Rosenberger

Home of Innovation

Connectivity Solutions for Medical Applications

MEDICAL

Medical Technology for the Future

Medicine is placing increasing demands on technologies and technical devices: What is required is mechanical resilience with maximum data and power transmission rates at the same time. Rosenberger provides the appropriate answers: The development and production of innovative products and intelligent system solutions for a wide variety of applications in the medical environment. Customers can also rely on the expertise, precision and quality of Rosenberger in the future.

Home of Innovation

Rosenberger is one of the world‘s leading manufacturers of impedance-controlled and optical connectivity solutions. We provide solutions in high-frequency, high-voltage and fiber-optic technology for mobile communication networks, data centers, test & measurement applications, automotive electronics, as well as high-voltage contact systems, medical electronics and aerospace engineering.

A global network of R&D, manufacturing and assembly locations provides innovation, optimized cost structure and excellent customer services. Around 14,800 employees are involved in the development, production and distribution of our products.

Protection and Safety in Medical Technology

In medical technology, the focus is on protecting people and complying with safety standards. The new generation of medical devices supports specialist staff by digitizing processes in hospitals and medical practices. In this way, risks for patients can be reduced and processes and results can be improved overall.

The growing demand for robots in medical technology requires fit-for-purpose connectors and cable assemblies. The intelligent products from Rosenberger withstand both the operating conditions of the medical environment and the processes involved in sterilization.

Our Promise to You and the Environment

Sustainability and environmental responsibility are fundamental to Rosenbeger. Therefore it is our highest priority to pursue economic, social and ecological goals – equally and simultaneously. The company strives to create long-term value, offer good working conditions and treat the environment and natural resources responsibly.

Imaging Processes in Diagnostics

In medicine, diagnostics form the basis for effective patient treatment. It demands technical know-how but also significant demands on ensuring the reliability of devices. New technologies enable faster and more accurate results and thus lead to better treatment methods.

Imaging processes play a central role in this, in which image data is first created and then evaluated. This can be carried out on an outpatient basis, allowing immediate diagnostics with a high level of precision.

Imaging systems have to transmit large amounts of digital data at gigabit speed. For high-resolution images, Rosenberger offers shielded high-speed connectors and special cable assemblies to ensure the display is independent of space and time and to reduce signal-to-noise problems.

Applications

- Magnetic Resonance Imaging MRI
- Computed Tomographies CT
- Endoskopies
- Ultrasound Machines/Sonography
- X-Ray Machines

High Speed Data Transmission

In future generations of medical devices, data will be transmitted in real time over several channels with up to 30 Gbps. Suitable connector families are characterized by their low weight and compact design.

Suitable product lines

- FAKRA
- HFM
- H-MTD®
- HSD®

Fiber Optic Connectivity

Many requirements are solved with fiber optic connections: high bandwidth with a thinner diameter, weight savings and absolute insensitivity to sources of interference.

