

Custom-designed autoclavable connectors and feedthroughs for medical applications

Miniaturized hermetic connectors featuring high I/O density and high data rates



Product Information

SCHOTT Electronic Packaging offers custom-made, hermetically-sealed and therefore autoclavable connectors and feedthroughs with Glass-to-Metal-Sealing (GTMS) or Ceramic-to-Metal Sealing technology (CerTMS®).

The products can be entirely modified to suit your specific application. A large variety of material compositions, designs and dimensions are possible.

You can furthermore customize:

- Contact configuration, e.g. high power pins, small signal contacts
- RF ports: Multi-pin connectors or high speed data ports allow for example high definition (HD) video port connections
- Keys and / or locking features, e.g. Bayonet or threads
- Male/female contacts
- Multilayer-ceramic sealed feedthroughs are available for high density, miniaturized applications
- Connectors can also incorporate optical feedthroughs, such as windows or lenses

Applications

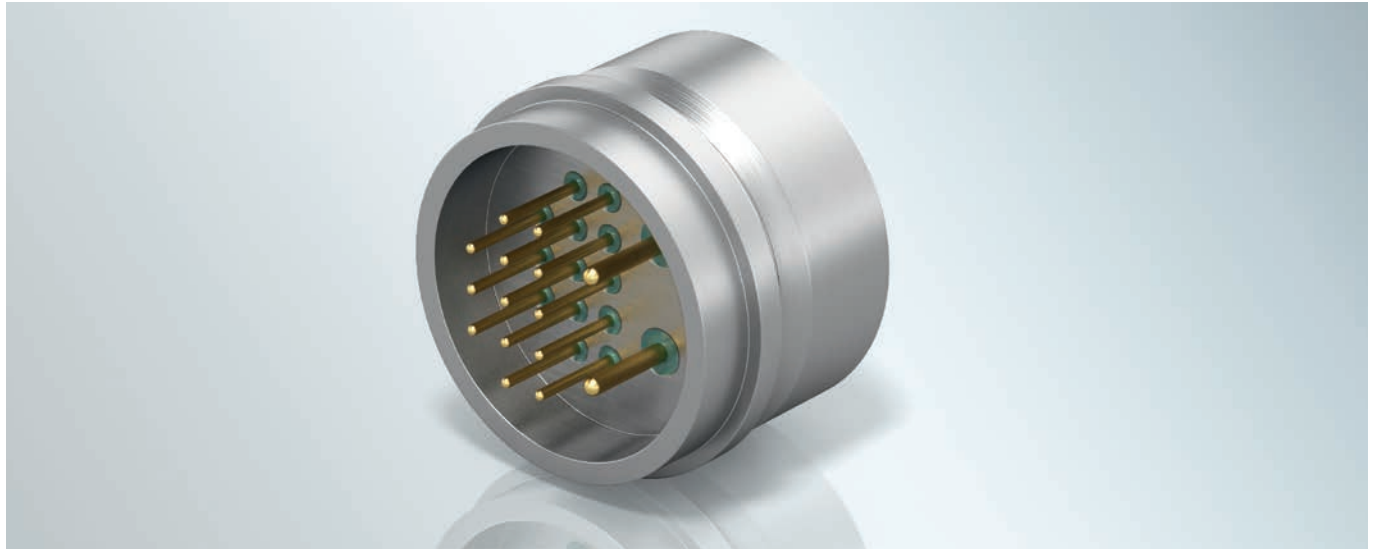
- **Endoscopy:** multi-pin connectors or high speed data ports, for example, allow high definition (HD) video port connections in video-endoscopes
- **Surgical instruments:** connectors with high power pins

Technical Information

Hermeticity:	1 x 10 ⁻⁸ mbar x l/s
Autoclavability:	Successfully tested after > 3,500 steam sterilization cycles (2 bar, 134°C)
Electric insulation:	Typically > 1GΩ
Size (diameter):	From ~ 2 mm to 30 mm (other sizes upon request)
Material options:	Inorganic, non-aging materials, e.g. stainless steel, Inconel, hard Au-plated contacts

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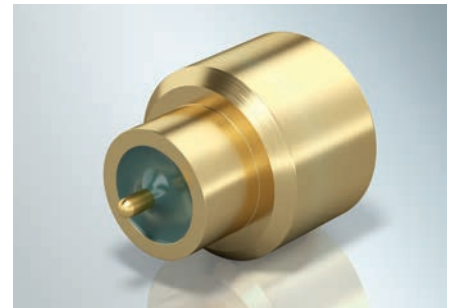
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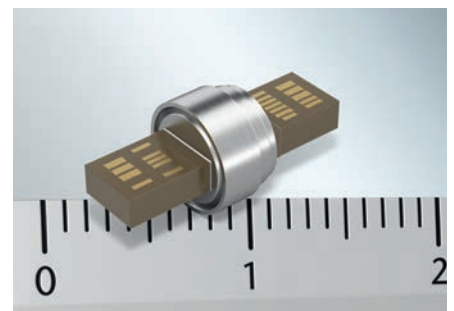
Multi pin connector with several small glass-to-metal-sealed signal lines and two power pins

Advantages

- **Ability to offer extremely miniaturized feedthroughs**
Especially suited for endoscopes, medical tools and sensors.
- **Lifecycle extension of medical devices**
Due to the high autoclavability resistance, the total cost of ownership can be significantly improved/lowered
- **Full range of support**
R&D, prototyping, low volume to series production.
- **Leading hermetic packaging supplier**
Since the 1930s, SCHOTT Electronic Packaging has been developing and manufacturing hermetic housings and feedthroughs using glass-to-metal and ceramic-to-metal sealing technology. Today we are one of the worldwide leading suppliers in this area.
- **Experienced supplier for medical applications**
SCHOTT is an established supplier of optical glass fibers and hermetically sealed LEDs for medical devices. We furthermore offer GTMS and CerTMS housings for the protection of sensitive medical electronics, sensors and implants.
- **Multinational, German-based company**
Based on more than 130 years of history, SCHOTT is a leading international technology group in the areas of specialty glass and glass-ceramics with a workforce of 15,400 employees in 35 countries.



Coax connector for up to 40 Gbit/s



Extremely miniaturized connector with high I/O density: High speed data port connector with multilayer ceramic sealed feedthroughs

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