AUR'EL MICROELECTRONICS

APPLICATION CASES

LOW PRESSURE CAPSULE/POD COFFEE MACHINES

Instantaneous heat exchanger with integrated pump.

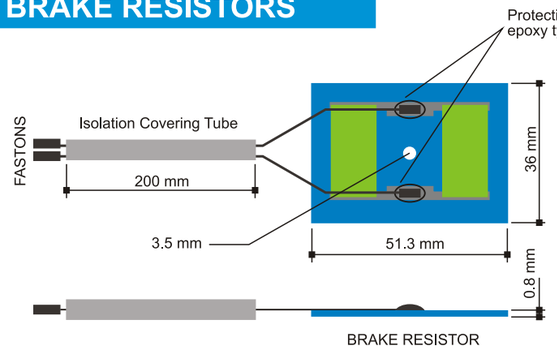
Internal circuit made in AISI and thermoplastic material suitable for food contact, heating element "thick film" for maximum heating efficiency.

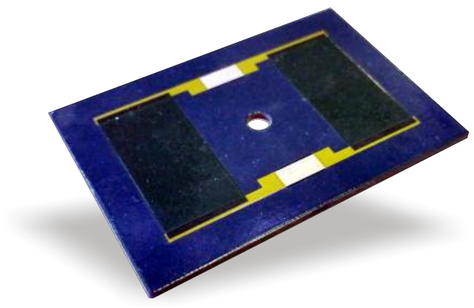
It stands out for its compactness and as the quickest and efficient heat exchanger on the market, no time to wait for heat up allows to remove standby function.

Characteristics	Value	Unit	Notes
Power	1500	Watt	Other values on request
Voltage	100-120-230	Volts	
Heat up time from 20°C to 90°C	2-3	seconds	@ 230V 1500W
Maximum flow at constant temperature (ΔT 75°C)	285	ml/min	@ 230V 1500W
Maximum working pressure	3	bar	
Breaking pressure	> 6	bar	

Part	Material	Notes
Tube	AISI 304 / AISI 444	
Internal circuit	PA6T / 6I (Grivory)	

BRAKE RESISTORS





Description	Specification	Note
Base Plate	INOX AISI 444-2B	
Resistor Value	1500 Ohm (1400÷1600)	
Overglaze	Thickness 15-18µm Min.	Type QQ550
Power Max	460 W	
Temp. Max Operating	200 °C	
Insulated Voltage	> 2500 VDC	
Wire Type	SAMI UI1901 AWG20/19	2x250mm
Isolation Cov. tube	PTFE PLASTICA AM	200mm Diam. Int. 3.38
Faston	JST STO-1.0T-250N	2x Fem. 6.3x0.8
Isolat. Cover	CS 63N004	Serie 63 Female

