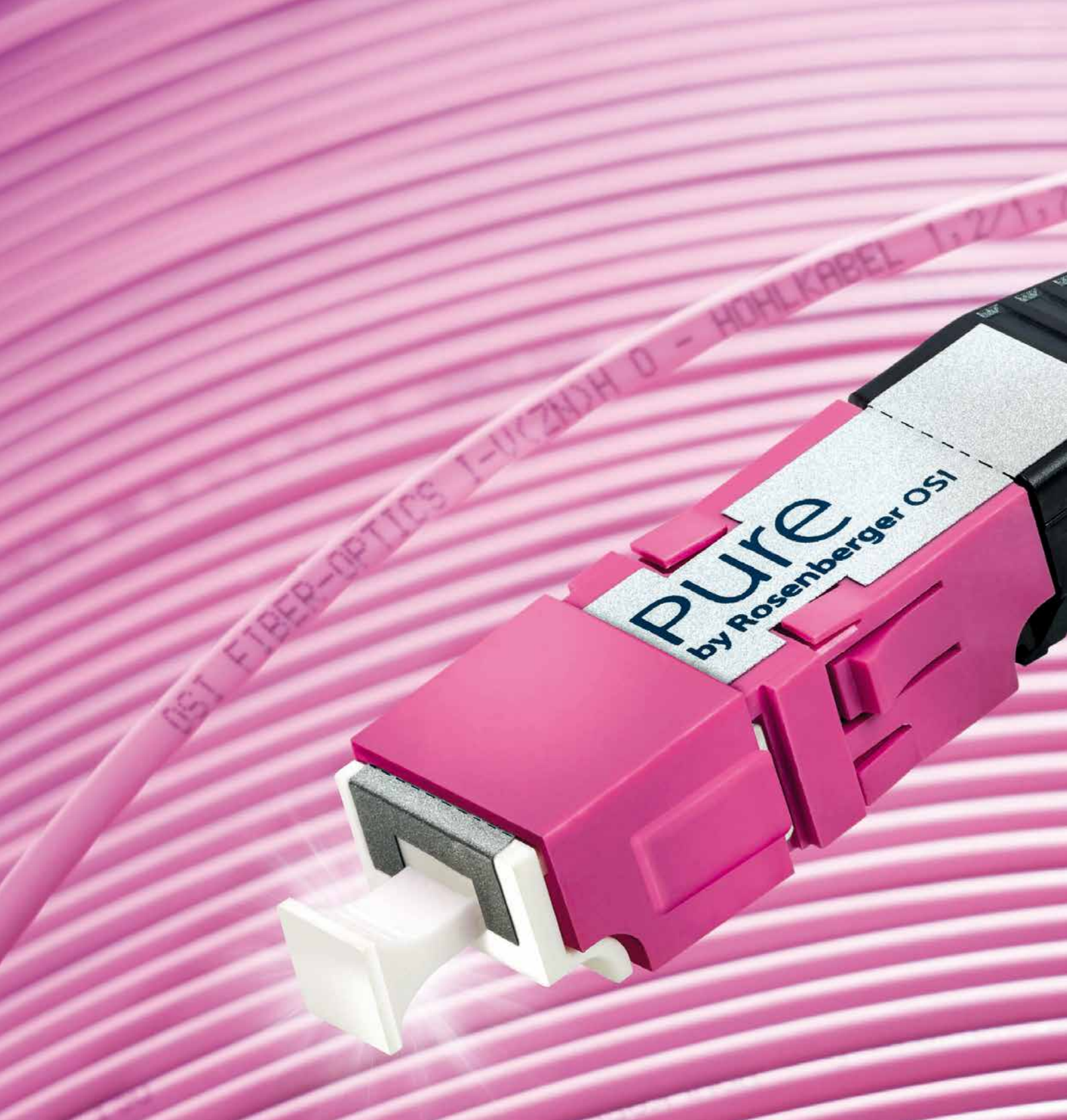
| PreCONNECT® PURE | 1 |

PreCONNECT® PURE is the world's first OM4 cabling system with GHMT 6-connector channel- certification for 40/100 GBE and 16GFC (test report No. P3568a-14-D)

THE PURE EFFECT:
TWICE AS MANY CONNECTIONS WITH AN ADDITIONAL 15 METER CHANNEL LENGTH*

PreCONNECT® PURE is a milestone in the development of high-end IT cabling for data centers. It eliminates two factors of uncertainty that are critical to overall performance in day-to-day operations:

UNCERTAINTY FACTOR: CONTAMINATION
By their very nature, the optical contacts integrated in PURE connectors make it impossible for contamination or damage to occur during installation. The LC duplex connector is sealed at the factory. You just snap it into the back of the front panel.

UNCERTAINTY FACTOR: ACTUAL ATTENUATION LEVELS
PURE connectors have an extremely low, guaranteed insertion loss as measured in real-world applications. This gives you certainty in the planning of transmission paths and allows you to implement more connections per channel.

PreCONNECT® PURE plays a vital role in helping you to keep your data center running smoothly and predictably over the long term. But that's not all. Read the following pages to learn about details and additional features.
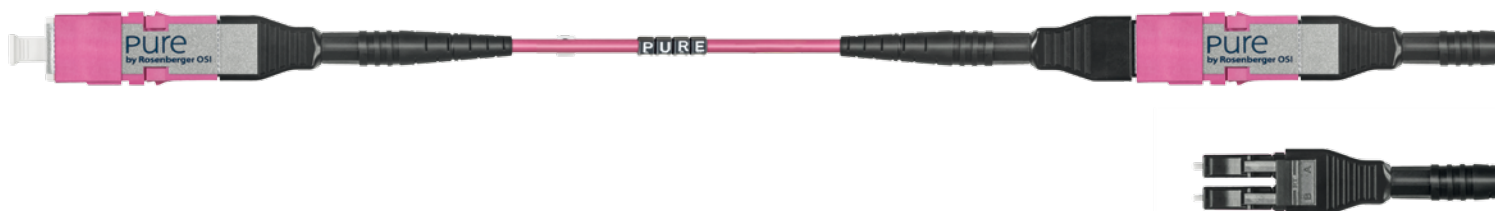
PURE AT A GLANCE

- Integration of optical contacts in the LC duplex connectors, ruling out contamination during installation
- Parameters of previously unused channels guaranteed until they are actually used.
- Factory-sealed to prevent improper opening and handling
- Insertion and return loss exceeding IEC 61755-5 Ed. 1.0 CD Grade Cm (multimode)
- Guaranteed maximum insertion loss of 0.4 dB (application limit, LC multimode 50 μm)
- Mean insertion loss = 0.15 dB (LC multimode 50 μm)

- Visual quality of ferrule end faces significantly better than IEC 61300-3-35.
- Quick, tool-less mounting with simple snap-in on the back of the front panel
- Complete system consisting of trunk cables, patchcords, SMAP-G2 housings and racks
- Multimode and singlemode
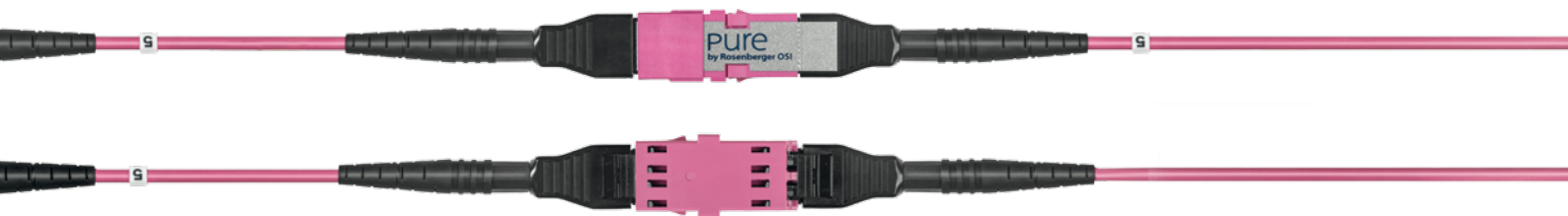
*Measured at 1.0 dB insertion loss, a channel length of 150 m and loss budget of 1.54 dB according to original Fiber Channel 16 Gb/s OM4 specification.

PURE INNOVATION:
MAKING CONTAMINATION AND
UNCERTAIN ATTENUATION VALUES
A THING OF THE PAST

CLEAN CONNECTIONS THE LOGICAL SOLUTION
Studies have shown that about 50% of all network defects are caused by cabling problems. Of these, most involve contamination of fiber optic cable connections, improper patching or even damage arising from patching. PreCONNECT® PURE eliminates these causes from the start.

- PURE trunk cables are terminated with preassembled PURE adapters instead of conventional connectors.
- The optical contacts integrated in the connectors are factory-tested for perfect optical quality and absolute cleanliness before the seal is applied.
- The connection does not have to be opened during installation – thanks to the new interface design, the complete unit can be snapped into the housing from behind.

- On the patch side, the LC duplex connectors are sealed with protective caps, preventing contamination even if the channels are not used for a long time. Under the warranty, the seals and patching may only be opened by certified personnel.

As a result, PURE not only ensures the technical capability for high-performance data transfer over long distances. PURE also plays a commercially important role in bringing about time and cost savings of at least 15 % by eliminating the need for on-site acceptance measurements and cleaning.

Seal

Protective cap
with nipple

Completely redesigned
interface

Shutter
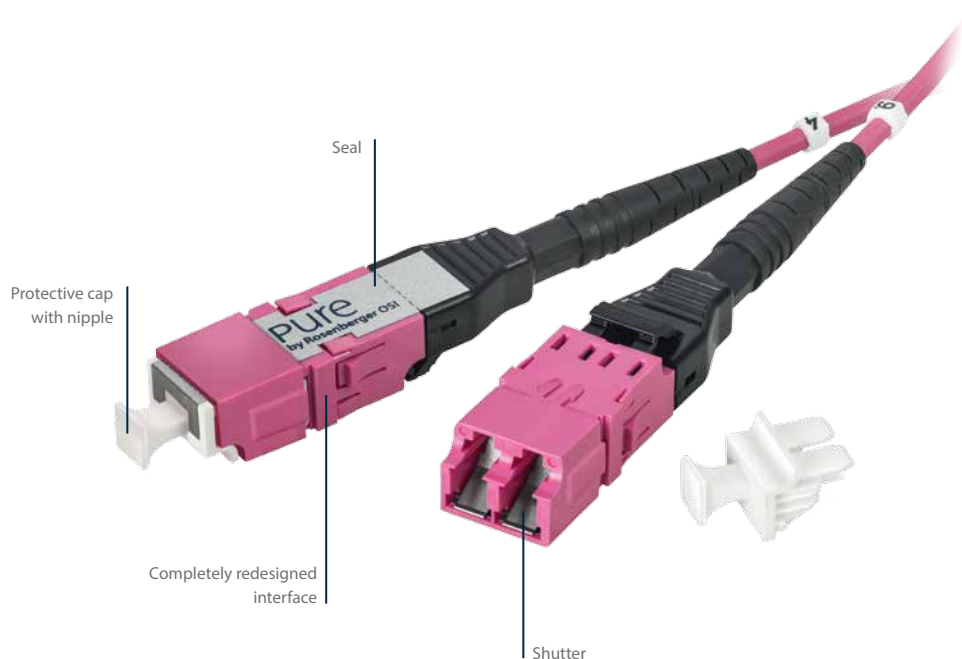
INSERTION LOSS: "APPLICATION LIMIT" VERSUS "PRODUCTION LIMIT"

An increase in transmission speed always means a reduction in the maximum permissible attenuation of multimode transmission lines. In high-end applications it is therefore essential to keep the insertion loss of fiber optic cable connections as low as possible. To impress customers, cable manufacturers often quote the so-called production limit value, which is measured using reference adapters and connectors. But this value is of no relevance to actual practice, in which standard components with many different characteristics are involved. For this reason, Rosenberger OSI always quotes the so-called application limit

value for PURE. This value applies to any combination of connectors, and it's guaranteed. This value is 0.4 dB*, i.e. 0.2 dB better than the highest performance class specified in IEC 61755-5 Ed. 1.0 CD Grade Cm (see chart below "Maximum insertion loss"). The mean insertion loss (IL)* measured for PURE components is well below this, at 0.15 dB (see "Overall process capability" chart). This gives you a big safety margin from the application limit value. In actual practice, even better values are achieved.

OVERALL PROCESS CAPABILITY
OF PURE CONNECTORS

Application limit

Frequency of measurement results

0.0   0.6   0.12   0.18   0.24   0.30   0.36

Insertion loss in dB

MAXIMUM INSERTION LOSS

IEC standard*

PURE

dB   0.2   0.4   0.6
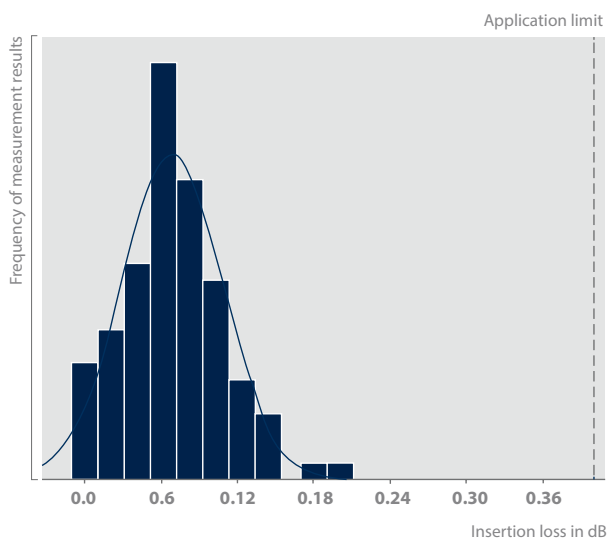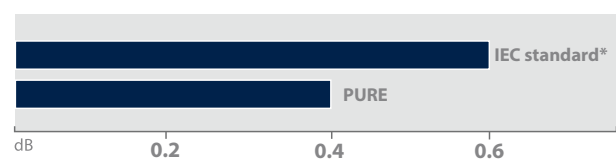
*IEC 61755-5 Ed. 1.0 CD Grade Cm

OVERALL PERFORMANCE:
IEC 61755-5 Ed. 1.0 CD GRADE Cm
VERSUS PURE

The performance parameters for fiber optic cable connections are set out in the IEC 61753 and 61755 standards which define so-called grades. The highest performance class for multi-mode fibers specified here is IEC 61755-5 Ed. 1.0 CD Grade Cm. Among other provisions, it permits a maximum insertion loss (IL) of 0.6 dB for 97 % of connections as well as a minimum return loss (RL) of 20 dB. PreCONNECT® PURE significantly

exceeds both of these values: Thus, for any given loss budget, up to twice as many connections per channel are possible as with IEC-specified cabling. In addition, the high quality of Rosenberger OSI OM4 fibers allows greater channel lengths (see chart below).

COMPARISON OF PURE AGAINST IEC 61755-5 ED. 1.0 CD GRADE CM

	PURE QUALITY 50 μm MM "Application limit"	IEC 61755-5 Ed. 1.0 CD GRADE Cm (Grades Am & Bm are not covered by standards, RL Grade 2 m)
IL	100 % max. 0.4 dB mean 0.15 dB	97 % max. 0.6 dB mean 0.35 dB
RL	min. 40 dB	min. 20 dB

COMPARISON OF MAXIMUM CHANNEL LENGTHS*

150 m for IEC 61755-5 Ed. 1.0 CD Grade Cm

165 m for PreCONNECT® PURE

COMPARISON OF POSSIBLE CONNECTIONS*
At maximum IL (0.4 and 0.6 dB, respectively)

1 connection for IEC 61755-5Ed. 1.0 CD Grade Cm

2 connections for PreCONNECT® PURE

*Example: Fiber Channel 16 Gb/s OM4
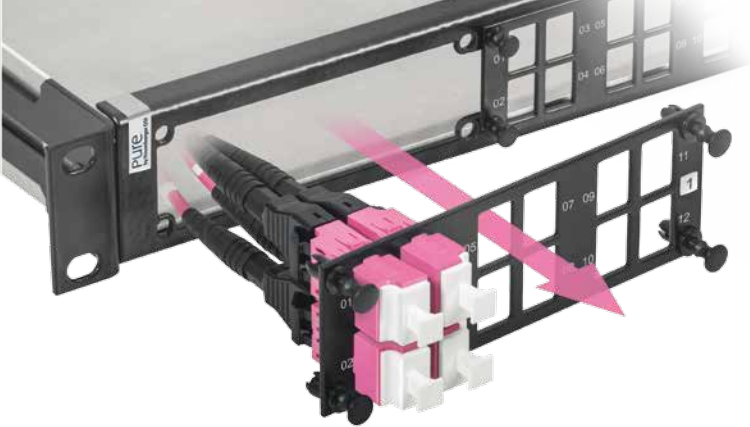
INSTALLATION: TOOL-LESS AND EFFORTLESS

PURE trunk cables are preassembled with LC duplex connector interfaces at both ends and sealed. Thanks to the newly designed interface with an innovative locking mechanism, each channel can easily be snapped from behind into the subpanels of the SMAP-G2 housing.

VISUAL QUALITY OF THE FIBER SURFACES IN A CLASS OF ITS OWN

Every transition between two optical fibers can impede the propagation of light in the channel. To minimize insertion loss it is therefore essential for the fiber ends to meet exactly and for the end faces to have as few imperfections (scratches and defects) as possible. By exercising the utmost care during manufacture, we achieve visual quality results for our PURE interfaces that are well above the requirements of IEC 61300-3-35.

1

VISUAL QUALITY OF END FACES

ZONE	SPECIFICATION	SCRATCHES	DAMAGE
A: Core **0 - 65 µm**	PURE MM	No scratches > 2 µm	No defects permitted
	IEC 61300-3-35 MM	No scratches > 3 µm	Up to 4 defects < 5 µm
B: Cladding **65 - 115 µm**	PURE MM	No scratches > 3 µm	Up to 5 defects < 3 µm
	IEC 61300-3-35 MM	No scratches > 5 µm	Up to 5 defects < 5 µm

Cladding

Core

PreCONNECT® PURE
fiber end faces without scratches or contamination

Fiber end face with scratches and moderate contamination
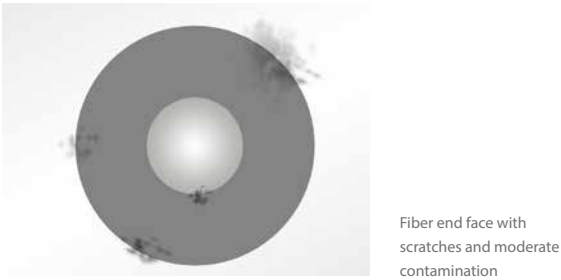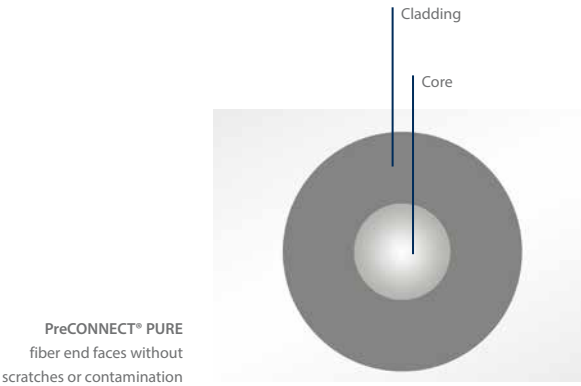
PreCONNECT® PURE FIBER TRUNK

APPLICATIONS

- Infrastructure cabling in data centers

PROPERTIES

- Factory-assembled on both sides
- Standard coding: channel-wise "crossed"
- Cable length up to 2000 m, longer lengths on request

DEFINITION OF LENGTH

- Order length: length between the connectors at the longest legs on both sides (not between the cable dividers)
- Length tolerances:

Up to 10 m	=	+/- 50 cm
11 m to 30 m	=	+/- 100 cm
31 m to 100 m	=	+/- 150 cm
Longer than 100 m	=	+/- 2 %

- Leg lengths stepped on both sides (see table "Technical data" on right-hand page)

CABLE TYPES

- Can be supplied with all common commercially available loose tube cables up to 144 fibers
- Cable data on request

FIBER TYPES

- OM4 and SM, bend-insensitive
- Fiber data specifications on request

CONNECTION INTERFACE

- LC Duplex with shutters

OPTIONAL

- Cable with enhanced tensile strength and crush resistance
- Cable with special reinforcement

FORM OF DELIVERY

- Factory-measured IL and RL with measurement report
- Product ID label on both sides behind the cable dividers
- Depending on length, as cable reel on cardboard or wooden reel

TECHNICAL DATA   CABLE TYPE I-B(ZN)BH n x m

CABLE DESIGN	STRANDED MINI LOOSE TUBE CABLES				
NUMBER OF FIBERS, max.	36	48	72	96	144
LEG LENGTH STEPPED [cm] approx.	65-90	65-98	65-90	85-110	95-125
EXTERNAL Ø [mm]	8.0	8.0	8.4	9.4	11.4
MAX. TENSILE STRENGTH [N]	3000	3000	3000	3000	3000
MAX. CRUSH RESISTANCE [N/dm]	1000	1000	1000	1000	1000
MIN. BENDING RADIUS [mm] static dynamic	80 120	80 120	84 126	94 141	114 171
FIRE LOAD [MJ/m]	0.69	0.69	0.73	0.92	1.43

PART NUMBERS

NUMBER OF FIBERS CONNECTION INTERFACE		SM APC 8° 9/125 G.657.A1	OM4 50/125 BI
36	LC Duplex	0 2 4 P 0 1 4 1 G 6 5 7 A	0 2 4 P 0 1 0 1 OM4
48	LC Duplex	0 2 4 P 0 1 2 6 G 6 5 7 A	0 2 4 P 0 1 0 3 OM4
72	LC Duplex	0 2 4 P 0 1 4 2 G 6 5 7 A	0 2 4 P 0 1 0 5 OM4
96	LC Duplex	0 2 4 P 0 1 2 8 G 6 5 7 A	0 2 4 P 0 1 0 7 OM4
144	LC Duplex	0 2 4 P 0 1 2 9 G 6 5 7 A	0 2 4 P 0 1 0 9 OM4

Other interfaces, fiber types and numbers of fibers on request.

PreCONNECT® PURE

PreCONNECT® PURE PATCHCORD

APPLICATIONS

• Patchcords suitable for cabling in data centers

PROPERTIES

• Kink and crush resistance optimized for environmental conditions
• Suitable for operation in temperatures from -10 °C to +60 °C, patchcords for other temperature ranges on request
• Coding:
 Full-duplex cables with duplex connectors on both sides "crossed" in accordance with ISO/IEC 11801 and EN 50173

DEFINITION OF LENGTH

• Up to 1 m   = - 50 mm
 2 m to 3 m   = - 100 mm
 4 m to 25 m   = - 200 mm
 longer than 25 m = - 1 %

CABLE TYPES

• Various FRNC-LSZH cables
• Cable data on request

FIBER TYPES

• OM4 and SM, bend-insensitive
• Fiber data specifications on request

CONNECTORS

• LC Compact

FORM OF DELIVERY

• Factory-measured IL and RL, measurement values on request
• Serial number labels at the cable ends on both sides for entry in the network documentation
• Product ID label on packaging
• Individually packaged in foil bags. As of a length of 100 m, on cardboard drum

DUPLEX PATCHCORD
Cable type: round I-V(ZN)H 2.0 mm FRNC-LSZH

PART NUMBERS

CONNECTORS	LENGTH	SM APC 8° 9/125 G.657.A1	OM4 50/125 BI
LC Compact » LC Compact	variable	0 8 7 P 6 6 2 2 G 6 5 7 A	0 8 7 P 6 6 2 3 OM4

Other connector combinations as well as cable and fiber data available on request.

DUPLEX PATCHCORD
Cable type: round I-V(ZN)H 2.8 mm FRNC-LSZH

PART NUMBERS

CONNECTORS	LENGTH	SM APC 8° 9/125 G.657.A1	OM4 50/125 BI
LC Compact » LC Compact	variable	0 8 7 P 6 6 0 9 G 6 5 7 A	0 8 7 P 6 6 0 1 OM4

Other connector combinations as well as cable and fiber data available on request.

DUPLEX PATCHCORD
Cable type: double-jacket, round I-V(ZN)H(ZN)H 2.8/5.0 mm FRNC-LSZH

PART NUMBERS

CONNECTORS	LENGTH	SM APC 8° 9/125 G.657.A1	OM4 50/125 BI
LC Compact » LC Compact	variable	0 8 7 P 6 6 1 2 G 6 5 7 A	0 8 7 P 6 6 1 3 OM4

Other connector combinations as well as cable and fiber data available on request.

1

PreCONNECT® PURE

PreCONNECT® PURE 19" SMAP-G2 DISTRIBUTION PANEL

PreCONNECT® PURE 19" SMAP-G2 distribution panel with mounted ¼ part front plates

APPLICATIONS

- For installation in 19" racks in distribution systems
- For the distribution of PreCONNECT® PURE trunks to patchcords in data centers

PROPERTIES

- Maximized modularity and flexibility thanks to application-specific combinations of ½ and ¼ part front plates
- Extremely robust, lightweight panel
- Suitable for the connection of all cables assembled by Rosenberger OSI
- 1 to 5 HU panel for equipping with 1 HU ½ or ¼ part front plates (PFP) in a number of different variants
- Matrix numbering of the part front plates:
  Channels in part front plates: 1 to n labeled,
  PFPs in the panel are numbered with clips 1 to n
- Material and color:
  Front: Powder-coated steel, RAL 9005 (matt black) Body: aluminum, natural
  Back plane: Powder-coated steel, RAL 9005 (matt black)

FORM OF DELIVERY

- Fully factory-assembled, without adapters, connection interfaces on trunk

PART NUMBERS
SINGLE COMPONENTS

PURE 19" SMAP-G2 DISTRIBUTION PANEL	
For use with PreCONNECT® PURE 19" SMAP-G2 part front plates, RAL 9005 (black)	
1 HU	1 7 1 P 0 0 0 1
2 HU	1 7 2 P 0 0 0 1
3 HU	1 7 3 P 0 0 0 1
5 HU	1 7 5 P 0 0 0 1

PURE SMAP-G2 ¼ PART FRONT PLATES			
RAL 9005 (black)			
BLIND PART FRONT PLATE		1 7 0 P 0 0 0 1	
NUMBER OF CHANNELS / FIBERS	FOR CONNECTION INTERFACE		
12 CH / 24 F	LC Duplex	1 7 0 P 0 1 3 0	

PURE SMAP-G2 ½ PART FRONT PLATES			
RAL 9005 (black)			
BLIND PART FRONT PLATE		1 7 0 P 0 0 0 2	
NUMBER OF CHANNELS / FIBERS	FOR CONNECTION INTERFACE		
12 CH / 48 F	LC Duplex	1 7 0 P 0 1 7 0	

Other connection interfaces and numbers of fibers on request.

PreCONNECT® PURE PATCH LOCATION RACK

APPLICATIONS

- High-density data center infrastructures
- For the construction of ultra-high-density data center patch locations

PROPERTIES

- Innovative, restriction-free cable management system
  - Rack pillars with integrated cable managers to prevent interference with cable routing
  - The covers of the cable managers fold in both directions and are completely removable
  - Individually selectable feedthroughs in the sides and rear walls of the large-volume cable channel for simple vertical and horizontal cable routing
- Professional routing of large cable volumes from the patchfields and housing of excess cable lengths in the vertical cable managers
- Particularly suitable for fiber optic cables thanks to the use of cable clips (L-fingers) and finger slots
  - The rounded L-fingers ensure that the cables are extremely well protected against bending and kinking even when subject to strain.
  - The L-fingers do not have any sharp edges and are
  - extremely strong and resistant to breakage
  - Because there is plenty of space for them in the large finger slots, the cables are neither squeezed nor kinked.
  - The L-fingers retain the cables in the finger slots whenever you need to work with the covers folded back or removed.
- Dimensions (H x L x W): 213 (46 HU) x 90 x 90 cm
- Material and color:
  Powder-coated steel, RAL 9005 (black)

OPTIONAL

- 19" Intermediate Rack for the construction of rack rows with uneven numbers of racks on request

FORM OF DELIVERY

- Factory-mounted on pallet (total height with pallet and packaging: 230 cm)
- Including adjustable feet for on-site installation

1

PreCONNECT® PURE

PART NUMBER	
RAL 9005 (black)	1 4 2 P 3 0 0 0

Rosenberger

CABLE ASSEMBLIES | 2
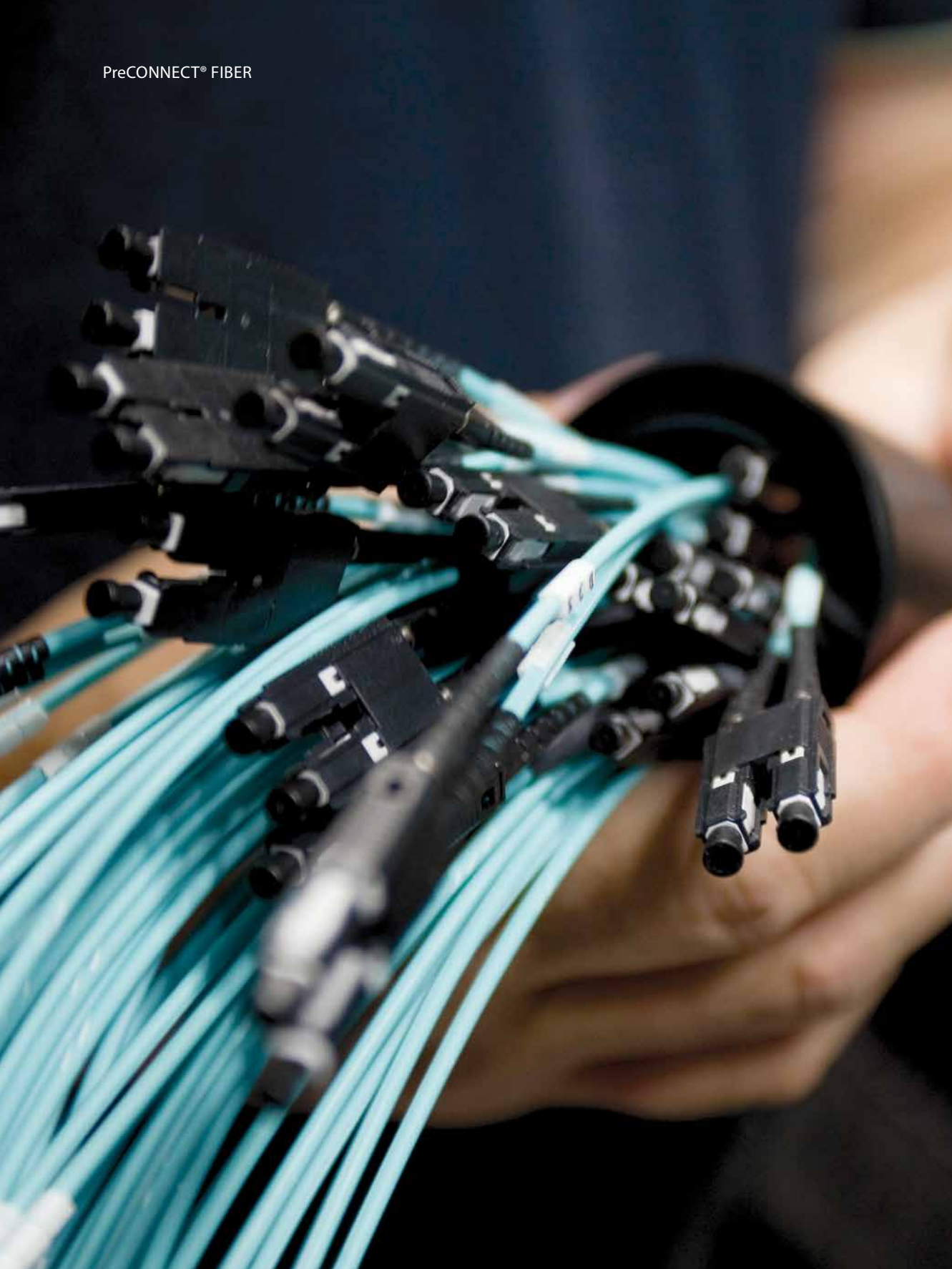
CABLE ASSEMBLIES: PreCONNECT® FIBER

Our PreCONNECT® FIBER products represent comprehensive solutions in the field of structured fiber optic cabling applications. Whether in data centers, industry, mobile communications or event engineering – Rosenberger OSI provides a full range of optimally harmonized equipment for every application environment.

Now as in the past, our core competences lie in the field of fiber optic technology. From conventional PreCONNECT® FIBER Trunks through Parallel Optics High Speed links and on to specialized custom solutions – with every PreCONNECT® FIBER product from Rosenberger OSI, you are choosing over 20 years of expertise and outstanding quality.

PreCONNECT® FIBER TRUNK
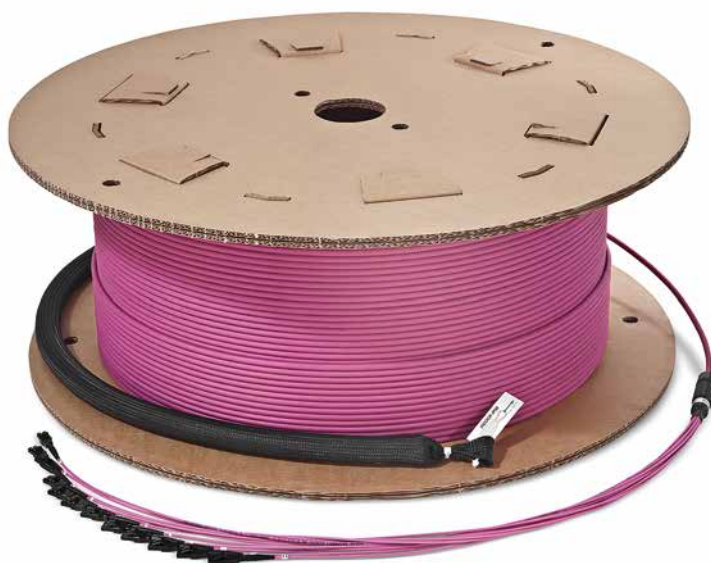
Leg lengths stepped on both sides as indicated in table on page 59, for installation in distribution panels

APPLICATIONS

- Infrastructure cabling in data centers, office buildings and campuses

PROPERTIES

- Factory-assembled with fiber optic connectors on both sides
- Standard coding: channel-wise "crossed"
- Cable length up to 2000 m, longer lengths on request

DEFINITION OF LENGTH

- Order length: length between the connectors at the longest legs on both sides (not between the cable dividers)
- Length tolerances:

  Up to 10 m   =   +/- 50 cm
  11 m to 30 m   =   +/- 100 cm
  31 m to 100 m   =   +/- 150 cm
  Longer than 100 m   =   +/- 2 %
- Leg lengths stepped on both sides as indicated in table on page 59, for installation in distribution panels

CABLE TYPES

- Can be supplied with all common commercially available loose tube cables up to 144 fibers
- Cable data on request

FIBER TYPES

- Can be supplied with all common commercially available fiber types
- Fiber data specifications on request

CONNECTORS

- Can be supplied with all common, commercially available connectors, both as simplex and as duplex versions

OPTIONAL

- Cable with enhanced tensile strength and crush resistance
- Cable with special reinforcement
- Hybrid cable with different fiber types
- Hybrid connector configuration
- Factory-assembled on one side
- OTDR measured with measurement report
- Return loss (RL) measurement

FORM OF DELIVERY

- Factory-measured with attenuation report
- Product ID label on both sides behind the cable dividers
- Depending on length, as cable reel on cardboard or wooden reel

Installation Tube Indoor, IP50 dustproof

Installation Tube Outdoor, IP67 waterproof

TECHNICAL DATA   PreCONNECT® FIBER TRUNKS

NUMBER OF FIBERS	4	8	12	16	24	36	48	72	96	144
LEG LENGTH STEPPED [cm] approx.	85-100	65-100	65-95	65-93	64-97	65-90	65-98	65-90	85-110	95-125
DIAMETER INSTALLATION TUBE [mm] approx.	28	28	28	35	35	60	60	60	75	75
MAX. TENSILE STRENGTH [N] INSTALLATION TUBE	600	600	600	600	600	600	600	600	600	600
CRUSH RESISTANCE [N/cm] INSTALLATION TUBE	30	30	30	30	30	30	30	30	30	30

PreCONNECT® FIBER TRUNK
Efficiency Indoor Cable with Mini Loose Tube Cables

Cable type I-B(ZN)BH 6 x 12

TECHNICAL DATA   CABLE TYPE I-B(ZN)BH n x m

CABLE DESIGN	STRANDED MINI LOOSE TUBE CABLES				
NUMBER OF FIBERS, max.	36	48	72	96	144
EXTERNAL Ø [mm]	7.6	7.6	8	9	11
MAX. TENSILE STRENGTH [N]	3000	3000	3000	3000	3000
MAX. CRUSH RESISTANCE [N/dm]	1000	1000	1000	1000	1000
MIN. BENDING RADIUS [mm] static dynamic	75 115	75 115	80 120	90 135	110 165
FIRE LOAD [MJ/m]	0.69	0.69	0.73	0.92	1.43

COMPARISON MATRIX FOR CABLE PROPERTIES U-DQ(ZN)BH vs. I-B(ZN)BH, see page 65.