Suitable product-lines

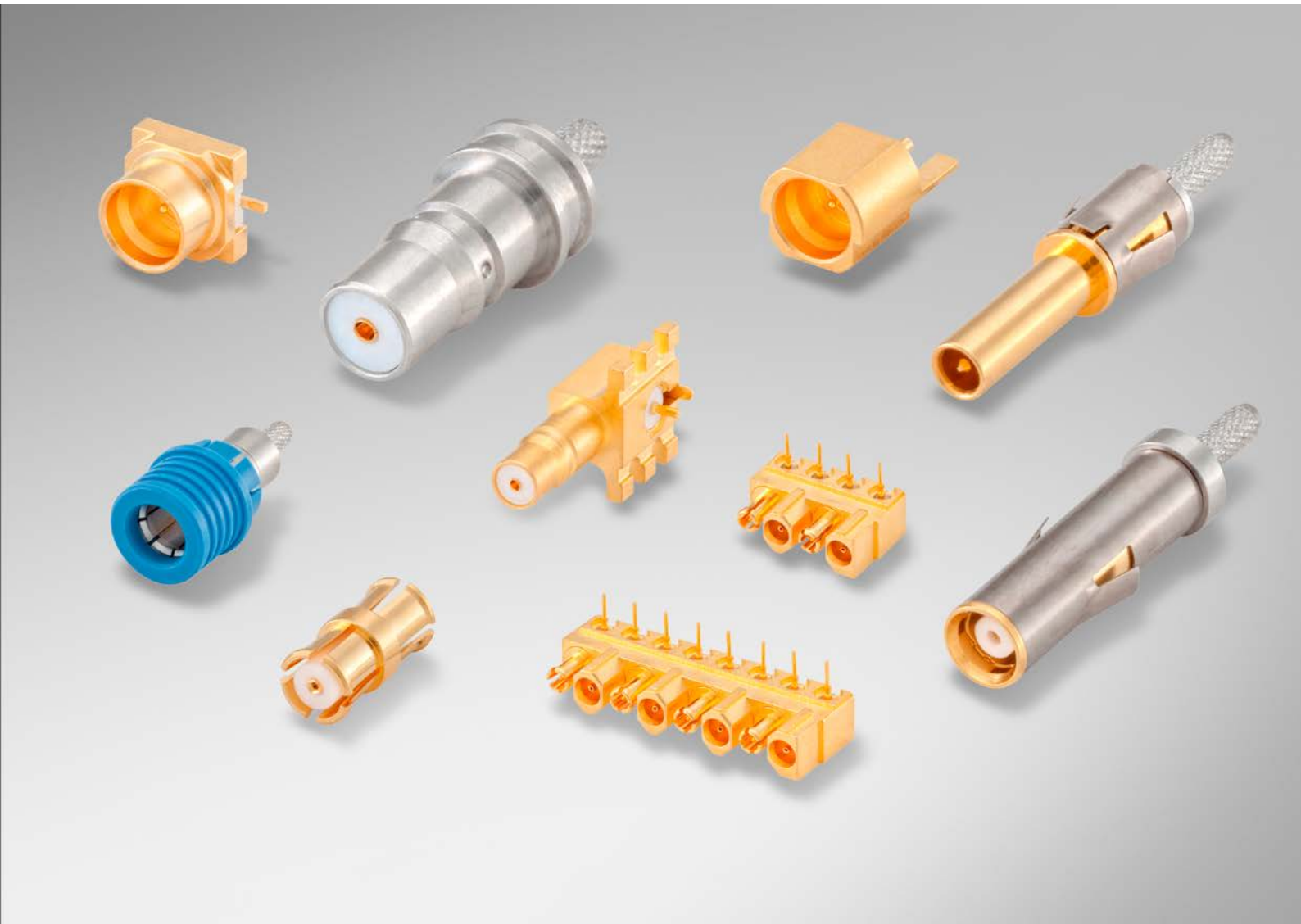
- SFP+
- QSFP+
- PreConnect®

Non-Magnetic Connectors

Connectors made from non-magnetic materials ensure that alternating magnetic fields do not generate undesired artifacts that could lead to misdiagnosis. The innovative products from Rosenberger improve the image quality and reproduction detail delivering precisely readable scans.

Suitable product lines

- High-Mating Cycle
- Multiport Mini-Coax non magnetic
- QLX
- QMA non magnetic
- SMP non magnetic



Therapy & Monitoring Systems

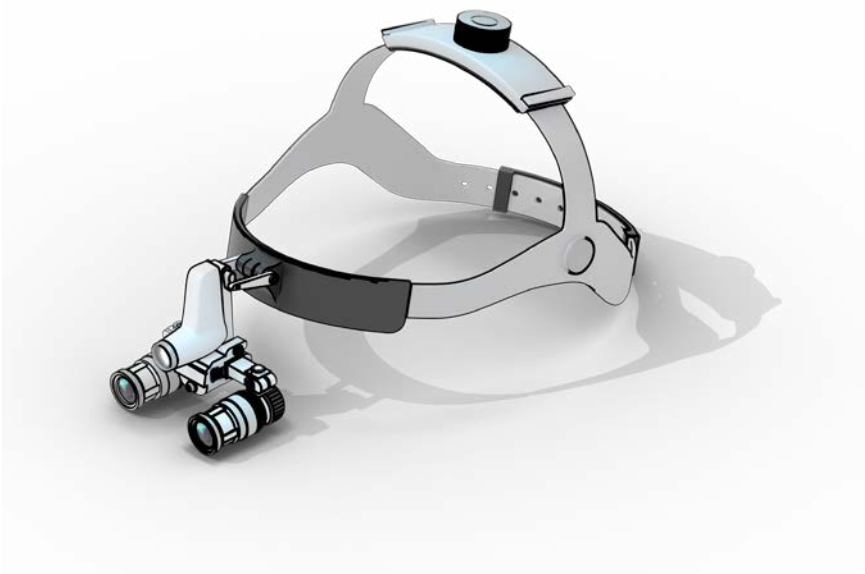
Systems for patient monitoring are already indispensable in the healthcare sector. Whether in ambulances, helicopters, operating rooms or intensive care units – vital parameters must be transmitted consistently and safely.

Monitoring is increasingly shifting to the home environment of the patient. The devices used should disturb people in their everyday life as little as possible while at the same time deliver reliable values.

