

# INFRA HT

GAS-FIRED RADIANT HEATER



## Ideal for heating tall or poorly insulated buildings

The INFRA HT offers the option of heating without displacing air. In addition, heat reaches only the location where it is required. The short warming-up period and the lower room temperature can yield good energy savings. Savings can be as high as 40%.

The INFRA HT uses an open ceramic burner for heating. This emits a high level of heat over a relatively small surface area. This high concentration of heat enables these units to be located in tall buildings.

As this unit uses open combustion, ventilation within the room must be considered. The room may be ventilated with the Mark MDV BLUE, for example – see page 122.

Mark supplies the INFRA HT in 9 different capacities with the length of the unit increasing as the capacity increases.

The Infra HT and the HT Eco have the same output. The HT has a very high radiant efficiency and a competitive price. The HT Eco has a good performance and a very competitive price.

Possible applications include: construction halls, production facilities, aircraft hangars and stadium grandstands or other open spaces.

The benefits of radiant heating include:

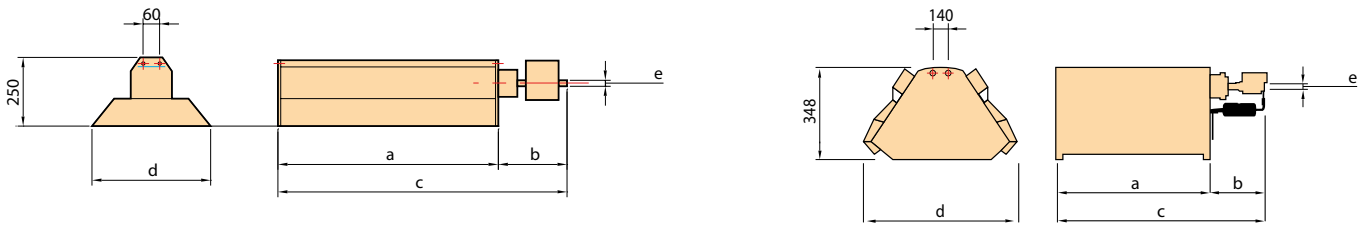
- Short warm-up time
- High floor temperature
- Silent
- No air movement
- Low energy consumption
- “Zone” heating
- Heat only where needed



Remote connection possible with the PinTherm Infra Connect!

**mark**<sup>®</sup>

# Dimensions



| Type                 | a<br>(mm) | b<br>(mm) | c<br>(mm) | d<br>(mm) | e<br>(inch/zoll) |
|----------------------|-----------|-----------|-----------|-----------|------------------|
| Infra HT 4.2 eco     | 420       | 250       | 670       | 370       | 1/2"             |
| Infra HT 6.2 eco     | 605       | 250       | 855       | 370       | 1/2"             |
| Infra HT 8.2 eco     | 790       | 250       | 1040      | 370       | 1/2"             |
| Infra HT 10.2 eco    | 975       | 250       | 1225      | 370       | 1/2"             |
| Infra HT 12.2 eco    | 1160      | 250       | 1410      | 370       | 1/2"             |
| Infra HT 16.2 eco    | 1530      | 250       | 1780      | 370       | 1/2"             |
| Infra HT 10+10.2 eco | 975       | 300       | 1275      | 600       | 1/2"             |
| Infra HT 12+12.2 eco | 1160      | 300       | 1460      | 600       | 1/2"             |
| Infra HT 16+16.2 eco | 1530      | 300       | 1830      | 600       | 1/2"             |

