



„A free choice of keypad for every airline. That's when I called Elektrosil.“

Aircraft are not allowed to take off without functioning communication technology. Elektrosil developed an intelligent keyboard solution for the reliable operation of on-board telephone systems.

### THE CHALLENGE

A renowned manufacturer of electro-acoustic equipment needed a new keyboard for the on-board telephone. Instead of the previous controls with individual keys, he wanted a universal design that would also allow the keys to be arranged in a flexible manner. An additional requirement: reliable functionality even with large pressure differences and temperatures of up to 70 °C.

### THE SOLUTION

Elektrosil built the keypad on a modular design for the greatest possible scope with individual key configurations: The base consists of a button area that can be integrated into the handheld device, with circuits using a printed circuit board design. This is the complex centrepiece of the development with control options that use up to 18 keys. The engineers built a second layer consisting of a silicone pad, which formed the operating area. The allocation and printing of the keys remains extremely flexible thanks to the design as a simple silicone pad. Individual variants can be created with order sizes of one or more. The number of keys can be varied during production without costly tool adjustments.

The team chose the perfect material for high temperatures, namely temperature-resistant silicone. The contactless design of the silicone operating area prevents malfunctions occurring due to high pressure differences. Tests at the end customer confirmed the secure use. PU coating and adaptations of the key radii on the silicone pad contribute to the high resilience.

### OUR STRENGTHS

- Completely customer-specific application
- Interdisciplinary know-how for input technologies, PCB design & keyboards
- One-stop-shop: From consulting, development, and simulation to manufacturing and delivery

**Are you also looking for a custom-fit solution for your system and a competent partner? Then give us a call: +49 40 840001-0.**

**E** elektrosil



### Project information

- Client: A leading manufacturer for electroacoustic applications
- Project size: Depending on the design, between 10, 3,000 and 5,000 units per year
- Sector: Aviation
- Product area: Keypads
- Services: Keypad development incl. tool building, printed circuit board development, component production

### Elektrosil's services

- Application consultation, development assistance, design-in support
- Quality assurance
- Engineering and production
- Completely customised applications

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