PART NUMBERS

NUMBER OF FIBERS CONNECTORS		OS2 9/125	OM3 50/125	OM4 50/125
36	LC Compact	0 2 4 A 0 1 0 0 G 6 5 7 A	0 2 4 A 0 1 0 1 OM3	0 2 4 A 0 1 0 1 OM4
	MU Duplex Horizontal	0 2 4 A 0 1 1 0 G 6 5 7 A	0 2 4 A 0 1 1 1 OM3	0 2 4 A 0 1 1 1 OM4
	MTP® 12 female	0 2 4 A 0 1 3 0 G 6 5 7 A	0 2 4 A 0 1 3 1 OM3	0 2 4 A 0 1 3 1 OM4
48	LC Compact	0 2 4 A 0 1 0 2 G 6 5 7 A	0 2 4 A 0 1 0 3 OM3	0 2 4 A 0 1 0 3 OM4
	MU Duplex Horizontal	0 2 4 A 0 1 1 2 G 6 5 7 A	0 2 4 A 0 1 1 3 OM3	0 2 4 A 0 1 1 3 OM4
	MTP® 12 female	0 2 4 A 0 1 3 2 G 6 5 7 A	0 2 4 A 0 1 3 3 OM3	0 2 4 A 0 1 3 3 OM4
72	LC Compact	0 2 4 A 0 1 0 4 G 6 5 7 A	0 2 4 A 0 1 0 5 OM3	0 2 4 A 0 1 0 5 OM4
	MU Duplex Horizontal	0 2 4 A 0 1 1 4 G 6 5 7 A	0 2 4 A 0 1 1 5 OM3	0 2 4 A 0 1 1 5 OM4
	MTP® 12 female	0 2 4 A 0 1 3 4 G 6 5 7 A	0 2 4 A 0 1 3 5 OM3	0 2 4 A 0 1 3 5 OM4
96	LC Compact	0 2 4 A 0 1 0 6 G 6 5 7 A	0 2 4 A 0 1 0 7 OM3	0 2 4 A 0 1 0 7 OM4
	MU Duplex Horizontal	0 2 4 A 0 1 1 6 G 6 5 7 A	0 2 4 A 0 1 1 7 OM3	0 2 4 A 0 1 1 7 OM4
	MTP® 12 female	0 2 4 A 0 1 3 6 G 6 5 7 A	0 2 4 A 0 1 3 7 OM3	0 2 4 A 0 1 3 7 OM4
144	LC Compact	0 2 4 A 0 1 0 8 G 6 5 7 A	0 2 4 A 0 1 0 9 OM3	0 2 4 A 0 1 0 9 OM4
	MU Duplex Horizontal	0 2 4 A 0 1 1 8 G 6 5 7 A	0 2 4 A 0 1 1 9 OM3	0 2 4 A 0 1 1 9 OM4
	MTP® 12 female	0 2 4 A 0 1 3 8 G 6 5 7 A	0 2 4 A 0 1 3 9 OM3	0 2 4 A 0 1 3 9 OM4

Other fiber types, connectors and numbers of fibers on request. MTP® is a registered trademark of US-Conec Ltd.

2

PreCONNECT® FIBER

PreCONNECT® FIBER TRUNK
Universal Cable with Loose Tube design

Cable type U-DQ(ZN)BH 24

Cable type U-DQ(ZN)BH 6 x 12

TECHNICAL DATA CABLE TYPE U-DQ(ZN)BH n x m

CABLE DESIGN	CENTRAL LOOSE TUBE		STRANDED LOOSE TUBES				
NUMBER OF FIBERS, max.	12	24	36	48	72	96	144
EXTERNAL Ø [mm]	7	7.5	12.5	12.5	13.4	14.4	17.7
MAX. TENSILE STRENGTH [N]	1750	1750	6000	6000	6000	6000	6000
MAX. CRUSH RESISTANCE [N/dm]	1500	1500	3000	3000	3000	3000	3000
MIN. BENDING RADIUS [mm] static	105	115	190	190	200	215	270
dynamic	140	150	250	250	270	290	355
FIRE LOAD [MJ/m]	0.71	0.79	3.1	3.1	3.2	3.4	4.5

COMPARISON MATRIX FOR CABLE PROPERTIES U-DQ(ZN)BH vs. I-B(ZN)BH see page 65.

PART NUMBERS

NUMBER OF FIBERS CONNECTORS		OS2 9/125	OM3 50/125	OM4 50/125
4	SC Duplex	031A1501	031A1601 OM3	031A1601 OM4
	LC Compact	031A1210	031A1212 OM3	031A1212 OM4
	MU Duplex Horizontal	031A2001	031A2011 OM3	031A2011 OM4
	E-2000™ Simplex[1] HRL	031A1011	–	–
8	SC Duplex	031A1503	031A1603 OM3	031A1603 OM4
	LC Compact	031A0920	031A0921 OM3	031A0921 OM4
	MU Duplex Horizontal	031A2002	031A2012 OM3	031A2012 OM4
	E-2000™ Simplex[1] HRL	031A1012	–	–
12	SC Duplex	031A1504	031A1604 OM3	031A1604 OM4
	LC Compact	031A1800	031A1810 OM3	031A1810 OM4
	MU Duplex Horizontal	031A2003	031A2013 OM3	031A2013 OM4
	MTP® 12 female	031A0912	031A0922 OM3	031A0922 OM4
	E-2000™ Simplex[1] HRL	031A1013	–	–
16	SC Duplex	031A1505	031A1605 OM3	031A1605 OM4
	LC Compact	031A1818	031A1220 OM3	031A1220 OM4
	MU Duplex Horizontal	031A2004	031A2014 OM3	031A2014 OM4
	E-2000™ Simplex[1] HRL	031A1014	–	–
24	SC Duplex	031A1506	031A1606 OM3	031A1606 OM4
	LC Compact	031A1801	031A1811 OM3	031A1811 OM4
	MU Duplex Horizontal	031A2005	031A2015 OM3	031A2015 OM4
	MTP® 12 female	031A0914	031A0924 OM3	031A0924 OM4
	E-2000™ Simplex[1] HRL	031A1015	–	–

NUMBER OF FIBERS CONNECTORS		OS2 9/125	OM3 50/125	OM4 50/125
36	SC Duplex	031A1507	031A1607 OM3	031A1607 OM4
	LC Compact	031A1802	031A1812 OM3	031A1812 OM4
	MU Duplex Horizontal	031A2006	031A2016 OM3	031A2016 OM4
	MTP® 12 female	031A0913	031A0923 OM3	031A0923 OM4
	E-2000™ Simplex[1] HRL	031A0998	–	–
48	SC Duplex	031A1508	031A1608 OM3	031A1608 OM4
	LC Compact	031A1803	031A1813 OM3	031A1813 OM4
	MU Duplex Horizontal	031A2007	031A2017 OM3	031A2017 OM4
	MTP® 12 female	031A0915	031A0925 OM3	031A0925 OM4
	E-2000™ Simplex[1] HRL	031A1016	–	–
72	SC Duplex	031A1509	031A1609 OM3	031A1609 OM4
	LC Compact	031A1804	031A1814 OM3	031A1814 OM4
	MU Duplex Horizontal	031A2008	031A2018 OM3	031A2018 OM4
	MTP® 12 female	031A0917	031A0927 OM3	031A0927 OM4
	E-2000™ Simplex[1] HRL	031A1017	–	–
96	LC Compact	031A1805	031A1815 OM3	031A1815 OM4
	MU Duplex Horizontal	031A1999	031A1998 OM3	031A1998 OM4
	MTP® 12 female	031A0916	031A0926 OM3	031A0926 OM4
144	LC Compact	031A1806	031A1816 OM3	031A1816 OM4
	MU Duplex Horizontal	031A2009	031A2019 OM3	031A2019 OM4
	MTP® 12 female	031A0918	031A0928 OM3	031A0928 OM4

[1] = Type R+M with zirconia-ceramic ferrule.
APC and HRL connector versions with 8° angled ferrule endfaces.
Other fiber types, connectors and numbers of fibers on request.
MTP® is a registered trademark of US-Conec Ltd.

PreCONNECT® FIBER TRUNK
Outdoor cable with Loose Tube Design

Operating temperature: -25 °C to +70 °C,
for more robust outdoor applications see
PreCONNECT® FIBER Trunk Outdoor, page 74 / 75

Cable type A-DQ(ZN)B2Y 24

Cable type A-DQ(ZN)B2Y 6 x 12

TECHNICAL DATA   CABLE TYPE A-DQ(ZN)B2Y n x m

CABLE DESIGN	CENTRAL LOOSE TUBE		STRANDED LOOSE TUBES				
NUMBER OF FIBERS, max.	12	24	36	48	72	96	144
EXTERNAL Ø [mm]	7	7.5	11.4	11.4	12.3	13.7	17
MAX. TENSILE STRENGTH [N]	1750	1750	4000	4000	4000	4000	4000
MAX. CRUSH RESISTANCE [N/dm]	1500	1500	3000	3000	3000	3000	3000
MIN. BENDING RADIUS [mm] static	140	145	170	170	185	205	255
dynamic	185	195	230	230	245	275	340
FIRE LOAD [MJ/m]	1.1	1.2	3.1	3.1	3.2	3.4	4.5

PART NUMBERS

NUMBER OF FIBERS CONNECTORS		OS2 9/125	OM3 50/125	OM4 50/125
4	SC Duplex	010A1501	010A1601 OM3	010A1601 OM4
	LC Compact	010A2081	010A2082 OM3	010A2082 OM4
	MU Duplex Horizontal	010A2001	010A2011 OM3	010A2011 OM4
	E-2000™ Simplex[1] HRL	010A1011	–	–
8	SC Duplex	010A1503	010A1603 OM3	010A1603 OM4
	LC Compact	010A0920	010A0921 OM3	010A0921 OM4
	MU Duplex Horizontal	010A2002	010A2012 OM3	010A2012 OM4
	E-2000™ Simplex[1] HRL	010A1012	–	–
12	SC Duplex	010A1504	010A1604 OM3	010A1604 OM4
	LC Compact	010A2079	010A2080 OM3	010A2080 OM4
	MU Duplex Horizontal	010A2003	010A2013 OM3	010A2013 OM4
	MTP® 12 female	010A0912	010A0922 OM3	010A0922 OM4
	E-2000™ Simplex[1] HRL	010A1013	–	–
16	SC Duplex	010A1505	010A1605 OM3	010A1605 OM4
	LC Compact	010A1818	010A1819 OM3	010A1819 OM4
	MU Duplex Horizontal	010A2004	010A2014 OM3	010A2014 OM4
	E-2000™ Simplex[1] HRL	010A1014	–	–
24	SC Duplex	010A1506	010A1606 OM3	010A1606 OM4
	LC Compact	010A2077	010A2078 OM3	010A2078 OM4
	MU Duplex Horizontal	010A2005	010A2015 OM3	010A2015 OM4
	MTP® 12 female	010A0914	010A0924 OM3	010A0924 OM4
	E-2000™ Simplex[1] HRL	010A1015	–	–

NUMBER OF FIBERS CONNECTORS		OS2 9/125	OM3 50/125	OM4 50/125
36	SC Duplex	010A1507	010A1607 OM3	010A1607 OM4
	LC Compact	010A1802	010A1812 OM3	010A1812 OM4
	MU Duplex Horizontal	010A2006	010A2016 OM3	010A2016 OM4
	MTP® 12 female	010A0913	010A0923 OM3	010A0923 OM4
	E-2000™ Simplex[1] HRL	010A0998	–	–
48	SC Duplex	010A1508	010A1608 OM3	010A1608 OM4
	LC Compact	010A1803	010A1813 OM3	010A1813 OM4
	MU Duplex Horizontal	010A2007	010A2017 OM3	010A2017 OM4
	MTP® 12 female	010A0915	010A0925 OM3	010A0925 OM4
	E-2000™ Simplex[1] HRL	010A1016	–	–
72	SC Duplex	010A1509	010A1609 OM3	010A1609 OM4
	LC Compact	010A1804	010A1814 OM3	010A1814 OM4
	MU Duplex Horizontal	010A2008	010A2018 OM3	010A2018 OM4
	MTP® 12 female	010A0917	010A0927 OM3	010A0927 OM4
	E-2000™ Simplex[1] HRL	010A1017	–	–
96	LC Compact	010A2075	010A2076 OM3	010A2076 OM4
	MU Duplex Horizontal	010A1999	010A1998 OM3	010A1998 OM4
	MTP® 12 female	010A0916	010A0926 OM3	010A0926 OM4
144	LC Compact	010A1806	010A1816 OM3	010A1816 OM4
	MU Duplex Horizontal	010A2009	010A2019 OM3	010A2019 OM4
	MTP® 12 female	010A0918	010A0928 OM3	010A0928 OM4

[1] = Type R+M with zirconia-ceramic ferrule.
APC and HRL connector versions with 8° angled ferrule endfaces.
Other fiber types, connectors and numbers of fibers on request.
MTP® is a registered trademark of US-Conec Ltd.

2

PreCONNECT® FIBER

PreCONNECT® FIBER TRUNK MULTI JUMPER

Leg lengths on both sides can be selected to meet the needs of each application:
• Duplex connectors on 2.1 mm, leg lengths up to max. 3 m possible
• Compact connectors on 2.9 mm, leg lengths up to max. 5 m possible

APPLICATIONS
• Infrastructure cabling of data centers, SAN and server farms
• Particularly suitable for individual switch cabling in data centers

PROPERTIES
• Factory-assembled with fiber optic connectors on both sides
• Standard coding: channel-wise "crossed"
• Cable length up to 2000 m, longer lengths on request
• Extremely versatile because leg lengths on both sides can be selected to meet the needs of each application:
  • Duplex connectors on 2.1 mm, leg lengths up to max. 3 m possible
  • Compact connectors on 2.9 mm, leg lengths up to max. 5 m possible

DEFINITION OF LENGTH
• Order length: length between the connectors at the longest legs on both sides (not between the cable dividers)
• Length tolerances:
  Up to 10 m   = +/- 50 cm
  11 m to 30 m   = +/- 100 cm
  31 m to 100 m   = +/- 150 cm
  Longer than 100 m   = +/- 2 %

CABLE TYPES
• Can be supplied with all common commercially available loose tube cables up to 144 fibers
• Cable data on request

FIBER TYPES
• Can be supplied with all common commercially available fiber types
• Fiber data specifications on request

CONNECTORS
• Can be supplied with all common, commercially available connectors

FORM OF DELIVERY
• Factory-measured with attenuation report
• Product ID label on both sides behind the cable dividers
• Application-specific legs packed in foil tube, not in the robust installation tube
• Depending on length, as cable reel on cardboard or wooden reel

Installation Tube Indoor, IP50 dustproof

PreCONNECT® FIBER TRUNK MULTI JUMPER
Efficiency Indoor Cable with
Mini Loose Tube Cables

Cable type I-B(ZN)BH 6 x 12

TECHNICAL DATA   CABLE TYPE I-B(ZN)BH n x m

CABLE DESIGN	STRANDED MINI LOOSE TUBE CABLES				
NUMBER OF FIBERS, max.	36	48	72	96	144
EXTERNAL Ø [mm]	7.6	7.6	8	9	11
MAX. TENSILE STRENGTH [N]	3000	3000	3000	3000	3000
MAX. CRUSH RESISTANCE [N/dm]	1000	1000	1000	1000	1000
MIN. BENDING RADIUS [mm] static / dynamic	75 / 115	75 / 115	80 / 120	90 / 135	110 / 165
FIRE LOAD [MJ/m]	0.69	0.69	0.73	0.92	1.43

COMPARISON MATRIX FOR CABLE PROPERTIES U-DQ(ZN)BH vs. I-B(ZN)BH see page 65.

PART NUMBERS

NUMBER OF FIBERS / CONNECTORS		OS2 9/125	OM3 50/125	OM4 50/125
36	LC Compact » SC Duplex	049A1940	049A1950 OM3	049A1950 OM4
	LC Compact » LC Compact	049A1901	049A1911 OM3	049A1911 OM4
	MU Duplex Horizontal » SC Duplex	049A1396	049A1496 OM3	049A1496 OM4
	MU Duplex Horizontal » LC Compact	049A1921	049A1931 OM3	049A1931 OM4
48	LC Compact » SC Duplex	049A1941	049A1951 OM3	049A1951 OM4
	LC Compact » LC Compact	049A1902	049A1912 OM3	049A1912 OM4
	MU Duplex Horizontal » SC Duplex	049A1397	049A1497 OM3	049A1497 OM4
	MU Duplex Horizontal » LC Compact	049A1922	049A1932 OM3	049A1932 OM4
72	LC Compact » SC Duplex	049A1942	049A1952 OM3	049A1952 OM4
	LC Compact » LC Compact	049A1903	049A1913 OM3	049A1913 OM4
	MU Duplex Horizontal » SC Duplex	049A1398	049A1498 OM3	049A1498 OM4
	MU Duplex Horizontal » LC Compact	049A1923	049A1933 OM3	049A1933 OM4
96	LC Compact » SC Duplex	049A1943	049A1953 OM3	049A1953 OM4
	LC Compact » LC Compact	049A1904	049A1914 OM3	049A1914 OM4
	MU Duplex Horizontal » SC Duplex	049A1738	049A1784 OM3	049A1784 OM4
	MU Duplex Horizontal » LC Compact	049A1924	049A1934 OM3	049A1934 OM4
144	LC Compact » SC Duplex	049A1944	049A1954 OM3	049A1954 OM4
	LC Compact » LC Compact	049A1905	049A1915 OM3	049A1915 OM4
	MU Duplex Horizontal » SC Duplex	049A1399	049A1499 OM3	049A1499 OM4
	MU Duplex Horizontal » LC Compact	049A1925	049A1935 OM3	049A1935 OM4

Other fiber types, connectors and numbers of fibers on request.

2

PreCONNECT® FIBER

PreCONNECT® FIBER TRUNK MULTI JUMPER
Universal Cable with Loose Tube design

Cable type U-DQ(ZN)BH 24

Cable type U-DQ(ZN)BH 6 x 12

TECHNICAL DATA   CABLE TYPE U-DQ(ZN)BH n x m

CABLE DESIGN	CENTRAL LOOSE TUBE		STRANDED LOOSE TUBES				
NUMBER OF FIBERS, max.	12	24	36	48	72	96	144
EXTERNAL Ø [mm]	7	7.5	12.5	12.5	13.4	14.4	17.7
MAX. TENSILE STRENGTH [N]	1750	1750	6000	6000	6000	6000	6000
MAX. CRUSH RESISTANCE [N/dm]	1500	1500	3000	3000	3000	3000	3000
MIN. BENDING RADIUS [mm] static dynamic	105 140	115 150	190 250	190 250	200 270	215 290	270 355
FIRE LOAD [MJ/m]	0.71	0.79	3.1	3.1	3.2	3.4	4.5

COMPARISON MATRIX FOR CABLE PROPERTIES U-DQ(ZN)BH vs. I-B(ZN)BH see page 65.

PART NUMBERS

NUMBER OF FIBERS CONNECTORS		OS2 9/125	OM3 50/125	OM4 50/125
12	LC Compact » SC Duplex	041 A 2050	041 A 2060 OM3	041 A 2060 OM4
	LC Compact » LC Compact	041 A 1908	041 A 1907 OM3	041 A 1907 OM4
	MU Duplex Horizontal » SC Duplex	041 A 1392	041 A 1492 OM3	041 A 1492 OM4
	MU Duplex Horizontal » LC Compact	041 A 1939	041 A 1940 OM3	041 A 1940 OM4
16	LC Compact » SC Duplex	041 A 2051	041 A 2061 OM3	041 A 2061 OM4
	LC Compact » LC Compact	041 A 2040	041 A 1928 OM3	041 A 1928 OM4
	MU Duplex Horizontal » SC Duplex	041 A 1393	041 A 1493 OM3	041 A 1493 OM4
	MU Duplex Horizontal » LC Compact	041 A 1927	041 A 1926 OM3	041 A 1926 OM4

Other fiber types, connectors and numbers of fibers on request.

PART NUMBERS

	NUMBER OF FIBERS CONNECTORS	OS2 9/125	OM3 50/125	OM4 50/125
24	LC Compact » SC Duplex LC Compact » LC Compact MU Duplex Horizontal » SC Duplex MU Duplex Horizontal » LC Compact	041A2052 041A1900 041A1394 041A1920	041A2062OM3 041A1910OM3 041A1494OM3 041A1930OM3	041A2062OM4 041A1910OM4 041A1494OM4 041A1930OM4
36	LC Compact » SC Duplex LC Compact » LC Compact MU Duplex Horizontal » SC Duplex MU Duplex Horizontal » LC Compact	041A2053 041A1901 041A1396 041A1921	041A2063OM3 041A1911OM3 041A1496OM3 041A1931OM3	041A2063OM4 041A1911OM4 041A1496OM4 041A1931OM4
48	LC Compact » SC Duplex LC Compact » LC Compact MU Duplex Horizontal » SC Duplex MU Duplex Horizontal » LC Compact	041A2054 041A1902 041A1397 041A1922	041A2064OM3 041A1912OM3 041A1497OM3 041A1932OM3	041A2064OM4 041A1912OM4 041A1497OM4 041A1932OM4
72	LC Compact » SC Duplex LC Compact » LC Compact MU Duplex Horizontal » SC Duplex MU Duplex Horizontal » LC Compact	041A2055 041A1903 041A1398 041A1923	041A2065OM3 041A1913OM3 041A1498OM3 041A1933OM3	041A2065OM4 041A1913OM4 041A1498OM4 041A1933OM4
96	LC Compact » SC Duplex LC Compact » LC Compact MU Duplex Horizontal » SC Duplex MU Duplex Horizontal » LC Compact	041A2056 041A1904 041A1783 041A1924	041A2066OM3 041A1914OM3 041A1784OM3 041A1934OM3	041A2066OM4 041A1914OM4 041A1784OM4 041A1934OM4
144	LC Compact » SC Duplex LC Compact » LC Compact MU Duplex Horizontal » SC Duplex MU Duplex Horizontal » LC Compact	041A2057 041A1905 041A1399 041A1925	041A2067OM3 041A1915OM3 041A1499OM3 041A1935OM3	041A2067OM4 041A1915OM4 041A1499OM4 041A1935OM4

Other fiber types, connectors and numbers of fibers on request.

COMPARISON MATRIX   CABLE TYPE U-DQ(ZN)BH vs. I-B(ZN)BH

PROPERTIES		U-DQ(ZN)BH (UNIVERSAL)	I-B(ZN)BH (EFFICIENCY)
Ease of installation	Flexible bending Small bending radii Lightweight	+ + +	+ + + + + +
Mechanical strength	High tensile strength High crush resistance High torsional strength	+ + + + + +	+ + +
Suitable for top-of-rack cabling	Lightweight Low fire load	+ +	+ + + +

+ good   + + excellent

PreCONNECT® FIBER BREAKOUT

APPLICATIONS

- For data center installations with short links using only a small number of fibers

PROPERTIES

- Factory-assembled with fiber optic connectors on both sides
- Tool-less installation in 19" panels and universal holders thanks to the PreCONNECT® square interface on both sides
- Standard coding of simplex connectors: 1 to n, duplex connectors: channel-wise "crossed"
- Leg length freely selectable from 20 cm to max. 5 m
- Cable length up to max. 1000 m

DEFINITION OF LENGTH

- Order length: length between the connectors at the longest legs on both sides (not between the cable dividers)
- Length tolerances:

Up to 10 m	=	+/- 50 cm
11 m to 30 m	=	+/- 100 cm
31 m to 100 m	=	+/- 150 cm
Longer than 100 m	=	+/- 2 %

CABLE TYPES

- Robust FRNC-LSZH breakout cable with up to 24 fibers
- Cable data on request

FIBER TYPES

- Can be supplied with all common commercially available fiber types
- Fiber data specifications on request

CONNECTORS

- With all common, commercially available single-fiber connectors and associated duplex variants
- With MTP® connectors

FORM OF DELIVERY

- Factory-measured with attenuation report
- Product ID label on both sides behind the cable dividers
- Connector legs in dustproof foil tubes, on request also with dustproof installation tubes as per IP50
- Depending on length, as cable reel on cardboard or wooden reel

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Installation Tube Indoor, IP50 dustproof

Cable type I-V(ZN)HH

PART NUMBERS

CHANNELS / FIBERS	CONNECTORS	OS2 9/125	OM3 50/125	OM4 50/125
6 CH / 12 F	LC Compact » LC Compact MU Duplex Horizontal » MU Duplex Horizontal MTP® 12 female » MTP® 12 female	0 3 6 A 0 5 1 2 0 3 6 A 0 5 1 3 0 3 7 A 0 1 0 2	0 3 6 A 0 5 0 3 OM3 0 3 6 A 0 5 0 2 OM3 0 3 7 A 0 1 0 0 OM3	0 3 6 A 0 5 0 3 OM4 0 3 6 A 0 5 0 2 OM4 0 3 7 A 0 1 0 0 OM4
12 CH/ 24 F	LC Compact » LC Compact MU Duplex Horizontal » MU Duplex Horizontal MTP® 12 female » MTP® 12 female	0 3 6 A 0 5 1 4 0 3 6 A 0 5 1 5 0 3 7 A 0 1 0 3	0 3 6 A 0 5 0 4 OM3 0 3 6 A 0 5 0 6 OM3 0 3 7 A 0 1 0 1 OM3	0 3 6 A 0 5 0 4 OM4 0 3 6 A 0 5 0 6 OM4 0 3 7 A 0 1 0 1 OM4

Other fiber types, connectors and numbers of fibers on request. With single-fiber connectors, only up to max. 24 fibers can be supplied. With MTP® connectors on both sides, up to 144 fibers can be supplied. Hybrid MTP® not possible on single-fiber connectors. MTP® is a registered trademark of US-Conec Ltd.

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PreCONNECT® FIBER

On request, also available in old design without PreCONNECT® square interface or as factory-assembled mini breakout cable.

Mini breakout
Cable type I-V(ZN)H

Breakout

Mini breakout

PreCONNECT® FIBER MTP® HARNESSES
For our channelwise crossed MTP® Trunks

Type 1

Type 2

APPLICATIONS FOR TYPE 1

- For the internal cabling of large servers and switches in data centers

APPLICATIONS FOR TYPE 2

- If longer harness lengths are required, e.g. for cabling of rack rows in data centers

PROPERTIES OF TYPE 1

- This MTP® Harness separates the channels of MTP® trunk cables in duplex connectors such as LC Compact.
- Fixed short 15 cm MTP® leg, variable-length duplex connector leg
- Shortest possible overall length: 60 cm
- Greatest possible overall length: 4 m

PROPERTIES OF TYPE 2

- This MTP® Harness separates the channels of MTP® trunk cables in duplex connectors such as LC Compact.
- Variable-length, robust double-jacket MTP® leg, fixed duplex connector legs
- Shortest possible overall length: 60 cm
- Greatest possible overall length: unlimited

CABLE TYPES

- Various FRNC-LSZH cables and connector legs
- Cable data on request

FIBER TYPES

- According to part number table
- Other fiber types and data on request

CONNECTORS

- MTP® 12 fibers with guide pins (male) and all common, commercially available duplex connectors

CODING

- "Uncrossed" to maintain the channelwise "crossed" of our MTP® trunk cables

FORM OF DELIVERY

- Factory-measured attenuation report in accordance with IEC 61300-3-4 "Substitution" method, measurement values on request
- Serial numbers and product ID label
- Individually packed in foil bags

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MTP® HARNESSES
Type 1

PART NUMBERS			

CONNECTORS	FIBER TYPE		
	OS2 9/125	OM3 50/125	OM4 50/125
MTP® 12 male » 6 LC Compact 15 cm MTP® leg	0 7 5 A 0 5 0 0	0 7 5 A 0 5 0 1 OM3	0 7 5 A 0 5 0 1 OM4

Available with other duplex connectors on request.

MTP® HARNESSES
Type 2

PART NUMBERS			

CONNECTORS	FIBER TYPE		
	OS2 9/125	OM3 50/125	OM4 50/125
MTP® 12 male » 6 LC Compact 0.5 m duplex connector leg	0 7 6 A 0 1 0 0	0 7 6 A 0 1 0 1 OM3	0 7 6 A 0 1 0 1 OM4
MTP® 12 male » 6 LC Compact 1.5 m duplex connector leg	0 7 6 A 0 1 0 3	0 7 6 A 0 1 0 4 OM3	0 7 6 A 0 1 0 4 OM4

Available with other duplex connectors on request. Other duplex connector legs including application-specific variants suitable for the equipment for connection available on request.

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2

PreCONNECT® FIBER

PreCONNECT® FIBER for special applications
PARALLEL OPTICS IN THE DATA CENTER (PO)

APPLICATIONS
- For connecting equipment with Multimode MTP® transceivers for parallel optic applications

PROPERTIES
- Factory-assembled connectors on both sides
- Transmission properties suitable for parallel optic applications

CABLE TYPES
- Various FRNC-LSZH cable types
- Cable data on request

FIBER TYPES
- Multimode OM3 and OM4
- Fiber data specifications on request

CONNECTORS
- With MTP®, LC, MU and SC connectors

FORM OF DELIVERY
- Factory-measured with attenuation report
- Product ID label on both sides
- Connector legs in dustproof foil tubes, on request also with dustproof installation tubes as per IP50
- Depending on length, as cable reel on cardboard or wooden reel

MTP® is a registered trademark of US-Conec Ltd.

SR4 SINGLE CABLE
For 40 & 100GBASE-SR4, 4 x 16GFC, InfiniBand® 4 x:

PART NUMBER	SR4 SHORT LINK CABLE FOR SHORT LINKS			
FIBERS	**DESCRIPTION**	**LENGTH**	**Ø [mm]**	**OM4 50/125**
8	Single-Jacket Cable FRNC-LSZH with MTP® 12 female on both sides » coding 1 to 12	variable	3	0 8 0 A 2 0 3 0 OM4

PART NUMBER	SR4 LONG LINK CABLE FOR LONG LINKS			
8	Double-Jacket Cable FRNC-LSZH with MTP® 12 female on both sides » coding 1 to 12	variable	4.5	0 8 0 A 2 0 3 1 OM4

PO SINGLE CABLES
For 40 & 100GBASE-SR4, 4 x 16GFC, 100GBASE-SR10 Option B&C and InfiniBand® 4 x & 12 x:

PART NUMBER	PO SHORT LINK CABLE FOR SHORT LINKS			
FIBERS	**DESCRIPTION**	**LENGTH [m]**	**Ø [mm]**	**OM4 50/125**
12	Single-Jacket Cable FRNC-LSZH with MTP® 12 female on both sides » coding 1 to 12	variable	3	0 8 0 A 0 5 8 0 OM4

PART NUMBER	PO LONG LINK CABLE FOR LONG LINKS			
12	Double-Jacket Cable FRNC-LSZH with MTP® 12 female on both sides » coding 1 to 12	variable	4.5	0 8 0 A 0 7 4 3 OM4

PO MULTI CABLES
For 40 & 100GBASE-SR4, 4 x 16GFC, 100GBASE-SR10 Option B&C and InfiniBand® 4 x & 12 x:

PART NUMBERS	PO BREAKOUT CABLES			
FIBERS	**DESCRIPTION**	**LENGTH [m]**	**Ø [mm]**	**OM4 50/125**
2 x 12 4 x 12 8 x 12 12 x 12	Breakout Cable FRNC-LSZH with MTP® 12 female on both sides » coding 1 to 12	MTP® leg length freely selectable	8.9 8.9 13.1 16.5	0 3 7 A 2 0 3 9 OM4 0 3 7 A 2 0 4 0 OM4 0 3 7 A 2 0 4 1 OM4 0 3 7 A 2 0 4 2 OM4

PO 4 x HARNESS
For MTP® SR4 transceivers with 4 duplex transceivers:

PART NUMBERS				
FIBERS	**DESCRIPTION**	**LENGTH LC LEGS [m]**	**OVERALL LENGTH**	**OM4 50/125**
8	Double-Jacket Cable FRNC-LSZH LC Compact, legs numbered 1 - 4	0.5 3.0	variable	0 7 6 A 0 1 1 2 OM4 0 7 6 A 0 1 1 3 OM4

MIGRATION OF DUPLEX INFRASTRUCTURE CABLING TO SR4
40 & 100GBASE-SR4, 4 x 16GFC InfiniBand® 4 x applications:

PART NUMBERS					
FIBERS	**DESCRIPTION**	**CONNECTORS**	**LENGTH SIMPLEX LEGS [m]**	**OVERALL LENGTH**	**OM4 50/125**
8	Double-Jacket Cable FRNC-LSZH, numbered with the associated T x 1 - T x 4 & R x 1 - R x 4 of the connected transceiver	SC Simplex LC Simplex MU Simplex	0.5	variable	0 7 6 A 0 0 5 0 OM4 0 7 6 A 0 0 5 1 OM4 0 7 6 A 0 0 5 5 OM4

Simplex leg length = 0.5, other lengths available on request Order length = Overall length.

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2

PreCONNECT® FIBER

PreCONNECT® FIBER for special applications
PreCONNECT® FIBER TRUNK MOBILE

Variant with
heavy-duty connector

Model 1

Model 2

APPLICATIONS

- For the emergency replacement of failed fiber optic links (indoor and outdoor applications)
- Broadcasting: for mobile applications in the event, lecture and presentation technology fields, e.g. TV transmissions
- Industry: for mobile applications, e.g. in the mining sector

PROPERTIES

- Mobile trunk with robust, high-quality drum
- Enhanced protection due to captive installation tubes on both sides for all common, commercially available connectors
- Halogen-free and flexible at low temperatures
- Notch-proof and abrasion-resistant
- Resistant to oil and chemicals
- Factory-assembled with fiber optic connectors on both sides
- Standard coding: channel-wise "crossed"

DEFINITION OF LENGTH

- Order length: length between the connectors at the longest legs on both sides (not between the cable dividers)
- Length tolerances:
  Up to 10 m   = +/- 50 cm
  11 m to 30 m   = +/- 100 cm
  31 m to 100 m   = +/- 150 cm
  Longer than 100 m   = +/- 2 %
- Leg lengths stepped on both sides as indicated in table on page 59

CABLE TYPES

- Can be supplied with robust, flexible loose tube cables of up to 24 fibers
- Available with breakout cables for outdoor applications
- Can also be supplied with hybrid cables (fiber optic/copper)
- Cable data on request

FIBER TYPES

- Can be supplied with all common commercially available fiber types
- Fiber data specifications on request

CONNECTORS

- Can be supplied with all common, commercially available connectors, see pages 154 – 165
- Available with heavy-duty connectors (IP 67), see pages 174 – 177

OPTIONAL

- Cable with enhanced tensile strength and crush resistance
- Cable with special reinforcement
- Transport cart or trolley

FORM OF DELIVERY

- Factory-measured with attenuation report
- Product ID label on both sides behind the cable dividers
- Supplied on cardboard, wooden or mobile drum depending on length
- Part numbers on request

Captive installation tubes on both sides IP67 waterproof

MODEL 1: INSTALLATION TUBE ON BOTH SIDES

- The fiber optic connectors are mounted on both sides of our robust PreCONNECT® Cable Dividers with stepped legs (1).
- The cable dividers with the legs and fiber optic connectors are protected during storage, transport and installation by captive installation tubes that are waterproofed in accordance with IP67 and are torsion- and crush-resistant.
- The free cable length up to the connectors on the drum side (2) is approx. 3 m as standard.
- Other lengths available on request

MODEL 2: INSTALLATION TUBE AND OUTLET SOCKET

- On the drum side, the internal FO connectors are routed to FO adapters that are mounted in a shockproof steel outlet socket that is dustproof to IP50 and equipped with a protective cover (3). This steel outlet socket gives the FO interfaces the best possible protection against damage during storage, transport, installation and operation.
- On the winding side, the fiber optic connectors are mounted on our robust PreCONNECT® Cable Divider with stepped legs (4).
- The cable divider with the legs and fiber optic connectors is protected during storage, transport and installation by a captive installation tube that is waterproofed in accordance with IP67 and is torsion- and crush-resistant.


Transport cart

Trolley

CHAINING KIT FOR MODEL 2

- The chaining kit is available as an option for the PreCONNECT® FIBER Trunk Mobile type 2 model. They can then be chained or connected together to cover greater distances.
- The kit consists of a small cage (5) and a tough protective cover (6).
- The cage (5) is mounted next to the outlet socket (7) on the "extension drum".
- It houses the cable divider (8) and associated connector legs of the PreCONNECT® FIBER Trunk Mobile drum.
- The protective cover (6) is fastened in place over the extension drum to provide protection against damp and dirt.

Chaining kit

2
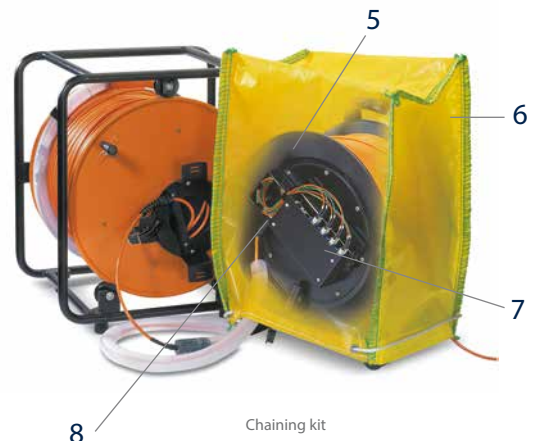
PreCONNECT® FIBER

PreCONNECT® FIBER for special applications
PreCONNECT® FIBER TRUNK OUTDOOR

Patchcord Outdoor
see page 100.

