



UNIVERSAL CERAMIC INFRARED EMITTERS. SHORT - MEDIUM - LONG WAVE.

MODEL IRU

General characteristics

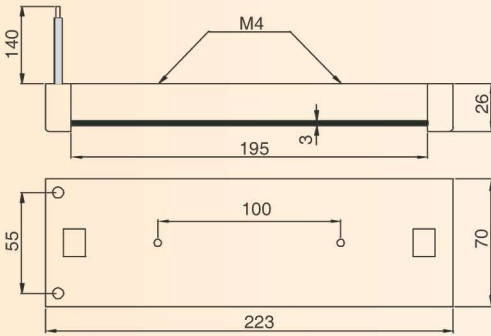
The IRU range of ceramic infrared emitters combines numerous innovations that allow responding to the difficulties of the most demanding industrial process: saving energy, faster productive process, quality control...

The main advantages of infrared radiation with respect to the classic techniques of heating based on convection or conduction are the rapidity and flexibility of use, absence of contact with the products that must be treated and the high density load that can be reached.

IRU emitter is manufactured with a ceramic plate of 3 mm thickness resistant to thermal shocks and low inertia due to its small mass. The addition of a special covering with high emissivity allows an optimal conversion of electrical energy in infrared radiation.

The total emissivity of the IRU emitter, calculated at 800 °C, on the spectral field located from 10 to 7000 cm⁻¹ is 0'98 (in comparison with a black body e = 1). The effectiveness of the IRU emitter in relation to an idela radiation is 98% over the entire infrared spectre. In comparison, the emission factor in a metallic body is 50%, in a quartz tube it is 70%.

In the attached table, one can observe the behaviour of IRU emitter relating power to superficial temperature. By means of a energy regulator MR1 (Code 517193000 page nº 109) we can vary the power/superficial temperature of the emitter in such a way that the emitter will work along the indicated wavelength.



Code	Volts	Watts
IRU 1	~230 V	1050

Technical data

Electrical power	300 W	500 W	700 W	900 W	1050 W
Superficial temperature	300 °C	462 °C	584 °C	697 °C	780 °C
Wavelength for maximum emissivity (λ)	5,1 μm	3,9 μm	3,4 μm	3 μm	2,8 μm
Transmitted power (KW/m ²)	23 KW/m ²	39 KW/m ²	55 KW/m ²	70 KW/m ²	82 KW/m ²

LCP / LCU

GROUP 6 - Infrared radiation equipment

QUARTZ INDUSTRIAL HALOGEN-INFRARED EMITTERS. SHORT WAVE. MODELS LCP and LCU

General characteristics

The industrial quartz halogen infrared emitters are short wave high power heat emitters, with two contacts and tungsten filament. The spectral range of infrared is specified from 700 to 1800 nm with a maximum radiation of 1200 nm.

They benefit from the same technology used by halogen lighting lamps, sharing their same advantages: they hardly darken and they have a very long operating life (5000 h average life).

Advantages

- High velocity.
- Safety, cleaning and easy installation.
- Thermal stability.
- Easy to use.

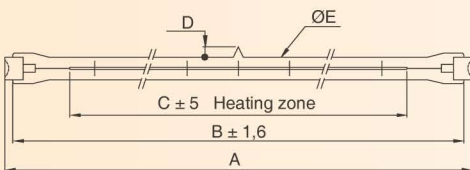
Working temperature range

In emitter: 900 °C maximum.
250 °C minimum.
In connector: 350 °C maximum.

Usual applications

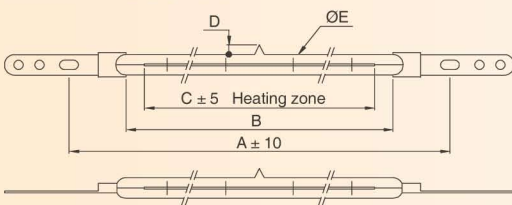
- Industrial and chemical processes.
- Thermal process: sterilizing, fusion, carbonizing.
- Thermoplastics.
- Control of humidity in paper industry.
- Printers.
- Food industries.
- Keeping food warm (in restaurants).
- Drying of adhesives by flash.

WITH R7s TYPE CONTACT



Code	Volts	Watts	W/cm ²	Dimensions in mm					Position
				A	B	C	Dmáx	ØEmáx	
LCP030R	~230	300	50	118	114,6	60	5	11	P15
LCP050R	~230 - 250	500	30,3	221	217,2	165	5	11	P15
LCP150R	~230	1530	39,7	448	444,5	385	-	9	P15
LCP200R	~230	2000	40	550	547	497	-	11	P15

WITH X TYPE CONTACT



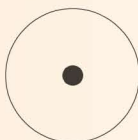
Code	Volts	Watts	W/cm ²	Dimensions in mm					Position
				A	B	C	Dmáx	ØEmáx	
LCP050X	~110 - 130	500	30,3	241	165	142	-	11	P15
LCP100X	~220 - 250	1000	36,8	370	295	272	-	11	P15
LCU100X	~220 - 250	1000	36,8	370	295	272	5	11	Universal
LCU200X	~220 - 250	2000	71,4	370	295	282	5	11	Universal
LCU201X	~380 - 420	2000	48,8	508	435	410	5	11	Universal
LCU300X	~380 - 420	3000	42,9	798	725	700	5	11	Universal

1.- Working lamp position.

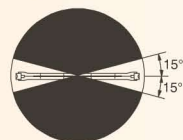
The emitters with reference position P15 must be operated in horizontal position with a tolerance of ±15°. The emitters with reference position Universal can be operated at any position.

Las posiciones aptas para el uso están representadas dentro de un círculo por el color blanco, las zonas negras son las posiciones incorrectas.

Universal position



Horizontal position P15



2.- Handling.

Quartz lamps shouldn't be handled with bare hands (use cloth, felt, chamois gloves, etc). Otherwise, bulb stains eventually deteriorate the lamp.

3.- Recommendations:

- Don't touch the emitters without protection (gloves, felt, etc.)
- The stated temperatures must be respected.
- Staring at the lamp while working may cause eye damage