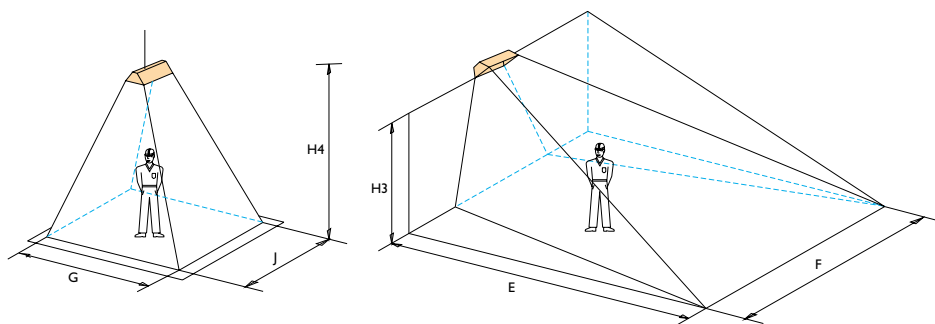
| Type             | a<br>(mm) | b<br>(mm) | c<br>(mm) | d<br>(mm) | e<br>(inch/zoll) |
|------------------|-----------|-----------|-----------|-----------|------------------|
| Infra HT 4.2     | 421       | 162       | 583       | 592       | 1/2"             |
| Infra HT 6.2     | 604       | 162       | 766       | 592       | 1/2"             |
| Infra HT 8.2     | 791       | 162       | 953       | 592       | 1/2"             |
| Infra HT 10.2    | 991       | 162       | 1137      | 592       | 1/2"             |
| Infra HT 12.2    | 1158      | 218       | 1376      | 592       | 1/2"             |
| Infra HT 16.2    | 1529      | 218       | 1747      | 592       | 1/2"             |
| Infra HT 10+10.2 | 975       | 241       | 1216      | 822       | 3/4"             |
| Infra HT 12+12.2 | 1158      | 297       | 1455      | 822       | 3/4"             |
| Infra HT 16+16.2 | 1529      | 297       | 1826      | 822       | 3/4"             |

# Technical information

| Infra HT / Infra HT eco           |                   | 4.2   | 6.2   | 8.2   | 10.2  | 12.2   | 16.2   | 10+10.2 | 12+12.2 | 16+16.2 |
|-----------------------------------|-------------------|-------|-------|-------|-------|--------|--------|---------|---------|---------|
| Surface area exposed to radiation | m <sup>2</sup>    | 30-40 | 35-50 | 40-65 | 55-90 | 60-100 | 80-110 | 85-115  | 95-155  | 110-180 |
| Nominal load G20 (upper value)    | kW                | 7,2   | 9,6   | 16,1  | 18,3  | 22,2   | 34,4   | 36,6    | 44,4    | 68,8    |
| Nominal load G20 (lower value)    | kW                | 6,5   | 8,6   | 14,5  | 16,5  | 20,0   | 31,0   | 33,0    | 40,0    | 62,0    |
| Nominal load G25 (upper value)    | kW                | 7,2   | 9,6   | 16,1  | 18,3  | 22,2   | 34,4   | 36,6    | 44,4    | 68,8    |
| Nominal load G25 (lower value)    | kW                | 6,5   | 8,6   | 14,5  | 16,5  | 20,0   | 31,0   | 33,0    | 40,0    | 62,0    |
| Nominal load G30 (upper value)    | kW                | 7,0   | 9,3   | 13,5  | 17,9  | 21,7   | 33,6   | 35,8    | 43,4    | 67,2    |
| Nominal load G30 (lower value)    | kW                | 6,5   | 8,6   | 12,5  | 16,5  | 20,0   | 31,0   | 33,0    | 40,0    | 62,0    |
| Nominal load G31 (upper value)    | kW                | 7,0   | 9,3   | 13,5  | 17,9  | 21,7   | 33,6   | 35,8    | 43,4    | 67,2    |
| Nominal load G31 (lower value)    | kW                | 6,5   | 8,6   | 12,5  | 16,5  | 20,0   | 31,0   | 33,0    | 40,0    | 62,0    |
| Gas-regulating unit               | n°                | 1     | 1     | 1     | 1     | 1      | 1      | 2       | 2       | 2       |
| Gas consumption G20 (15°C)        | m <sup>3</sup> /h | 0,69  | 0,91  | 1,53  | 1,75  | 2,12   | 3,43   | 3,50    | 4,24    | 6,70    |
| Gas consumption G25 (15°C)        | m <sup>3</sup> /h | 0,80  | 1,06  | 1,78  | 2,03  | 2,46   | 3,75   | 4,06    | 4,92    | 7,50    |
| Gas consumption G30 (15°C)        | kg/h              | 0,51  | 0,68  | 0,99  | 1,30  | 1,58   | 2,42   | 2,60    | 3,16    | 4,84    |
| Gas consumption G31 (15°C)        | kg/h              | 0,50  | 0,67  | 0,97  | 1,28  | 1,55   | 2,40   | 2,56    | 3,10    | 4,80    |
| Electrical power                  | W                 | 25    | 25    | 25    | 25    | 25     | 25     | 50      | 50      | 50      |
| Ignition                          | electronic        | x     | x     | x     | x     | x      | x      | x       | x       | x       |
| Electrical connection             | 230 Volt-50Hz     | x     | x     | x     | x     | x      | x      | x       | x       | x       |
| Weight of HT                      | kg                | 14    | 17    | 21    | 24    | 28     | 35     | 40      | 47      | 57      |
| Weight of HT eco                  | kg                | 8     | 10    | 12    | 14    | 17     | 21     | 29      | 34      | 40      |