APPLICATIONS

- Ready-to-connect multi-channel cables for components in outdoor use
- Communications, offshore or mining equipment in unprotected outdoor environments for integration in structured cabling solutions

PROPERTIES

- Operating temperature range from -40 °C to +85 °C
- High UV resistance
- High crush resistance
- Fiber optic connectors assembled on both sides
- Coding standard: channel-wise "crossed"
- Cable length up to 2000 m, longer lengths on request
- Tool-less mounting due to 19" panels and PreCONNECT® square interface on both sides

DEFINITION OF LENGTH

- Order length: total length between connectors, (not between cable dividers)
- Length tolerances:
  Up to 10 m   = +/- 50 cm
  11 m to 30 m   = +/- 100 cm
  31 m to 100 m   = +/- 150 cm
  Longer than 100 m   = +/- 2 %
- Leg lengths stepped on both sides as indicated in table on page 59, for installation in distribution panels

CABLE TYPES

- Central loose tube cables with up to 36 fibers available
- Cables compliant with IEC and UL specifications available
- Cable data on request

FIBER TYPES

- Singlemode (9/125 μm) and multimode (50/125 μm)
- Fiber data specifications on request

CONNECTORS

- LC Compact
- Other connector types on request

OPTIONAL

- Reinforced cables with rodent protection
- Hybrid connector configuration
- OTDR measured with measurement report
- Return loss (RL) measurement

FORM OF DELIVERY

- Factory-measured with attenuation report
- Product ID label on both sides behind the cable dividers
- Depending on length, as cable reel on cardboard or wooden drum

Installation Tube Outdoor,
IP67 waterproof

Cable type A-DQ(ZN)B2Y 24

Operating temperature: -40 °C to +85 °C, for less demanding outdoor applications see PreCONNECT® FIBER Trunk, page 61

TECHNICAL DATA

NUMBER OF FIBERS	12	24	36
LEG LENGTH [cm] side A side B	55 - 80 135 - 220	55 - 80 55 - 80	60 - 85 195 - 220
DIAMETER OF INSTALLATION TUBE [mm] ca.	34	34	38
MAX. STRAIN RELIEF [N] OF INSTALLATION TUBE	600	600	600
CRUSH RESISTANCE [N/cm]	30	30	30

PART NUMBERS

CHANNELS / FIBERS	CONNECTORS	G657A*	MM OM2
6 CH / 12 F	LC Compact » LC Compact	0 4 8 A 0 1 5 0	0 4 8 A 0 1 5 1
12 CH/ 24 F	LC Compact » LC Compact	0 4 8 A 0 1 5 2	0 4 8 A 0 1 5 3
18 CH / 36 F	LC Compact » LC Compact	0 4 8 A 0 1 5 4	0 4 8 A 0 1 5 5

*SM OS2, MM OM3, OM4 on request. Other connector types and leg lengths on request.

2

PreCONNECT® FIBER

PreCONNECT® FIBER TRUNK CONNECTION OUTDOOR
(Multi-channel)

2-Channel Patchcord Outdoor, side A: 2 x tough, cast LC Compact, side B: 2 x LC Compact with 3 mm legs

APPLICATIONS
- Multi-fiber cabling for components in outdoor use
- Communications, offshore or mining equipment in unprotected outdoor environments for integration in structured cabling solutions
- Single-fiber trunk with 6 to 48 fibers (3 to 24 pairs/channels)
- Rosenberger Duplex Connector (RDC) on side A, LC connector on side B
- Singlemode or multimode

PROPERTIES
- Operating temperature range from -40 °C to +85 °C
- High UV resistance
- High crush resistance
- Fiber optic connectors assembled on both sides
- 3, 6, 12, 18 or 24 data channels in one cable
- Individually coded duplex connectors
- "Crossed" data channels
- Specific leg lengths on customer request
- Cable length freely selectable

DEFINITION OF LENGTH
- Order length: total length between connectors, (not between cable dividers)
- Length tolerances:

  Up to 10 m   = +/- 50 cm
  11 m to 30 m   = +/- 100 cm
  31 m to 100 m   = +/- 150 cm
  Longer than 100 m = +/- 2 %

CABLE TYPES
- Mini-breakout or breakout solutions using 6 mm - 10 mm cables
- Cables compliant with IEC and UL specifications available
- Cable data on request

FIBER TYPES
- Singlemode (9/125 µm) and multimode (50/125 µm)

CONNECTORS
- Side A: RDC 2-fiber Outdoor connector
- Side B: LC Compact connector
- Other connector types on request

FORM OF DELIVERY
- Factory-measured with test report
- Product ID label on both sides
- Connector legs in dustproof foil tubes, on request also with dustproof installation tubes according to IP50
- Depending on length, as cable reel on cardboard or wooden drum

Installation Tube Outdoor, IP67 waterproof (optional)

PreCONNECT® FIBER BREAKOUT CONNECTION OUTDOOR

4-Channel Breakout Cable Outdoor, side A and side B: Either RDC Outdoor connector or tough, cast LC Compact connector on 5 mm Outdoor legs

PART NUMBERS
FIBER BREAKOUT CONNECTION OUTDOOR

CHANNELS / FIBERS	Ø [mm]	CONNECTORS	G657A 9/125	OM3* 50/125
4 CH / 8F	7.7	RDC » LC Duplex	0 4 8 A 0 1 2 2	0 4 8 A 0 1 2 1

PART NUMBERS
FIBER TRUNK CONNECTION OUTDOOR

CHANNELS / FIBERS	Ø [mm]	CONNECTORS	G657A 9/125	OM2* 50/125
6 CH / 12 F	10	RDC » LC Compact	0 4 8 A 0 1 6 6	0 4 8 A 0 1 6 7
9 CH / 18 F	10	RDC » LC Compact	0 4 8 A 0 1 6 8	0 4 8 A 0 1 6 9
12 CH/ 24 F	10	RDC » LC Compact	0 4 8 A 0 1 7 0	0 4 8 A 0 1 7 1
18 CH / 36 F	10	RDC » LC Compact	on request	on request
24 CH / 48 F	10	RDC » LC Compact	on request	on request

*All multimode products are available in OM2, OM3 or OM4.

2

PreCONNECT® FIBER

PreCONNECT® FIBER TRUNK OUTDOOR
(Multi-channel)

APPLICATIONS

- Multi-fiber cabling for components in outdoor use
- Communications, offshore or mining equipment in unprotected outdoor environments for integration in structured cabling solutions

PROPERTIES

- Operating temperature range from -40 °C to +85 °C
- High UV resistance
- High crush resistance
- Fiber optic connectors assembled on both sides
- 3, 6, 12, 18 or 24 data channels in one cable
- Individually coded duplex connectors
- "Crossed" data channels
- Specific leg lengths on customer request
- Cable length freely selectable

DEFINITION OF LENGTH

- Order length: total length between connectors, (not between cable dividers)
- Length tolerances:

Up to 10 m	=	+/- 50 cm
11 m to 30 m	=	+/- 100 cm
31 m to 100 m	=	+/- 150 cm
Longer than 100 m	=	+/- 2 %

CABLE TYPES

- Mini-breakout or breakout solutions using 6 mm - 10 mm cables
- Cables compliant with IEC and UL specifications available
- Cable data on request

FIBER TYPES

- Singlemode (9/125 µm) and multimode (50/125 µm)

CONNECTORS

- LC Duplex and LC Compact
- Other connector types on request

FORM OF DELIVERY

- Factory-measured with test report
- Product ID label on both sides
- Connector legs in dustproof foil tubes, on request also with dustproof installation tubes according to IP50
- Depending on length, as cable reel on cardboard or wooden drum

Installation Tube Outdoor, IP67 waterproof (optional)

PreCONNECT® Trunk Eco Outdoor (6-channel)

Outdoor distribution box

You can find further Outdoor
distribution boxes as of page 138.

Indoor distribution panel

PART NUMBERS
PreCONNECT® FIBER TRUNK OUTDOOR

CHANNELS / FIBERS	CONNECTORS	G657A* 9/125	OM2* 50/125	DISTRIBUTION BOX OUTDOOR	DISTRIBUTION PANEL OUTDOOR
6 CH / 12 F	LC Compact » LC Compact	048A0150	048A0151	220A1003	220A2003
9 CH / 18 F	LC Compact » LC Compact	048A0172	048A0173	220A1004	220A2004
12 CH / 24 F	LC Compact » LC Compact	048A0152	048A0153	220A1005	220A2005
18 CH / 36 F	LC Compact » LC Compact	048A0154	048A0155	220A1006	220A2006
24 CH / 48 F	LC Compact » LC Compact	048A0176	048A0177	220A1007	220A2007

*SM OS2, MM OM3 and OM4 on request.

PART NUMBERS
PreCONNECT® TRUNK ECO OUTDOOR

CHANNELS / FIBERS	CONNECTORS	G657A* 9/125	OM2* 50/125	DISTRIBUTION BOX OUTDOOR	DISTRIBUTION PANEL OUTDOOR
3 CH / 6 F	LC Duplex » LC Duplex	048A0156	048A0157	220A1001	220A2001
6 CH / 12 F	LC Duplex » LC Duplex	048A0158	048A0159	220A1002	220A2002

*SM OS2, MM OM3 and OM4 on request.

2

PreCONNECT® FIBER

PreCONNECT® TOWER MULTI FIBER SYSTEM (TMFS)
(Multi-channel)

APPLICATIONS

- Multi-channel outdoor distribution system for outdoor use
- Communications, offshore or mining equipment in unprotected outdoor environments for integration in structured cabling solutions
- Distribution station with fixed outdoor cables with up to 12 channels

PROPERTIES

- Assembled Rosenberger Duplex Connector (RDC) distribution station with fixed multi-fiber cable
- Operating temperature range from -40 °C to +85 °C
- Distribution unit with up to 12 RDC receptacles
- IP67 waterproof
- High UV resistance
- High crush resistance
- Fiber optic connectors assembled on both sides
- Individually coded duplex connectors

DEFINITION OF LENGTH

- Order length: total length between connectors, (not between cable dividers)
- Length tolerances:
  Up to 10 m   = +/- 50 cm
  11 m to 30 m   = +/- 100 cm
  31 m to 100 m   = +/- 150 cm
  Longer than 100 m = +/- 2 %

CABLE TYPES

- Central loose tube cables with up to 24 fibers available
- Cables compliant with IEC and UL specifications available
- Cable data on request

FIBER TYPES

- Singlemode (9/125 μm) and multimode (50/125 μm)
- Fiber data specifications on request

CONNECTORS

- Side A: LC Compact
- Side B: (distribution unit): Rosenberger Duplex Connector (RDC) receptacle

PART NUMBERS

CHANNELS / FIBERS	Ø [mm]	CONNECTORS	G657A 9/125	OM2 50/125
6 CH / 12 F	10	RDC » LC Compact	0 4 8 A 0 1 6 2	0 4 8 A 0 1 6 3
12 CH/ 24 F	10	RDC » LC Compact	0 4 8 A 0 1 6 0	0 4 8 A 0 1 6 1

OM3 and OM4 on request.

PreCONNECT® FIBER TRUNK SLIM OUTDOOR

APPLICATIONS

- Particularly suitable for confined installation spaces
- Can be integrated in existing cable ducts
- Preassembled half-trunk, 2nd end not configured, suitable for splice connections

PROPERTIES

- Preassembled half-trunk with cable divider and 6 LC Duplex connectors (LCD), e.g. ready for installation at top of tower in fiber distribution box
- 19" ODF with up to 6 LC -Duplex adapters and splice box for termination, e.g. at bottom of tower
- IP67 waterproof

DEFINITION OF LENGTH

- Order length: length between the connectors at the longest legs on both sides (not between the cable dividers)
- Length tolerances:
  Up to 10 m   = +/- 50 cm
  11 m to 30 m   = +/- 100 cm
  31 m to 100 m   = +/- 150 cm
  Longer than 100 m = +/- 2 %

CABLE TYPES

- Central loose tube cables with up to 12 fibers available
- Cables compliant with IEC and UL specifications available
- Cable data on request

FIBER TYPES

- Singlemode (9/125 µm) and multimode (50/125 µm)
- Fiber data specifications on request

CONNECTORS

- Side A: LC Compact
- Side B: not configured, suitable for splice connections

FORM OF DELIVERY

- Factory-measured with test report
- Product ID label on both sides
- Connector legs in dustproof foil tubes, on request also with dustproof installation tubes according to IP50
- Depending on length, as cable reel on cardboard or wooden drum

2

PreCONNECT® FIBER

PART NUMBERS

CHANNELS / FIBERS	CONNECTORS	G657A 9/125	OM2 50/125	DISTRIBUTION BOX OUTDOOR	DISTRIBUTION PANEL OUTDOOR
6 CH / 12 F	LC Duplex	048A0164	048A0165	220A1008	220A2008

RFE – ROSENBERGER FIBER ENCLOSURE

APPLICATIONS

The Rosenberger Fiber Enclosure (RFE) possesses high UV resistance and is waterproof to IP67. It therefore offers outstanding protection for fiber optic links. The RFE can be used with a wide range of Rosenberger jumpers.

Rosenberger Fiber Enclosure (RFE)

RFE adapter for protection of FO links against environmental influences in accordance with IP67. Example application Adapter with magnet holder

PROPERTIES

- Makes it possible to use conventional fiber optic connectors in harsh outdoor environments
- Preassembled or supplied for on-site assembly
- Fast, simple connection to Remote Radio Heads (RRHs), small cells, distribution boxes for industrial and mast cabling as well as for many other applications
- Installation tube available for long legs
- Protective cover can also be used as carrying handle

INSTALLATION

The RFE can be installed in just 10 seconds

www.youtube.com/watch?v=gsW50MR8cFU

RFE flange

+

SEALING

The RFE provides sealing for a range of cables

www.youtube.com/watch?v=LDiFGvownuk

RFE cable sealing

+

RFE IP protective cover
with hoist

+

RFE extension tube

PART NUMBERS

RFE flange	98Z405-K00
RFE Rosenberger Fiber Enclosure compatible with Full AXS	98Z105-S00
RFE protective cover, IP-protected with hoist	98Z105-S00/53
RFE extension tube – for long legs	98Z105-S90-380
RFE adapter for Fiber In-Line link, LCD or MTP®, with magnetic holder	220A1009

MTP® is a registered trademark of US-Conec Ltd.

PreCONNECT® FIBER ACCESSORIES

PART NUMBER
19" 1 HU UNIVERSAL TRUNK CABLE DIVIDER HOLDER

For the universal installation of trunk cable dividers in 19" cabinets and racks. RAL 9005 (matt black)	0 9 9 A 0 0 8 5	

PART NUMBER
19" 1 HU UNIVERSAL TRUNK CABLE DIVIDER HOLDER

For the universal installation of trunk cable dividers in 19" cabinets or racks or anywhere where these components can be installed individually, RAL 9005 (matt black)	0 9 9 A 0 0 6 5	
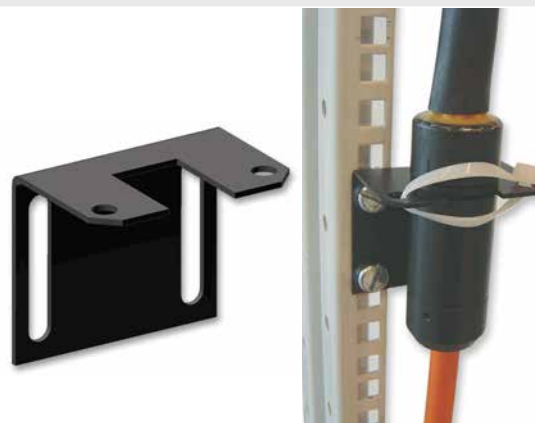
PART NUMBERS
MTP® 19" UNIVERSAL ADAPTER BRACKETS

For universal custom MTP® cabling in 19" cabinets and racks. Specially suitable for the cabling of large switches with high port densities.		
12 x MTP® singlemode 9 / 125 µm	0 9 9 A 0 3 6 6	
12 x MTP® singlemode 50 / 125 µm OM3	0 9 9 A 0 3 6 5 OM3	
12 x MTP® singlemode 50 / 125 µm OM4	0 9 9 A 0 3 6 5 OM4	
19" 1 HU support for brackets	0 9 9 A 0 0 8 6	
RAL 9005 (matt black)		
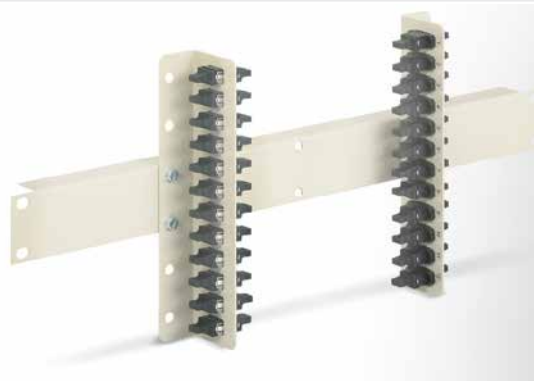
MTP® is a registered trademark of US-Conec Ltd.

MINI UNIVERSAL ADAPTER BRACKETS

6 x MU Duplex
• Width: 80 mm
• Height: 1 HU = 44 mm

6 x LC Duplex

3 x MTP®

APPLICATIONS

• Suitable for installation on 19" bars and for universal mounting

PROPERTIES AND FORM OF DELIVERY

• Material: Powder-coated sheet steel
• Color: RAL 9005 (matt black)
• Elongated holes on all sides for universal fixing
• Adapters mounted
• No screw or cage nuts

2

PART NUMBERS

NUMBER OF ADAPTERS / TYPE OF ADAPTER		SM	MM 50 µm OM3	MM 50 µm OM4
2	MU Duplex	099A0348	099A0350OM3	099A0350OM4
4	MU Duplex	099A0351	099A0353OM3	099A0353OM4
6	MU Duplex	099A0354	099A0356OM3	099A0356OM4
2	LC Duplex	099A0345	099A0347OM3	099A0347OM4
4	LC Duplex	099A0342	099A0344OM3	099A0344OM4
6	LC Duplex	099A0340	099A0305OM3	099A0305OM3
1	MTP®	099A0362	099A0364OM3	099A0364OM4
2	MTP®	099A0359	099A0361OM3	099A0361OM4
3	MTP®	099A0357	099A0306OM3	099A0306OM4

Other adapter types and numbers on request. MTP® is a registered trademark of US-Conec Ltd.
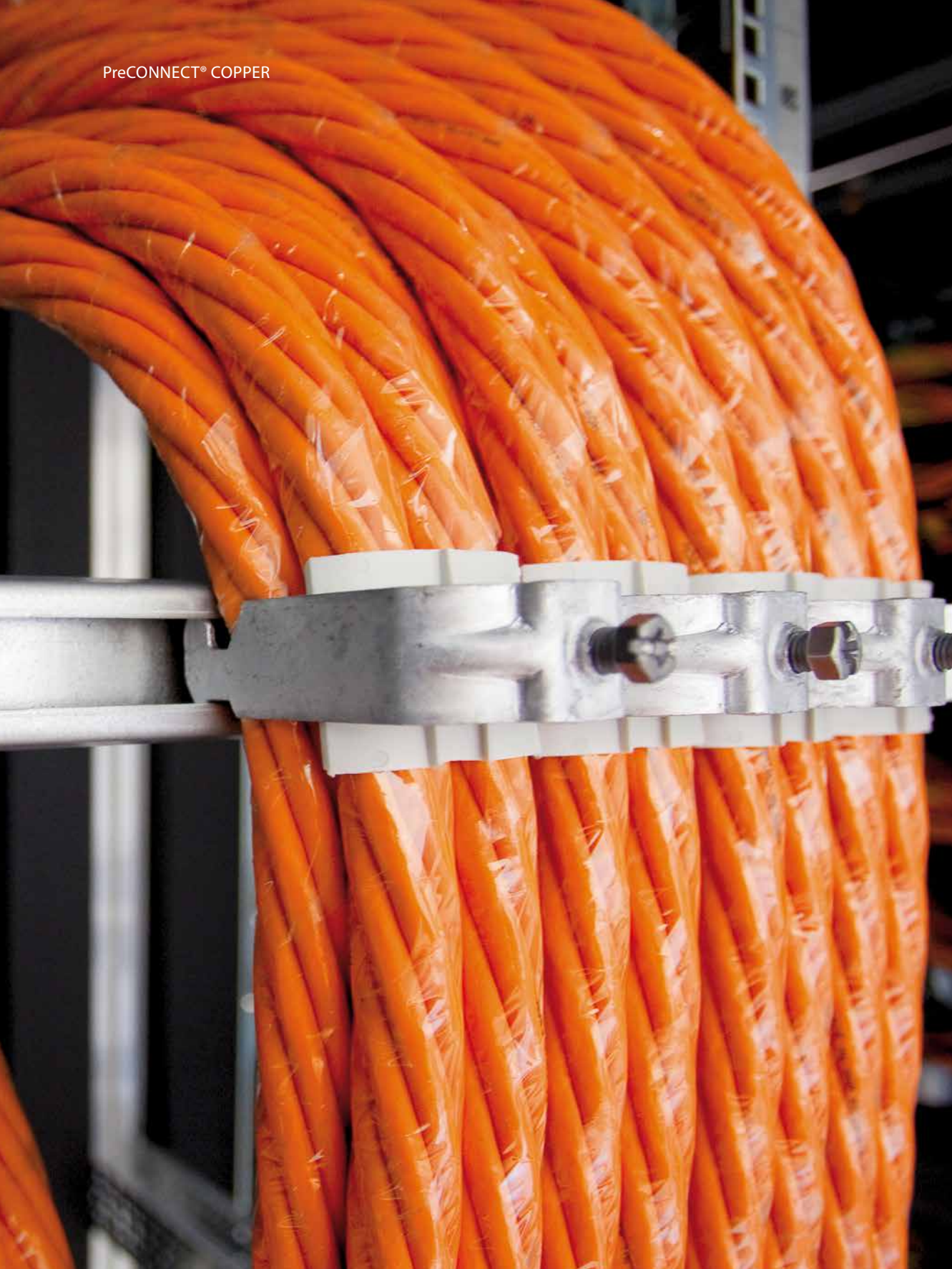
CABLE ASSEMBLIES: PreCONNECT® COPPER

<div style="text-align:right">2</div>

Many modern data centers use hybrid cabling infrastructures in which fiber optic products are operated alongside conventional copper cables. To live up to our claim to act as a one-stop shop for the entire data center cabling sector, we have developed our PreCONNECT® COPPER series of products. Every detail of these trunks and patchcords reflects almost 25 years of experience of meeting data center needs as well as the uncompromising quality demands and the outstanding innovative capabilities that are hallmarks of Rosenberger OSI. So you can be sure that your cabling offers the best possible performance - whatever configuration you choose.

PreCONNECT® COPPER TRUNK

Minimum required diameter for feedthroughs: 90 mm

APPLICATIONS

- 6-channel copper data cables with RJ45 jack modules on both sides supplied ready for installation. Particularly suitable for use in data centers.

PROPERTIES

- Stranded 6-channel S-STP Cat. 7 AWG 23 FRNC-LSZH cable with Cat. 6_A RJ45 jack modules
- GHMT certified
- 4 connector channel 10 GBE class E_A
- Leg length 30 cm
- Stepped leg lengths also available

CABLE TYPES

- 6 stranded Cat. 7 S-STP copper data cables wound with self-extinguishing, halogen-free, transparent foil
- Solid wire AWG 23 with screened, braided pairs
- Cable diameter: 22.3 mm

JACK MODULE

- RJ45, screened, Cat. 6_A
- Suitable for standard keystone holes

FORM OF DELIVERY

- Factory-measured with attenuation report
- Product ID label on both sides
- Jack modules packed in strain-resistant, dustproof cable grips
- On request, can be supplied in strain-resistant, crush-proof, dustproof installation tubes
- Depending on length, as cable reel on cardboard or wooden reel

For associated copper panels, see pages 140 / 141

PART NUMBER

PreCONNECT® COPPER Trunk	047A0101

PART NUMBERS   PATCHCORD COPPER
Screened Cat. 6 RJ45 connectors with molded boots as per Cat. 7 S/FTP LSZH flex

LENGTH [m]	PART NUMBERS	
1	800A0001	
2	800A0003	
3	800A0005	
5	800A0007	

These patchcords can be used in combination with PreCONNECT® COPPER Trunks as well as with Multi Jumper Trunks.
Other lengths, colors and types available on request.

2

PreCONNECT® COPPER

PreCONNECT® COPPER TRUNK MULTI JUMPER

APPLICATIONS

- Assembled 6-channel copper data cables ready for installation in data centers

PROPERTIES

- Suitable for 4 connector channel 10 GBE class E_A, but limited to 60 m
- Leg length for jack modules 30 cm, stepped leg lengths also available
- Variable leg lengths can be ordered for connectors

CABLE TYPES

- 6 stranded Cat. 7 S / FTP copper data cables wound with self-extinguishing, halogen-free, transparent foil
- Flex braid wire AWG 26 with screened, braided pairs
- Cable diameter: 17.6 mm

CONNECTORS

- RJ45, screened, Cat. 6

JACK MODULE

- RJ45, screened, Cat. 6_A
- Suitable for standard keystone holes

FORM OF DELIVERY

- Factory-measured with attenuation report
- Product ID label on both sides
- Connectors and jack modules packed in strain-resistant, dustproof cable grips
- On request, can be supplied in strain-resistant, crush-proof, dustproof installation tubes
- Depending on length, as cable reel on cardboard or wooden reel

You can order the PreCONNECT® COPPER Trunk Multi Jumper with factory-assembled RJ45 connectors or RJ45 jack modules as required.

RJ45 connector   RJ45 jack module

PART NUMBERS

DESIGNATION	SIDE A	SIDE B	PART NUMBERS
PreCONNECT® COPPER Trunk Multi Jumper Jack module » Jack module	Cat. 6_A RJ45 jack module	Cat. 6_A RJ45 jack module	0 4 7 A 0 1 3 0
PreCONNECT® COPPER Trunk Multi Jumper Connector » Jack module	Cat. 6 RJ45 connector	Cat. 6_A RJ45 jack module	0 4 7 A 0 1 3 1
PreCONNECT® COPPER Trunk Multi Jumper Connector » Connector	Cat. 6 RJ45 connector	Cat. 6 RJ45 connector	0 4 7 A 0 1 3 2

2

PreCONNECT® COPPER

CABLE ASSEMBLIES: PATCHCORDS AND PIGTAILS

2

Whether you choose fiber or copper – because of their crucial function, patchcords are the structured cabling components that have to withstand the greatest loads. At Rosenberger OSI , we know: Any network is only as good as its weakest component. That is why we accept no compromises with our patchcords and pigtails. Because they have a decisive influence on transmission properties and consequently on the quality of cabling infrastructures.

Rosenberger OSI manufactures this product family for every field of application and ensures optimized kink and crush resistance for special environmental conditions. The installation of pigtails, in particular, is a work-intensive task. That is why the high-quality cables from Rosenberger OSI have been designed to guarantee long, failure-free service lives with minimum maintenance requirements.

PATCHCORD FIBER
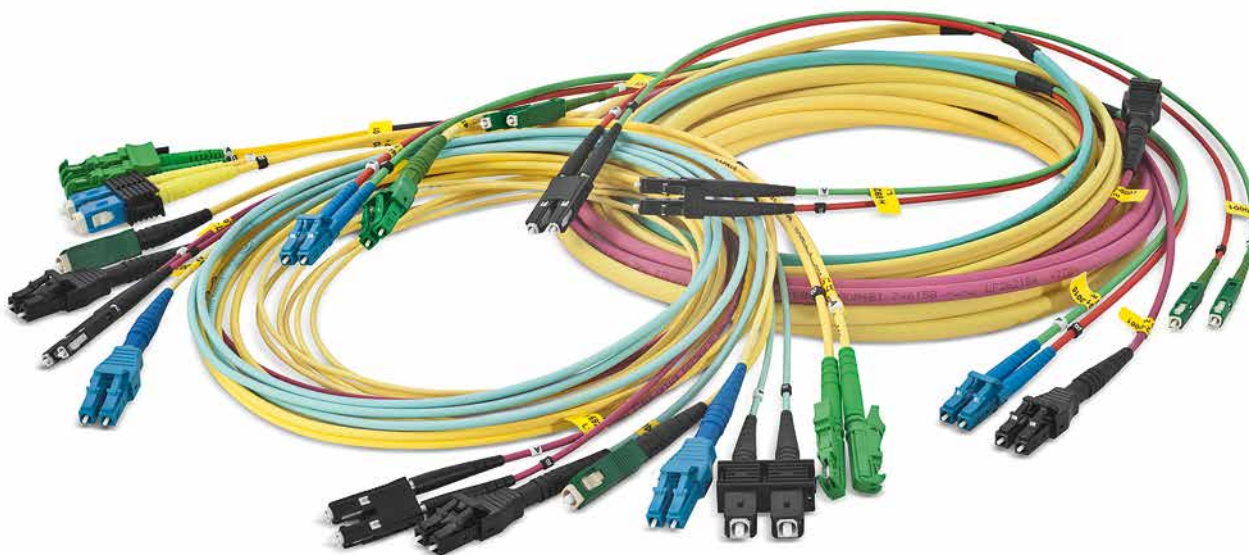
APPLICATIONS

- Patchcords suitable for cabling in data centers and office buildings
- Patchcords for mobile communications, industrial applications available on request

PROPERTIES

- Kink and crush resistance optimized for environmental conditions
- Suitable for operation in temperatures from -10 °C to +60 °C, patchcords for other temperature ranges on request
- Coding:
  - Full-duplex cables with duplex connectors on both sides "crossed" in accordance with ISO/IEC 11801 and EN 50173
  - Half-duplex cables with duplex/simplex connectors "uncrossed".
  - Duplex cables with simplex connectors on both sides "uncrossed".

LENGTH TOLERANCES

- Up to 1 m   = - 50 mm
  2 m to 3 m   = - 100 mm
  4 m to 25 m   = - 200 mm
  Longer than 25 m = - 1 %

CABLE TYPES

- Various FRNC-LSZH cables
- Cable data on request

FIBER TYPES

- Can be supplied with all common commercially available fiber types
- Fiber data specifications on request

CONNECTORS

- Can be supplied with all common commercially available connectors

FORM OF DELIVERY

- Factory-measured attenuation report in accordance with IEC 61300-3-4 "C" or "Substitution" method, measurement values on request
- Serial number labels at the cable ends on both sides for entry in the network documentation
- Product ID label on packaging
- Individually packaged in foil bags. As of a length of 100 m, on cardboard drum
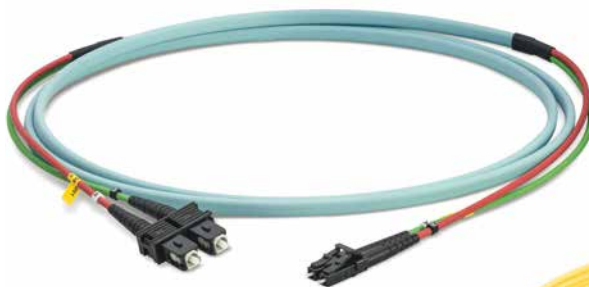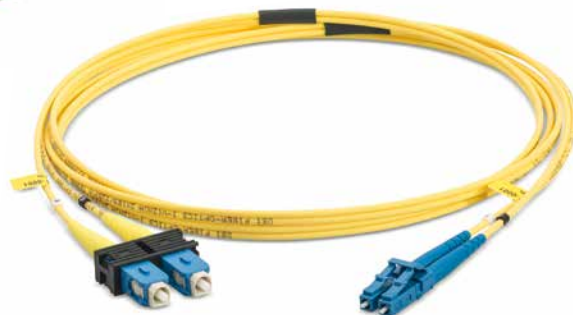
SOME VARIANTS OF OUR DUPLEX PATCHCORDS

LC Compact » LC Compact
cable type: round I-V(ZN)H 2.8 mm FRNC-LSZH

LC Duplex » LC Duplex
cable type: Zipcord I-V(ZN)H 2 x 2.1 mm FRNC-LSZH

LC Duplex » SC Duplex
cable type: double-jacket I-V(ZN)HH 2 x 2.8 mm FRNC-LSZH

LC Duplex » SC Duplex
cable type: Zipcord I-V(ZN)H 2 x 2.1 mm FRNC-LSZH

LC Duplex » SC Duplex
cable type: Zipcord I-V(ZN)H 2 x 2.1 mm FRNC-LSZH

SC Duplex » SC Duplex
cable type: Zipcord I-V(ZN)H 2 x 2.1 mm FRNC-LSZH

2

PATCHCORDS

SIMPLEX PATCHCORD
Cable type: I-V(ZN)H 1 x 2.1 mm FRNC-LSZH

PART NUMBERS

CONNECTORS	LENGTH	OS2 9/125
MU » MU	variable	0 8 8 A 0 7 2 7
MU » LC	variable	0 8 7 A 1 0 0 7
LC » LC	variable	0 8 7 A 1 0 1 0
MU APC » MU APC	variable	0 8 8 A 0 7 9 4
MU APC » LC APC	variable	0 8 8 A 0 7 2 8
LC APC » LC APC	variable	0 8 7 A 0 7 6 2

Suitable for operation in temperatures from -10 °C to +60 °C. Patchcords for other temperature ranges on request. Other connector combinations as well as cable and fiber data available on request.

SIMPLEX PATCHCORD
Cable type: I-V(ZN)H 1 x 2.8 mm FRNC-LSZH

PART NUMBERS

CONNECTORS	LENGTH	OS2 9/125	OM3 50/125	OM4 50/125
SC » SC	variable	0 6 2 A 0 1 3 0	0 6 2 A 0 1 1 0 OM3	0 6 2 A 0 1 1 0 OM4
SC » E-2000™ [1]	variable	0 6 2 A 0 8 0 0	0 6 2 A 0 8 0 1 OM3	0 6 2 A 0 8 0 1 OM4
E-2000™ [1] » E-2000™ [1]	variable	0 6 9 A 3 0 8 5	0 6 9 A 2 1 1 0 OM3	0 6 9 A 2 1 1 0 OM4
FC PC » FC PC	variable	0 6 8 A 0 1 3 0	0 6 8 A 0 1 1 0 OM3	0 6 8 A 0 1 1 0 OM4
SC APC » SC APC	variable	0 6 2 A 0 1 3 5	–	–
SC APC » E-2000™ HRL [1]	variable	0 6 2 A 0 8 4 1	–	–
E-2000™ HRL [1] » E-2000™ HRL [1]	variable	0 6 9 A 2 1 3 5	–	–
FC APC » FC APC	variable	0 6 8 A 0 1 3 5	–	–

Suitable for operation in temperatures from -10 °C to +60 °C. Patchcords for other temperature ranges on request. Other connector combinations as well as cable and fiber data available on request. [1] = Type R+M with zirconia-ceramic ferrule.

DUPLEX PATCHCORD
Cable type: Zipcord I-V(ZN)H 2 x 2.1 mm FRNC-LSZH

PART NUMBERS

CONNECTORS	LENGTH	OS2 9/125	OM3 50/125	OM4 50/125
MU Duplex Horizontal » MU Duplex Horizontal	variable	0 8 8 A 0 2 0 8	0 8 8 A 0 9 0 0 OM3	0 8 8 A 0 9 0 0 OM4
MU Duplex Horizontal » LC Duplex	variable	0 8 7 A 4 0 0 4	0 8 7 A 4 0 1 3 OM3	0 8 7 A 4 0 1 3 OM4
MU Duplex » SC Duplex	variable	0 8 8 A 2 5 4 1	0 8 8 A 2 5 4 0 OM3	0 8 8 A 2 5 4 0 OM4
LC Duplex » LC Duplex	variable	0 8 7 A 5 0 0 5	0 8 7 A 5 0 1 5 OM3	0 8 7 A 5 0 1 5 OM4
LC Duplex » SC Duplex	variable	0 8 7 A 5 0 3 5	0 8 7 A 5 0 4 5 OM3	0 8 7 A 5 0 4 5 OM4

Suitable for operation in temperatures from -10 °C to +60 °C. Patchcords for other temperature ranges on request. Other connector combinations as well as cable and fiber data available on request.

