



Responding to Future Market Needs

Miniaturization

The electronics sector is subjected to constant miniaturization and further development. At the same time manufacturers demand high quality connectors for smarter electronic solutions that save space and reduce the weight of equipment.

Rosenberger has responded to the trend towards smaller, more cost-effective components, offering extensive experience in the design, production and verification of micro parts. The company also provides state-of-the-art design, simulation and manufacturing capabilities.

Telematics

Reliable communication systems have become a part of our daily life. Based on IoT technology, business processes can be set up with a greater degree of automation and run more efficiently.

Consequently, Rosenberger now offers solutions for automatic tracking and onboard units in conjunction with a highly scalable, modular and versatile software platform (Commander). This ensures all assets, vehicles, machines, and objects can be efficiently connected and managed.



Innovation and Technology From a Single Source

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 11,000 employees are involved in the development, production and distribution of our products.

Driven by Perfection

Rosenberger's mission is to be an innovation and technology leader within its business segments.

The most modern manufacturing technologies, the highest possible levels of efficiency in production and continuous development are our core competencies. This guarantees not just fast delivery and strict adherence to delivery dates, but also the highest levels of product quality.

In close cooperation with our customers our offering is complete product development, from the first idea to volume production.

By utilizing its global manufacturing infrastructure, the Rosenberger Group is well-equipped for handling both small and large production volumes.

Drone Portfolio

Rosenberger's extensive range of connectivity solutions combines leading-edge design with high performance, quality and safety. Additionally, our portfolio of drone products is totally fit for purpose, fully capable of withstanding vibration, water ingress, and extreme operating temperatures without impairment to performance.

Autonomous Flying

Avoiding any interruption in the navigational systems used for remote control drone operation is essential. Drones are reliant on GPS or LiDAR (Light Detection and Ranging) systems for maintaining course and position while also enabling a variety of flight modes governing navigational applications and safety features. Furthermore, they are crucial to positioning accuracy when detecting and inspecting objects. With so much at stake, the right choice of high performance connection systems is equally mission critical.

FAKRA

- High data rates up to 8 Gbps
- Watertight versions
- No misuse due to secure coding system
- Temperature range from -40 °C to +105 °C

Mini-SMP

- Snap-on locking mechanism
- Mating cycles: Full detent: ≥ 100 ; Smooth bore: ≥ 500
- Extremely small dimensions
- High packing density due to minimum pitch and board-to-board distances
- Temperature range from -55 °C to +155 °C

H-MTD®

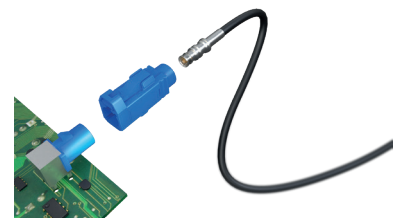
- High data rates up to 20 Gbps
- Watertight versions
- Modular system – saving up to 80% of installation space
- No misuse due to secure coding system
- Temperature range from -40 °C to +105 °C

Sensor System to Mainboard in the Drone

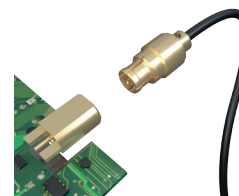
At the "heart" any drone is the mainboard. This manages all flight control tasks. Vital signals such as those monitoring altitude and direction are continuously captured, calculated and implemented by sensors. For flight safety and stability, this demands highly reliable connections capable of supporting high data rates and withstanding harsh environments.

RosenbergerHSD®

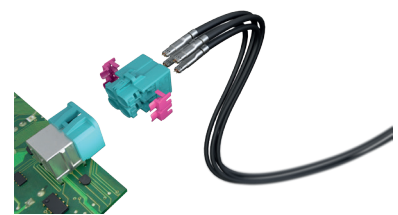
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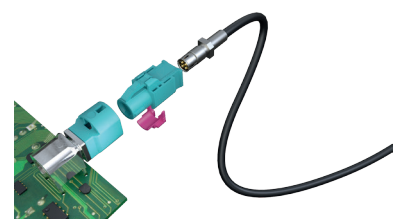
Frequency range DC up to 6 GHz



Frequency range DC up to 65 GHz



Frequency range DC up to 15 GHz



Frequency range DC up to 6 GHz

Communication Between Sender and Receiver

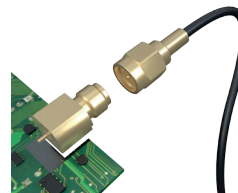
Since drones are unable to veer from their programmed destination (return to launch), the flight signals from remote control to drone and back must be transmitted without interruption or error. Similarly, the built-in return command must not fail, even when experiencing weather turbulence or external signal interference. Flexible, fast and ultra-reliable connectivity for smooth communications is therefore an absolute must.

SMA

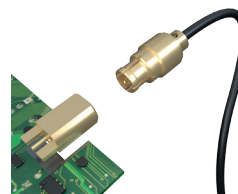
- Screw-on locking mechanism
- Temperature range from -65 °C to +165 °C

Mini-SMP

- Snap-on locking mechanism
- Mating cycles: Full detent: ≥ 100 ; Smooth bore: ≥ 500
- Extremely small dimensions
- High packing density due to minimum pitch and board-to-board distances
- Temperature range from -55 °C to +155 °C



Frequency range DC up to 18 GHz



Frequency range DC up to 65 GHz

Charging Interface

Ensuring drones are readily available for onward flight makes fast, simple and safe battery recharging a prerequisite. Our speedy connection solution is designed with this in mind.

RoPD®

- Magnetic self-mating mechanism – fast, reliable, simple
- 100% self-location
- Mating cycles: > 2500
- Watertight and robust
- Ideal for connections that need to be plugged and unplugged more frequently
- Temperature range -40 °C to +65 °C



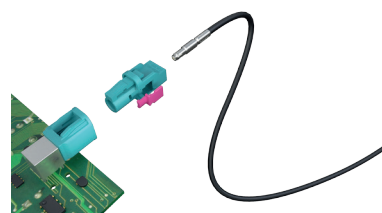
Data and power transmission of voltages up to 60 V DC

Drone Equipment

A drone's bird's eye view offers the potential for their deployment in a wide range of serious applications such as the inspection of power and pipelines, as well as in search and rescue operations. This necessitates the reliable connection of equipment including video cameras for enabling real-time transmission/recording, often in tough operating conditions.

HFM®

- High data rates up to 20 Gbps
- Small dimensions – optimized use of space (save up to 80 % of space compared to the conventional FAKRA)
- Real-time data transmission
- No misuse due to secure coding system
- Temperature range -40 °C to +105 °C



Frequency range DC up to 15 GHz



Website

For more information refer to our website:
www.rosenberger.com/m&i

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

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