The minimum ventilation air volume of the area is 10 m<sup>3</sup>/h per installed kW.

# Assembly/location suggestions



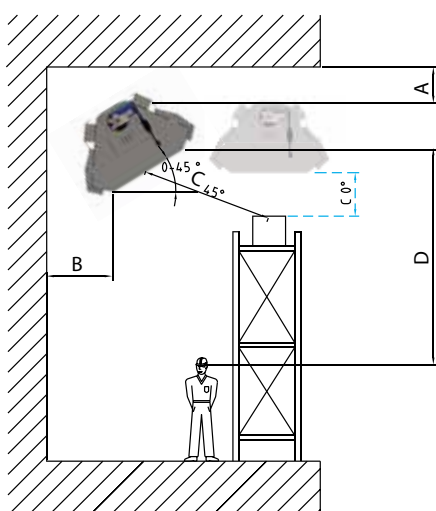
Recommended suspension height for installing high temperature radiators.

(Ceiling 0°)

| Infra HT   |   | 4.2     | 6.2     | 8.2     | 10.2    | 12.2    | 16.2     | 10+10.2  | 12+12    | 16+16.2 |
|------------|---|---------|---------|---------|---------|---------|----------|----------|----------|---------|
| H4 min-max | m | 2,5-4,5 | 3,5-6,0 | 4,0-6,0 | 5,0-7,0 | 6,0-8,0 | 6,0-10,0 | 8,0-11,0 | 9,0-14,0 | 10-18   |
| G          | m | 4,0     | 5,0     | 7,5     | 8       | 8,5     | 9,0      | 10,0     | 11,0     | 12,0    |
| J          | m | 5,5     | 7,0     | 8,0     | 8,5     | 9,0     | 10,0     | 11,0     | 12,0     | 13,0    |

(Floor 45°)

| Infra HT     |   | 4.2     | 6.2     | 8.2     | 10.2    | 12.2    | 16.2     | 10+10.2  | 12+12    | 16+16.2  |
|--------------|---|---------|---------|---------|---------|---------|----------|----------|----------|----------|
| H3 min - max | m | 2,5-4,0 | 2,9-5,5 | 3,9-6,5 | 4,5-7,0 | 4,7-8,5 | 5,1-10,0 | 5,1-11,0 | 5,6-14,0 | 6,0-15,0 |
| E            | m | 4,0     | 5,0     | 7,5     | 7,8     | 8,0     | 8,5      | 9,0      | 10,0     | 12,0     |
| F            | m | 4,5     | 6,0     | 8,0     | 8,5     | 9,0     | 10,0     | 11,0     | 12,0     | 14,0     |



