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ELSTEIN

IRE- 090.37E



## MSH CERAMIC RADIATORS MICRO SYSTEM HEATERS (SUPPLY 12V)

Elstein MSH micro system heaters are ceramic infrared radiators in small design. They reach operating temperatures up to 860 °C and surface ratings up to 100 kW/m<sup>2</sup>.

MSH micro system heaters are used in applications, which require partial heating or drying of small goods and areas. This occurs for example at heating of printed circuit boards.



MSH radiators are suitable both for individual operation and for configuring groups of radiators to an infrared heating panel.

In this way small heating panels can be built, which can be adapted to the requirements of the heating task or the size as well as contours of the material to be heated regarding heated area, dimensions and the acuteness or the heating zones.

Elstein MSH micro system heaters are available with a power of 55 W 12 V.



Type, weight, wattage	MSH /20 12V	3 g	55	W
Surface rating			100	KW/m <sup>2</sup>
Typical operating temperature			860	° C
Maximum permissible temperature			900	° C
Wavelength range			2 - 10	µm

Standard design	Thermocouple radiators	Variants
Operating voltage 12 V Ceramic full-pour casting Black glaze Leads 30 mm <u>Optional accessory</u> THI Thermal insulation sheet 50 x 50 x 12 mm	Designation T-MSH/20 Integrated thermocouple Type K (NiCr-Ni) TC leads 53 mm	Special wattages Special voltages Extended leads Leads with ring terminals
		

The power can be controlled using thermocouple radiators together with TRD 1 temperature controllers, TSE thyristor switching units and other accessories.

The national safety regulations must be complied with for the respective application, for example, the IEC or EN

standard 60519-1, Safety in electrical heating installations.

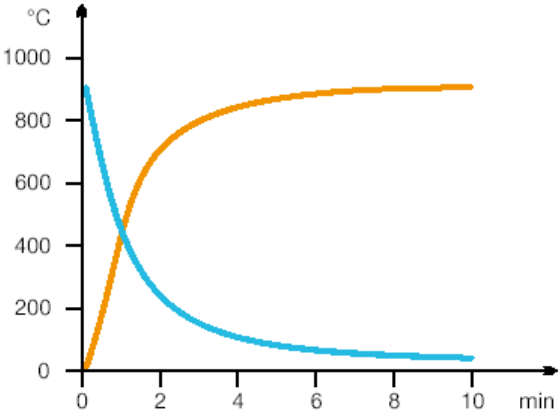
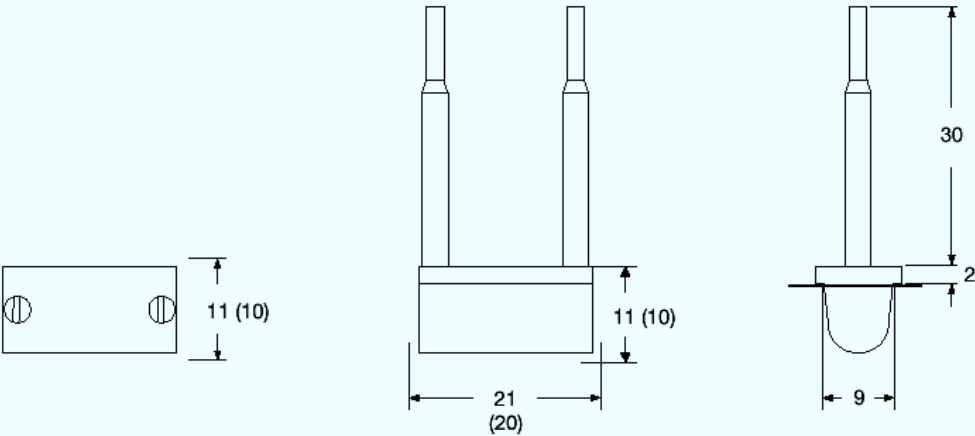
Our instructions for mounting, operation and safety must be observed.

### APPLICATIONS

- External heating mechanisms.
- Heating thermoplastics.
- Cured adhesives.
- Drying printing industry.
- In laboratories: thawing, evaporation, polymerization, activation ...
- Heating surfaces in pharmaceutical cosmetics.

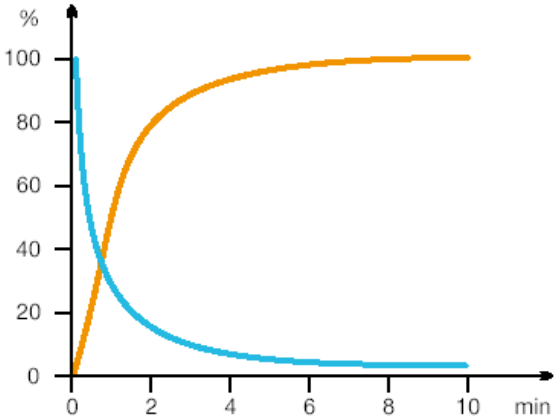
MSH / 20 MOUNTING DIMENSIONS AND RADIATOR DIMENSIONS ( ) IN MM

MSH/20



**Radiator temperatures**

Heating-up: red curve  
Cooling-down: blue curve



**Radiant powers**

Heating-up: red curve  
Cooling-down: blue curve