DUPLEX PATCHCORD
Cable type: I-V(ZN)H 2 x 2.8 mm FRNC-LSZH

PART NUMBERS

CONNECTORS	LENGTH	OS2 9/125	OM3 50/125	OM4 50/125
SC Duplex » SC Duplex	variable	0 6 2 A 0 1 8 0	0 6 2 A 0 1 6 0 OM3	0 6 2 A 0 1 6 0 OM4
SC Duplex » ST	variable	0 6 0 A 0 2 3 0	0 6 0 A 0 2 1 0 OM3	0 6 0 A 0 2 1 0 OM4
SC Duplex » LC Duplex	variable	0 8 7 A 2 0 6 8	0 8 7 A 2 0 7 8 OM3	0 8 7 A 2 0 7 8 OM4
ST » ST	variable	0 6 0 A 0 1 8 0	0 6 0 A 0 1 6 0 OM3	0 6 0 A 0 1 6 0 OM4
E-2000™ Compact[1] » E-2000™ Compact[1]	variable	0 6 9 A 2 2 5 6	0 6 9 A 2 2 5 7 OM3	0 6 9 A 2 2 5 7 OM4
E-2000™ Compact[1] » SC Duplex	variable	0 6 9 A 2 2 8 9	0 6 9 A 2 2 8 4 OM3	0 6 9 A 2 2 8 4 OM4
E-2000™ Simplex[1] » E-2000™ Simplex[1]	variable	0 6 9 A 2 1 8 0	0 6 9 A 2 1 6 0 OM3	0 6 9 A 2 1 6 0 OM4
SC Simplex APC » SC Simplex APC	variable	0 6 2 A 0 6 1 0	–	–
E-2000™ Simplex[1] HRL » E-2000™ Simplex[1] HRL	variable	0 6 9 A 2 2 0 0	–	–

Suitable for operation in temperatures from -10 °C to +60 °C. Patchcords for other temperature ranges on request. Other connector combinations as well as cable and fiber data available on request. [1] = Type R+M with zirconia-ceramic ferrule.

2

PATCHCORDS

⬤⬤ DUPLEX PATCHCORD
Cable type: double-jacket I-V(ZN)HH 2 x 2.1 mm FRNC-LSZH

PART NUMBERS

CONNECTORS	LENGTH	OS2 9/125	OM3 50/125	OM4 50/125
LC Duplex » LC Duplex	variable	087A1900	087A1911OM3	087A1911OM4
LC Duplex » SC Duplex	variable	087A2000	087A2079OM3	087A2079OM4
MU Duplex Horizontal » MU Duplex Horizontal	variable	088A0206	088A0216OM3	088A0216OM4
MU Duplex Horizontal » LC Duplex	variable	087A4002	087A4009OM3	087A4009OM4
E-2000™ Compact[1] » E-2000™ Compact[1]	variable	069A3049	069A3059OM3	069A3059OM4
E-2000™ Compact[1] » LC Duplex	variable	087A1205	087A1201OM3	087A1201OM4
E-2000™ Simplex[1] » E-2000™ Simplex[1]	variable	069A2181	069A2161OM3	069A2161OM4
SC Simplex APC » SC Simplex APC	variable	062A0627	–	–
E-2000™ Simplex[1] HRL » E-2000™ Simplex[1] HRL	variable	069A2202	–	–

Suitable for operation in temperatures from -10 °C to +60 °C. Patchcords for other temperature ranges on request. Other connector combinations as well as cable and fiber data available on request. [1] = Type R+M with zirconia-ceramic ferrule.

⬤⬤ DUPLEX PATCHCORD
Cable type: double-jacket I-V(ZN)HH 2 x 2.8 mm FRNC-LSZH

PART NUMBERS

CONNECTORS	LENGTH	OS2 9/125	OM3 50/125	OM4 50/125
SC Duplex » SC Duplex	variable	062A0179	062A0159OM3	062A0159OM4
SC Duplex » ST	variable	060A0229	060A0209OM3	060A0209OM4
SC Duplex » LC Duplex	variable	087A2069	087A2011OM3	087A2011OM4
ST » ST	variable	060A0198	060A0186OM3	060A0186OM4
E-2000™ Compact[1] » E-2000™ Compact[1]	variable	069A3043	069A3045OM3	069A3045OM4
E-2000™ Compact[1] » SC Duplex	variable	062A0902	062A0912OM3	062A0912OM4
E-2000™ Simplex[1] » E-2000™ Simplex[1]	variable	069A2179	069A2159OM3	069A2159OM4
SC Simplex APC » SC Simplex APC	variable	062A0612	–	–
E-2000™ Simplex[1] HRL » E-2000™ Simplex[1] HRL	variable	069A2201	–	–

Suitable for operation in temperatures from -10 °C to +60 °C. Patchcords for other temperature ranges on request. Other connector combinations as well as cable and fiber data available on request. [1] = Type R+M with zirconia-ceramic ferrule.
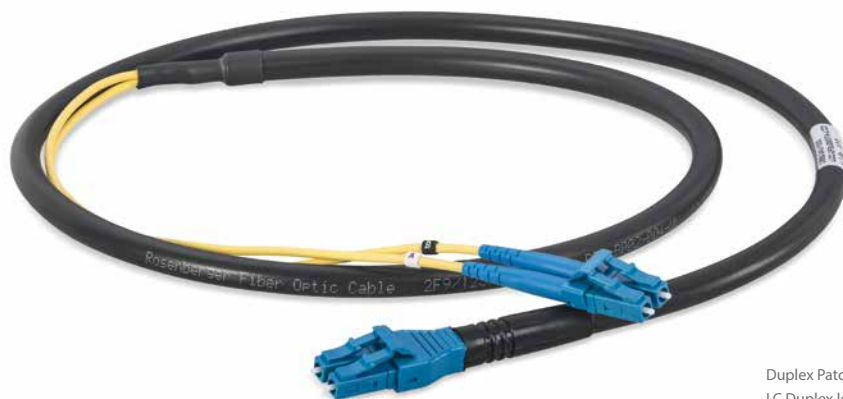
DUPLEX PATCHCORD
Cable type: round I-V(ZN)H 2.0 mm FRNC-LSZH

PART NUMBERS

CONNECTORS	LENGTH	OS2 9/125	OM3 50/125	OM4 50/125
LC Compact » LC Compact	variable	0 8 7 A 6 6 2 0 G 6 5 7 A	0 8 7 A 6 6 2 3 OM3	0 8 7 A 6 6 2 3 OM4
LC Compact APC » LC Compact APC	variable	0 8 7 A 6 6 2 2 G 6 5 7 A	–	–

Suitable for operation in temperatures from -10 °C to +60 °C. Patchcords for other temperature ranges on request. Other connector combinations as well as cable and fiber data available on request.

DUPLEX PATCHCORD
Cable type: round I-V(ZN)H 2.8 mm FRNC-LSZH

PART NUMBERS

CONNECTORS	LENGTH	OS2 9/125	OM3 50/125	OM4 50/125
LC Compact » LC Compact	variable	0 8 7 A 6 6 0 0	0 8 7 A 6 6 0 1 OM3	0 8 7 A 6 6 0 1 OM4
LC Compact APC » LC Compact APC	variable	0 8 7 A 6 6 0 9	–	–

Suitable for operation in temperatures from -10 °C to +60 °C. Patchcords for other temperature ranges on request. Other connector combinations as well as cable and fiber data available on request.

DUPLEX PATCHCORD
Cable type: double-jacket, round I-V(ZN)H(ZN)H 2.8/5.0 mm FRNC-LSZH

PART NUMBERS

CONNECTORS	LENGTH	OS2 9/125	OM3 50/125	OM4 50/125
LC Compact » LC Compact	variable	0 8 7 A 6 6 1 0 G 6 5 7 A	0 8 7 A 6 6 1 3 OM3	0 8 7 A 6 6 1 3 OM4
LC Compact APC » LC Compact APC	variable	0 8 7 A 6 6 1 2 G 6 5 7 A	–	–

Variable leg length up to max. 3 m. Suitable for operation in temperatures from -10 °C to +60 °C. Patchcords for other temperature ranges on request. Other connector combinations as well as cable and fiber data available on request.

2

PATCHCORDS

PATCHCORD OUTDOOR

Duplex Patchcord Outdoor, 7 mm, with flexible
LC Duplex legs and tough, cast LC Compact ends

APPLICATIONS
- Single-cable cabling for components in outdoor use
- Communications equipment in unprotected outdoor environments for integration in structured cabling solutions

PROPERTIES
- Operating temperature range from -40 °C to +85 °C
- High UV resistance
- High crush resistance
- Fiber optic connectors assembled on both sides
- Single data channel in one cable
- "Crossed" duplex connector
- Leg lengths selectable to meet specific application needs
- Cable length freely selectable

DEFINITION OF LENGTH
- Order length: length between the connectors at the longest legs on both sides (not between the cable dividers)
- Length tolerances:
  Up to 10 m   = +/- 50 cm
  11 m to 30 m   = +/- 100 cm
  31 m to 100 m   = +/- 150 cm
  Longer than 100 m = +/- 2 %

CABLE TYPES
- Patchcord Outdoor 5 mm – 7 mm
- Cables compliant with IEC and UL specifications available
- Cable data on request

FIBER TYPES
- Singlemode (9/125 µm) and multimode (50/125 µm)
- Bend-insensitive fibers available

CONNECTORS
- LC Duplex, LC Compact, Rosenberger Duplex Connector (RDC)
- Other connector types on request

FORM OF DELIVERY
- Factory-measured with attenuation report
- Product ID label on both sides
- Connector protection on request
- Depending on length, as cable reel in box or on cardboard drum

Installation Tube Outdoor, IP67
waterproof (optional)

Patchcord Outdoor

PART NUMBERS
PATCHCORD OUTDOOR WITH FLEXIBLE LC DUPLEX LEGS

CHANNELS / FIBERS	Ø [mm]	CONNECTORS	G657A 9/125	OM2* 50/125
1 CH / 2 F	5	LC Duplex » LC Duplex RDC Male » LC Duplex	0 8 7 A 6 7 0 0 0 8 7 A 6 7 0 4	0 8 7 A 6 7 0 1 0 8 7 A 6 7 0 5
1 CH / 2 F	7	LC Duplex » LC Duplex RDC Male » LC Duplex	0 8 7 A 6 7 0 6 0 8 7 A 6 7 1 0	0 8 7 A 6 7 0 7 0 8 7 A 6 7 1 1

PART NUMBERS
PATCHCORD OUTDOOR WITH TOUGH CAST LC COMPACT ENDS

CHANNELS / FIBERS	Ø [mm]	CONNECTORS	G657A 9/125	OM2* 50/125
1 CH / 2 F	5	LC Compact » LC Compact RDC Male » LC Compact	0 8 7 A 6 7 0 2 0 8 7 A 6 7 2 5	0 8 7 A 6 7 0 3 0 8 7 A 6 7 2 7
1 CH / 2 F	7	LC Compact » LC Compact RDC Male » LC Compact	0 8 7 A 6 7 0 8 0 8 7 A 6 7 2 6	0 8 7 A 6 7 0 9 0 8 7 A 6 7 2 8

PART NUMBERS
PATCHCORD OUTDOOR SIDE A: TOUGH, CAST LC COMPACT, SIDE B: FLEXIBLE LC DUPLEX LEGS

CHANNELS / FIBERS	Ø [mm]	CONNECTORS	G657A 9/125	OM2* 50/125	OM3* 50/125
1 CH / 2 F	5	LC Compact » LC Duplex	0 8 7 A 6 7 2 1	–	0 8 7 A 6 7 2 3
1 CH / 2 F	7	LC Compact » LC Duplex	0 8 7 A 6 7 2 2	0 8 7 A 6 7 2 4	–

PART NUMBERS
2-CHANNEL PATCHCORD OUTDOOR SIDE A: 2 x TOUGH, CAST LC COMPACT,
SIDE B: 2 x LC COMPACT WITH 3 MM LEGS

CHANNELS / FIBERS	Ø [mm]	CONNECTORS	G657A 9/125	OM 2* 50/125
2 CH / 4 F	7	2 x LC Compact » 2 x LC Compact	0 4 8 A 0 1 7 9	0 4 8 A 0 1 7 8

*All multimode products are available in OM2, OM3 or OM4.

2

PreCONNECT® FIBER

PIGTAILS
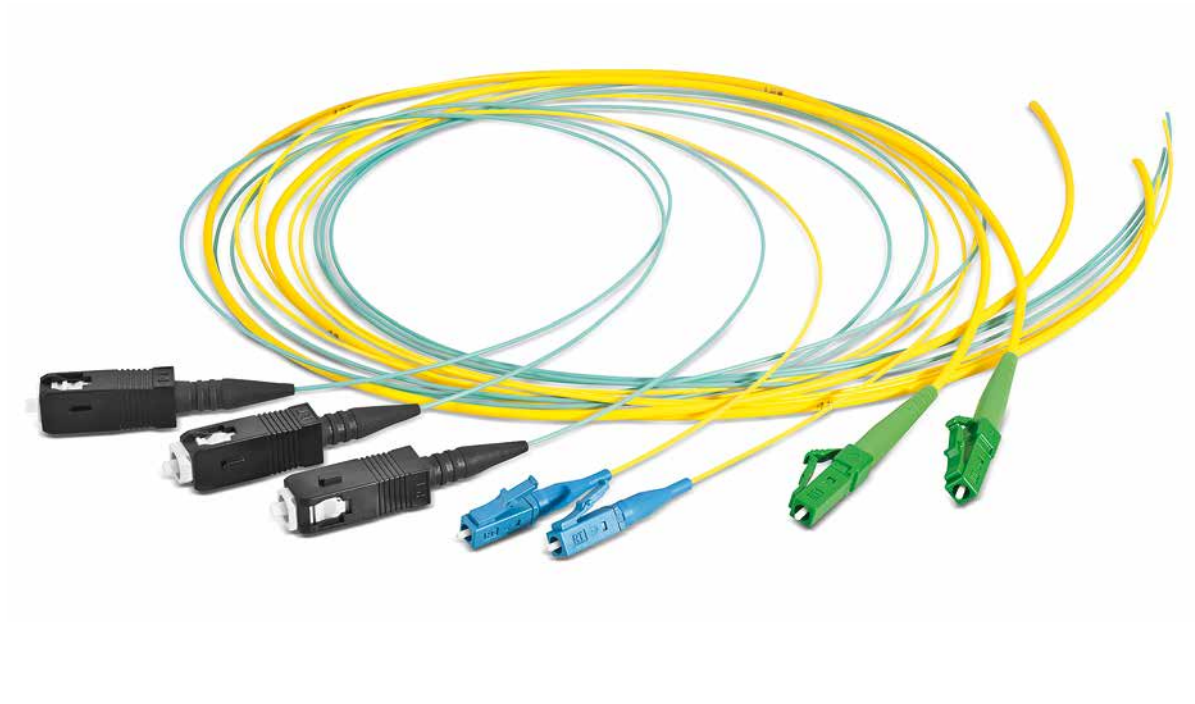
APPLICATIONS

- Cabling in data centers and office buildings
- Mobile communications
- Industry

PROPERTIES

- Suitable for operation in temperatures from -10 °C to +60 °C Pigtails for other temperature ranges on request

LENGTH TOLERANCES

- Up to 1 m   = - 50 mm
  2 m to 3 m   = - 100 mm
  4 m to 25 m   = - 200 mm
  Longer than 25 m = - 1 %

CABLE TYPES

- Available as cable and buffered-fiber pigtails
- Cable data on request

FIBER TYPES

- Can be supplied with all common commercially available fiber types
- Fiber data specifications on request

CONNECTORS

- Can be supplied with all common commercially available connectors

FORM OF DELIVERY

- Factory-measured attenuation report in accordance with IEC 61300-3-4 "B" method, measurement values on request
- Serial number label on pigtail
- Individually packaged in foil bag with product label ID

BUFFERED-FIBER PIGTAILS
◎ Buffered-fiber type I-VH 1 x 900 µm FRNC-LSZH dry, compact

PART NUMBERS

CONNECTORS	LENGTH [m]	OS2 9/125	OM3 50/125	OM4 50/125
SC	2.5	0 6 2 A 0 0 5 3	0 6 2 A 0 0 1 3 OM3	0 6 2 A 0 0 1 3 OM4
ST	2.5	0 6 0 A 0 0 5 3	0 6 0 A 0 0 1 3 OM3	0 6 0 A 0 0 1 3 OM4
MU	2.5	0 8 8 A 1 7 4 3	0 8 8 A 1 7 4 4 OM3	0 8 8 A 1 7 4 4 OM4
LC	2.5	0 8 7 A 1 7 4 3	0 8 7 A 1 7 4 4 OM3	0 8 7 A 1 7 4 4 OM4
E-2000™ [1]	2.5	0 6 9 A 2 0 5 3	0 6 9 A 2 0 1 3 OM3	0 6 9 A 2 0 1 3 OM4
FC PC	2.5	0 6 8 A 0 0 5 3	0 6 8 A 0 0 1 3 OM3	0 6 8 A 0 0 1 3 OM4
SC APC	2.5	0 6 2 A 0 9 8 2	–	–
MU APC	2.5	0 8 8 A 1 7 4 6	–	–
LC APC	2.5	0 8 7 A 1 7 4 6	–	–
E-2000™ HRL[1]	2.5	0 6 9 A 2 0 8 3	–	–
FC APC	2.5	0 6 8 A 0 0 7 1	–	–

Suitable for operation in temperatures from -10 °C to +60 °C. Pigtails for other temperature ranges on request. Cable and fiber data available on request.
[1] = Type R+M with zirconia-ceramic ferrule.

CABLE PIGTAIL
◎ Cable type: I-V(ZN) H 1 x 2.1 mm FRNC-LSZH

PART NUMBERS

CONNECTORS	LENGTH [m]	OS2 9/125	OM3 50/125	OM4 50/125
MU	2.5	0 8 8 A 1 8 3 5	0 8 8 A 1 8 4 5 OM3	0 8 8 A 1 8 4 5 OM4
LC	2.5	0 8 7 A 6 0 0 1	0 8 7 A 6 0 0 5 OM3	0 8 7 A 6 0 0 5 OM4
MU APC	2.5	0 8 8 A 1 8 3 6	–	–
LC APC	2.5	0 8 7 A 6 0 0 3	–	–

Suitable for operation in temperatures from -10 °C to +60 °C. Pigtails for other temperature ranges on request. Cable and fiber data available on request.
[1] = Type R+M with zirconia-ceramic ferrule.

CABLE PIGTAIL
◎ Cable type: I-V(ZN) H 1 x 2.8 mm FRNC-LSZH

PART NUMBERS

CONNECTORS	LENGTH [m]	OS2 9/125	OM3 50/125	OM4 50/125
SC	2.5	0 6 2 A 0 0 4 3	0 6 2 A 0 0 0 3 OM3	0 6 2 A 0 0 0 3 OM4
LC	2.5	0 8 7 A 6 0 1 1	0 8 7 A 6 0 1 5 OM3	0 8 7 A 6 0 1 5 OM4
E-2000™ [1]	2.5	0 6 9 A 2 0 4 3	0 6 9 A 2 0 0 3 OM3	0 6 9 A 2 0 0 3 OM4
FC PC	2.5	0 6 8 A 0 0 4 3	0 6 8 A 0 0 0 3 OM3	0 6 8 A 0 0 0 3 OM4
SC APC	variable	0 6 2 A 0 0 7 5	–	–
LC APC	2.5	0 8 7 A 6 0 1 3	–	–
E-2000™ HRL[1]	2.5	0 6 9 A 2 0 9 3	–	–
FC APC	2.5	0 6 8 A 0 0 7 5	–	–

Suitable for operation in temperatures from -10 °C to +60 °C. Pigtails for other temperature ranges on request. Cable and fiber data available on request.
[1] = Type R+M with zirconia-ceramic ferrule.

2

PIGTAILS

FACTORY-ASSEMBLED SPLICE CASSETTE
with 12 fiber pigtail bundle cable

Self-adhesive tube clamp for fixing the bundle in the panel

1

Freely adaptable individual leg lengths – adjustable at the time of installation
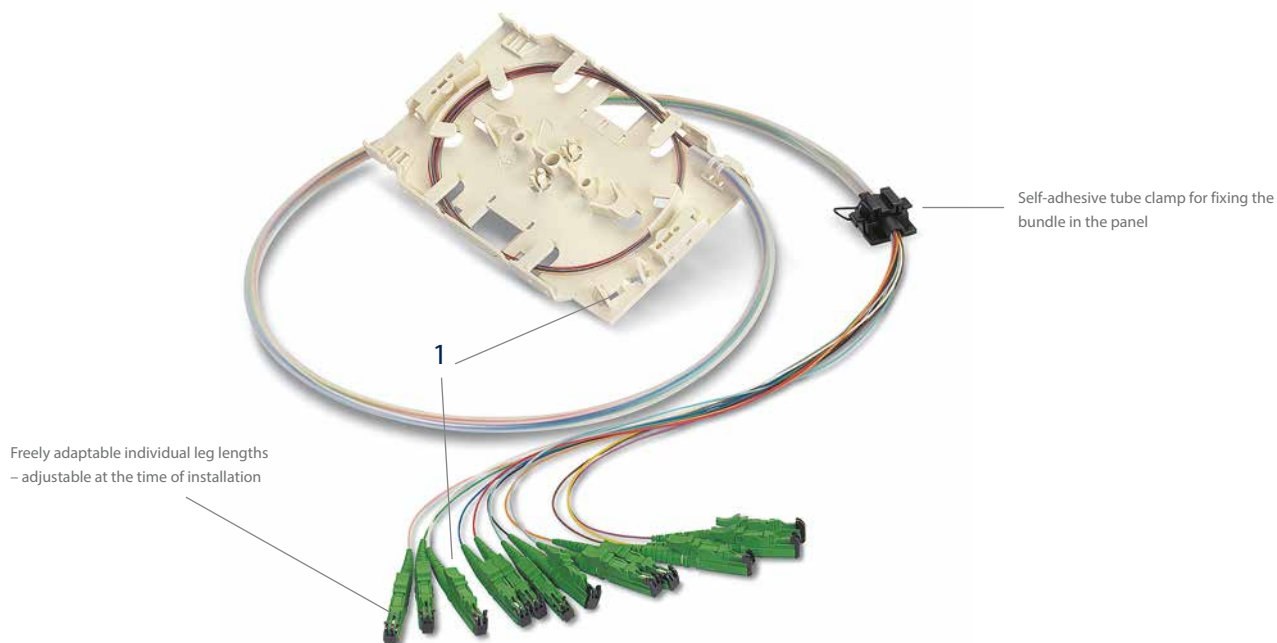
APPLICATIONS

- Installation in splice panels

PROPERTIES

- Fibers and buffer jackets in 12 different colours in accordance with the DIN VDE 0888 color code. This ensures the fast, error-free identification and assignment of the fibers in the cassette to the assembled connectors (1)
- Simple, secure handling due to the transparent bundle jacket enclosing the 12 buffered fibers

CABLE TYPES

- Single, dry 900µm compact buffered fibers, LB 900
- Cable data on request

FIBER TYPES

- Can be supplied with all common commercially available fiber types
- Fiber data specifications on request

CONNECTORS

- Can be supplied with all common commercially available connectors

FORM OF DELIVERY

- Factory-measured attenuation report in accordance with IEC 61300-3-4 "B" method, measurement values on request
- Serial numbers and product ID label
- With self-adhesive tube clamp
- Individually packaged
- Without splice holder, splice protector and cassette cover – these can be ordered separately, see page 144.

PART NUMBERS

CONNECTORS	NUMBER OF FIBERS	OS2 9/125	OM3 50/125	OM4 50/125
ST	12	1 1 7 A 4 0 0 5	1 1 7 A 4 1 0 5 OM3	1 1 7 A 4 1 0 5 OM4
SC Simplex	12	1 1 7 A 4 0 0 3	1 1 7 A 4 1 0 3 OM3	1 1 7 A 4 1 0 3 OM4
LC Simplex	12	1 1 7 A 4 0 1 4	1 1 7 A 4 1 1 4 OM3	1 1 7 A 4 1 1 4 OM4
E-2000™ Simplex[1]	12	1 1 7 A 4 0 0 8	1 1 7 A 4 1 0 8 OM3	1 1 7 A 4 1 0 8 OM4
E-2000™ Simplex HRL	12	1 1 7 A 4 0 0 9	–	–
MU Simplex	12	1 1 7 A 4 0 1 5	1 1 7 A 4 1 1 5 OM3	1 1 7 A 4 1 1 5 OM4

On request, also available with other numbers of fibers, connectors, lengths and fiber types. [1] = Type R+M with zirconia-ceramic ferrule.

2

FACTORY-ASSEMBLED SPLICE CASSETTE

Rosenberger

PANELS AND RACKS

3

PANELS AND RACKS: PANELS

When it comes to choosing your panels, you can always rely on Rosenberger OSI. From conventional distribution solutions through modular multifunctional panels and on to our exceptionally versatile module panels – every one of our easy-to-install 19" panels has been designed to respond exactly to your needs and can be integrated without difficulty in all structured cabling scenarios. And even when 19" applications are not possible – or not needed – you can count on panel hardware from Rosenberger OSI. Whether you are looking for freely configurable universal boxes or custom-built special solutions such as the explosion-proof wall unit for mining applications (see page 21), we manufacture distribution units for all environmental conditions in order to house and protect your sensitive fiber optic technology.

19" 1 HU AND 2 HU DISTRIBUTION PANELS

1 HU FOR UP TO 24 CHANNELS (48 FIBERS)

Type: Fixed installation

Type: Telescopic complete pullout

2 HU FOR UP TO 48 CHANNELS (96 FIBERS)

Type: Fixed installation

Type: Telescopic complete pullout

DIMENSIONS 1 HU

DIMENSIONS 2 HU

19" = 483
10
1 HU
44
32
7
420 (telescopic complete pullout)
378
251,5
MAX. 260

19" = 483
10
2 HU
88
76,2
7
420 (telescopic complete pullout)
378
251,5
MAX. 260
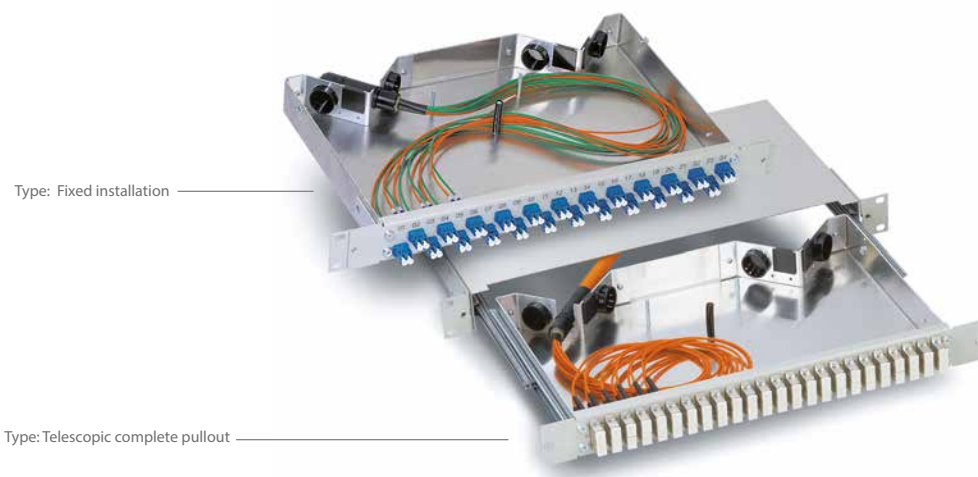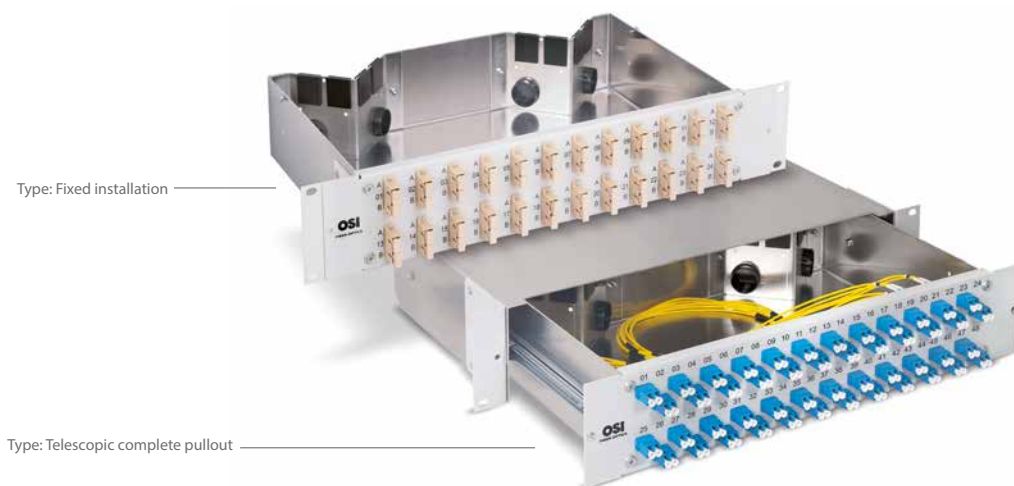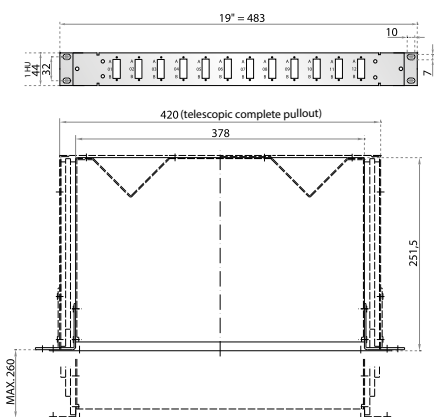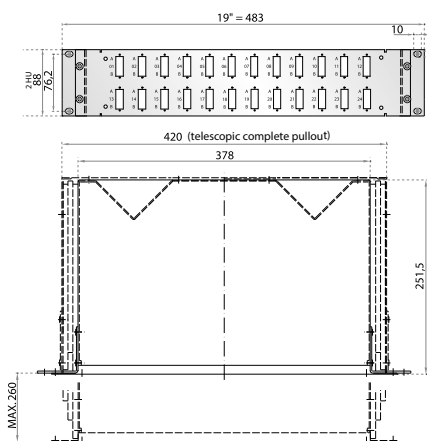
Optional: 19" 3 HU distribution panel
on request

APPLICATIONS
- For installation in 19" racks in distribution systems
- For the distribution, for example, of PreCONNECT® FIBER trunks to patchcords in data centers

PROPERTIES
- Basic panel with optimized functionality
- Suitable for the connection of all cables assembled by Rosenberger OSI
- Available in the following two variants:
  - Fixed installation
  - Telescopic complete pullout: fully retractable
- Torsion and strain-resistant cable support for
  - 2 PreCONNECT® Trunk cable dividers for 1 HU
  - 4 PreCONNECT® Trunk cable dividers for 2 HU
- 2 PG 21 (29 mm) cable inputs
- Oblique 45°cable guide to rear, guide direction selectable
- 2 universal support can be mounted for simplex, duplex and breakout cables, see Accessories, pages 112 / 113
- Screen-printed front labeling: numerical and alphanumerical
- Material and color:
  - Body: aluminum, natural
  - Front: powder-coated aluminum, RAL 7035 (light gray)

- Weight (panel without adapters)
  - Fixed installation: 1 HU - 1120 g
                                 2 HU - 1580 g
  - Telescopic complete pullout: 1 HU - 1600 g
                                 2 HU - 2140 g

FORM OF DELIVERY
- Panel fully factory-assembled
- Adapters mounted
- Blind plugs in unused cable inputs
- Blind plugs in unused front panel ports

ACCESSORIES
- See pages 112 / 113 and 144 – 147

3

PANELS

19" 1 HU DISTRIBUTION PANELS

PART NUMBERS
1 HU RAL 7035 (light gray)

NUMBER OF FIBERS	TYPE OF ADAPTER	FIXED INSTALLATION		TELESCOPIC COMPLETE PULLOUT	
		SM	MM	SM	MM
12	MU » MU Duplex Horizontal SM	231A0183	–	230A0183	–
	OM3	–	231A1603 OM3	–	230A1603 OM3
	OM4	–	231A1603 OM4	–	230A1603 OM4
	SC » SC Duplex metal	231A0153	231A0013	230A0153	230A0013
	SC Duplex » SC Duplex plastic SM	231A0420	–	230A0420	–
	OM3	–	231A0440 OM3	–	230A0440 OM3
	OM4	–	231A0440 OM4	–	230A0440 OM4
	E-2000™ » E-2000™ Simplex[1] HRL	231A1003	–	230A1003	–
	LC » LC Duplex SM	231A0173	–	230A0173	–
	OM3	–	231A1293 OM3	–	230A1293 OM3
	OM4	–	231A1293 OM4	–	230A1293 OM4
24	MU » MU Duplex Horizontal SM	231A0185	–	230A0185	–
	OM3	–	231A1605 OM3	–	230A1605 OM3
	OM4	–	231A1605 OM4	–	230A1605 OM4
	SC » SC Duplex metal	231A0155	231A0015	230A0155	230A0015
	SC Duplex » SC Duplex plastic SM	231A0421	–	230A0421	–
	OM3	–	231A0441 OM3	–	230A0441 OM3
	OM4	–	231A0441 OM4	–	230A0441 OM4
	E-2000™ » E-2000™ Simplex[1] HRL	231A1005	–	230A1005	–
	LC » LC Duplex SM	231A0175	–	230A0175	–
	OM3	–	231A1295 OM3	–	230A1295 OM3
	OM4	–	231A1295 OM4	–	230A1295 OM4
48	MU » MU Duplex Horizontal SM	231A0187	–	230A0187	–
	OM3	–	231A1607 OM3	–	230A1607 OM3
	OM4	–	231A1607 OM4	–	230A1607 OM4
	SC » SC Duplex metal	231A0158	231A0018	230A0158	230A0018
	SC Duplex » SC Duplex plastic SM	231A0422	–	230A0422	–
	OM3	–	231A0442 OM3	–	230A0442 OM3
	OM4	–	231A0442 OM4	–	230A0442 OM4
	LC » LC Duplex SM	231A0177	–	230A0177	–
	OM3	–	231A1298 OM3	–	230A1298 OM3
	OM4	–	231A1298 OM4	–	230A1298 OM4

Other adapter types and numbers of fibers on request. [1] = Type R+M.

PART NUMBERS ACCESSORIES FOR 1 HU

Tertiary cable support Default:	1 unit	111A0403	
Large, with brush	1 unit	111A0418	
Support for 4 PreCONNECT® Trunks	1 set = 2 plates	111A0416	
Support (straight) for 6 PreCONNECT® Trunks	1 set = 2 plates	111A0425	
1 HU labeling field 30 x 35 mm	1 unit	111A0415	

For further accessories, see pages 144 – 147.

19" 2 HU DISTRIBUTION PANELS

PART NUMBERS
2 HU RAL 7035 (light gray)

NUMBER OF FIBERS	TYPE OF ADAPTER	FIXED INSTALLATION		TELESCOPIC COMPLETE PULLOUT	
		SM	MM	SM	MM
48	MU » MU Duplex Horizontal SM	235A1527	–	234A1527	–
	OM3	–	235A1547OM3	–	234A1547OM3
	OM4	–	235A1547OM4	–	234A1547OM4
	SC » SC Duplex metal	235A0157	235A0017	234A0157	234A0017
	SC Duplex » SC Duplex plastic SM	235A0180	–	234A0180	–
	OM3	–	235A0400OM3	–	234A0400OM3
	OM4	–	235A0400OM4	–	234A0400OM4
	E-2000™ » E-2000™ Simplex[1] HRL	235A1007	–	234A1007	–
	LC » LC Duplex SM	235A1287	–	234A1287	–
	OM3	–	235A1317OM3	–	234A1317OM3
	OM4	–	235A1317OM4	–	234A1317OM4
96	MU » MU Duplex Horizontal SM	235A1530	–	234A1530	–
	OM3	–	235A1550OM3	–	234A1550OM3
	OM4	–	235A1550OM4	–	234A1550OM4
	SC » SC Duplex metal	235A0168	235A0019	234A0168	234A0019
	SC Duplex » SC Duplex plastic SM	235A0181	–	234A0181	–
	OM3	–	235A0401OM3	–	234A0401OM3
	OM4	–	235A0401OM4	–	234A0401OM4
	LC » LC Duplex SM	235A1289	–	234A1289	–
	OM3	–	235A1319OM3	–	234A1319OM3
	OM4	–	235A1319OM4	–	234A1319OM4

Other adapter types and numbers of fibers on request. [1] = Type R+M.

PART NUMBERS
ACCESSORIES FOR 2 HU

Tertiary cable support Default:	1 unit	111A0403	
Large, with brush	1 unit	111A0611	
Support for 8 PreCONNECT® Trunks	1 set = 4 plates	111A0612	
Support (straight) for 12 PreCONNECT® Trunks	1 set = 4 plates	111A0613	
2 HU labeling field 30 x 88 mm	1 unit	111A0610	

For further accessories, see pages 144 – 147.

