Infracalm

Discreet infrared heater with soft heat

Infracalm provides year round comfort to wind protected outdoor areas such as balconies, patios and restaurant terraces. The infrared heater creates no light and is the perfect choice when you are looking for a discreet solution.

Infracalm is also suitable for temporary heating, e.g. in premises that are used occasionally, or for spot heating.

With its neat, slim design and almost invisible operation, Infracalm is easy to fit in.

- Reflectors of high-gloss polished aluminium with maximum resistance against corrosion. Grey terminal boxes of heat and weather resistant polycarbonate.
- Requires no protection against bad weather and has five-year corrosion warranty.
- Adjustable mounting brackets for easy mounting on the wall or ceiling.
- Smart, energy saving control options.
- No risk for current leaks and thus no problem with a safety cut-out triggering off.
- Casing of grey lacquered aluminium zinc panels. Colour: RAL7046. Ends in grey plastic RAL7046. Protection grille of stainless steel.

Infracalm (IP24)

| Art. no	Type	Heat output	Voltage	Amperage	Max. element temperature	Dimensions LxHxW	Weight
		[W]	[V]	[A]	[°C]	[mm]	[kg]
190090	INC05E	500	230V~	2,2	750	711x50x100	1,5
190091	INC10E	1000	230V~	4,3	750	1251x50x100	2,2
190092	INC10D	1000	400V2~	2,5	750	1251x50x100	2,2
190093	INC15E	1500	230V~	6,5	750	1756x50x100	3,0
190094	INC20E	2000	230V~	8,7	750	2181x50x100	3,7
190095	INC20D	2000	400V2~	5,0	750	2181x50x100	3,7

Installation height

2–2,5 m

Minimum distances

150

300

150

700

1800

Flammable material
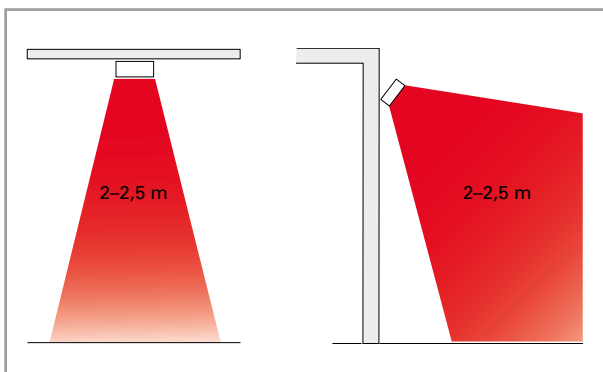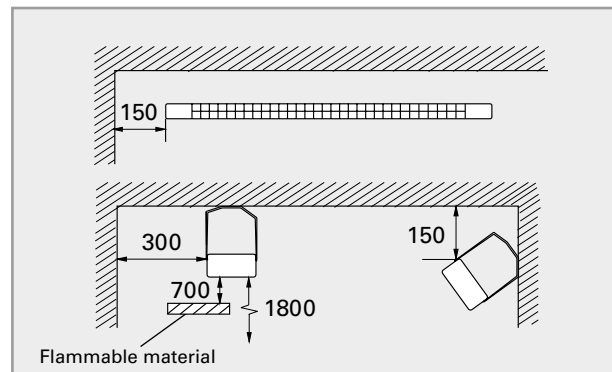
Design and specifications are subject to change without notice.