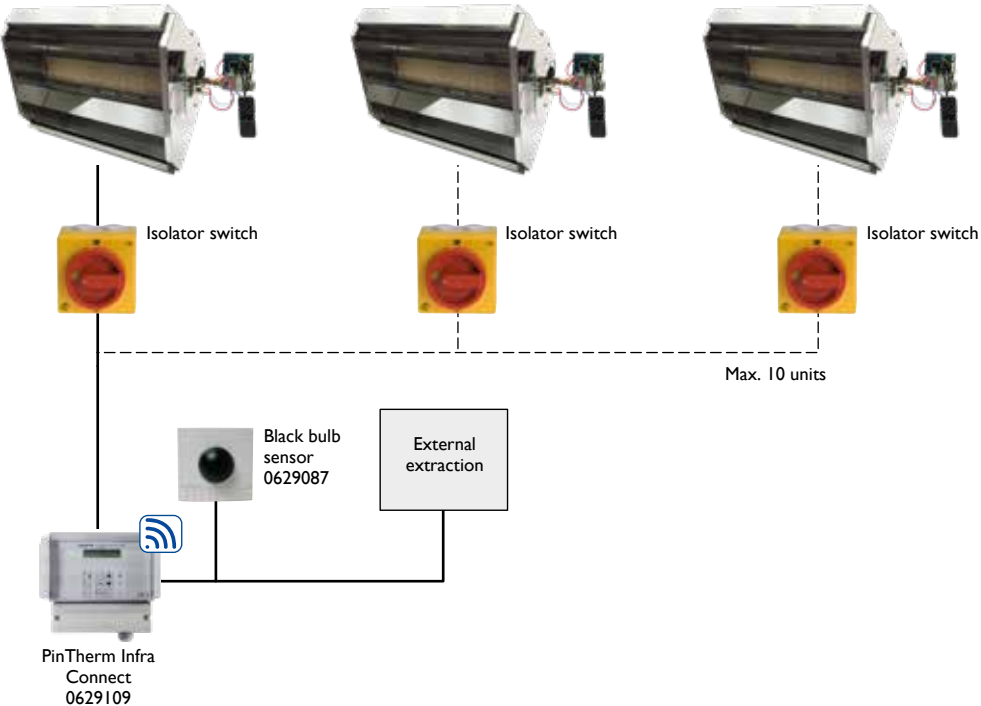
Minimum distances (ceiling 0°)

| Type       | A   | B   | D   |
|------------|-----|-----|-----|
| HT 4.2     | 1,0 | 1,0 | 2,0 |
| HT 6.2     | 1,0 | 1,0 | 2,5 |
| HT 8.2     | 1,5 | 1,5 | 3,0 |
| HT 10.2    | 1,5 | 1,5 | 3,5 |
| HT 12.2    | 1,5 | 2,0 | 4,0 |
| HT 16.2    | 1,5 | 2,0 | 4,5 |
| HT 10+10.2 | 2,0 | 2,5 | 5,0 |
| HT 12+12.2 | 1,5 | 2,5 | 5,5 |
| HT 16+16.2 | 2,0 | 2,5 | 6,0 |

Minimum distances (floor 45°)

| Type       | A (m) | B (m) | C (m) | D 45° - 0° (m) |
|------------|-------|-------|-------|----------------|
| HT 4.2     | 1,0   | 0,5   | 2,0   | 2,4 - 3,0      |
| HT 6.2     | 1,0   | 0,5   | 2,0   | 2,9 - 3,5      |
| HT 8.2     | 1,5   | 0,5   | 2,5   | 3,9 - 4,5      |
| HT 10.2    | 1,5   | 0,5   | 2,5   | 4,2 - 4,8      |
| HT 12.2    | 1,5   | 0,5   | 2,5   | 4,7 - 5,5      |
| HT 16.2    | 1,5   | 0,75  | 3,0   | 5,1 - 6,0      |
| HT 10+10.2 | 2,0   | 0,75  | 3,0   | 5,0 - 6,2      |
| HT 12+12.2 | 1,5   | 0,75  | 3,0   | 5,6 - 6,5      |
| HT 16+16.2 | 2,0   | 1,0   | 3,5   | 6,0 - 7,1      |