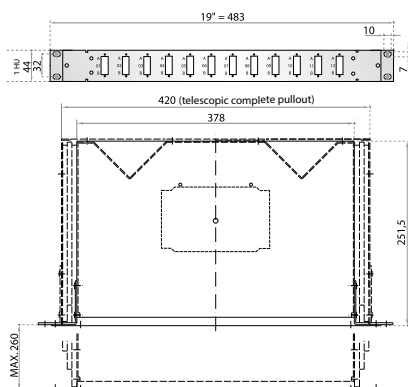# 19" 1 HU AND 2 HU SPLICE PANELS

1 HU FOR UP TO 24 CHANNELS (48 FIBERS)

Type: Fixed installation

Type: Telescopic complete pullout

2 HU FOR UP TO 48 CHANNELS (96 FIBERS)

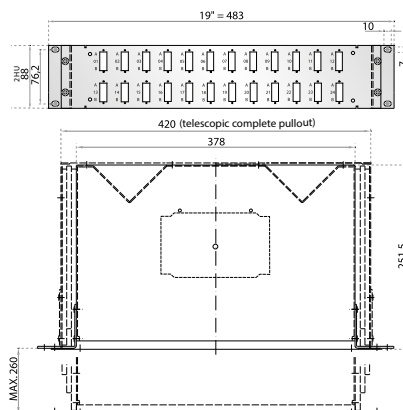Type: Fixed installation

Type: Telescopic complete pullout
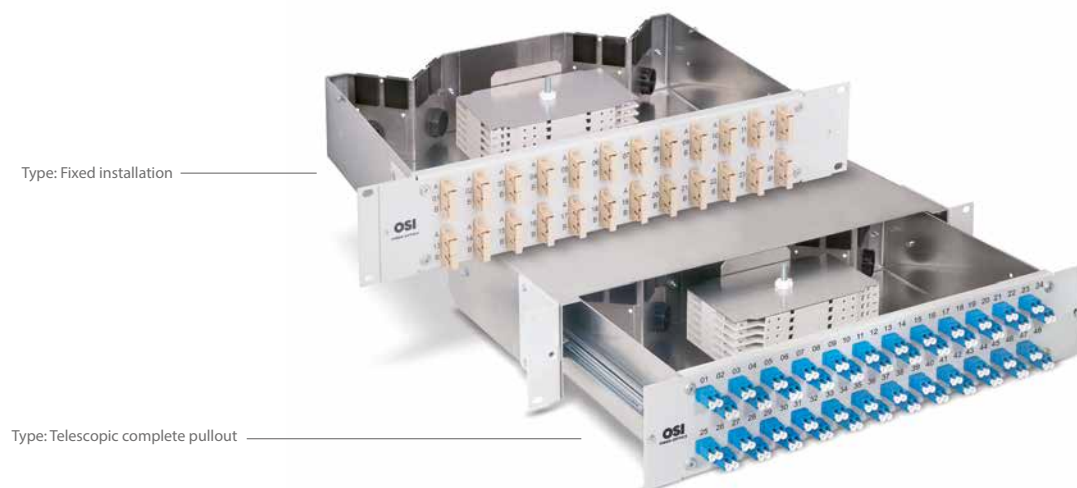
DIMENSIONS 1 HU

DIMENSIONS 2 HU

APPLICATIONS

- For installation in 19" racks in distribution systems

PROPERTIES

- Basic panel with optimized functionality
- Suitable for splice connections using all common, commercially available pigtail and cable types
- Available in the following two variants:
  - Fixed installation
  - Telescopic complete pullout: fully retractable
- Torsion-resistant connection for up to 4 splice cassettes in 1 HU variant and 8 splice cassettes in 2 HU variant, for cassette type, see Accessories, page 144
- 2 PG 21 (29 mm) cable inputs
- Oblique 45°cable guide to rear, guide direction selectable
- 2 universal support can be mounted for simplex, duplex and breakout cables, see Accessories, pages 116 / 117
- Screen-printed front labeling: numerical and alphanumerical
- Material and color:
  - Body: aluminum, natural
  - Front: powder-coated aluminum, RAL 7035 (light gray)
- Weight (panel without adapters and cassettes):
  - Fixed installation: 1 HU - 1120 g
                                         2 HU - 1580 g
  - Telescopic complete pullout: 1 HU - 1600 g
                                         2 HU - 2140 g

OPTIONAL

- Splice cassettes, holders, protectors and cable glands, see pages 144 – 147
- Pigtails inserted ready for splicing, if this option is chosen, numbers of fibers that are a multiple of 12 are supplied with factory-assembled splice cassettes, see pages 104 / 105

FORM OF DELIVERY

- Panel fully factory-assembled incl. adapters
- Blind plugs in unused cable inputs
- Blind plugs in unused front panel ports
- With splice cassette cover

ACCESSORIES

- See pages 116 / 117 and 144 – 147
- Factory-assembled splice cassettes, see pages 104 / 105
- Pigtails, see pages 102 / 103.

3

19" 1 HU SPLICE PANELS

PART NUMBERS
1 HU RAL 7035 (light gray)

NUMBER OF FIBERS	TYPE OF ADAPTER	FIXED INSTALLATION		TELESCOPIC COMPLETE PULLOUT	
		SM	MM	SM	MM
12	MU » MU Duplex Horizontal SM	231A0363	–	230A0363	–
	OM3	–	231A1583 OM3	–	230A1583 OM3
	OM4	–	231A1583 OM4	–	230A1583 OM4
	SC » SC Duplex metal	231A0333	231A0213	230A0333	230A0213
	SC Duplex » SC Duplex plastic SM	231A1590	–	230A1590	–
	OM3	–	231A1660 OM3	–	230A1660 OM3
	OM4	–	231A1660 OM4	–	230A1660 OM4
	E-2000™ » E-2000™ Simplex[1] HRL	231A1103	–	230A1103	–
	LC » LC Duplex SM	231A0353	–	230A0353	–
	OM3	–	231A1323 OM3	–	230A1323 OM3
	OM4	–	231A1323 OM4	–	230A1323 OM4
24	MU » MU Duplex Horizontal SM	231A0365	–	230A0365	–
	OM3	–	231A1585 OM3	–	230A1585 OM3
	OM4	–	231A1585 OM4	–	230A1585 OM4
	SC » SC Duplex metal	231A0335	231A0215	230A0335	230A0215
	SC Duplex » SC Duplex plastic SM	231A1591	–	230A1591	–
	OM3	–	231A1661 OM3	–	230A1661 OM3
	OM4	–	231A1661 OM4	–	230A1661 OM4
	E-2000™ » E-2000™ Simplex[1] HRL	231A1105	–	230A1105	–
	LC » LC Duplex SM	231A0355	–	230A0355	–
	OM3	–	231A1325 OM3	–	230A1325 OM3
	OM4	–	231A1325 OM4	–	230A1325 OM4
48	MU » MU Duplex Horizontal SM	231A0368	–	230A0368	–
	OM3	–	231A1587 OM3	–	230A1587 OM3
	OM4	–	231A1587 OM4	–	230A1587 OM4
	SC » SC Duplex metal	231A0339	231A0219	230A0339	230A0219
	SC Duplex » SC Duplex plastic SM	231A1592	–	230A1592	–
	OM3	–	231A1662 OM3	–	230A1662 OM3
	OM4	–	231A1662 OM4	–	230A1662 OM4
	LC » LC Duplex SM	231A0358	–	230A0358	–
	OM3	–	231A1328 OM3	–	230A1328 OM3
	OM4	–	231A1328 OM4	–	230A1328 OM4

Other adapter types and numbers of fibers on request. [1] = Type R+M.

PART NUMBERS ACCESSORIES FOR 1 HU

Tertiary cable support Default:	1 unit	111A0403	
Large, with brush	1 unit	111A0418	
Support for 6 cable glands up to PG 16	1 set = 2 plates (without cable gland)	111A0417	
1 HU labeling field 30 x 35 mm	1 unit	111A0415	

For further accessories, see pages 144 – 147.

19" 2 HU SPLICE PANELS

PART NUMBERS
2 HU RAL 7035 (light gray)

NUMBER OF FIBERS	TYPE OF ADAPTER	FIXED INSTALLATION		TELESCOPIC COMPLETE PULLOUT	
		SM	MM	SM	MM
48	MU » MU Duplex Horizontal SM	235A1568	–	234A1568	–
	OM3	–	235A1588OM3	–	234A1588OM3
	OM4	–	235A1588OM4	–	234A1588OM4
	SC » SC Duplex metal	235A0338	235A0218	234A0338	234A0218
	SC Duplex » SC Duplex plastic SM	235A0450	–	234A0450	–
	OM3	–	235A0500OM3	–	234A0500OM3
	OM4	–	235A0500OM4	–	234A0500OM4
	E-2000™ » E-2000™ Simplex[1] HRL	235A1108	–	234A1108	–
	LC » LC Duplex SM	235A0378	–	234A0378	–
	OM3	–	235A1328OM3	–	234A1328OM3
	OM4	–	235A1328OM4	–	234A1328OM4
96	MU » MU Duplex Horizontal SM	235A1571	–	234A1571	–
	OM3	–	235A1591OM3	–	234A1591OM3
	OM4	–	235A1591OM4	–	234A1591OM4
	SC » SC Duplex metal	235A1513	235A1512	234A1513	234A1512
	SC Duplex » SC Duplex plastic SM	235A0451	–	234A0451	–
	OM3	–	235A0501OM3	–	234A0501OM3
	OM4	–	235A0501OM4	–	234A0501OM4
	LC » LC Duplex SM	235A0381	–	234A0381	–
	OM3	–	235A1331OM3	–	234A1331OM3
	OM4	–	235A1331OM4	–	234A1331OM4

Other adapter types and numbers of fibers on request. [1] = Type R+M.

PART NUMBERS
ACCESSORIES FOR 2 HU

Tertiary cable support Default:	1 unit	111A0403	
Large, with brush	1 set	111A0611	
Support for 12 cable glands up to PG 16	1 set = 4 plates (without cable gland)	111A0614	
2 HU labeling field 30 x 88 mm	1 unit	111A0610	

For further accessories, see pages 144 – 147.

3

PANELS

19" 3 HU DISTRIBUTION MODULE PANEL

APPLICATIONS

- For installation in 19" racks in distribution systems
- For the distribution, for example, of PreCONNECT® FIBER trunks to patchcords

PROPERTIES

- Extremely versatile, multipurpose panel thanks to modular front and back plane
- Suitable for the connection of all cables assembled by Rosenberger OSI
- For up to 144 channels (288 fibers)
- With hole pattern as per IEC 60297-3 in 84 divided units (DU)
- For the connection of up to 12 individual 3 HU - 7 DU patchfield part front plates
- Available with two types of back plane:
  1. Z-blade back plane – designed for the connection of 12 of our PreCONNECT® FIBER Trunks
  2. Tertiary cable back plane – for restraining simplex, duplex and breakout cables using cable ties
- Back plane types as described above and as illustrated on page 119
- The module panel is a modular platform for a range of patchfield connectors and FO fiber types.

- Matrix numbering of the part front plates (PFPs): Channels in PFPs: 1 to n in label strips, PFPs in module panel: 1 to n number clips (example: channel 3 – 4 is in PFP 3, channel 4)
- Material and color:
  Body and front: aluminum, anodized silver available as an option or RAL 9005 (black)
- Weight:
  - Module panel unassembled, approx. 2.0 kg
  - Patchfield part front plate assembled, approx 0.1 kg

FORM OF DELIVERY

- Patchfield part front plate fully factory-assembled including fiber optic adapters, labeling strip and screws
- Module panel fully factory-assembled with matching back plane

ACCESSORIES

- See pages 144 – 147

DIMENSIONS

19" = 483
465
427
57.1
37.5
35.2
7
132 = **3 HU**
236
436

Depth optionally 236 mm or 295 mm
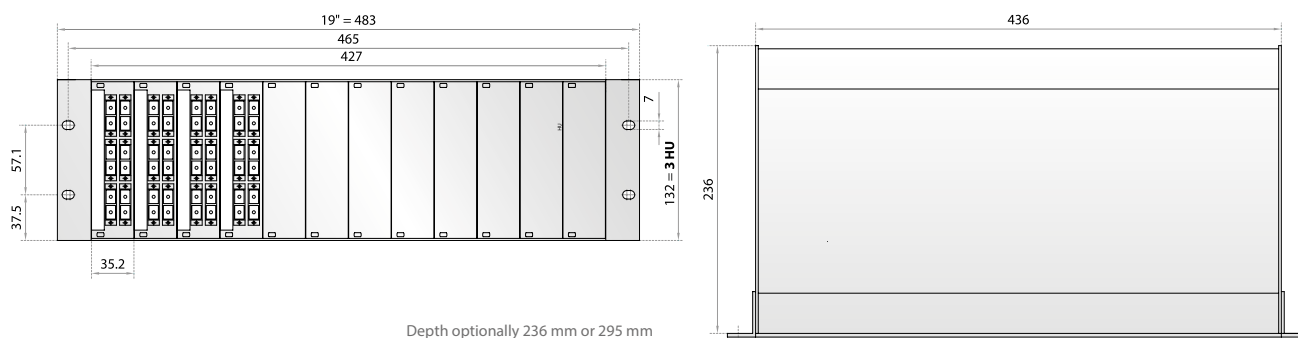
PART NUMBERS
SINGLE COMPONENTS

19" 3 HU DISTRIBUTION MODULE PANELS With Z-blade back plane designed for the con- nection of 12 PreCONNECT® Trunk cable dividers 236 mm deep, front silver 1 4 1 A 0 0 0 0 236 mm deep, front black 1 4 1 A 3 0 0 0 295 mm deep, front silver 1 4 1 A 1 5 0 0 295 mm deep, front black 1 4 1 A 3 5 0 0	
19" 3 HU DISTRIBUTION MODULE PANEL Tertiary cable back plane 236 mm deep, front silver 1 4 1 A 0 0 0 7 295 mm deep, front black on request	

| **3 HU - 7 DU BLIND PART FRONT PLATE** | silver | 1 4 1 A 0 0 0 2 |
| | black | 1 4 1 A 3 0 1 0 |

3 HU - 7 DU PATCHFIELD PART FRONT PLATES
equipped with adapters

FIBER COUNT	COLOR OF FRONT	TYPE OF ADAPTER	SM	OM3	OM4
12	silver	SC » SC Duplex metal	1 4 1 A 0 1 4 3	1 4 1 A 0 0 4 3 OM3	1 4 1 A 0 0 4 3 OM4
	black	SC » SC Duplex metal	1 4 1 A 3 0 5 1	1 4 1 A 3 0 5 0 OM3	1 4 1 A 3 0 5 0 OM4
	silver	E-2000™ » E-2000™ HRL[1]	1 4 1 A 0 8 1 3	–	–
	black	E-2000™ » E-2000™ HRL[1]	On request	–	–
24	silver	MU » MU Duplex Horizontal	1 4 1 A 0 1 7 5	1 4 1 A 0 1 8 5 OM3	1 4 1 A 0 1 8 5 OM4
	black	MU » MU Duplex Horizontal	1 4 1 A 3 0 4 1	1 4 1 A 3 0 4 0 OM3	1 4 1 A 3 0 4 0 OM4
	silver	LC » LC Duplex	1 4 1 A 0 1 3 5	1 4 1 A 0 1 6 5 OM3	1 4 1 A 0 1 6 5 OM4
	black	LC » LC Duplex	1 4 1 A 3 0 3 1	1 4 1 A 3 0 3 0 OM3	1 4 1 A 3 0 3 0 OM4

Other adapter types and numbers of fibers on request. [1] = Type R+M.

3

PANELS

19" 3+1 HU SPLICE MODULE PANEL

3 HU module panel

1 HU tray
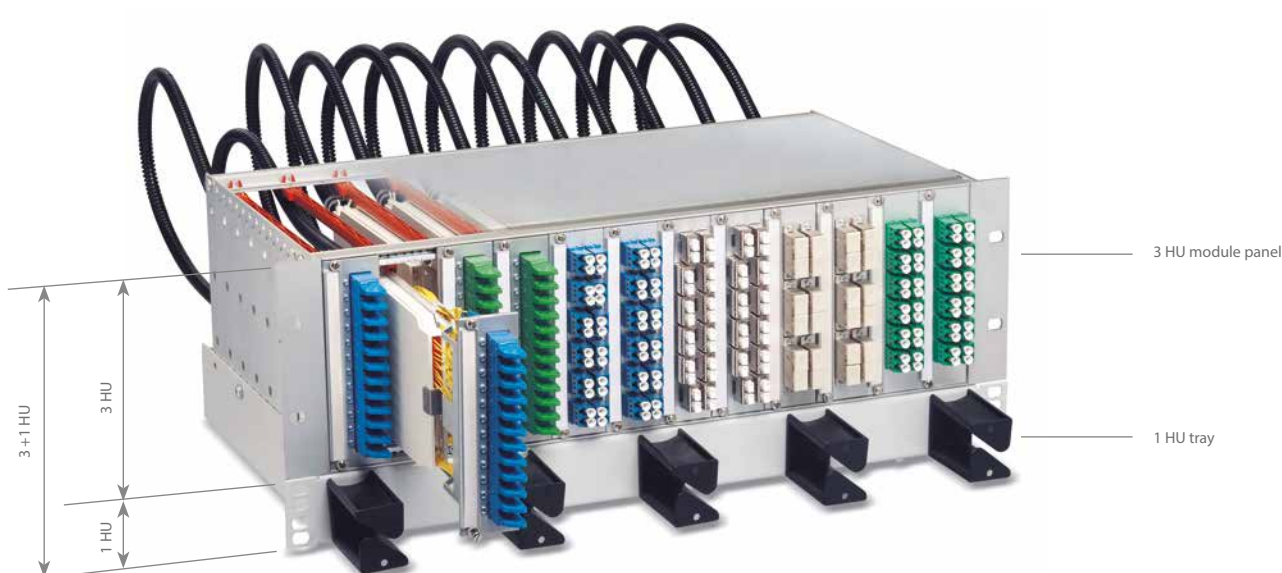
APPLICATIONS

- For installation in 19" racks in distribution systems

PROPERTIES

- Very easy to install and maintain
- Suitable for splice connections with large numbers of fibers
- With hole pattern as per IEC 60297-3 in 84 divided units (DU)
- For up to 144 channels (288 fibers)
- For the connection of up to 12 individual 3 HU - 7 DU splice plug-in modules
- Up to 12 individual loose tube cables with 11 x PG 16 and 1 x PG 21 cable glands can be housed in the 1 HU tray, see page 121
- Straight rear cable guide
- The spare loose tube cable is stored in the 1 HU tray and guided to the modules in protective ducts.
- These ducts protect the loose tube cable against kinking when they are plugged into or withdrawn from the splice plug-in modules.
- The modules are guided along guide rails within the enclosure and can be completely removed.
- The module panel is a modular platform for a range of patchfield connectors and FO fiber types.
- Matrix numbering of the modules:
  Channels in modules: 1 to n in label strips,
  modules in modular panel: 1 to n number clips
  (example: channel 3 - 4 is in module 3, channel 4)

- Material and color:
  Body and front: Aluminum, anodized silver
- Weight:
  - Module panel unassembled   approx. 2.0 kg
  - Splice plug-in module   approx 0.5 kg

FORM OF DELIVERY

- Splice plug-in modules fully factory-assembled, incl.:
  - Fiber pigtails inserted ready for splicing
  - Fiber optic adapters
  - Splice holders and protectors
  - Cassette cover
  - Labeling strip and screws
  - Loose tube protection tube with mounting material
- Module panel fully factory-assembled with 1 HU tray without cable glands

ACCESSORIES

- See pages 144 – 147.

DIMENSIONS
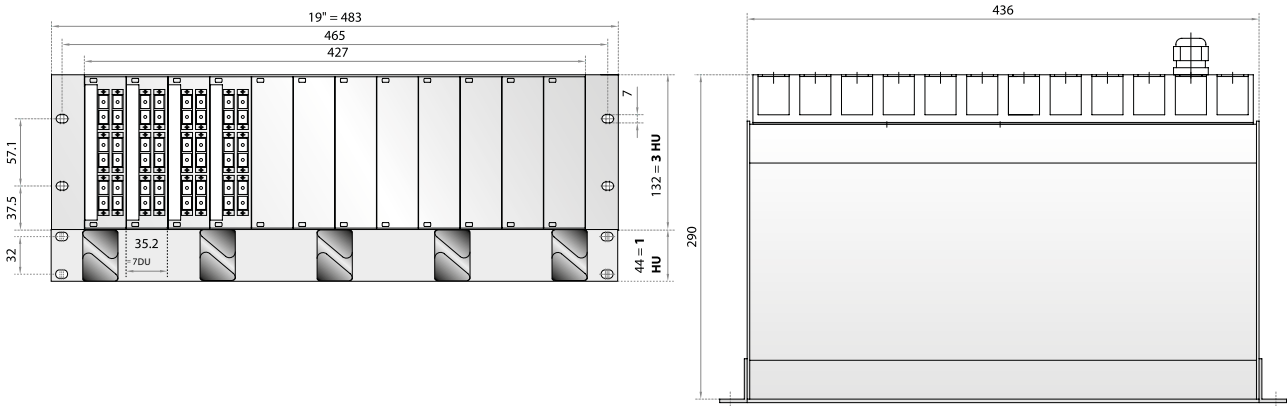
BACK VIEW:
PG CABLE GLAND IN 1 HU TRAY

| 5 x PG 16 | 1 x PG 21 | 6 x PG 16 |

PART NUMBERS
SINGLE COMPONENTS

19" 3 HU SPLICE MODULE PANEL for splice plug-in modules incl. 1 HU tray with patchcord guide	1 4 1 A 0 0 0 1

3 HU - 7 DU BLIND PART FRONT PLATE silver	1 4 1 A 0 0 0 2
black	1 4 1 A 3 0 1 0

3 HU - 7 DU SPLICE PLUG-IN MODULE incl. inserted pigtails

NUMBER OF FIBERS	TYPE OF ADAPTER	SM OS2	OM3	OM4
12	SC » SC Duplex metal E-2000™ HRL[1] » E-2000™ HRL[1]	1 4 1 A 0 5 1 3 1 4 1 A 0 8 3 3	1 4 1 A 0 6 1 3 OM3 –	1 4 1 A 0 6 1 3 OM4 –
24	MU » MU Duplex Horizontal LC » LC Duplex	1 4 1 A 0 9 3 5 1 4 1 A 0 8 8 5	1 4 1 A 0 9 4 5 OM3 1 4 1 A 0 8 9 5 OM3	1 4 1 A 0 9 4 5 OM4 1 4 1 A 0 8 9 5 OM4

Other adapter types and numbers of fibers on request. [1] = Type R+M.

PANELS

3

19" SMAP-G2 DISTRIBUTION PANEL

Standard back plane configuration for max. 12 cable dividers per panel

Other back plane configurations on request or available for order separately as individual parts.

19": 483 mm

1 HU: 44 mm

2 HU: 88 mm

3 HU: 132 mm

4 HU: 176 mm

300 mm

APPLICATIONS

- For installation in 19" racks in distribution systems
- For the distribution, for example, of PreCONNECT® FIBER trunks to patchcords in data centers

PROPERTIES

- Maximized modularity and flexibility thanks to application-specific combinations of ½ and ¼ part front plates
- Part front plates can be inserted without the need for tools thanks to the use of quick-release fasteners
- Variable 19" screw-fit mounting plates; depth-adjustable
- Extremely robust, lightweight panel
- Suitable for the connection of all cables assembled by Rosenberger OSI
- 1 to 5 HU, equipped with 1 HU ½ or ¼ part front plates (PFP) depending on number of fibers and type of adapter
- Matrix numbering of the part front plates:
  Channels in part front plates: 1 to n labeled,
  PFPs in the panel are numbered with clips 1 to n
  (example: channel 3 - 4 is in PFP 3, channel 4)

Material and color:

- Front: Powder-coated steel, RAL 9005 (matt black)
  Body: aluminum, natural
- Back plane: Powder-coated steel, RAL 9005 (matt black)

FORM OF DELIVERY

- Fully factory-assembled incl. adapters

ACCESSORIES

- See pages 130 / 131.
- Part front plates (PFP) with adapters on request
- Panel back plane components on request
- Labeling fields, see page 146

PART NUMBERS
SINGLE COMPONENTS

19" SMAP-G2 DISTRIBUTION PANELS
For use with SMAP part front plates, RAL 9005 (black)

1 HU	1 7 1 A 0 0 0 1
2 HU	1 7 2 A 0 0 0 1
3 HU	1 7 3 A 0 0 0 1
5 HU	1 7 5 A 0 0 0 1

SMAP-G2 ¼ PART FRONT PLATES
RAL 9005 (black)

BLIND PART FRONT PLATE	1 7 0 A 0 0 0 1				

NUMBER OF CHANNELS / FIBERS	TYPE OF ADAPTER	FOR FIBER TYPE				
		SM PC 9/125	SM APC 9/125	OM3 50/125	OM4 50/125	
6 CH / 12 F	LC Duplex	1 7 0 A 0 1 1 0	1 7 0 A 0 1 2 0	1 7 0 A 0 1 3 0 OM3	1 7 0 A 0 1 3 0 OM4	
	SC Duplex	1 7 0 A 0 4 1 0	1 7 0 A 0 4 2 0	1 7 0 A 0 4 3 0 OM3	1 7 0 A 0 4 3 0 OM4	
	E-2000™ Compact	1 7 0 A 0 5 1 0	1 7 0 A 0 5 2 0	1 7 0 A 0 5 3 0		
12 CH / 24 F	LC Quad	1 7 0 A 0 2 1 0	1 7 0 A 0 2 2 0	1 7 0 A 0 2 3 0 OM3	1 7 0 A 0 2 3 0 OM4	
	MU Duplex	1 7 0 A 0 3 1 0	1 7 0 A 0 3 2 0	1 7 0 A 0 3 3 0 OM3	1 7 0 A 0 3 3 0 OM4	
36 CH / 72 F	MTP®	–	1 7 0 A 0 6 2 0	1 7 0 A 0 6 3 0 OM3	1 7 0 A 0 6 3 0 OM4	

SMAP-G2 ½ PART FRONT PLATES
RAL 9005 (black)

BLIND PART FRONT PLATE	1 7 0 A 0 0 0 2				

| NUMBER OF CHANNELS / FIBERS	TYPE OF ADAPTER	FOR FIBER TYPE				
		SM PC 9/125	SM APC 9/125	OM3 50/125	OM4 50/125	
12 CH / 24 F	LC Duplex	1 7 0 A 0 1 5 0	1 7 0 A 0 1 6 0	1 7 0 A 0 1 7 0 OM3	1 7 0 A 0 1 7 0 OM4	
	SC Duplex	1 7 0 A 0 4 5 0	1 7 0 A 0 4 6 0	1 7 0 A 0 4 7 0 OM3	1 7 0 A 0 4 7 0 OM4	
	E-2000™ Compact	1 7 0 A 0 5 5 0	1 7 0 A 0 5 6 0	1 7 0 A 0 5 7 0		
12 x 2 = 24 CH / 48 F	LC Quad	1 7 0 A 0 2 5 0	1 7 0 A 0 2 6 0	1 7 0 A 0 2 7 0 OM3	1 7 0 A 0 2 7 0 OM4	
24 CH / 48 F	MU Duplex-Horizontal	1 7 0 A 0 3 5 0	1 7 0 A 0 3 6 0	1 7 0 A 0 3 7 0 OM3	1 7 0 A 0 3 7 0 OM4	
72 CH / 144 F	MTP®	–	1 7 0 A 0 6 6 0	1 7 0 A 0 6 7 0 OM3	1 7 0 A 0 6 7 0 OM4	

Can also be supplied with other fiber optic connector systems on request. MTP® is a registered trademark of US-Conec Ltd.

PART NUMBERS
SINGLE COMPONENTS

SMAP-G2 ¼ PART FRONT PLATES WITH ADAPTERS AND LABEL STRIPS
RAL 9005 (black)

NUMBER OF CHANNELS / FIBERS	TYPE OF ADAPTER	FOR FIBER TYPE				
		SM PC 9/125	SM APC 9/125	OM3 50/125	OM4 50/125	
6 CH / 12 F	LC Duplex	1 7 0 A 3 1 1 0	1 7 0 A 3 1 2 0	1 7 0 A 3 1 3 0 OM3	1 7 0 A 3 1 3 0 OM4	
	E-2000™ Compact	1 7 0 A 3 5 1 0	1 7 0 A 3 5 2 0	1 7 0 A 3 5 3 0		
12 CH/ 24 F	LC Quad	1 7 0 A 3 2 1 0	1 7 0 A 3 2 2 0	1 7 0 A 3 2 3 0 OM3	1 7 0 A 3 2 3 0 OM4	
36 CH / 72 F	MTP®	–	1 7 0 A 3 6 2 0	1 7 0 A 3 6 3 0 OM3	1 7 0 A 3 6 3 0 OM4	

Can also be supplied with other fiber optic connector systems on request. MTP® is a registered trademark of US-Conec Ltd.

MTP® connectors for PreCONNECT® MTP® Trunks do not have any pins (female).

Interfaces at module back plane have pins (male).

PART NUMBERS
SINGLE COMPONENTS

19" SMAP-G2 DISTRIBUTION PANEL RAL 9005 (black)	
1 HU	1 7 1 A 0 0 0 1
2 HU	1 7 2 A 0 0 0 1
3 HU	1 7 3 A 0 0 0 1
5 HU	1 7 5 A 0 0 0 1

On request, we also supply panels fully assembled with MTP® modules ex works.

PART NUMBERS
SINGLE COMPONENTS

SMAP-G2 MTP® MODULES
(with 12 F MTP®), RAL 9005 (black)

NUMBER OF CHANNELS / FIBERS	TYPE OF ADAPTER	NUMBER OF MTP® IN BACK PLANE	FOR FIBER TYPE			
			SM APC 9/125	OM3 50/125	OM4 50/125	
12 CH/ 24 F	LC Quad	2 MTP®	1 7 0 A 2 0 0 0	1 7 0 A 2 0 0 2 OM3	1 7 0 A 2 0 0 2 OM4	

Can also be supplied with other fiber optic connector systems on request. MTP® is a registered trademark of US-Conec Ltd.

19" SMAP-G2 SPLICE PANEL

Standard back plane configuration for max. 4 splice cassettes (SPC) per height unit (HU) and 6 PG 21 cable glands per panel:

1 HU = 4 SPC
2 HU = 8 SPC

Other back plane configurations on request or available for order separately as individual parts.

19": 483 mm

1 HU: 44 mm

2 HU: 88 mm

300 mm
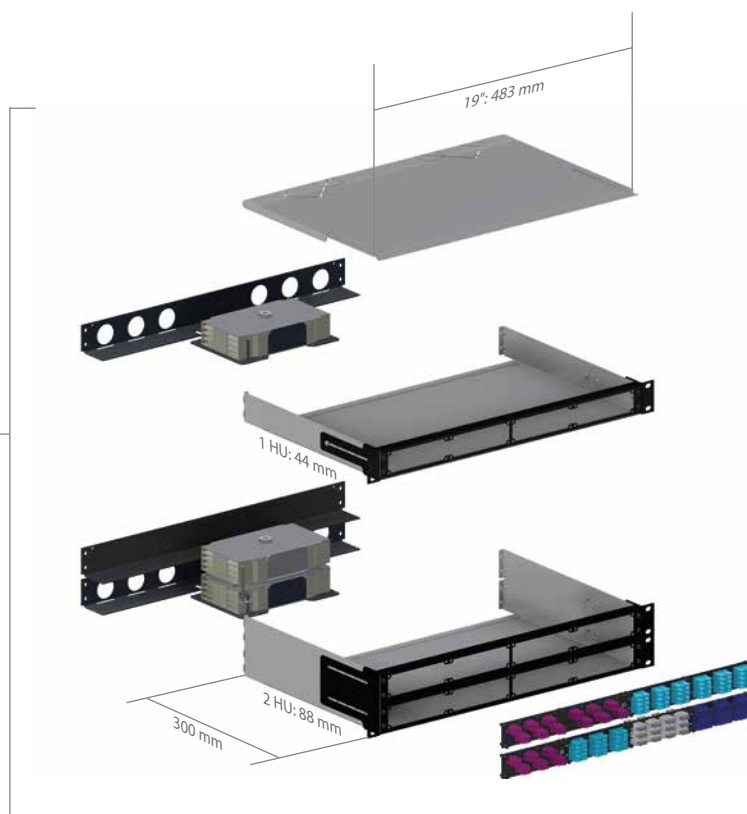
APPLICATIONS

- For installation in 19" racks in distribution systems

PROPERTIES

- Maximized modularity and flexibility thanks to application-specific combinations of ½ and ¼ part front plates
- Part front plates can be inserted without the need for tools thanks to the use of quick-release fasteners
- Depth-adjustable 19" bracket
- Extremely robust, lightweight panel
- Suitable for all common commercially available pigtail and cable types
- 1 to 2 HU, equipped with 1 HU ½ or ¼ part front plates (PFP) depending on number of fibers and type of adapter
- Matrix numbering of the part front plates:
  Channels in part front plates: 1 to n labeled, PFPs in the panel are numbered with clips: 1 to n (example: channel 3 – 4 is in PFP 3, channel 4)
- Material and color:
  - Front: Powder-coated steel, RAL 9005 (matt black)
  - Body: aluminum, natural
  - Back plane: Powder-coated steel, RAL 9005 (matt black)

OPTIONAL

- Splice cassettes, holders, protectors and cable glands, see pages 144 – 147
- Pigtails inserted ready for splicing. Numbers of fibers that are a multiple of 12 are supplied with splice cassettes factory-assembled, see page 104 /105.

FORM OF DELIVERY

- Housing factory-assembled including adapters and splice cassette holder with cover

ACCESSORIES

- See pages 130 / 131
- Factory-assembled splice cassettes, see pages 104 / 105
- Pigtails, see pages 102 / 103
- Part front plates (PFP) with adapters on request
- Panel back plane components on request
- Labeling fields, see page 146

PART NUMBERS
19" SMAP-G2 SPLICE PANEL

TYPE		NUMBER			FOR FIBER TYPE			
HU	TYPE OF ADAPTER	CHAN-NELS	FIBERS	PFP TYPE	SM PC 9/125	SM APC 9/125	OM3 50/125	OM4 50/125
1	MU Duplex Horizontal	12	24	1 x ¼	171 A 3310	171 A 3320	171 A 3330 OM3	171 A 3330 OM4
		24	48	1 x ½	171 A 3350	171 A 3360	171 A 3370 OM3	171 A 3370 OM4
				2 x ¼	171 A 3311	171 A 3321	171 A 3331 OM3	171 A 3331 OM4
1	LC Duplex	6	12	1 x ¼	171 A 3110	171 A 3120	171 A 3130 OM3	171 A 3130 OM4
		12	24	1 x ½	171 A 3150	171 A 3160	171 A 3170 OM3	171 A 3170 OM4
				2 x ¼	171 A 3111	171 A 3121	171 A 3131 OM3	171 A 3131 OM4
		18	36	3 x ¼	171 A 3112	171 A 3122	171 A 3132 OM3	171 A 3132 OM4
		24	48	2 x ½	171 A 3151	171 A 3161	171 A 3171 OM3	171 A 3171 OM4
				4 x ¼	171 A 3113	171 A 3123	171 A 3133 OM3	171 A 3133 OM4
1	SC Duplex plastic	6	12	1 x ¼	171 A 3410	171 A 3420	171 A 3430 OM3	171 A 3430 OM4
		12	24	1 x ½	171 A 3450	171 A 3460	171 A 3470 OM3	171 A 3470 OM4
				2 x ¼	171 A 3411	171 A 3421	171 A 3431 OM3	171 A 3431 OM4
		18	36	3 x ¼	171 A 3412	171 A 3422	171 A 3432 OM3	171 A 3432 OM4
		24	48	2 x ½	171 A 3451	171 A 3461	171 A 3471 OM3	171 A 3471 OM4
				4 x ¼	171 A 3413	171 A 3423	171 A 3433 OM3	171 A 3433 OM4
1	E-2000™ Compact	6	12	1 x ¼	171 A 3510	171 A 3520	171 A 3530 OM3	171 A 3530 OM4
		12	24	1 x ½	171 A 3550	171 A 3560	171 A 3570 OM3	171 A 3570 OM4
				2 x ¼	171 A 3511	171 A 3521	171 A 3531 OM3	171 A 3531 OM4
		18	36	3 x ¼	171 A 3512	171 A 3522	171 A 3532 OM3	171 A 3532 OM4
		24	48	2 x ½	171 A 3551	171 A 3561	171 A 3571 OM3	171 A 3571 OM4
				4 x ¼	171 A 3513	171 A 3523	171 A 3533 OM3	171 A 3533 OM4
2	LC Duplex	30	60	5 x ¼	172 A 3110	172 A 3120	172 A 3130 OM3	172 A 3130 OM4
		36	72	3 x ½	172 A 3150	172 A 3160	172 A 3170 OM3	172 A 3170 OM4
				6 x ¼	172 A 3111	172 A 3121	172 A 3131 OM3	172 A 3131 OM4
		42	84	7 x ¼	172 A 3112	172 A 3122	172 A 3132 OM3	172 A 3132 OM4
		48	96	4 x ½	172 A 3151	172 A 3161	172 A 3171 OM3	172 A 3171 OM4
				8 x ¼	172 A 3113	172 A 3123	172 A 3133 OM3	172 A 3133 OM4
2	SC Duplex plastic	30	60	5 x ¼	172 A 3410	172 A 3420	172 A 3430 OM3	172 A 3430 OM4
		36	72	3 x ½	172 A 3450	172 A 3460	172 A 3470 OM3	172 A 3470 OM4
				6 x ¼	172 A 3411	172 A 3421	172 A 3431 OM3	172 A 3431 OM4
		42	84	7 x ¼	172 A 3412	172 A 3422	172 A 3432 OM3	172 A 3432 OM4
		48	96	4 x ½	172 A 3451	172 A 3461	172 A 3471 OM3	172 A 3471 OM4
				8 x ¼	172 A 3413	172 A 3423	172 A 3433 OM3	172 A 3433 OM4
2	E-2000™ Compact	30	60	5 x ¼	172 A 3510	172 A 3520	172 A 3530 OM3	172 A 3530 OM4
		36	72	3 x ½	172 A 3550	172 A 3560	172 A 3570 OM3	172 A 3570 OM4
				6 x ¼	172 A 3511	172 A 3521	172 A 3531 OM3	172 A 3531 OM4
		42	84	7 x ¼	172 A 3512	172 A 3522	172 A 3532 OM3	172 A 3532 OM4
		48	96	4 x ½	172 A 3551	172 A 3561	172 A 3571 OM3	172 A 3571 OM4
				8 x ¼	172 A 3513	172 A 3523	172 A 3533 OM3	172 A 3533 OM4

Can also be supplied with other fiber optic connector systems on request

3

19" SMAP-G2 HIGH DENSITY PLATE DISTRIBUTION PANEL WITH MTP® MODULES

APPLICATIONS

- 1 HU panel for installation in 19" racks in distribution systems
- For applications with high packing density up to 144 fibers per HU (HDP = High Density Plate)
- For the separation of the 6 MTP® connector channels into fiber optic connectors in the patchfield, e.g. LC Duplex

PROPERTIES

- Maximized modularity and flexibility thanks to application-specific combinations of ¼ part front plates in three levels within 1 HU
- Extremely robust, lightweight panel
- With MTP® modules for the connection of PreCONNECT® FIBER Trunks with MTP® connectors (12 fibers)
- MTP® type on module back plane: 12 fibers; guide pins: male (MTP® trunks are female as standard)
- Coding "uncrossed" to maintain the channel-specific "crossing" of our MTP® trunks
- Matrix numbering of the part front plates: Channels in part front plates: 1 to n labeled, PFPs in the panel numbered with clips: 1 to n (example: channel 3 - 4 is in PFP 3, channel 4)

- Material and color:
  - Front: Powder-coated steel, RAL 9005 (matt black)
  - Body: aluminum, natural
  - Back plane: Powder-coated steel, RAL 9005 (matt black)

FORM OF DELIVERY

- Fully factory-assembled incl. adapters

ACCESSORIES

- See pages 130 / 131
- Part front plates (PFP) with adapters on request
- Panel back plane components on request
- Labeling fields, see page 146

MTP® is a registered trademark of US-Conec Ltd.