Dimensions
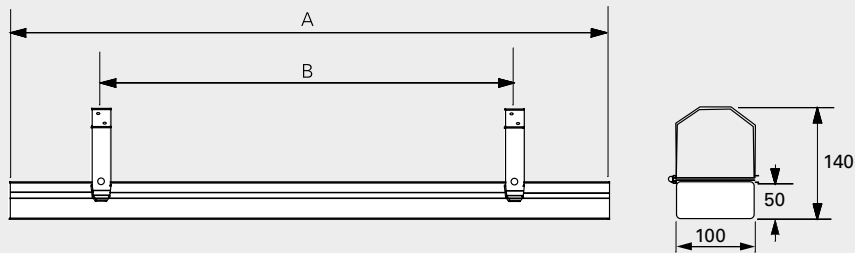
	A [mm]	B*¹ [mm]	B_MIN*² [mm]
INC05E	711	500	300
INC10E/10D	1251	900	600
INC15E	1756	1200	800
INC20E/20D	2181	1500	1000

*¹) Recommendation

*²) Minimum distances between brackets

CE

Temperature contribution

$$\Delta t_{op} = t_{room} + \frac{\Delta t_{rad.}}{2}$$
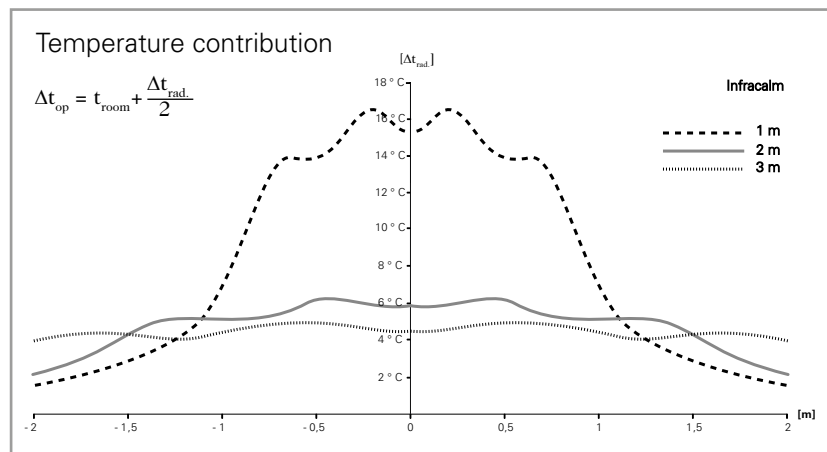
Infracalm
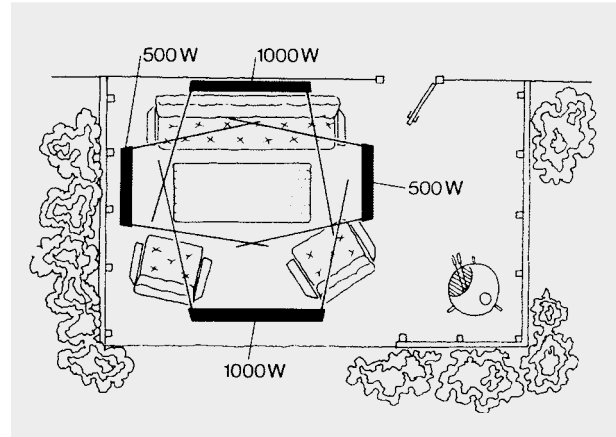- - - 1 m
— 2 m
········ 3 m

Infracalm

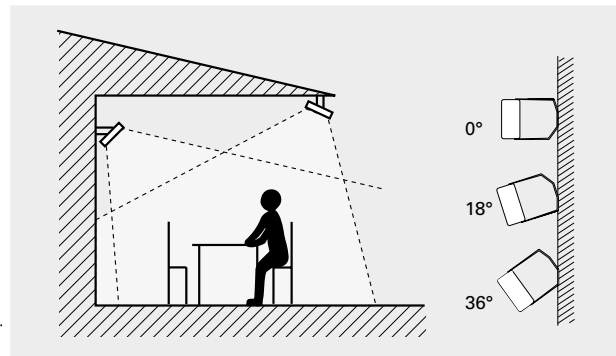## Positioning, mounting and connection

Positioning
The heaters must be placed so that they enclose the area to be heated, see fig. The normal assembly height is 2–2,5 metres above the ground/floor. A rule of thumb for infrared heaters equipped with metal tubular elements is that 750–1000 W/m² increases the experienced temperature by about 10°C. The output demand can be reduced if the area to be heated is protected. If the area only has a roof, at least 1000 W/m² should be installed. 750 W/m² is sufficient if the area has three walls. For enclosed areas, the output demand must be calculated. A green house for example requires 250-300 W/m². Optimum comfort is achieved if the heat is distributed from at least two directions.