# Controls



# Prices Mark INFRA HT



## PRODUCT - INFRA HT

| Code nr. | Description                                  | Price  |
|----------|--|--------|
|          | INFRA HT 4.2, nominal power 6,5 kW, H/L      | € 1192 |
|          | INFRA HT 6.2, nominal power 8,6 kW, H/L      | € 1381 |
|          | INFRA HT 8.2, nominal power 14,5 kW, H/L     | € 1506 |
|          | INFRA HT 10.2, nominal power 16,5 kW, H/L    | € 1591 |
|          | INFRA HT 12.2, nominal power 20,0 kW, H/L    | € 1668 |
|          | INFRA HT 16.2, nominal power 31,0 kW, H/L    | € 1922 |
|          | INFRA HT 10+10.2, nominal power 33,0 kW, H/L | € 2639 |
|          | INFRA HT 12+12.2, nominal power 40,0 kW, H/L | € 2842 |
|          | INFRA HT 16+16.2, nominal power 62,0 kW, H/L | € 3519 |

## PRODUCT - INFRA HT ECO

| Code nr. | Description  | Price  |
|----------|--|--------|
|          | INFRA HT 4.2 eco, nominal power 6,5 kW, On/Off       | € 1048 |
|          | INFRA HT 6.2 eco, nominal power 8,6 kW, On/Off       | € 1169 |
|          | INFRA HT 8.2 eco, nominal power 14,5 kW, On/Off      | € 1264 |
|          | INFRA HT 10.2 eco, nominal power 6,5 kW, On/Off      | € 1361 |
|          | INFRA HT 12.2 eco, nominal power 20,0 kW, On/Off     | € 1414 |
|          | INFRA HT 16.2 eco, nominal power 31,0 kW, On/Off     | € 1668 |
|          | INFRA HT 10+ 10.2 eco, nominal power 33,0 kW, On/Off | € 2241 |
|          | INFRA HT 12+ 12.2 eco, nominal power 40,0 kW, On/Off | € 2392 |
|          | INFRA HT 16+ 16.2 eco, nominal power 62,0 kW, On/Off | € 2952 |

## ACCESSORIES - CONTROL



| Code nr. | Description  | Price  |
|----------|--|--------|
| 0629109  | PinTherm Infra Connect – programmable thermostat with Ethernet and Modbus, 230V (4A)**** | € 459  |
| 3003795  | Zone control Infra*****  | € 1648 |
| 0629087  | External Black bulb sensor for 0629109   | € 124  |
| 0629082  | External Black bulb sensor RSTF PT1000 for 3003795                                       | € 108  |
| 0631162  | Isolator switch, separate delivery, 230V (2 poles)                                       | € 56   |
| 0631163  | Isolator switch, separate delivery, 400V (4 poles)                                       | € 64   |

For function explanation see chapter on control

## ACCESSORIES - ASSEMBLY

| Code nr. | Description   | Price |
|----------|---|-------|
| 5998000  | Wall bracket for INFRA HT 4.2 - 16.2*                       | € 47  |
| 5998002  | Suspended bracket for INFRA HT 4.2 - 16.2                   | € 37  |
| 5998003  | Suspended bracket for INFRA HT 10+10.2, 12+12.2 and 16+16.2 | € 70  |

## ACCESSORIES

| Code nr. | Description                                 | Price |
|----------|---|-------|
| 5018025  | Flexible gas hose 3/4" - 1/2"               | € 127 |
|          | Conversion kit natural gas to propane gas** | € 75  |

## REMARK

- \* No wall bracket for INFRA HT 10+10.2, 12+12.2 en 16+16.2 available
- \*\* A conversion kit must be ordered for the exact type of unit and consist of.
  - l nozzle
  - l technical plate
  - l technical manual for instructions
- \*\*\* Only select when the unit is high/low
- \*\*\*\* Also order 0629087
- \*\*\*\*\* Also order 0629082 (one for each zone)