PART NUMBERS
SINGLE COMPONENTS

SMAP-G2 HDP 19" EMPTY HOUSING RAL 9005 (black) 1 HU	171H0001

On request, we also supply panels fully assembled with MTP® modules ex works.

SMAP-G2 HDP MTP® MODULES
(with 12 F MTP®), RAL 9005 (black)

NUMBER OF CHANNELS / FIBERS	TYPE OF ADAPTER	NUMBER OF MTP®IN BACK PLANE	FOR FIBER TYPE			
			SM APC 9/125	OM3 50/125	OM4 50/125	
6 CH / 12 F	LC Duplex	1 MTP®	170H1000	170H1001OM3	170H1001OM4	

BLIND PART FRONT PLATE ¼ ⅓ of 19" level	170H0001
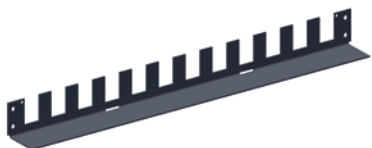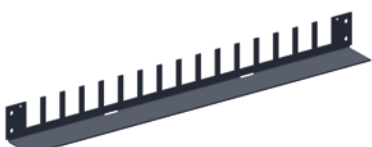
MTP® is a registered trademark of US-Conec Ltd.

3

SMAP-G2 ACCESSORIES

PART NUMBERS

19" 1 HU SMAP-G2 PANEL BACK PLANE Blind, RAL 9005 (black)	1 7 0 A 1 5 0 1	
19" 1 HU SMAP-G2 PANEL BACK PLANE With 12 PreCONNECT® square interfaces, RAL 9005 (black)	1 7 0 A 1 5 0 2	
19" 1 HU SMAP-G2 PANEL BACK PLANE With 16 PreCONNECT® square interfaces, RAL 9005 (black)	1 7 0 A 1 5 0 3	
19" 1 HU SMAP-G2 PANEL BACK PLANE, Z-BLADE With 4 PreCONNECT® square interfaces, Internal cable routing, RAL 9005 (black)	1 7 0 A 1 5 1 2	
19" 1 HU SMAP-G2 PANEL BACK PLANE, Z-BLADE With 4 PreCONNECT® square interfaces, External cable routing, RAL 9005 (black)	1 7 0 A 1 5 1 6	
19" 1 HU SMAP-G2 PANEL BACK PLANE FOR **MIXED FIBER OPTIC AND COPPER CABLING** At the front left, Z-blade with 2 PreCONNECT® square interfaces, internal cable routing; front right, universal cable support with cable ties, RAL 9005 (black)	1 7 0 A 1 5 1 5	
19" 1 HU PANEL BACK PLANE FOR **MIXED FIBER OPTIC AND COPPER CABLING** At the front left, universal cable support with cable ties; front right, Z-blade with 2 PreCONNECT® square interfaces, internal cable routing, RAL 9005 (black)	1 7 0 A 1 5 1 7	

PART NUMBERS

19" 1 HU SMAP-G2 PANEL BACK PLANE FOR MIXED FO AND COPPER CABLING At the front left, Z-blade with 2 PreCONNECT® square interfaces, external cable routing; front right, universal cable support with cable ties, RAL 9005 (black)	1 7 0 A 1 5 1 8	
19" 1 HU SMAP-G2 PANEL BACK PLANE FOR MIXED FO AND COPPER CABLING At the front left, universal cable support with cable ties; front right, Z-blade with 2 PreCONNECT® square interfaces, external cable routing RAL 9005 (black)	1 7 0 A 1 5 1 9	
19" 1 HU SMAP-G2 PANEL BACK PLANE For the universal support of cables using cable ties RAL 9005 (black)	1 7 0 A 1 5 0 7	
19" 1 HU SMAP-G2 PANEL BACK PLANE With 8 holes (Ø 29 mm), suitable for PG 21 cable glands, RAL 9005 (black)	1 7 0 A 1 5 0 4	
19" 1 HU SMAP-G2 PANEL BACK PLANE FOR SPLICE PANEL With 6 holes (Ø 29 mm), suitable for PG 21 cable glands and space for 4 splice cassettes, with splice cassette cover, RAL 9005 (black)	1 7 0 A 1 5 0 5	
19" 1 HU SMAP-G2 SPLICE CASSETTE MODULE For assembly on "panel back plane for splice panel" in panels higher than 1 HU, capacity for 4 splice cassettes, without splice cassette cover, RAL 9005 (black)	1 7 0 A 1 5 0 6	

3

19" 6 HU DISTRIBUTION MODULE PANEL

19"   483 mm

266 mm   6 HU

330 mm

16 LC Duplex TFP

Plug-in modules

Module panel - 45° horizontal,
with rear, lateral
trunk cable routing

Patchfield part front plates

Optional: Patch cable guide
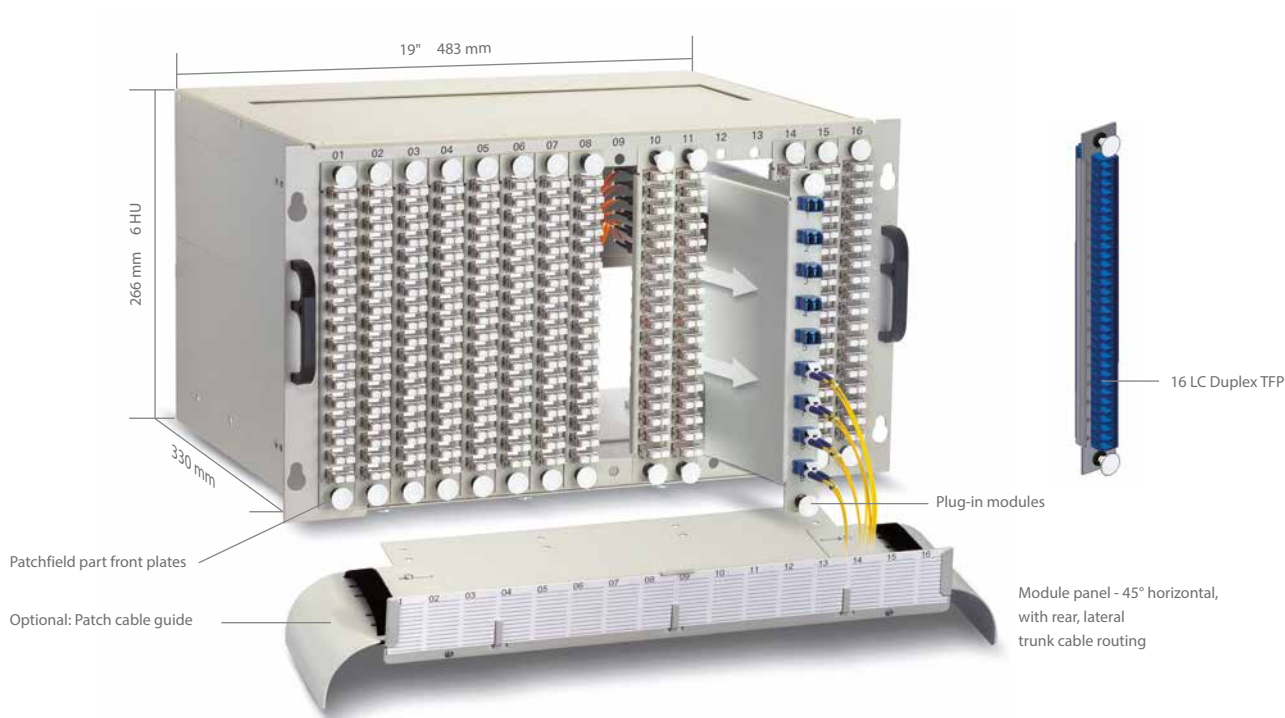
APPLICATIONS

- For installation in 19" racks in distribution systems
- Particularly suitable for large data center infrastructures

PROPERTIES

- Extremely versatile panel thanks to modular front
  and back plane
- Suitable for the connection of all cables assembled
  by Rosenberger OSI
- For up to 288 channels (576 fibers)
- Torsion and strain-resistant cable support
  for 12 PreCONNECT® Trunk cable dividers (Z-blades)
- Oblique rear cable routing
- Plug-in modules can be fully retracted
- Plug-in modules and patchfield part front plates can
  be assembled and removed without tools
- The panel is a modular platform for various patchfield
  connectors.
- Matrix front labeling:
  Slots for plug-in modules and part front plates
  labeled 1 to 16 on module panel, channels numbered
  1 to n for each plug-in module and part front plate
  (example: Matrix 6 – 8: module 6 - channel 8)

- Standard coding of plug-in modules:
  channelwise "uncrossed"
  (only extension of trunks that are crossed as standard)
- MTP® in plug-in modules are "male" (because trunks and
  patchcords are female)
- Material and color:
  - Body: powder-coated aluminum, RAL 7032 (pebble gray)
  - Front: powder-coated steel, RAL 7035 (light gray)
    or RAL 9005 (matt black)
- Weight:
  - Module panel unassembled: approx. 3.5 kg
  - Plug-in module: approx. 0.5 kg

FORM OF DELIVERY

- Module panel with separate plug-in modules or
  patchfield part front plates, factory-assembled or
  supplied for assembly on site.
- Mounting knobs in plug-in modules and patchfield part
  front plates

MTP® is a registered trademark of US-Conec Ltd.

PART NUMBERS
SINGLE COMPONENTS

19" 6 HU DISTRIBUTION MODULE PANEL - 45° HORIZONTAL With Z-blade back plane for the accommodation of 12 PreCONNECT® Trunk cable dividers and removable rear cover RAL 7032 (pebble gray), Front RAL 7035 (light gray) Front RAL 9005 (matt black)	1 5 4 A 0 0 0 0 1 5 4 A 2 0 0 0
19" 6 HU DISTRIBUTION MODULE PANEL - 30° VERTICAL With folding rear and top cover and cable divider slots inclined downwards by 30° for up to 24 PreCONNECT® Trunk cable dividers, RAL 9005 (matt black)	1 5 4 A 5 0 0 0
6 HU BLIND FRONT PART PLATE, RAL 7035 (light gray) RAL 9005 (matt black)	1 5 4 A 0 0 0 1 1 5 4 A 2 0 0 1

		6 HU PLUG-IN MODULE RAL 7035 (light gray)			6 HU PATCHFIELD PART FRONT PLATES RAL 7035 (light gray), equipped with adapters		
NUMBER OF FIBERS	TYPE OF ADAPTER	SM OS2	OM3	OM4	SM OS2	OM3	OM4
12	MU Duplex Horizontal LC Duplex	1 5 4 A 0 2 4 0 1 5 4 A 0 1 5 0	1 5 4 A 0 2 4 5 OM3 1 5 4 A 0 1 5 5 OM3	1 5 4 A 0 2 4 5 OM4 1 5 4 A 0 1 5 5 OM4	– –	– –	– –
24	MU Duplex Horizontal LC Duplex	1 5 4 A 0 2 5 5 1 5 4 A 0 1 6 5	1 5 4 A 0 2 6 0 OM3 1 5 4 A 0 1 7 0 OM3	1 5 4 A 0 2 6 0 OM4 1 5 4 A 0 1 7 0 OM4	– –	– –	– –
32	LC Duplex	–	–	–	1 5 4 A 0 4 7 0	1 5 4 A 0 4 7 2 OM3	1 5 4 A 0 4 7 2 OM4
36	MU Duplex Horizontal	–	–	–	1 5 4 A 0 2 0 0	1 5 4 A 0 2 0 5 OM3	1 5 4 A 0 2 0 5 OM4

		6 HU PLUG-IN MODULE RAL 9005 (matt black)			6 HU PATCHFIELD PART FRONT PLATES RAL 9005 (matt black), equipped with adapters		
NUMBER OF FIBERS	TYPE OF ADAPTER	SM OS2	OM3	OM4	SM OS2	OM3	OM4
12	MU Duplex Horizontal LC Duplex	1 5 4 A 2 2 4 0 1 5 4 A 2 1 5 0	1 5 4 A 2 2 4 5 OM3 1 5 4 A 2 1 5 5 OM3	1 5 4 A 2 2 4 5 OM4 1 5 4 A 2 1 5 5 OM4	– –	– –	– –
24	MU Duplex Horizontal LC Duplex	1 5 4 A 2 2 5 5 1 5 4 A 2 1 6 5	1 5 4 A 2 2 6 0 OM3 1 5 4 A 2 1 7 0 OM3	1 5 4 A 2 2 6 0 OM4 1 5 4 A 2 1 7 0 OM4	– –	– –	– –
32	LC Duplex	–	–	–	1 5 4 A 2 4 7 0	1 5 4 A 2 4 7 2 OM3	1 5 4 A 2 4 7 2 OM4
36	MU Duplex Horizontal	–	–	–	1 5 4 A 2 2 0 0	1 5 4 A 2 2 0 5 OM3	1 5 4 A 2 2 0 5 OM4

3

Module panel - 30° vertical, with rear, downward routing of trunk cables

PROPERTIES - 30° VERTICAL

• Simple, time-saving installation of the PreCONNECT® cable dividers in the rear square interface
• Up to 24 PreCONNECT® Trunk cable dividers can be installed
• Optimized cable routing in the rack thanks to 30° downward incline of cable divider fixings at square interface
• Reduced installation and maintenance times thanks to inspection openings accessible from the top and rear
• The individual connector legs are protected thanks to their location inside the panel
• Internal location of cable dividers means there is no wasted space
• Clear, well-organized cable routing inside the panel (256 single cables)
• Module panel - 30° vertical only available in matt black

MINI UNIVERSAL BOX

Variant 2

Variant 1
with PreCONNECT® FIBER Trunk
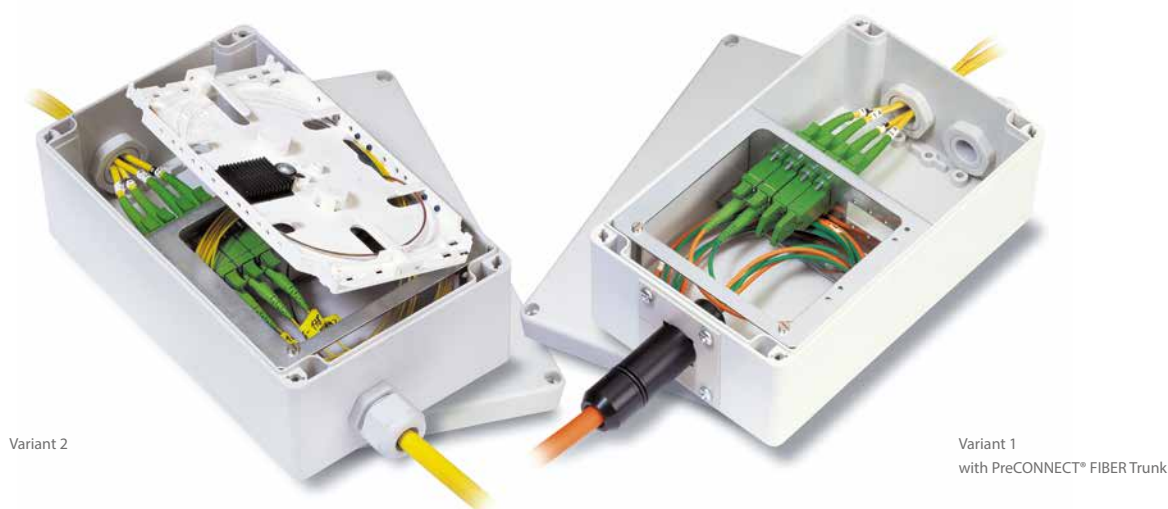
APPLICATIONS

- Box for the connection of small numbers of cables when there is no infrastructure in the form of racks, wall distributors, skirting or cable ducts.
- Particularly suitable for industrial and outdoor cabling as well as for cabling in humid or wet premises

PROPERTIES

- The mini universal box is available in two variants:
  ### 1. DISTRIBUTION PANEL
  - For the connection of all common, commercially available assembled cable types with internal patchfield; particularly suitable for use with all PreCONNECT® FIBER cables
  ### 2. SPLICE PANEL
  - For the splicing of pigtails to cables with internal patchfield
  - For splicing cables to one another (cable splicing)

- Suitable for wall-mounting and installation in cable mounting systems
- The maximum possible number of fibers depends on the variant and connector type. For common, commercially available types, see next page.
- 1 x cable inlet
  - Variant 1 with a set of mounting bracket for PreCONNECT® FIBER Trunk and 1 x PG 13.5 cable gland for other assembled cables – IP50 dustproof
  - Variant 2 with 1 x PG 13.5 cable gland IP65 waterproof with round cable

- 2 x cable outlets:
  - Variant 1 and 2 with 2 x PG 13.5 cable gland for assembled cables – IP50 dustproof
  - Variant 2 (cable splicing) with 2 x PG 13.5 cable glands – IP65 waterproof with round cable
- The box itself is waterproof as per IP67
- Dimensions (L x W x H): 200 x 120 x 75 mm
- Material and color:
  Plastic, RAL 7035 (light gray)

OPTIONAL

- For variant 2:
  Pigtails factory-mounted ready for splicing in panel and splice cassettes (inserted)

FORM OF DELIVERY

- Variant 1 and 2 with mounted adapters
- All variants include the cable glands for cable inlets and outlets listed under "Properties"
- Variant 2 includes splice cassette, holder and protector, see page 144

ACCESSORIES

- Pigtails, see pages 102 / 103

PART NUMBERS

NUMBER OF FIBERS	TYPE OF ADAPTER	DISTRIBUTION PANEL		SPLICE PANEL for splicing pigtails	
		SM	MM	SM	MM
4	SC » SC Duplex metal LC » LC Duplex SM OM3 OM4 E-2000™ » E-2000™ Simplex[1] HRL	1 1 4 A 0 4 2 0 1 1 4 A 0 4 2 4 – – 1 1 4 A 0 4 2 8	1 1 4 A 0 5 2 0 – 1 1 4 A 0 5 2 5 OM3 1 1 4 A 0 5 2 5 OM4 –	1 1 4 A 0 6 2 0 1 1 4 A 0 6 2 4 – – 1 1 4 A 0 6 2 8	1 1 4 A 0 7 2 0 – 1 1 4 A 0 7 2 5 OM3 1 1 4 A 0 7 2 5 OM4 –
8	SC » SC Duplex metal LC » LC Duplex SM OM3 OM4 E-2000™ » E-2000™ Simplex[1] HRL	1 1 4 A 0 4 6 0 1 1 4 A 0 4 6 4 – – 1 1 4 A 0 4 6 8	1 1 4 A 0 5 6 0 – 1 1 4 A 0 5 6 5 OM3 1 1 4 A 0 5 6 5 OM4 –	1 1 4 A 0 6 6 0 1 1 4 A 0 6 6 4 – – 1 1 4 A 0 6 6 8	1 1 4 A 0 7 6 0 – 1 1 4 A 0 7 6 5 OM3 1 1 4 A 0 7 6 5 OM4 –
12	LC » LC Duplex SM OM3 OM4	1 1 4 A 0 4 8 1 – –	– 1 1 4 A 0 5 8 2 OM3 1 1 4 A 0 5 8 2 OM4	1 1 4 A 0 6 8 1 – –	– 1 1 4 A 0 7 8 2 OM3 1 1 4 A 0 7 8 2 OM4

Other adapter types and numbers of fibers on request. [1] = Type R+M.

PART NUMBERS
SPLICE PANEL for splicing cables to one another (cable splicing)

NUMBER OF FIBERS	2	4	6	8	12	16	24
	1 1 4 A 0 8 0 0	1 1 4 A 0 8 0 1	1 1 4 A 0 8 0 2	1 1 4 A 0 8 0 3	1 1 4 A 0 8 0 4	1 1 4 A 0 8 0 5	1 1 4 A 0 8 0 6

Other numbers of fibers on request

UNIVERSAL BOX

APPLICATIONS

• Freely configurable, extremely modular universal box for a wide range of installation environments in which 19" applications are either not necessary or not possible.

PROPERTIES

• For up to 24 channels (48 fibers)
• Universal box available as distribution panel and as splice panel:
   1. DISTRIBUTION PANEL
   • Assembled cables can be inserted on both sides, fixed in place and connected to an internal patchfield.
   2. SPLICE PANEL
   • Buffered-fiber pigtails or cable pigtails or pigtail bundle cables inserted ready for splicing
   • To splice pigtails to cables, the cables can be fed in and fastened at the appropriate side on the front of the unit.
   • To connect pigtails to assembled cables, the cables can be connected to the pigtails in the patchfield on the other side of the front of the unit.
   • Cables can also be spliced directly to one another (cable splicing).
• Modular attachments for the insertion and fixing of cables are available for both variants, see page 137
• The universal box is equipped as standard with SMAP ½ part front plates with fiber optic adapters

• Material and color:
   • Housings: Plastic, RAL 7035 (light gray), impact-resistant, halogen-free
   • Attachments: powder-coated steel, RAL 7035 (light gray)
• Depending on the mounted cable guides, the universal box is at least dustproof as per IP50 through to waterproof as per IP66.
• Dimensions (L x W x H): 360 x 254 x 111 mm

OPTIONAL

• SMAP ½ part front plate with copper modules in patchfield on request
• External adapter front plates available for mounting on the front faces on request

FORM OF DELIVERY

• On request. Dependent on variant and configuration
• With blind covers for unneeded square interfaces

ACCESSORIES

• Cable glands with nuts, see page 147
• Screw plugs with nuts, see page 147
• Factory-assembled splice cassettes, see pages 104 / 105
• Pigtails, see pages 102 / 103.
• Raised floor holder, see page 137

PART NUMBERS
BASIC PANELS
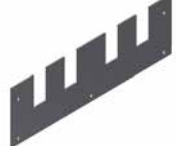
NUMBER OF CHANNELS / FIBERS	TYPE OF ADAPTER	DISTRIBUTION PANEL		SPLICE PANEL	
		SM	OM3	SM	OM3
6 CH / 12 F	LC Duplex	118A4001	118A4005OM3	118A4301	118A4304OM3
12 CH / 24 F	LC Duplex	118A4002	118A4006OM3	118A4302	118A4305OM3
24 CH / 48 F	LC Duplex	118A4003	118A4007OM3	118A4303	118A4306OM3
36 CH / 72 F	LC Duplex	118A4004	118A4008OM3	[1]	[1]
48 CH / 96 F	24 LC Quad ≙ 48 LC Duplex	118A4009	118A4010OM3	[1]	[1]
6 CH / 12 F	MU Duplex Horizontal	118A4011	118A4016OM3	118A4307	118A4310OM3
12 CH / 24 F	MU Duplex Horizontal	118A4012	118A4017OM3	118A4308	118A4311OM3
24 CH / 48 F	MU Duplex Horizontal	118A4013	118A4018OM3	118A4309	118A4312OM3
36 CH / 72 F	MU Duplex Horizontal	118A4014	118A4019OM3	[1]	[1]
48 CH / 96 F	MU Duplex Horizontal	118A4015	118A4020OM3	[1]	[1]
6 CH / 12 F	SC Duplex metal	118A4021	118A4023OM3	118A4313	118A4315OM3
12 CH / 24 F	SC Duplex metal	118A4022	118A4024OM3	118A4314	118A4316OM3
6 x 6 CH / 6 x 12 F (for 12 F MTP®)	MTP®	118A4025	118A4026OM3	on request	on request

Empty box without coupler plate and no splice cassette interface	118A4000

Other adapter types and numbers of fibers on request. [1] The maximum possible number of fibers for the splice panel is limited to 48 because larger numbers of fibers cannot be spliced due to insufficient space in the container. MTP® is a registered trademark of US-Conec Ltd.

PART NUMBERS
ATTACHMENTS

IP50 WITHOUT SEAL

BLIND PLATE	PLATE FOR 4 x PG	PLATE FOR 6 x PG	PLATE FOR 4 x trunk cable dividers	LIP SEAL
118A4500	4 x PG 21 118A4501	6 x PG 13.5 118A4502 6 x PG 16 118A4503 6 x PG 21 118A4504	118A4505	118A4506

IP66 WITH SEAL

			RAISED FLOOR HOLDER For mounting our universal box in raised floors
118A4507	4 x PG 21 118A4508	6 x PG 13.5 118A4509 6 x PG 16 118A4510 6 x PG 21 118A4511	099A0051

3

PANELS

OUTDOOR DISTRIBUTION BOX

6-channel distribution box

12-channel distribution box

APPLICATIONS

- Distribution box for structured cabling in outdoor environments
- Wall and mast mounting for the distribution of the individual channels of multifiber systems

PROPERTIES

- IP67 waterproof
- All variants LC (singlemode and multimode)

FORM OF DELIVERY

- Includes screwed cover
- Mounted cable glands, LC adapters and fixing flanges

ACCESSORIES

- Set of retaining straps for fixing

PART NUMBERS

NUMBER CHANNELS / FIBERS	
3 CH / 6 F	220A1001
6 CH / 12 F	220A1002
12 CH/ 24 F	220A1005
18 CH / 36 F	220A1006

OUTDOOR EXCESS CABLE ENCLOSURE

APPLICATIONS

• Storage container for excess cable lengths in outdoor environments
• For mounting on walls and in 19" racks

PROPERTIES

• Provides mechanical protection for the stored excess cable lengths
• Excess cable enclosure available in four variants:
  1. 1 HU excess cable enclosure with drawer function, suitable for approx. 30 m of cable of up to 7 mm diameter
  2. 1 HU excess cable enclosure without drawer function, suitable for approx. 30 m of cable of up to 7 mm diameter
  3. 2 HU excess cable enclosure without drawer function, suitable for approx. 50 m of cable of up to 7 mm diameter
  4. Excess cable enclosure (19 x 41 cm) for mounting on walls and masts, suitable for approx. 20 m of up to 7 mm diameter

PART NUMBERS

VARIANT	
1 HU without drawer 1 HU with drawer	2 2 0 A 3 0 0 1 2 2 0 A 3 0 0 2
2 HU	2 2 0 A 3 0 0 3
19 x 41 cm	2 2 0 A 3 0 0 4

19" 1 HU PANEL COPPER

APPLICATIONS

- For installation in 19" racks in distribution systems
- For the distribution, for example, of PreCONNECT® COPPER trunks to patchcords in data centers

PROPERTIES

- Particularly suitable for the connection of 24 PreCONNECT® COPPER RJ45 jack modules, CAT. 6$_A$ screened
- Material and color:
  Steel, RAL 7035 (light gray), RAL 9005 (black)

OPTIONAL

- Other jack modules on request

ACCESSORIES

- Panel accessories, see pages 144 – 147

PART NUMBERS

RAL 7035 (light gray)	800A0200
RAL 9005 (black)	800A0201

You can find our PreCONNECT® COPPER
cabling products on pages 86- 91.

19" 1 HU SMAP PANEL COPPER

APPLICATIONS

- For installation in 19" racks in distribution systems
- For the distribution, for example, of PreCONNECT® COPPER trunks to patchcords in data centers

PROPERTIES

- Equipped with two SMAP ½ part front plates
- Particularly suitable for the connection of 24 PreCONNECT® COPPER RJ45 jack modules, CAT. 6_A screened
- Material and color:
  Steel, RAL 9005 (matt black)

OPTIONAL

- Other jack modules on request

ACCESSORIES

- SMAP accessories, see pages 130 / 131
- Panel accessories, see pages 144 – 147

PART NUMBER	
RAL 9005 (black)	1 6 1 A 5 0 0 2

3

SMAP DISTRIBUTION PANEL FIBER / COPPER VARIANT*

The modular SMAP distribution panels and part front plates (see pages 122 / 123) can be used in combination with the SMAP Panel Copper and its part front plates (see above) and can be extended to form hybrid FO/copper panels.
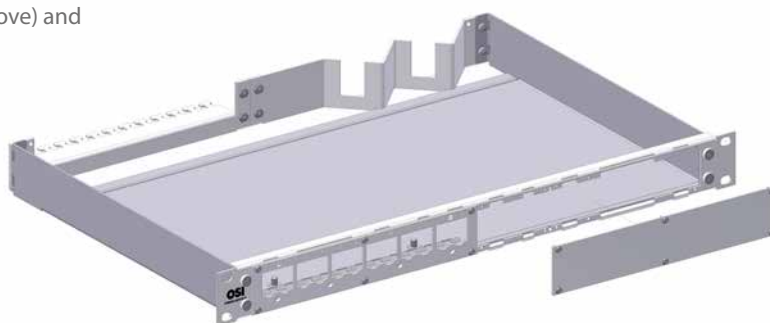
*On request

PANELS AND RACKS: PANEL ACCESSORIES

3

Even when manufacturing the tiniest parts, Rosenberger OSI attaches the greatest importance to the use of top-quality materials and meticulous production processes. Accessories play a very important role when it comes to ensuring panel safety classes because even minute material or manufacturing defects can impact on their impermeability.

Our protective and cable-routing products, such as strain relief, patchfield protection or cable managers, are also subjected to stringent quality inspections. Because we know: The overall system can only work properly if the reliability of every tiny detail has been ensured.

PANEL ACCESSORIES

PART NUMBERS

(1) SPLICE CASSETTE	1 1 1 A 0 0 0 8
(2) COVER FOR SPLICE CASSETTE	1 1 1 A 0 0 1 5
(3) SPLICE HOLDER FOR 12 CRIMP SPLICE PROTECTORS	1 1 1 A 0 0 0 0
(4) CRIMP SPLICE PROTECTOR	1 1 1 A 0 0 0 1
(5) STRAIN RELIEF FOR 900 µm BUFFERED FIBER	1 1 1 A 0 0 0 9

BLIND COVERS FOR FRONT PLATES		
For adapter cutouts	ST	1 1 1 A 0 0 1 3
	SC Duplex	1 1 1 A 0 0 1 4
	E-2000™, SC Simplex, MT-RJ	1 1 1 A 0 0 1 6

STRAIN RELIEF	
For cable gland	
PG 13.5	1 1 1 A 0 4 2 0
PG 16	1 1 1 A 0 4 2 1
PG 21	1 1 1 A 0 4 2 2

DIVISIBLE CONDUIT – with glands	Ø internal [m]	Ø external [m]	
PACO-14B	12.9	18.7	0 9 9 A 0 2 0 1
PACO-20B	19.8	25.9	0 9 9 A 0 2 0 2

DIVISIBLE GLAND	
TN/GTN 1314 (PG 13.5) suitable for conduit PACO-14B	
incl. adapter ring and nut for PG 21 hole	0 9 9 A 0 2 1 5
TN/GTN 2120 (PG 21) suitable for conduit PACO-20B	
incl. PG 21 nut	0 9 9 A 0 2 1 2

19" 1 HU PATCHCORD OVERLENGTH PANEL RAL 7035 (light gray)	1 1 1 A 0 7 0 1

PANEL ACCESSORIES

PART NUMBERS

19" 4 HU RAISED FLOOR HOLDER
RAL 9005 (black)
Robust fixture for the extremely versatile, multipurpose, simple
fast installation of 19" panels and active equipment in raised floors

099A0052

19" PATCHFIELD PROTECTOR
· Prevents mechanical strain and damage
· Prevents contamination

Highly recommended if 19" patchfields are installed in
raised floors using the holder illustrated here.

19" PATCHFIELD PROTECTOR
1 HU	099A0059
2 HU	099A0060
3 HU	099A0066
4 HU	099A0083

19" 1 HU PATCHCORD GUIDE
RAL 7035 (light gray)

111A0450

19" HORIZONTAL CABLE MANAGER
RAL 9005 (black)
1 HU	111A0454
2 HU	111A0453

3

PANEL ACCESSORIES

PART NUMBERS
LABELING FIELDS

Suitable for all Rosenberger OSI panels and most
commercially available panels, comprising:

• 1 labeling field
• Mounting material
• Mounting instructions

1 HU	1 7 1 A 0 0 0 2
2 HU	1 7 2 A 0 0 0 2
3 HU	1 7 3 A 0 0 0 2
4 HU	1 7 4 A 0 0 0 2
5 HU	1 7 5 A 0 0 0 2

PART NUMBERS
1 HU PATCHCORD GUIDES

For routing and fixing patchcords per height unit.
1 HU to both sides. The patchcord guide prevents
excessively small bending radii which increase
attenuation in the patchcord. Set consisting of 1 HU
left-hand and right-hand patchcord guides with
labeling fields and velcro strips, M6 screws and cage
nuts. Suitable for use in 600 mm wide cabinets.

For 1 HU panel	1 7 1 A 0 0 0 6
For 2 HU panel	1 7 2 A 0 0 0 6
For 3 HU panel	1 7 3 A 0 0 0 6
For 4 HU panel	1 7 4 A 0 0 0 6
For 5 HU panel	1 7 5 A 0 0 0 6

PANEL ACCESSORIES

PART NUMBERS
CABLE GLANDS WITH NUTS

For cable Ø [m]			
PG 13.5	6 - 12	plastic IP60	1 1 1 A 0 4 2 6
PG 16	10 - 14	plastic IP60	1 1 1 A 0 4 2 7
PG 21	13 - 18	plastic IP60	1 1 1 A 0 4 0 2
PG 13.5	6 - 12	metal IP68	1 1 1 A 0 4 2 8
PG 16	10 - 14	metal IP68	1 1 1 A 0 4 2 9
PG 21	13 - 18	metal IP68	1 1 1 A 0 4 1 0

PART NUMBERS
CABLE GLANDS WITH PG 21 ADAPTER RINGS AND NUTS

For cable Ø [m]			
PG 13.5	6 - 12	plastic IP60	1 1 1 A 0 4 0 0
PG 16	10 - 14	plastic IP60	1 1 1 A 0 4 0 1

PART NUMBERS
SCREW PLUGS WITH NUTS

PG 13.5	plastic IP60	1 1 1 A 0 4 3 0
PG 16	plastic IP60	1 1 1 A 0 4 3 1
PG 21	plastic IP60	1 1 1 A 0 4 3 2
PG 13.5	metal IP68	1 1 1 A 0 4 3 3
PG 16	metal IP68	1 1 1 A 0 4 3 4
PG 21	metal IP68	1 1 1 A 0 4 3 5

3

The demands placed on modern rack rows are increasing in pace with the constantly growing complexity of data centers. Alongside guaranteed optimized protection for cable paths, clearly structured, easy-to-install cable routing is constantly gaining in importance when cabling infrastructure facilities. That is why at Rosenberger OSI, we demand that our cable management systems comply with the same high quality standards as all our other products.

Taking apraNET's 19" rack system "NETcell" as our starting point, we have worked together with our customers to unite the innovative skills of our two companies in an extremely versatile, modular server rack system. With its restriction-free, high-volume cable managers and innovative practical details, this patch location rack ensures more than just outstanding clarity of organization. It also already fulfils all the rack-related requirements that will face tomorrow's state-of-the-art data centers.

PATCH LOCATION RACK

Optional: Excess cable container and cable guide plate for mounting on top of rack

Cable conduits with individually selectable cable feedthroughs at the front and back on both sides

Cable clips, known as L-fingers, guarantee optimum protection against bending and kinking

Countless helpful details and fixing capabilities ensure the perfect routing of trunks and cables throughout the installation.