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AUR'EL MICROELECTRONICS

POWER RESISTORS

HEATING ELEMENTS & BRAKING RESISTORS

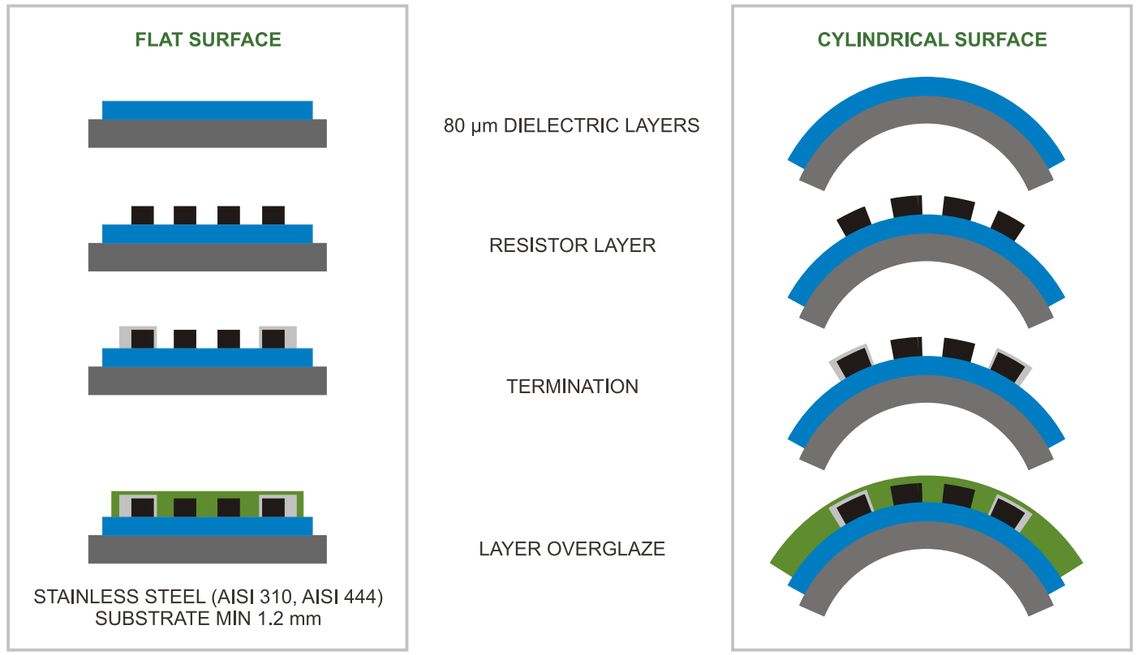
THICK FILM RESISTORS

AUREL Microelectronic Division has developed a line of Thick Film Resistors on stainless steel substrates used for heating applications as well, with different design features, suitable for braking, snubbing and discharge requirement applications.

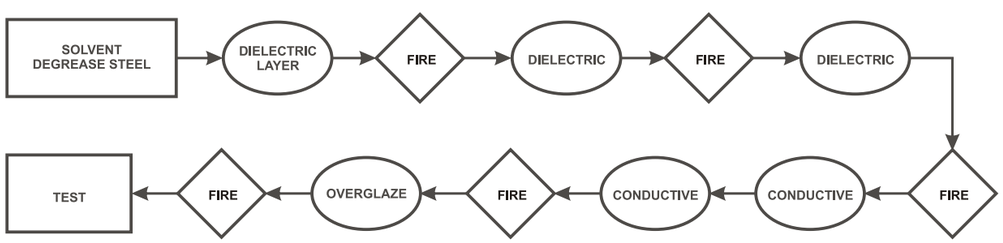
Heating Elements and Braking resistors based on thick film technology, are realized printing on Stainless Ferritic and Austenitic substrates an electrically insulating, but thermally conductive, ceramic dielectric layer.

On this are subsequently printed conductive and resistive layers to obtain the desired resistor and capability issue.

PROCESSING MATERIALS



BUILD SEQUENCE



HEATING ELEMENTS

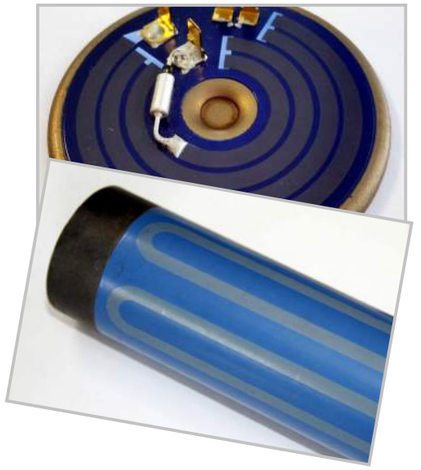
COFFEE MACHINES

KETTLES

BOILERS

FEATURES

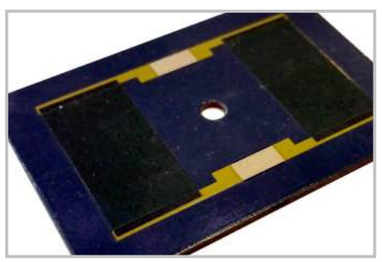
- Low thermal mass: quicker heating, energy saving.
- Capability to generate flat elements: direct heat to food or water, thinner construction.
- Capability to select and control Resistance and TCR: better performance and control.
- Potential to integrate additional functionality: more compact design.
- Rapid design and flexibility: low investment and start-up cost.



BRAKING RESISTORS

CHARGE & DISCHARGE CIRCUITS FOR HYBRID ELECTRIC VEHICLE

MOTION CONTROL SYSTEM FOR ELEVATORS



FEATURES

- Improved thermal transfer for high power density applications.
- Reduced size and compact design.
- Higher reliability against shocks and vibration.
- A cost effective solution for power application.

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