With new technological solutions and the increasing processing and networking of health data, digitization in the medical field opens up more and more advanced monitoring possibilities. The use of device-assisted therapies, and user-friendly handling for minimally invasive interventions, facilitate the treatment of disease symptoms and offer the patient the greatest possible comfort.

Applications

- Electrocardiograms ECG
- Ablations
- Dental Lamps
- Surgical Helmets
- Wearable Devices



PushPull Connectors

The new PushPull connector family from Rosenberger impresses with its technical features such as high contact density and a high number of mating cycles as well as simple, coded handling. The connector system is easy to sterilize due to its plastic design and is suitable for a wide variety of medical applications.

Suitable product line

- RoPushPull

Communication Hospital Systems

In hospitals as well as in nursing and care homes, patients and residents use modern entertainment and information systems. In addition to making calls, watching TV, listening to the radio and streaming films, patients surf the internet and use various applications, such as internal call systems.

Furthermore, the added value lies in the intra-hospital communication between physician, nursing staff and patients. Through the connection to the hospital information system, all important information (e.g. from the electronic patient file) can be viewed directly at the hospital bed. The clear presentation of information

Applications

- Phones
- Televisions
- Radios
- Call Systems
- Electronic Patient Files

supports the nursing staff and physicians in supporting the need of the patient and enables the necessary measures to be implemented immediately. This allows workfows in the clinical process to be controlled more efficiently and the overall quality of treatment to be improved.

Magnetic Connectors

The vibration-proof and cleanable magnetic plugs from Rosenberger guarantee correct and fast connections even for hard-to-reach positions. Another advantage is the break-away function, which prevents damage to the connector through unintentional disconnections, which in turn reduces maintenance costs and increases the product lifetime. These magnetic connector plugs are ideally suited for medical environments as their self-locating mechanism ensures that they can be plugged in quickly and safely in an emergency.

Suitable product lines

- Mulitmag 6
- Mulitmag 15

Mobility Through Technology

When people must accept limitations in everyday life due to illnesses, accidents or disabilities, the loss of mobility often hits them particularly hard. Not being able to move independently can have not only physical but also psychological effects. It is all the more important to support those affected in their mobility with suitable aids so that they regain more autonomy and indepedence.

Applications

- E-Wheelchairs

Speed in Emergency Care

Innovative technologies support specialist staff in giving each patient the best possible treatment. Since the time factor plays a decisive role in emergency care, medical devices must be quick, easy and intuitive to use. In addition, they should be compact and robust and suitable for current outdoor use.

Applications

- Defibrillators
- Medical Ventilators

Magnetic Charging Connectors

RoPD® power data connectors from Rosenberger offers reliable connections for charging: magnetic self-mating over a high number of charging cycles at voltages up to 60 V and current loads up to 40 A. The data communication can be used to control the charging process.

The MagCode® PowerSystem and the MagCode® PowerSystemPro from Rosenberger guarantee safe and reliable magnetic connections to external 12 V and 24 V power sources. Disconnecting and plugging in under load can take place due to the magnetic switching function.

The MagneticXLR adaptor from Rosenberger allows the equipping of existing wheelchairs with a self-mating function for the charging interface. Those dependent on a wheelchair gain more independence thanks to this simplification during the charging process.

Suitable product lines

- RoPD®
- MagCode® Power System
- MagCode® Power System pro
- MagneticXLR


24V
4216
12V

Rosenberger's core competences for connectivity solutions are

- Mechanical design
- RF design
- Electrical and optical data transmission technologies
- Enclosing solutions in metal and plastics for components and complete systems
- Electronic systems on circuit boards

Individual System Solutions

When it comes to customer-specific solutions, the Rosenberger Group has decades of expertise. Based on the technical and commercial specifications of the customer, an overall design concept is drawn up to the realization of custom products – from the first idea to series production.

For medical technology, too, Rosenberger works closely with the customer to develop not only individual connectors, but also tailor-made system solutions, quickly and in a structured target-oriented manner. Electrical and mechanical requirements are considered as well as the integration of suitable technologies in order to efficiently integrate the designs into the subsequent workflow.

Website

For more information refer to our website:
www.rosenberger.com/medical

Rosenberger

Rosenberger Hochfrequenztechnik GmbH & Co. KG
Hauptstraße 1 | 83413 Fridolfing
P.O. Box 1260 | 84526 Tittmoning
Germany
Phone +49 8684 18-0
info@rosenberger.com
www.rosenberger.com
Certified by IATF 16949 · DIN EN 9100 · ISO 9001 · ISO 14001 · ISO 50001

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