Excess cable container and cable guide plate for mounting at base
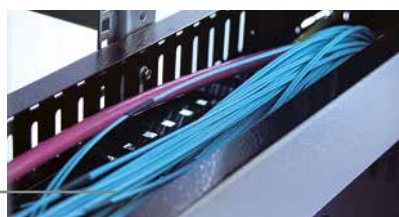
Individually locatable cable ducts in the side walls for connecting cable conduits at the front and rear

APPLICATIONS

- High-density data center infrastructures
- For the construction of ultra-high-density data center patch locations

PROPERTIES

- Innovative, restriction-free cable management system
  - Rack pillars with integrated cable managers to prevent interference with cable routing
  - The covers of the cable managers fold in both directions and are completely removable
  - Individually selectable feedthroughs in the sides and rear walls of the large-volume cable channel for simple vertical and horizontal cable routing
  - Professional routing of large cable volumes from the patchfields and storage of cable overlengths in the vertical cable managers
  - Particularly suitable for fiber optic cables thanks to the use of cable clips (L-fingers) and finger slots
    - The rounded L-fingers ensure that the cables are extremely well protected against bending and kinking even when subject to strain.
    - The L-fingers do not have any sharp edges and are extremely strong and resistant to breakage
    - Because there is plenty of space for them in the large finger slots, the cables are neither squeezed nor kinked.
    - The L-fingers retain the cables in the finger slots whenever you need to work with the covers folded back or removed.
- Dimensions (H x L x W): 213 (46 HU) x 90 x 90 cm
- Material and color:
  Powder-coated steel, RAL 9005 (black)

OPTIONAL

- 19" Intermediate Rack for the construction of rack rows with uneven numbers of racks on request

FORM OF DELIVERY

- Factory-mounted on pallet (total height with pallet and packaging: 230 cm)
- Including adjustable feet for on-site installation

ACCESSORIES

- Wide range of accessories such as side walls, cable guides, excess cable storage for the top of the rack are available on request

For further technical details and part numbers, please request our product information.

3

RACKS

PART NUMBER

RAL 9005 (black)	1 4 2 A 3 0 0 0

Rosenberger

CONNECTORS | **4**

LC
(PC 0° and APC 8°)

MADE BY
Rosenberger

LC Compact   LC Duplex   Mini LC Duplex   LC Simplex   Adapter, for further adapters, see pages 166 / 167
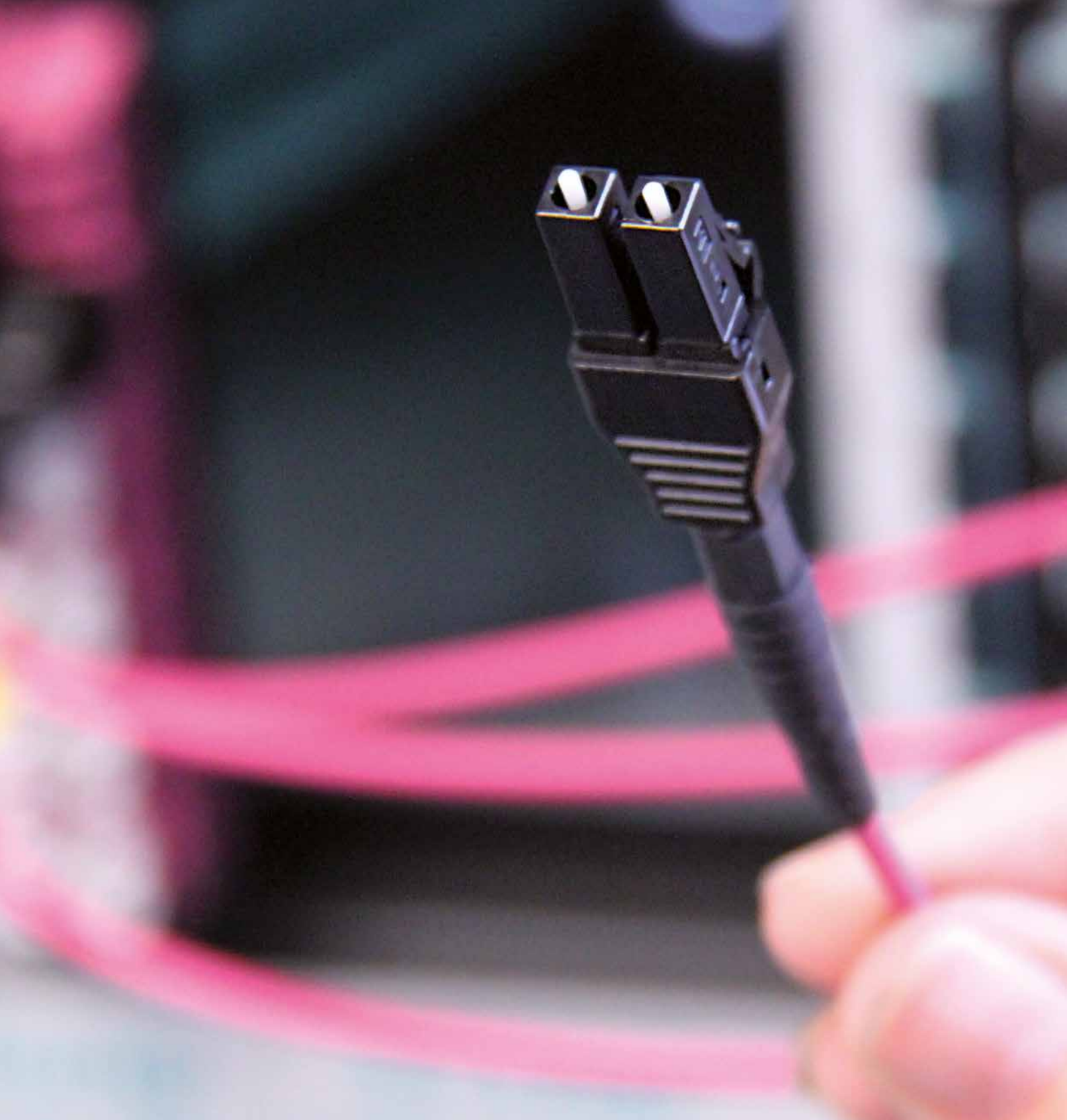
APPLICATIONS

- LAN
- SAN and data centers
- MAN and WAN

PROPERTIES

- Small Form Factor (SFF) single-fiber connector
- Simplex and duplex
- Latch push-pull locking mechanism: latch must be pushed for unmating

- APC version with angled polished ferrule endface (8°)
- Spring-mounted ferrule, centered on slotted sleeve
- Tuning possible
- Mini LC Duplex with reduced pitch of 5.25 mm available – indicated by yellow clip
- New generation of LC Compact:
  - Shorter design
  - Ruggedized housing
  - Polarity change by user

TECHNICAL DATA

STANDARD	IEC 61754-20	
FERRULE Ø [mm]	1.25	Zirconia-ceramic
INSERTION LOSS [1] [dB], max.	0.15 0.3	Multimode Low Insertion Loss Multimode Standard
RETURN LOSS [2] [dB], min.	30 45 55 70	Multimode PC Singlemode PC Singlemode UPC Singlemode APC
TEMPERATURE RANGE [°C]	-40 to +85	depending on cable type
MATING CYCLES, min.	1000	
CABLE Ø [mm]	0.9 - 3.0	
STRAIN RELIEF [N], min.	70	
COLOR OF CONNECTOR BODY	blue green black beige	Singlemode PC Singlemode APC Multimode 50 µm Multimode 62.5 µm

[1] = according to IEC 61300-3-4 method B against reference, [2] = according to IEC 61300-3-6 method 1 against reference

PART NUMBERS

COMPONENTS	
CONNECTOR BODY, SIMPLEX, BUFFERED FIBER	
Singlemode PC, blue	98 LCS 120-101
Singlemode APC, green	98 LCS 110-101
Multimode 50 µm, black, Low Loss Type	98 LCS 130-109
Multimode 62.5 µm, beige	98 LCS 130-102
CONNECTOR BODY, SIMPLEX, CABLE	
Singlemode PC, blue	98 LCS 120-102
Singlemode APC, green	98 LCS 110-102
Multimode 50 µm, black, Low Loss Type	98 LCS 130-110
Multimode 62.5 µm, beige	98 LCS 130-104
CONNECTOR BODY, DUPLEX, 2 x INCL. CLIP	
Singlemode PC, blue	98 LCS 120-103
Singlemode APC, green	98 LCS 110-103
Multimode 50 µm, black, Low Loss Type	98 LCS 130-107
Multimode 62.5 µm, beige	98 LCS 130-106
CONNECTOR BODY, MINI DUPLEX, 2 x INCL. CLIP	
Singlemode PC, blue	98 LCS 120-104
Multimode 50 µm, black, Low Loss Type	98 LCS 130-108
CRIMP RINGS [mm] Ø 1,6 - 2,1	98 ZC 02-000
Ø 2,4 - 3,0	98 ZC 03-000
BOOT Ø 0.9 mm	
black	98 ZB 01-0BK
blue	98 ZB 01-0BU
green	98 ZB 01-0GN
white	98 ZB 01-0WH
BOOT Ø 2.1 mm	
black	98 ZB 02-0BK
blue	98 ZB 02-0BU
green	98 ZB 02-0GN
white	98 ZB 02-0WH
BOOT Ø 2.5 mm, short	
black	98 ZB 10-0BK
blue	98 ZB 10-0BU
green	98 ZB 10-0GN
red	98 ZB 10-0RD
white	98 ZB 10-0WH
BOOT Ø 3.0 mm	
black	98 ZB 03-0BK
blue	98 ZB 03-0BU
green	98 ZB 03-0GN
CONNECTOR BODY, COMPACT	
Singlemode PC, blue	98 LCS120-205
Singlemode APC, green	98 LCS110-205
Multimode 50 µm, black	98 LCS130-207
Multimode 50 µm, black, Low Loss Type	98 LCS130-209
CRIMP RINGS [mm] Ø 2.4 - 3.0	98 ZC 04-000
BOOT	
black	98 ZB 04-0BK
blue	98 ZB 04-0BU
green	98 ZB 04-0GN
white	98 ZB 04-0WH
red	98 ZB 04-0RD
yellow	98 ZB 04-0YE

4

DIMENSIONS

31.8

49.5

6.25

MU
(PC 0° and APC 8°)

MADE BY
Rosenberger
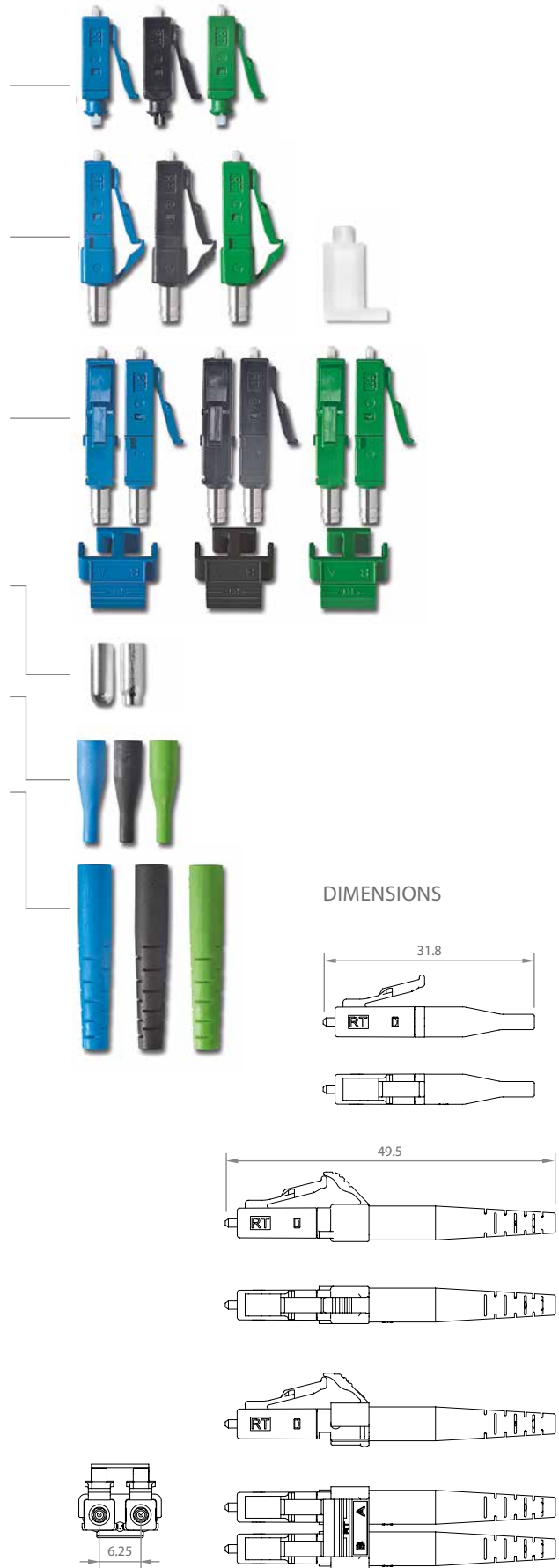
MU Simplex

MU APC

MU Duplex Horizontal

MU Compact

Adapter,
for further adapters,
see pages 166 / 167

APPLICATIONS

- MU: Mobile communication WDM / DWDM systems
  MAN and WAN
  SAN and data centers
- MU APC: Mobile Communication WDM / DWDM systems
  MAN and WAN
  CATV

PROPERTIES

- Single-fiber connector
- Simplex, duplex horizontal and vertical
- Push-pull locking mechanism
- APC version with angled polished ferrule endface (8°)
- Spring-mounted ferrule, centered in slotted coupling sleeve
- Tuning possible

TECHNICAL DATA

STANDARD	IEC 61754-6 EN 50377-10	
FERRULE Ø [mm]	1.25	Zirconia-ceramic
INSERTION LOSS [1] [dB], max.	0.15 0.3	Multimode Low Insertion Loss Multimode Standard
RETURN LOSS [2] [dB], min.	30 45 55 70	Multimode PC Singlemode PC Singlemode UPC Singlemode APC
TEMPERATURE RANGE [°C]	-40 to +85	depending on cable type
MATING CYCLES, min.	1000	
CABLE Ø [mm]	0.9 - 3.0	
STRAIN RELIEF [N], min.	70	
COLOR OF CONNECTOR BODY	blue green black beige	Singlemode PC Singlemode APC Multimode 50 µm Multimode 62.5 µm

[1] = according to IEC 61300-3-4 method B against reference, [2] = according to IEC 61300-3-6 method 1 against reference
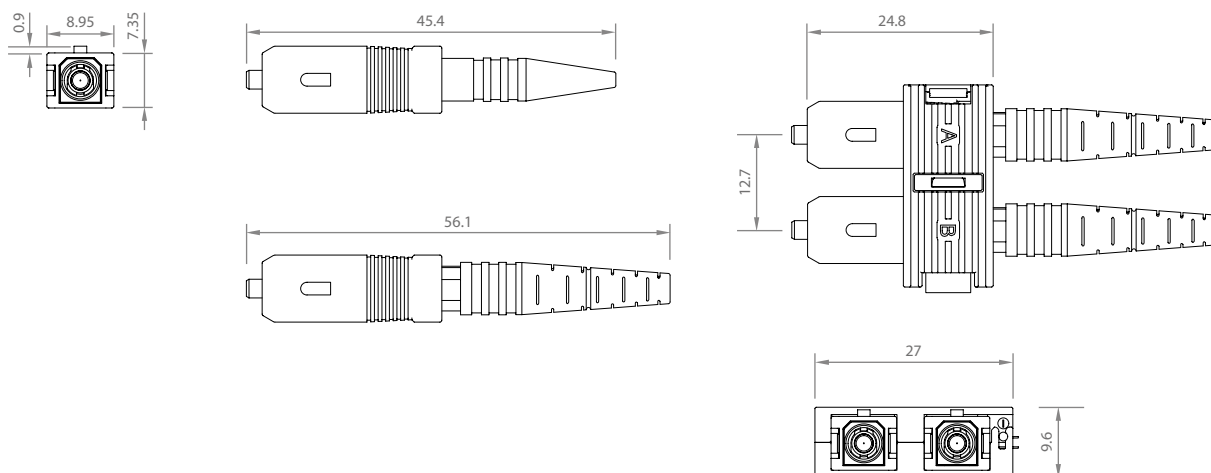
PART NUMBERS

COMPONENTS	
CONNECTOR BODY, SIMPLEX	
Singlemode PC, blue	98 MUS 120-101
Singlemode APC, green	98 MUS 110-101
Multimode 50 µm, black, Low Loss Type	98 MUS 130-103
Multimode 62.5 µm, beige	98 MUS 130-105
CONNECTOR BODY, DUPLEX	
Singlemode PC, blue	98 MUS 120-102
Singlemode APC, green	98 MUS 110-102
Multimode 50 µm, black, Low Loss Type	98 MUS 130-104
Multimode 62.5 µm, beige	98 MUS 130-106
CONNECTOR BODY, COMPACT	
Singlemode PC, blue	98 MUS 120-201
Singlemode APC, green	98 MUS 110-201
Multimode 50 µm, black, Low Loss Type	98 MUS 130-201
Multimode 62.5 µm, beige	98 MUS 130-202
CRIMP RINGS [mm]	
Ø 1.6 - 2.1	98 ZC 06-000
Ø 2.8 - 3.5	98 ZC 07-000
BOOT Ø 0.9 mm BUFFERED CABLE	
blue	98 ZB 07-0BU
green	98 ZB 07-0GN
black	98 ZB 07-0BK
yellow	98 ZB 07-0YE
red	98 ZB 07-0RD
BOOT Ø 2.1 mm CABLE	
blue	98 ZB 02-0BU
green	98 ZB 02-0GN
black	98 ZB 02-0BK
white	98 ZB 02-0WH
BOOT Ø 2.5 mm CABLE	
blue	98 ZB 10-0BU
green	98 ZB 10-0GN
black	98 ZB 10-0BK
white	98 ZB 10-0WH
red	98 ZB 10-0RD
yellow	98 ZB 10-0YE
BOOT Ø 3.5 mm CABLE	
blue	98 ZB 04-0BU
green	98 ZB 04-0GN
black	98 ZB 04-0BK
yellow	98 ZB 04-0YE
red	98 ZB 04-0RD

DIMENSIONS

SC
(PC 0° - APC 8° and 9°)

MADE BY
Rosenberger

SC-Simplex

SC-Duplex

SC-APC

Adapter,
for further adapters,
see pages 166 / 167

APPLICATIONS

- SC: LAN – for cabling according to EN 50173
  SAN and data centers
- SC APC: Mobile communications DM / DWDM systems
  MAN and WAN
  CATV

PROPERTIES

- Single-fiber connector
- Simplex and duplex
- Push-pull locking mechanism
- APC version with angled polished ferrule endface (8° or 9°)
- Spring-mounted ferrule, centered on slotted sleeve
- Tuning possible

TECHNICAL DATA

STANDARD	IEC 61754-4￼EN 50377-4	
FERRULE Ø [mm]	2.5	Zirconia-ceramic
INSERTION LOSS [1] [dB], max.	0.40	
RETURN LOSS [2] [dB], min.	30￼45￼55￼65	Multimode PC￼Singlemode PC￼Singlemode UPC￼Singlemode APC
TEMPERATURE RANGE [°C]	-40 to +85	depending on cable type
MATING CYCLES, min.	1000	
CABLE Ø [mm]	0.9 - 3.5	
STRAIN RELIEF [N], min.	100	
COLOR OF CONNECTOR BODY	blue￼green￼green, red boot￼black￼beige	Singlemode PC￼Singlemode APC 8°￼Singlemode APC 9°￼Multimode 50 µm￼Multimode 62.5 µm

[1] = according to IEC 61300-3-4 method B against reference, [2] = according to IEC 61300-3-6 method 1 against reference

PART NUMBERS

COMPONENTS	
CONNECTOR BODY Singlemode PC, blue Singlemode APC, green Multimode 50 µm, black Multimode 62.5 µm, beige	98 SCS 120-101 98 SCS 110-101 98 SCS 130-101 98 SCS 130-102
DUPLEX CLIP black	98 ZD 02-0BK
CRIMP RINGS [mm] Ø 2.1 Ø 2.8-3.5	98 ZC 05-000 98 ZC 04-000
BOOT Ø 0.9 mm BUFFERED CABLE blue green black yellow red	98 ZB 06-0BU 98 ZB 06-0GN 98 ZB 06-0BK 98 ZB 06-0YE 98 ZB 06-0RD
BOOT Ø 2.1 mm CABLE blue green black yellow red	98 ZB 05-0BU 98 ZB 05-0GN 98 ZB 05-0BK 98 ZB 05-0YE 98 ZB 05-0RD
BOOT Ø 2.8‑3.5 mm CABLE blue green black yellow red	98 ZB 04-0BU 98 ZB 04-0GN 98 ZB 04-0BK 98 ZB 04-0YE 98 ZB 04-0RD
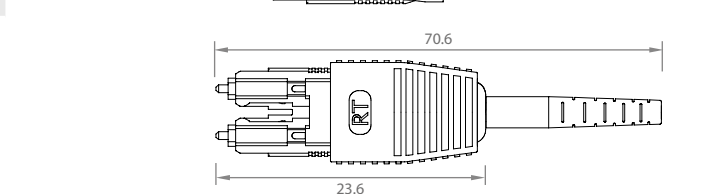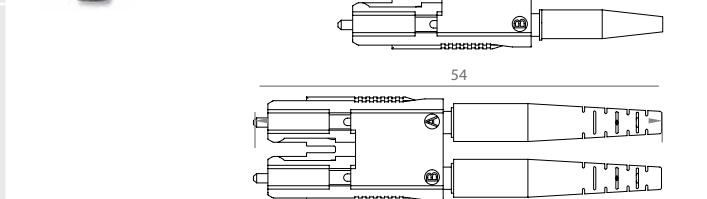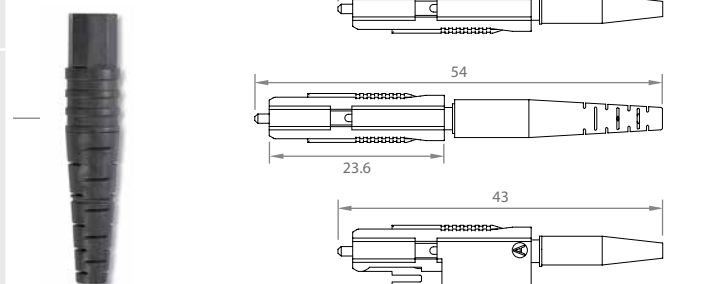
DIMENSIONS

4

CONNECTORS

E-2000™ / LSH
(PC 0° and HRL/APC 8°)

Adapter,
for further adapters,
see pages 166 / 167

E-2000™ Simplex

E-2000™ Duplex-Compact

E-2000™ Duplex

Ceramic ferrule

Metal-ceramic ferrule
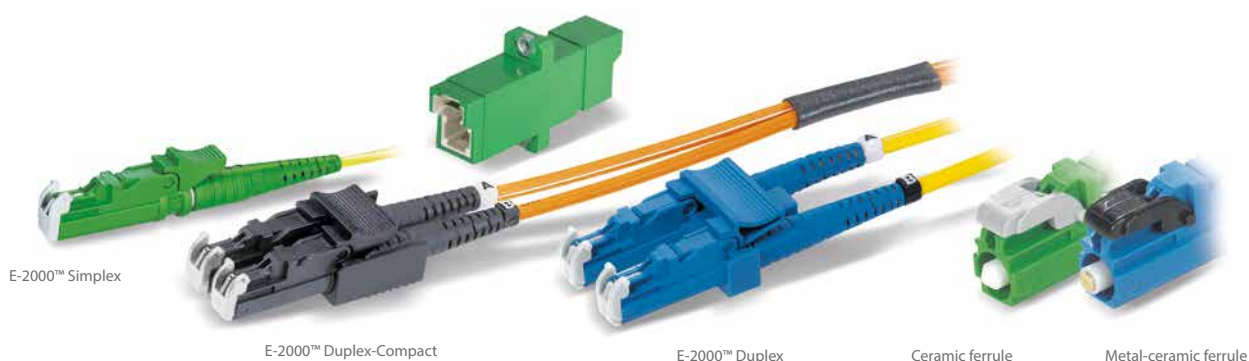
APPLICATIONS

• LAN
• MAN and WAN
• Measurement technology

PROPERTIES

• Single-fiber connector
• Simplex, Duplex and Duplex-Compact

• Latched push-pull locking mechanism:
  latch must be pushed for unmating
• Self-closing protective cap
• APC version with angled polished ferrule endface (8°)
• Spring-mounted ferrule, centered in slotted coupling sleeve
• Tuning possible
• Version with active fiber core alignment available

E-2000™ is registered trademark of Diamond S.A.

TECHNICAL DATA

STANDARD	IEC 61754-15 EN 50377-8	
FERRULE Ø [mm]	2.5	Zirconia-ceramic or metal-ceramic
INSERTION LOSS [1] [dB], max.	0.25 0.40	Singlemode Multimode
RETURN LOSS [2] [dB], min.	30 45 55 70	Multimode PC Singlemode PC Singlemode UPC Singlemode APC
TEMPERATURE RANGE [°C]	-40 to +85	depending on cable type
MATING CYCLES, min.	1000	
CABLE Ø [mm]	0.9 - 3.3	Diamond to 3.5
STRAIN RELIEF [N], min.	100	
COLOR OF CONNECTOR BODY	blue green black	Singlemode PC Singlemode APC Multimode 50 µm + 62.5 µm
PROTECTIVE CAP	Metal	
SINGLEMODE TUNING	Optional Active fiber core alignment	Type R+M. Type Diamond

[1] = according to IEC 61300-3-4 method B against reference, [2] = according to IEC 61300-3-6 method 1 against reference

MTP® / MPO

Multimode
female

Multimode
male

Adapter,
for further adapters,
see pages 166 / 167

APPLICATIONS

• SAN and data centers
• LAN

PROPERTIES

• Multifiber connector
• Spring-mounted ferrule, centered via pins
• 4, 8, 12 or 24 fibers
• Push-pull locking mechanism

MTP® is a registered trademark of US-Connec Ltd.

TECHNICAL DATA

STANDARD	IEC 61754-7	
FERRULE [mm]	2.5 x 6.5	Precision plastic composite
INSERTION LOSS [1] [dB], max.	0.60 0.35	Singlemode Multimode
RETURN LOSS [2] [dB], min.	24 55	Multimode PC Singlemode APC
TEMPERATURE RANGE [°C]	-40 to +80	depending on cable type
MATING CYCLES, min.	1000	
CABLE Ø [mm]	3 3 x 5	Round cable Ribbon cable
STRAIN RELIEF [N], min.	70	
COLOR OF CONNECTOR BODY	green black beige	Singlemode Multimode 50 μm (also OM3) Multimode 62.5 μm

[1] = according to IEC 61300-3-4 method B against reference, [2] = according to IEC 61300-3-6 method 1 against reference

MT-RJ

Male, 50 µm

Female, 62.5 µm

Adapter,
for further adapters,
see pages 166 / 167

APPLICATIONS

- LAN
- SAN and data centers

PROPERTIES

- Small Form Factor (SFF) duplex connector
- Latched push-pull locking mechanism:
  latch must be pushed for unmating
- Spring-mounted ferrule, centered via pins

TECHNICAL DATA

STANDARD	IEC 61754-18	
FERRULE [mm]	2.5 x 4.5	Precision plastic composite
INSERTION LOSS [1] **[dB]**, max.	0.6	
RETURN LOSS [2] **[dB]**, min.	20 35	Multimode PC Singlemode PC
TEMPERATURE RANGE [°C]	-40 to +80	depending on cable type
MATING CYCLES, min.	500	
CABLE Ø [mm]	2.9 2 x 1.8	Ribbon cable Mini Zipcord
STRAIN RELIEF [N], min.	70	
COLOR OF CONNECTOR BODY	blue black beige	Singlemode Multimode 50 µm Multimode 62.5 µm

[1] = according to IEC 61300-3-4 method B against reference, [2] = according to IEC 61300-3-6 method 1 against reference

FC
(PC 0° and APC 8°)

FC PC

FC APC

Adapter,
for further adapters,
see pages 166 / 167
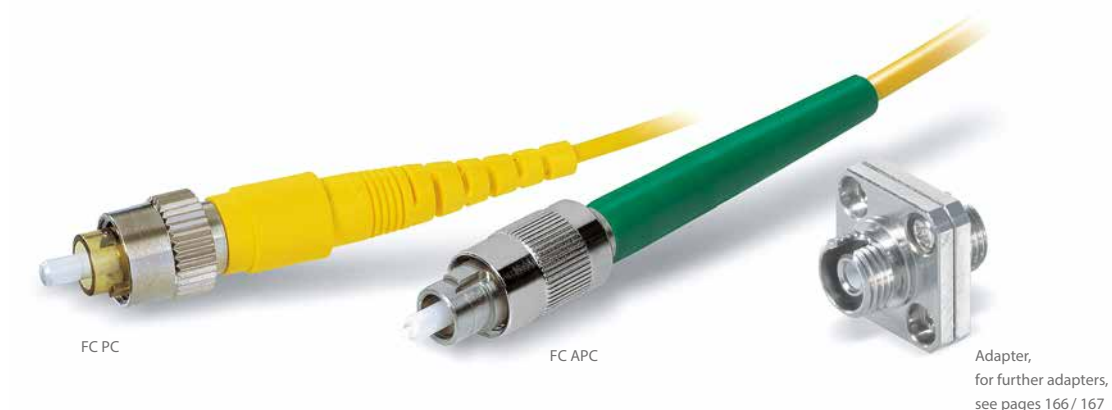
APPLICATIONS

- Mobile communications
- MAN and WAN
- Measurement technology
- CATV

PROPERTIES

- Single-fiber connector
- Screw-type locking mechanism
- Spring-mounted ferrule, centered in slotted sleeve
- Tuning possible
- Metal connector body

TECHNICAL DATA

STANDARD	IEC 61754-13 EN 50377-2	FC PC FC PC and FC APC
FERRULE Ø [mm]	2.5	Zirconia-ceramic
INSERTION LOSS [1] [dB], max.	0.4	
RETURN LOSS [2] [dB], min.	30 45 55 65	Multimode PC Singlemode PC Singlemode UPC Singlemode APC
TEMPERATURE RANGE [°C]	-40 to +85	depending on cable type
MATING CYCLES, min.	1000	
CABLE Ø [mm]	0.9 - 3.0	
STRAIN RELIEF [N], min.	100	
SINGLE MODE TUNING	Optional	
FIBER TYPES	9/125 50/125 62.5/125	Other fiber types on request

[1] = according to IEC 61300-3-4 method B against reference, [2] = according to IEC 61300-3-6 method 1 against reference

4

ST

Type: ceramic

Type: Metal

Adapter,
for further adapters,
see pages 166 / 167

APPLICATIONS

- LAN
  No longer recommended / permitted for cabling
  in accordance with ISO/IEC 11801 and EN 50173!
- Industry (e.g. bus systems)

PROPERTIES

- Single-fiber connector
- Simplex and duplex
- Bayonet locking mechanism
- Tuning possible
- Metal connector body

TECHNICAL DATA

STANDARD	IEC 61754-2, MIL-C-83522 IEC 60874-10	
FERRULE Ø [mm]	2.5	Metal or ceramic version
INSERTION LOSS [1] [dB], max.	0.4	
RETURN LOSS [2] [dB], min.	30 40 45	Multimode PC Singlemode PC Singlemode UPC
TEMPERATURE RANGE [°C]	-40 to +85	depending on cable type
MATING CYCLES, min.	1000	
CABLE Ø [mm]	0.9 - 3.0	
STRAIN RELIEF [N], min.	100	
FIBER TYPES	9/125 50/125 62.5/125 100/140 200/230	Other fiber types on request

[1] = according to IEC 61300-3-4 method B against reference, [2] = according to IEC 61300-3-6 method 1 against reference

DIN / LSA
(PC 0° – APC 8° on request)

Type: Ceramic

Type Diamond: Nickel-silver/ceramic

Adapter,
for further adapters,
see pages 166 / 167

APPLICATIONS

- Mobile communications
- MAN and WAN
- Measurement technology

PROPERTIES

- Single-fiber connector
- Screw-type locking mechanism
- Spring-mounted ferrule, centered in slotted sleeve
- Tuning possible
- Metal connector body

TECHNICAL DATA

STANDARD	IEC 61754-3, formerly DIN 47256	
FERRULE Ø [mm]	2.5	Zirconia-ceramic
INSERTION LOSS [1] [dB], max.	0.4	
RETURN LOSS [2] [dB], min.	30 45 55	Multimode PC Singlemode PC Singlemode UPC
TEMPERATURE RANGE [°C]	-40 to +85	depending on cable type
MATING CYCLES, min.	1000	
CABLE Ø [mm]	0.9 - 3.5	
STRAIN RELIEF [N], min.	100	
SINGLE MODE TUNING	Optional Active fiber core alignment	Type Standard Type Diamond
FIBER TYPES	9/125 50/125 62.5/125	Other fiber types on request

[1] = according to IEC 61300-3-4 method B against reference, [2] = according to IEC 61300-3-6 method 1 against reference

4

CONNECTORS

ADAPTERS

LC Duplex adapter,
SC-Footprint senior-senior

LC Duplex adapter,
standard type senior-senior

LC-Quad adapter,
senior-senior

MU Duplex adapter,
horizontal type

PART NUMBERS

COMPONENTS	
ADAPTER, LC DUPLEX, SC FOOTPRINT SENIOR-SENIOR	
Monomode, PC, blue	98 LCK8 LC-K02-bu
Monomode, APC, green	98 LCK8 LC-K02-gn
Multimode, 50 μm, black	98 LCK8 LC-K02-bk
Multimode, 50 μm OM3, turquoise	98 LCK8 LC-K02-tk
Multimode, 50 μm OM4, purple	98 LCK8 LC-K02-vt
Multimode, 62.5 μm, beige	98 LCK8 LC-K02-be
ADAPTER, LC DUPLEX, NORM-TYPE SENIOR-SENIOR	
Monomode, PC, blue	98 LCK8 LC-K03-bu
Monomode, APC, green	98 LCK8 LC-K03-gn
Multimode, 50 μm, black	98 LCK8 LC-K03-bk
Multimode, 50 μm OM3, turquoise	98 LCK8 LC-K03-tk
Multimode, 50 μm OM4, purple	98 LCK8 LC-K03-vt
Multimode, 62.5 μm, beige	98 LCK8 LC-K03-be
ADAPTER, LC QUAD FOR 2 X DUPLEX CONNECTOR, SENIOR-SENIOR	
Monomode, PC, blue	98 LCK8 LC-K04-bu
Monomode, APC, green	98 LCK8 LC-K04-gn
Multimode, 50 μm, black	98 LCK8 LC-K04-bk
Multimode, 50 μm OM3, turquoise	98 LCK8 LC-K04-tk
Multimode, 50 μm OM4, purple	98 LCK8 LC-K04-vt
Multimode, 62.5 μm, beige	98 LCK8 LC-K04-be
ADAPTER, MU DUPLEX, HORIZONTAL TYPE	
Monomode, PC, blue	98 MUK8 MU-K01-bu
Monomode, APC, green	98 MUK8 MU-K01-gn
Multimode, 50 μm, black	98 MUK8 MU-K01-bk
Multimode, 50 μm OM3, turquoise	98 MUK8 MU-K01-tk
Multimode, 50 μm OM4, purple	98 MUK8 MU-K01-vt
Multimode, 62.5 μm, beige	98 MUK8 MU-K01-be

Adapters with special mounting options or automatic protective shutters on request.

PART NUMBERS

COMPONENTS	
ADAPTER, SC DUPLEX, METAL VERSION, COLOR-CODED PLASTIC INSERTS Monomode, PC, blue Monomode, APC, green Multimode, beige	98 SCK7 SC-K00-bu 98 SCK7 SC-K00-gn 98 SCK7 SC-K00-be
ADAPTER, SC DUPLEX, PLASTIC VERSION Monomode, PC, blue Monomode, APC, green Multimode, beige	98 SCK8 SC-K00-bu 98 SCK8 SC-K00-gn 98 SCK8 SC-K00-be
ADAPTER, E-2000™, SIMPLEX Monomode, PC, blue Monomode, HRL, green Multimode, black	
ADAPTER, E-2000™, DUPLEX Monomode, PC, blue Monomode, HRL, green Monomode, PC, black	
ADAPTER, E-2000™, COMPACT Monomode, PC, blue Monomode, HRL, green Monomode, PC, black	
ADAPTER, MTP®/ MPO Multimode 50 µm OM4, purple Monomode and Multimode, black	

Other adapters, including hybrid types, for the interconnection of different connectors available on request.
MTP® is a registered trademark of US-Conec Ltd.

SC Duplex adapter, metal version

SC Duplex adapter, plastic version

E-2000™ adapter Simplex

E-2000™ adapter Compact

Adapters MTP®/ MPO

4

CONNECTORS

In addition to the products listed here, we supply a range of further adapters, e.g. hybrid types and adapters with special mounting options or protective shutters.

Please contact us for any information you require concerning technical data and details. We would be delighted to assist you.

