

Customized Online Configuration of Inductors

- New design options
- Online price calculation
- Simple order processing
- Short production times



Easily customize inductors online

Induction heating is a safe and energy-efficient heating process that allows all electrically conductive materials to be heated quickly and effectively. Depending on the field of application, inductors in different forms will be needed, as they should be able, as accurately as possible, to adapt to the component that is to be heated. With the Inductor Generator from PROTIQ, you can modularly design induction coils to be suitable for many industrial applications.



The inductive heating process can be precisely controlled and is reliably reproducible and extremely fast. In the metalworking industry, this heating method is therefore often used in the (semi) automated series production. The production of high-output inductors, however, is very complicated: Their geometry should be adapted as closely as possible to the shape of the component to be heated in order to generate a defined magnetic field. Induction coils for different applications, therefore, have to be specially designed and produced. Weeks or even months can pass from receipt of the order to the completion of an inductor.

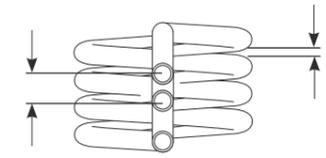
The Inductor Generator, in combination with tool-less production, significantly shortens this lengthy process through the use of 3D printing. Simply select the appropriate basic shape for your application and define the individual parameters, such as the number of turns, coil diameter or the position of the connection. You have six basic shapes to choose from, which you can modularly adapt to your personal requirements with just a few clicks. You will receive your inductor just a few days after the receipt of your order, since with industrial 3D printing production can start immediately! ■



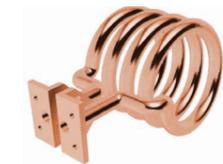
- ▶ **Step 1: Select basic shape**
Choose the optimal geometry for your needs from six standard shapes for internal or external inductors.



- ▶ **Step 3: Defining the connection element**
Optionally, you can provide each inductor with a mount. You can also customize the dimensions of the base plate.



- ▶ **Step 2: Configure inductor**
Set your desired dimensions based on height, cross section and diameter. Also specify the number of turns as well as the diameters and spacings of coils and channels.



- ▶ **Step 4: Complete the order process**
The price of the configuration of your inductor is automatically determined online for you. Choose one of the numerous convenient online payment methods and use our worldwide delivery service.

Copper in 3D printing

Your inductor will be 3D-printed using selective laser melting. Since copper almost completely reflects the rays of conventional laser melting equipment, many 3D printing service providers use alloys with a relatively low copper content. The conductivity of the components made from such alloys, however, is often unsatisfactory. PROTIQ has

succeeded in developing a unique process that can be used additively to process high-conductivity copper. This makes us one of the first 3D printing providers able to produce copper inductors of the highest industrial quality.

Advantages:

- ▶ New, custom design options
- ▶ Economical production due to the modular design and additive manufacturing
- ▶ Intuitive use of the user interface
- ▶ Delivery within a few days of receipt of the order
- ▶ Guaranteed printability of the 3D models
- ▶ Compliance with all EU data protection laws

Is your desired geometry not offered?

Contact us – the modular design system will be continuously expanded with standardizable basic geometries.

Do you already have an inductor geometry as a 3D dataset?

With PROTIQ, you can easily upload, configure and commission it online. Your product will be delivered just a few days after your order is received.

Visit us at www.protiq.com



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