



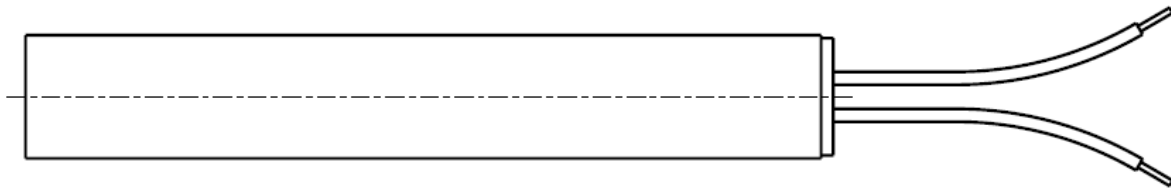
PRODUCT DESCRIPTION

Metal cartridge heaters feature compact size with high power density and are used for direct or indirect heating of oil, alkaline solutions, or tools. They consist of a metal tube and a heating conductor wound on a soft ceramic winding element, surrounded by magnesium oxide (MgO) for electrical insulation. High-performance cartridge heaters are highly compressed and ground to size in order to ensure a fit installation and thus optimum heat dissipation. They achieve a surface load of up to 25 W/cm². Alternatively, metal cartridge heaters with a similar construction such as ceramic cartridge heaters are available. They are installed in a metal tube with optionally vibrated MgO and achieve a surface load of up to 4 W/cm². On customer request, all cartridges can be fitted with thermocouples in different sections or designed with a thicker top or bottom section to provide more power. For installation, we recommend a sufficiently large drill hole diameter (cartridge diameter + 0.5 mm) or additional mounting elements such as sheet metal flanges, sheet metal brackets or threaded flanges with gaskets. Depending on the tube sheath material, temperatures from 250 °C (brass) to 600 °C (stainless steel) are possible.

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FEATURES

- Defined heat output due to resistance wire technology
- Power according to customer specification
- Operating voltage up to 500 V
- Operating temperature: brass up to 250 °C, stainless steel up to 600 °C
- Surface load up to 4 W/cm² (metal cartridge – uncompressed)
- Surface load up to 25 W/cm² (high performance cartridge - highly compressed)
- Sections with increased heating power possible
- Installation of thermocouples possible (top, center, bottom)
- Tube sheath diameters: 10; 12; 12,7; 15; 16; 17; 18; 20; 24; 28; 32 mm
- Tube sheath materials: Brass, stainless steel
- Electrical connection (one-sided): glass silk sheathed nickel wire (maximum temperature up to 250 °C), blank nickel wire, nickel wire with glass silk tube insulation
- Mounting elements: Sheet metal flange with fixing holes, sheet metal bracket with fixing holes, threaded flange with gasket



APPLICATIONS

- Heating of oil, water, alkaline solutions
- Tool heating
- Hot plates
- Mold heating
- Welding Tools