ST

FC PC for D-hole mounting

FC PC flange version

MINI CONTACT

APPLICATIONS

- Communications electronics
- Medical engineering
- In combination with Rosenberger high-current or coaxial contacts, suitable for devices with circuit boards or plug-in modules.

PROPERTIES

- Snap-in assembly (retention clip)
- Disassembly using release tool
- Extensible to form hybrid connections in combination with Rosenberger electrical contacts

TECHNICAL DATA

FERRULE Ø [mm]	1.25	Metal or ceramic version
INSERTION LOSS [1] **[dB]**, max.	0.70	
RETURN LOSS [2] **[dB]**, min.	45	
TEMPERATURE RANGE [°C]	-40 to +85	depending on cable type
MATING CYCLES, min.	500	
CABLE Ø [mm]	0.9	Buffered fiber
FIBER TYPES	9/125 50/125 62.5/125	Other fiber types on request

[1] = according to IEC 61300-3-4 method B against reference, [2] = according to IEC 61300-3-6 method 1 against reference

PART NUMBERS

CABLE TYPE	SINGLEMODE CONNECTORS	SINGLEMODE SOCKET CONTACT	MULTIMODE CONNECTORS	MULTIMODE SOCKET CONTACT
Ø 0.9 mm	98 MS 301-126	98 MK 301-126	98 MS 101-128	98 MK 101-128
Ø 0.9 mm with customized bore	–	–	98 MS 101-xxx	98 MK 101-xxx

Replace xxx by the required bore diameter

DIN CONTACT

APPLICATIONS

- Industry
- Communications electronics
- Medical engineering
- For use in DIN EN 60603-2-compliant connectors, versions M and D-Sub
- In combination with Rosenberger high-current or coaxial contacts, suitable for devices with circuit boards or plug-in modules.

PROPERTIES

- Snap-in assembly (retention clip)
- Disassembly using release tool
- Extensible to form hybrid connections in combination with Rosenberger electrical contacts
- Customer-specific contact layouts possible even in small series

TECHNICAL DATA

FERRULE Ø [mm]	2.5	Metal or ceramic version
INSERTION LOSS [1] **[dB]**, max.	0.7	Multimode
TEMPERATURE RANGE [°C]	-40 to +85	depending on cable type
MATING CYCLES, min.	500	
CABLE Ø [mm]	0.9 2.2 2.9	Buffered fiber POF cable Simplex fiber
FIBER TYPES	50/125 62.5/125 200/230 HCS POF Ø 1 mm	Other fiber types on request

[1] = according to IEC 61300-3-4 method B against reference

PART NUMBERS

TYPE	CONNECTORS	SOCKET CONTACT
Ceramic ferrule Metal ferrule HCS for fibers 200/230 μm POF Customized bore*	98 IS 601-127 98 IS 101-128 98 IS 101-235 98 IS 450-1060 98 IS 101-xxx	98 IK 601-127 98 IK 101-128 98 IK 101-235 98 IK 450-1060 98 IK 101-xxx
RELEASE TOOL		9 8 W 1 2 - I N S / 2 0 0

*Replace xxx by the required bore diameter

EXPANDED BEAM CONTACT #5

MADE BY
Rosenberger

APPLICATIONS

- Industry
- Offshore / Mining
- Broadcasting
- Aviation and aerospace
- For use in ARINC 600 connector housings
- For circular and rectangular housings

PROPERTIES

- Insensitive to contamination due to expanded beam technology
- Easy to clean due to fused silica glass covers
- Able to compensate for large tolerances and movements due to spring-mounted front element
- Tool-less insertion and release possible
- Can be converted into an adapter using a snap-on alignment sleeve

TECHNICAL DATA

FERRULE Ø [mm]	6	Lensed ferrule
INSERTION LOSS [1] [dB], typical	1.0	
TEMPERATURE RANGE [°C]	-40 to +85	depending on cable type
CABLE Ø [mm]	0.9 - 3.0	
FIBER TYPES	50/125 62.5/125	

[1] = according to IEC 61300-3-4 method B against reference

EXPANDED BEAM CONTACT #12

MADE BY
Rosenberger

APPLICATIONS

- Industry
- Offshore / Mining
- Broadcasting
- Aviation
- For circular connectors according to MIL-DTL-38999

PROPERTIES

- Exceptionally robust
- Low susceptibility to contamination
- Insertion and release using standard tool for #12 connector inserts

TECHNICAL DATA

STANDARD	MIL-DTL-38999	for use in cavities #12
FERRULE Ø [mm]	2.3	Lensed ferrule
INSERTION LOSS [1] **[dB]**, typical	1.5	
TEMPERATURE RANGE [°C]	-40 to +85	depending on cable type
CABLE Ø [mm]	0.9 - 2.0	
FIBER TYPES	50/125 62.5/125	

[1] = according to IEC 61300-3-4 method B against reference

PART NUMBERS

INSERTION TOOL	98 W 12-S12/100
RELEASE TOOL	98 W 12-S12/200

4

CONNECTORS

OPTICAL CONTACT #16

APPLICATIONS

- Industry
- Aviation
- Medical engineering

PROPERTIES

- Modular system for the design of customized contact layouts
- Pin-and-socket contacts compatible with MIL-PRF-29504/4 and /5
- Suitable for circular connectors according to MIL-DTL-38999 with cavities of size 16 (#16)

TECHNICAL DATA

STANDARD	MIL-PRF-29504/4 and /5	
FERRULE Ø [mm]	1.58	Zirconia-ceramic
INSERTION LOSS [1] [dB], max.	0.7	typical
TEMPERATURE RANGE [°C]	-40 to +85	depending on cable type
CABLE Ø [mm]	0.9 - 2.0	
FIBER TYPES	9/125 50/125 62.5/125 POF 980/1000	

[1] = according to IEC 61300-3-4 method B against reference

DIMENSIONS
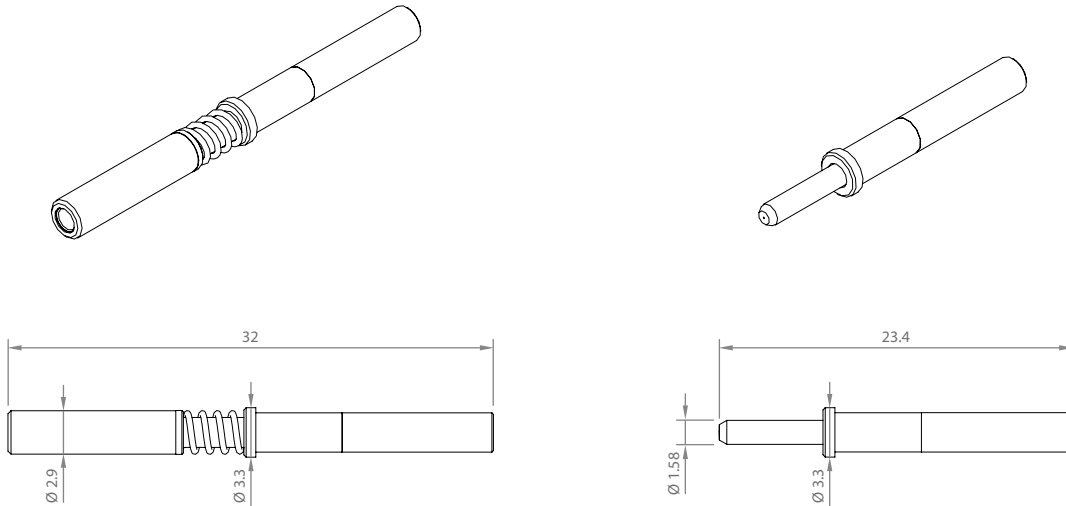
PART NUMBERS

CABLE TYPE	FEMALE CONTACT	MALE CONTACT
Ø 1.1 mm SINGLEMODE	98 PK 302-126	98 PS 302-126
to Ø 2.1mm SINGLEMODE	98 PK 303-126	98 PS 303-126
Ø 1.1 mm MULTIMODE	98 PK 602-127	98 PS 602-127
to Ø 2.1mm MULTIMODE	98 PK 603-127	98 PS 603-127
POF 980/1000/2.2	98 PK 450-1060	98 PS 450-1060
INSERTION TOOL	98 W 12-S16/100	
RELEASE TOOL	98 W 12-S16/200	
POLISHING TOOL	98 W 008-000	

4

CONNECTORS

ROSENBERGER DUPLEX CONNECTOR (RDC)

APPLICATIONS

- Mobile communications
- Broadcasting
- For outdoor use
- For harsh environments

PROPERTIES

- Robust connector with screw-type locking mechanism for 2 fibers

- Using components of the N coaxial connector according to MIL-PRF-39012, it is possible to convert this connector within the standard assembly bore.
- Optionally available with captive metal protective cap

ACCESSORIES

- Torque wrench, Click Cleaner

TECHNICAL DATA

FERRULE Ø [mm]	2 x 1.25	Zirconia-ceramic
INSERTION LOSS [1] **[dB]**, max.	0.50	
RETURN LOSS [2] **[dB]**, min.	50	Singlemode
TEMPERATURE RANGE [°C]	-40 to +125	depending on cable type
INGRESS PROTECTION GRADE	IP67	EN 60529
MATING CYCLES, min.	1000	
CABLE Ø [mm]	4 - 7 1.7 or 2.1	(Mini) breakout Simplex fiber
FIBER TYPES	9/125 50/125 62.5/125	Other fiber types on request

[1] = according to IEC 61300-3-4 method B against reference, [2] = according to IEC 61300-3-6 method 1 against reference

ROSENBERGER QUAD CONNECTOR (RQC)

MADE BY
Rosenberger

APPLICATIONS

- Mobile communications
- Broadcasting
- For outdoor use
- For harsh environments

PROPERTIES

- Robust connector with screw-type locking mechanism for 4 fibers

- Using components of the N coaxial connector according to MIL-PRF-39012, it is possible to convert this connector within the standard assembly bore.
- Optionally available with captive metal protective cap

ACCESSORIES

- Torque wrench, Click Cleaner

TECHNICAL DATA

FERRULE Ø [mm]	4 x 1.25	Zirconia-ceramic
INSERTION LOSS [1] **[dB]**, max.	0.50	
RETURN LOSS [2] **[dB]**, min.	50	Singlemode
TEMPERATURE RANGE [°C]	-40 to +125	depending on cable type
INGRESS PROTECTION GRADE	IP67	EN 60529
MATING CYCLES, min.	1000	
CABLE Ø [mm]	4 - 7 1.7	(Mini) breakout Simplex fiber
FIBER TYPES	9/125 50/125 62.5/125	Other fiber types on request

[1] = according to IEC 61300-3-4 method B against reference, [2] = according to IEC 61300-3-6 method 1 against reference

4

CONNECTORS

HEAVY DUTY 600

APPLICATIONS

• Broadcasting
• Mining

PROPERTIES

• Hermaphrodite – 2 identical connectors can be joined
  together without any additional accessories
• 2, 4 or 6 fibers
  singlemode ferrules also available with APC 8°

TECHNICAL DATA

FERRULE Ø [mm]	2/4/6 x 2.5	Zirconia-ceramic
OPTICAL INSERTION LOSS [1] **[dB]**, max.	0.6	
RETURN LOSS [2] **[dB]**, min.	20 45 65	Multimode PC Singlemode PC Singlemode APC
TEMPERATURE RANGE [°C]	-40 to +85	depending on cable type
INGRESS PROTECTION GRADE	IP67	IEC 60529
MATING CYCLES, min.	5000	
CABLE Ø [mm]	6.0 - 12.0 1.7 - 2.2	Cable connectors Connecting cables
FIBER TYPES	9/125 50/125 62.5/125	Other fiber types on request

[1] = according to IEC 61300-3-4 method B against reference, [2] = according to IEC 61300-3-6 method 1 against reference

HEAVY DUTY 1000

APPLICATIONS

- Broadcasting
- Mining / Offshore

PROPERTIES

- Hermaphrodite – 2 identical connectors can be joined together without any additional accessories
- 12 fibers; in the case of singlemode ferrules, APC 8° is also possible
- Metal or plastic housing

TECHNICAL DATA

FERRULE Ø [mm]	12 x 2.5	Zirconia-ceramic
OPTICAL INSERTION LOSS [1] **[dB], max.**	0.6	
RETURN LOSS [2] **[dB], min.**	20 45 65	Multimode PC Singlemode PC Singlemode APC
TEMPERATURE RANGE [°C]	-40 to +60 (operation) -40 to +85 (storage)	depending on cable type
INGRESS PROTECTION GRADE	IP67	IEC 60529
MATING CYCLES, min.	1000	
CABLE Ø [mm]	6.0 - 16.0 1.7 - 2.2	Cable connectors Connecting cables
FIBER TYPES	9/125 50/125 62.5/125	Other fiber types on request

[1] = according to IEC 61300-3-4 method B against reference, [2] = according to IEC 61300-3-6 method 1 against reference

4

CONNECTORS

LASER CONNECT 100

APPLICATIONS

- Medical and industrial laser systems
- Laser launch for sensor systems
- Measurement technology

PROPERTIES

- F-SMA compatible
- Suitable for the coupling in and out of medium-power laser beams due to freestanding fiber end
- Adaptations to different fiber, buffer and cable diameters possible thanks to modular system and extensive range of accessories
- Easy to use thanks to practical coupling nuts
- Long version can be used to connect to deep coupling optics
- Recording of emission beam characteristics possible
- Plug-and-play assemblies are also available

TECHNICAL DATA

FERRULE Ø [mm]	3.17	
FIBER GUIDE BORE Ø [µm]	100 - 1100	
CONNECTOR LENGTH WITHOUT BOOT [mm] long version short version mini version	45 30 22	
TEMPERATURE RANGE [°C]	-25 to +150	depending on cable type
MAX. TENSILE LOAD [N]	≥ 100	depending on fiber and assembly
MATERIALS Ferrule Connector housing Protective cap	Metal (suitable for sterilizing) Metal (suitable for sterilizing) Polyethylene or PEEK (suitable for sterilizing)	

PART NUMBERS

COMPONENTS	
PROTECTIVE CAP	98 FS 100 - xxx / 50
SCREW-ON PROTECTIVE CAP suitable for sterilizing	98 FS 100 - xxx / 30
MINI CONNECTOR	98 FS 201 - xxx
SHORT CONNECTOR	98 FS 203 - xxx
LONG CONNECTOR	98 FS 205 - xxx
CLAMP Ø [mm] 0.45 0.52 0.75 1.00 1.30 1.50	 98 LSZK / 0450 98 LSZK / 0520 98 LSZK / 0750 98 LSZK / 1020 98 LSZK / 1300 98 LSZK / 1500
FIXING SCREW Ø [mm] 0.60 0.90 1.50	 98 LS Z6 / 0600 98 LS Z6 / 0900 98 LS Z6 / 1500
BOOT Ø [mm] 0.90 2.10 2.90	 98 Z 108 SW 98 Z 107 SW 98 Z 106 SW
FLANGED RECEPTACLE	98 LK 110
RECEPTACLE Single-hole mounting	98 LK 100

All dimensions in mm. Replace xxx by the required bore diameter

4

CONNECTORS

OTHER CONNECTORS

ESCON®

F-SMA
(according to IEC 61754-22)

HEAVY DUTY SC-RJ

FDDI

We supply a range of other connectors in addition to the products presented here. These are all manufactured and assembled to the same high quality standards.

On request, we can manufacture connectors to meet customer-specific requirements corresponding to specific categories and classes.

Please contact us for any information you require concerning technical data and details. We would be delighted to assist you.

ROSENBERGER SEAL OF QUALITY

MADE BY
Rosenberger
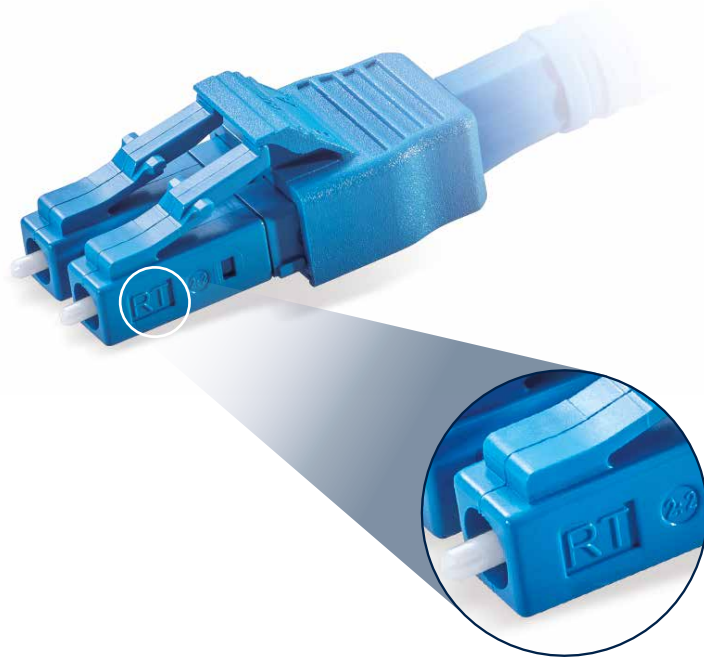
This label is your guarantee of uncompromising Rosenberger quality. Connectors manufactured by Rosenberger are also identified by the embossed "RT" (Rosenberger Tittmoning) stamp. With each and every one of our products, you are choosing top-quality cabling competence with Rosenberger's high-performance, long-lasting solutions.

4

CONNECTORS

Rosenberger

ACCESSORIES 5

INSPECTION AND CLEANING KIT

This kit contains all the cleaning materials and tools you need for the visual inspection and cleaning of FO connectors and adapters. The most important component is the back-panel video microscope with a USB interface. To use the USB version, you will need a laptop or PC with a USB 2.0 port.

It can be attached to an android smart phone alternatively. In addition to the supplied standard types for connectors with ferrules of Ø 1.25 mm or Ø 2.5 mm, we can also supply adapters for all common, commercially available connectors. We would be happy to send you a detailed data sheet.

Available with a wide range of adapters, the video makes it possible to inspect all common, commercially available connectors. Inspections can also be performed directly via front panel-mounted adapters.

The software supplied with the USB microscope permits the automatic evaluation of the acquired images. Scratches and contamination are depicted in color to permit the reliable assessment of the quality of the endfaces. This ensures an inspection in accordance to standard IEC 61300-3-35.
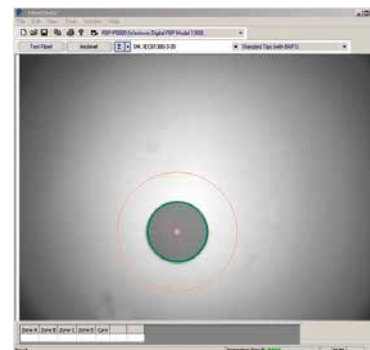
Screen display of a ferrule endface

PART NUMBER

INSPECTION AND CLEANING KIT	USB microscope	099A0389

TEST LASER EV-3

Laser light source for localizing defects, identifying fibers and testing connectors in the multimode and singlemode spectrum.
• With 2.5 mm universal interface including 1.25 mm adapter
• Technical data sheet available at www.rosenberger-osi.com

5

PART NUMBER

TEST LASER EV-3	099A0332

REEL CLEANER

Cleaning device with dry textile ribbon for all
FO connectors except for MT-RJ male (with pins)
- Supplied with one textile reel
- Up to 400 cleaning operations per reel
- Dimensions (L x W x H): 127 x 83 x 48 mm
- Weight: 150 g

PART NUMBERS

REEL CLEANER	099A0025
SPARE REEL	099A0026

CLEANER

Easy to use cleaning tool for the ferrule endfaces
of fiber optic connectors.
- The cleaning operation is triggered quickly
  and easily by pressing the handpiece
- It is not necessary to remove the connector because cleaning
  is performed directly through the adapter
- Extensible nozzle for difficult-to-access connectors
- Length approx. 185 mm
- Weight: approx. 25 g

PART NUMBERS

CLICK CLEANER, for ferrules Ø 1.25 mm	099A0390
CLICK CLEANER, for ferrules Ø 2.5 mm	099A0391
CLICK CLEANER for RDC connector system	099A0395
MTP® / MPO CLEANER	099A0055
MTP® is a registered trademark of US-Conec Ltd.	

LOOP

Thanks to the loop adapter, it is possible to perform measurements and tests at installed cabling from one side. The versions with installed isolating element also make it possible to inspect (Tx / Rx) assignments. All the models boast a very robust design and are equipped with captive protective cap.

5

PART NUMBERS

TYPE	G657 9/125	OM4 50/125
LC Duplex	98LCS120–L00	98LCS130–L00
LC Duplex with optical isolator 1310 nm 1550 nm	98LCIS120–L00 98LCIS120–L01	- -
RDC male	98RDCS120–L00	98RDCS130–L00
RDC female	98RDCK120–L00	98RDCK130–L00

OTDR MEASUREMENT FIBER CASE

Modcon variant with up to three measurement fibers

PROPERTIES

- Can be supplied with all fiber types
- Max. length 1000 m per fiber type
- Can be supplied with all single-fiber and duplex connectors
- IP50 dustproof
- Winding mechanism for legs
- Accessories box for small parts, e.g. measurement adapters
- Case with shoulder strap

VERSION: MODCON

- Mode controller and up to 3 measurement fibers in a practical transport case
- Launching fibers with different connector interfaces available
- Singlemode connectors on multimode fibers

- ADVANTAGES:
  - Compact, clearly organized measurement setup
  - Improved handling in mobile use
  - Standards-compliant measurement setup with encircled flux launch conditions as per IEC 61280-4-1
- NOTES:
  - Worn-out connectors must be returned to Rosenberger OSI for repair.
  - The measurement fiber case is designed for up to 2 assembled connector types

PART NUMBERS

FIBER TYPE	FIBER LENGTH	CONNECTORS	COMMENT	
SM	500	FC PC » FC APC	preassembled	0 8 1 A 0 0 8 1
SM	1000	E-2000™ HRL » SC APC	Pigtails, spliced	0 8 1 A 4 0 7 5
SM	1000	SC » SC	preassembled	0 8 1 A 0 1 8 3
SM	1000	FC APC » E-2000™ HRL	preassembled	0 8 1 A 0 0 8 4
SM	1000	E-2000™ HRL » E-2000™ HRL	preassembled	0 8 1 A 0 2 6 1
OM3	3 x 100	as specified by customer	with mode controller	0 8 1 A 0 0 8 7
OM4	3 x 100	as specified by customer	with mode controller	0 8 1 A 0 0 8 8

The connectors, fiber types and lengths of launching fibers can be freely configured. Multiple fibers per case are also possible.
The part numbers given here represent the most common types. Please tell us your individual requirements.

Factory-assembled with one fiber

Factory-assembled with 4 different fiber types

Spliced variant with one fiber

VERSION: FACTORY ASSEMBLED

- Factory-assembled connector types of your choice on legs of length 2 m.
- Measurement report included: insertion loss or OTDR measurement as required
- Connector endfaces inspected by interferometer
- For singlemode: measurement of eccentricity of fiber core

- ADVANTAGES:
  - Documented measurement cable quality of connectors thanks to the above measurements
  - No splices in the launching fiber
- NOTES:
  - Worn-out connectors must be returned to Rosenberger OSI for repair.
  - The cases are prepared for specific connector types.

VERSION: SPLICED VARIANT

- Measurement cable pigtails can be spliced on the fibers according to the required setup for enhanced flexibility
- 2 m at the end of each fiber are located in the splice cassette.
- The measurement cable pigtails are not included and have to be ordered separately. Factory assembly is available on request.
- One splice holder and two crimp splice protectors are included.
- OTDR measurements of fiber attenuation are performed ex works using a bare fiber adapter

- ADVANTAGES:
  - Flexible solution (as described above)
  - On-site replacement of defective fibers possible
- NOTE:
  - The two cable pigtail splices are present in the launching fiber. However, with good IL and RL values, this is not really a drawback.

ASSEMBLY TOOLS

Rosenberger OSI can supply all the specialist tools required for the professional assembly and installation of fiber optic connectors. These can of course also be ordered in small quantities.

Please contact us regarding the scope and details of our assembly tools. We would be delighted to assist you.

MEASUREMENT CABLES

PROPERTIES

- Reliable measurements with excellent repeatability thanks to measurement cables with precisely specified connectors
- Measurement cable connectors that conform to particularly low tolerances
- Connectors with wear-resistant ceramic ferrules
- Singlemode: The limit value for the eccentricity of the fiber core is 0.3 μm and the maximum permitted value for the apex offset is 30 μm.

FORM OF DELIVERY

- With individually documented reports
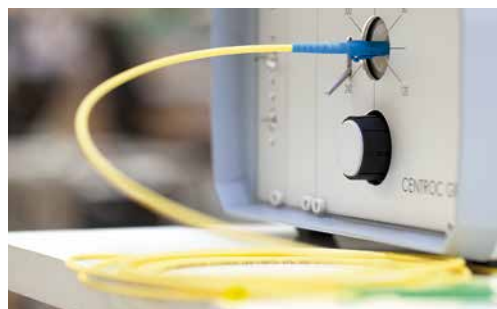
To enable us to guarantee the outstandingly low tolerances of our measurement cables, these pass through a number of exceptionally demanding test procedures, such as this inspection at the eccentricity measuring device.
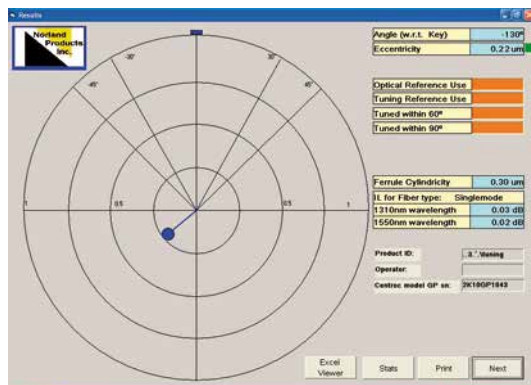
The eccentricity measurement device is used to check whether the fiber core is located exactly in the center of the ferrule. The quality requirements permit a maximum eccentricity of 0.3 μm. The value measured for the sample shown here is less than 0.25 μm.

The interferometer is used to measure the geometry of the ferrule endface, which is then displayed using a range of imaging methods. Here again, only the tiniest tolerances are permitted.

PART NUMBERS

CONNECTORS	FIBER TYPES
LC	081A1430
MU	081A1413
SC	081A0143
E-2000™ HRL	081A1447

The table lists the most frequent types. We would be delighted to supply you with your own customized configuration.

THE FAST WAY TO FIND WHAT YOU WANT.

WORTH KNOWING

TECHNICAL TERMS, CONTENTS AND CONTACT DETAILS.

TECHNICAL TERMS

Few love it, everyone needs it: Technical terminology is essential for precise communication. That is why we have prepared a small glossary of fiber optic technology for you.

8° CONTACT AREA
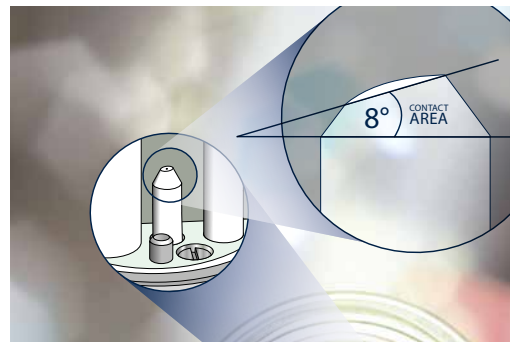
Rosenberger

SUBJECT INDEX

Where can I find out everything about SC connectors? Where should I look for duplex patchcords? This index will help you to find the products you need and their associated descriptions.

PAGE 198

CONTACT INFORMATION

Rosenberger OSI is not only present at locations across Germany but also has representatives throughout Europe. In addition, the network of our parent company, Rosenberger, assures us a worldwide presence.

PAGE 200

TECHNICAL TERMS

A

ABSORPTION
Loss of radiation as the beam passes through a medium (a part of the radiant energy in the light is converted into heat, for example).

APC (Angled Polished Contact)
Grinding the fiber endface at an angle - usually 8°- means that reflected light is no longer propagated. Reflections are reduced to a minimum.

ATTENUATION (A)
Measure of the loss of power of a signal in a transmission path - see Insertion Loss.

B

BANDWIDTH
Width of an interval in the frequency spectrum that can be used in a transmission cable.

C

CABLE CORE
Totality of the elements located at the inside of the cable, including stranded, support, strain relief and joining elements and all the layers wound around these elements.

CABLE JACKET
Plastic cladding that protects the cable core against environmental influences

CATV (Cable Television or Community Access Television)
Television provided to multiple users via radio frequency (RF) signals transmitted through coaxial or fiber-optic cables.

CENTER ELEMENT
Element running centrally in a cable. In the case of fiber optic cables, usually used as a strength member.

CLADDING
Glass cladding that surrounds the core of an optical fiber. The refractive index is a little lower than that of the core.

COATING
Plastic layer that is applied directly to the optical fiber. It provides protection against mechanical and chemical influences (air).

CONNECTOR
Element for the releasable connection of optical fibers and/or electrical conductors.

CORE
Fiber acting as a light guide. The fiber specification indicates the diameter of the core / cladding (e.g. 50 / 125 μm).

CORE GLASS
Core of an optical fiber with a refractive index that is higher than that of the cladding glass.

COUPLER
Element used to split or merge optical signals. Couplers are often used as passive fiber optic elements in data transfer. Alongside couplers with different division ratios, wavelength-dependent or polarization-dependent types are also used.

CRIMPING
Method in which a sleeve is pressed around the fiber/core in order to create a mechanical join (for strain relief).

D

DECIBEL
Logarithmic measure for a transmission ratio. Losses (attenuation) or gains in signals are usually expressed in decibels [dB]. $A_{[dB]}=10*log\,(P_{out}/P_{in})$

DIN
German standardization institute; DIN EN identifies the European version of the standard.

DISPERSION
Dispersion occurs when signal components are transmitted in a medium with different transmission times. The signal quality is reduced. In optical fibers, the most important types of dispersion are modal dispersion in multimode fibers and chromatic dispersion in singlemode fibers.

DOPING
Intentional introduction of very small quantities of an extraneous material in a pure substance in order to modify its characteristics, e.g. to increase the refractive index of the fiber core.

E

ELECTROMAGNETIC WAVES
Periodic changes of state of the electromagnetic field that propagate as waves traveling at the speed of light. At optical frequencies, these are referred to as light waves.

EMC (electromagnetic compatibility)
Resistance to electromagnetic interference and interference emitted by a cable or system.

F

FERRULE
Connector pin (usually ceramic) responsible for ensuring the precise axial guidance of the fiber in the connector.

FIBER (also fibre)
Transmission medium consisting of a core and cladding.

FIBER OPTICS
In this transmission technology, electromagnetic waves (information) are guided along optical fibers in the form of light.

FITL (fiber in the loop)
Fiber in a local access network.
A distinction is made between the following depending on the endpoint of the fiber:
FTTB - fiber to the building: fiber as far as the building
FTTC - fiber to the curb: fiber as far as the edge of the street
FTTH - fiber to the home: fiber as far as the user's home, and
FTTP - fiber to the pedestal: fiber as far as the upstream device

FTTD (fiber to the desk)
Structured cabling of a building (LAN) with optical fibers all the way to the workplace.

G
GBE
Gigabit Ethernet; name of a network transmission protocol.

GRADED INDEX FIBER
Type of optical fiber in which the refractive index of the core has a parabolic profile and decreases from the inside to the outside This type of fiber permits improved dispersion and transmission characteristics.

GRADED INDEX PROFILE
Refractive index of an optical fiber. The refractive index of the core decreases from the center toward the cladding, usually as a parabolic function.

GRP ELEMENT
Supporting element designed to absorb tensile forces. Made from fiber-optic reinforced plastic (GRP).

H
HCS FIBER (Hard-Polymer Cladded Silica Fiber)
Fibers with a core made of quartz glass together with a plastic cladding.

HRL (High Return Loss)
See APC

HU
Height unit of the 19-inch system. 1 HU corresponds to 44.45 mm or 1.75 inches.

HYBRID ADAPTER
Adapter with two different connections for different connector types.

I
IEC
International Electrotechnical Commission

IEEE
Institute of Electrical and Electronic Engineers.
International organization of electrical and electronic experts that publishes its own standards.
Member of ANSI and ISO. The IEEE 802 project is concerned, in particular, with LAN standards.

INDOOR CABLE
Cable with a structure specially designed for use inside buildings.

INFINIBAND
A parallel optical transmission technology based on the use of 4 channels.

INSERTION LOSS
Ratio of the introduced light power to the emitted power of an optical component. Attenuation [dB] resulting from the insertion of an optical component in an optical transmission path.

INTERFEROMETER
Measurement system used to analyze and measure connector endfaces.

ISDN (Integrated Services Digital Network)
Data, voice and images are sent in digital form over the existing telephone network.

L
LAN (local area network)
A local network for the bitwise serial transmission of information between separate terminal devices.

LIGHT
Traditionally, the term "light" has been understood to refer to electromagnetic wavelengths between 380 nm (violet) and 780 nm (red). A less restrictive definition also includes the neighboring areas of the spectrum, optical wave guide.

LOOSE BUFFER FIBER
Multiple loose fibers located, without being subject to stress, in a shared tube which may or may not be filled.

TECHNICAL TERMS

LOOSE TUBE
An optical fiber surrounded by loose tubing.

M MAN (metropolitan area network)
Transregional network for information transfer.

MICROBENDING
Tiny geometrical irregularities at the boundary between the core and cladding. Microbending results in the excitation of higher-order modes that are subject to higher levels of attenuation.

MODAL BANDWITH
Constant describing the product of the bandwidth and length of the optical fiber.

MODES
All the light waves of the same wavelength capable of propagation in an optical fiber.

MTP® CONNECTOR
A connector with n x 12 fibers in a ferrule.
MTP® is a registered trademark of US-Conec Ltd.

MULTI JUMPER
Special PreCONNECT® fiber and copper trunks for multichannel, point-to-point indoor connections.

MULTIMODE FIBER
Type of fiber in whose core multiple waves (modes) are able to propagate. The number of modes depends on the size of the fiber core. Typical dimensions are 50 / 125 μm and 62.5 / 125 μm.

MULTIPLEX
Method used in order to transport multiple signals simultaneously over one and the same transmission path. Each of these signals is assigned a timeslot, a wavelength or a fiber, for example.

O OPTICAL FIBER (also fibre)
The electrical, transparent fibers used to transmit signals using electromagnetic waves at optical frequencies.

OPTICAL FIBER WAVEGUIDE
See optical fiber

OPTICAL WINDOW
Optical fibers have particularly low attenuation values at the wavelengths 850 nm, 1300 nm, 1550 nm and 1625 nm.

OTDR (optical time domain reflectometer)
Measuring equipment used to characterize a fiber optic transmission path on the basis of the backscattering pattern from a light pulse. OTDR can therefore be used to determine the attenuation gradient along a fiber path as well as its reflective characteristics.

OUTDOOR CABLE
Cable suitable for installation in the ground or in cable ducts.

P PARALLEL OPTIC LINK
In multimode operation using the InfiniBand and 40/100 GBE protocols.

PATCHCORD
Connecting cable for connections in a distribution panel.

PC
Physical Contact; the ferrule endface is polished in such a way that the fiber endfaces of the connector are in contact.

PIGTAIL
A fiber optic section with a connector at only one end.

PON (Passive Optical Network)
Passive optical network for FITL with passive components such as couplers, splitters and connectors.

PreCONNECT®
A product developed by Rosenberger OSI for customized fiber optic cabling.

R REFLECTION
Waves returned against the incident direction in a fiber link.

REFRACTION
Change in the direction of propagation of a beam (a wave) at the boundary surface between two media with different refractive indexes.

REFRACTIVE INDEX
Factor by which the speed of light in an optical medium (e.g. glass) is smaller than in a vacuum.

RETURN LOSS
Loss of input optical power due to reflections in an optical link.

RIBBON CABLE
Cable with fibers running in a parallel plane.

S SAN
Storage Area Network

SEMI TIGHT TUBE FIBER
Fiber in a small plastic tube (gap either dry or filled with gel).

SINGLE MODE FIBER
Fiber in whose core only one light wave (mode) is capable of propagation. Usual value: 9/125 µm.

SPLICE CONNECTION
Permanent connection between two optical fibers created by fusing the fibers or by means of an adhesive.

SPLITTER
This optical component can be used to divide the optical power from a single fiber among multiple fibers. Also see COUPLER

STEP INDEX FIBER
Fiber type whose core has a uniform refractive index.

STEP INDEX PROFILE
See step index fiber

STRENGTH MEMBER
Mechanical element (usually in the form of kevlar fibers) present in the cable in order to absorb tensile and compressive forces.

T TIGHT TUBE
An optical fiber core in which a fixed plastic sheath is applied directly above the protective cladding (intermediate silicon layer).

TIME DIVISION MULTIPLEX
Transmission method in which multiple parallel incoming digital signals are transmitted on a single cable as a serial data stream.

W WAN (wide area network)
Long-distance network for information transfer.

WAVELENGTH
Length of one full oscillation (period) of a wave. In optical communications technology, wavelengths that match the optical window are used.

WAVELENGTH DIVISION MULTIPLEX
See WDM.

WDM / DWDM
(Dense Wavelength Division Multiplexing).
Light beams of different wavelengths rather than of just a single wavelength are sent through the optical fiber.

SUBJECT INDEX

MTP® is a registered trademark of US-Connec Ltd.
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