Mounting
Infracalm is installed horizontally on the ceiling or on the wall with the supplied adjustable mounting brackets. The angle of the heater can be adjusted for optimum comfort. The standard brackets cannot be used for angled installation on the ceiling, because the distance then becomes less than the minimum distance. Infracalm can also be suspended by wire.

Connection
Infracalm is intended for permanent installation. The heaters are approved for serial connection.

Good example of positioning, seen from above. Output requirements approx. 1000 W/m².

The heaters should heat from at least two directions for even heating. The mounting brackets enable wall mounting in three different angles.

Extra heat contribution

Δ t [°C]   Heaters mounted in series

Mounting height [m]

CC-distance between the heaters [m]
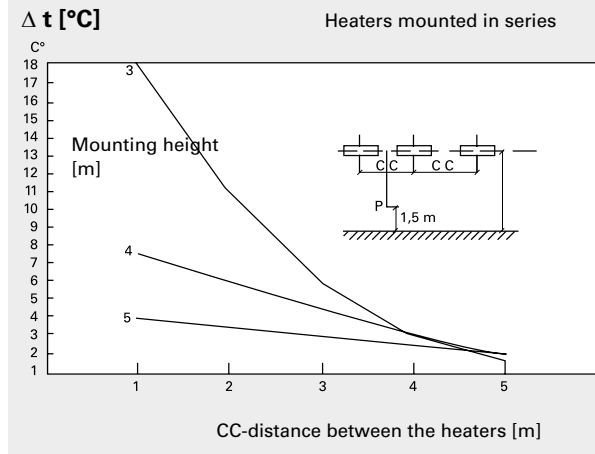
Radiant heaters are the perfect outdoor solution as they heat people and objects directely, not the surrounding air.

Control options for outdoors

Output control with timer
Stepless control especially suitable for spot and zone heating. The heat contribution is controlled for best comfort. Built-in timer is set to desired time.

• CIRT, stepless output control with timer

CIRT   CBT

Timer control
The timer can be set to a desired time. If the current load exceeds the timer's setting range or if you want to control a larger system, a contactor can be used.

• CBT, electronic timer

Type	Description	HxWxD [mm]
CIRT	Stepless output control with timer, IP44	155x87x43
CBT	Electronic timer, IP44	155x87x43

Control options for indoors

Infracalm can also be used indoors for temporary heat contribution. To comply with Ecodesign Regulation (EU) 2015/1188 the unit must be installed with thermostat TAP16R.

Control by thermostat
TAP16R has adaptive start, week program and open window detection. Black bulb sensors and presence detector are available as accessories. Protection class IP44 is obtained by adding a protective enclosure TEP44 and an external sensor which replaces the internal sensor. Please note that a relaybox RB3 is required for 400V~ products.

TAP16R   TEP44   SKG30   PDK65   PDK65S   RTX54   RB3

Type	Description	HxWxD [mm]
TAP16R	Electronic thermostat, 16A, IP21	87x87x53
TEP44	Protective enclosure for TAP16R, IP44. Must be supplemented with external sensor.	87x87x55
SKG30	Black bulb sensor, NTC10KΩ, IP30	115x85x40
PDK65	Presence detector with power supply (up to 5 detectors), 230V~, max 2,3 kW, IP42/IP65	102x70x50, 88x88x39
PDK65S	Additional presence detector to PDK65, IP42	102x70x50
RTX54	External room temperature sensor. Replaces internal senor. NTC10KΩ, IP54	82x88x25
RB3	Relaybox 400V3N~ (400V3~/V2~, 230V3~/V2~), 16A, IP44	155x87x43