REZNOR®
Trusted Heating Solutions

Guardian
Commercial Air Curtains
with Signal Pro Controller

NORTEK™
GLOBAL HVAC
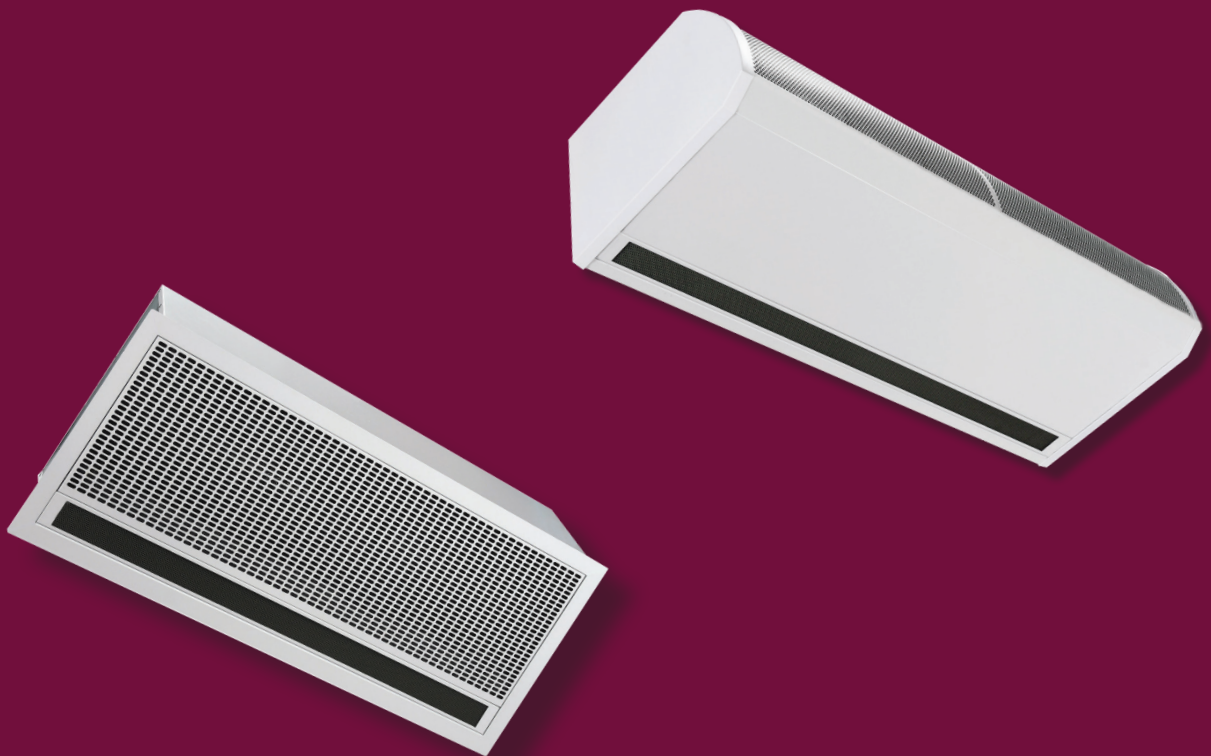
Guardian Series

Commercial / Retail Air Curtains

The Guardian Series is a range of commercial/retail air curtains, designed to be effective, efficient and aesthetically pleasing when wall mounted, recessed within a false ceiling, fitted in a bulkhead or on drop rods in front of glass fronted entrances.

The surface mount model offers an illuminated emergency exit sign as an option.

Model Range

The Guardian range consists of three models GS (surface mounted), GR (recessed) & GB (bulkhead) each available in 1.0m, 1.5m & 2.0m lengths. A vertical version (GV) in 2.0m and 2.5m heights is also available.

Each model is available as:

- Ambient (non-heated)
- Electric heating
- Low temperature hot water heating

Each model is fitted, as standard, with a three speed fan. Electric heating models include energy saving features. A Signal Pro remote control panel is supplied allowing full control of the air curtain including setting the required temperature (LPHW & Electric heating models) and three pre-selected fan speeds.

Electric heated versions require a three phase (415v) electrical supply, whilst all other versions use a single phase (230v) supply.

Standard colour is white (RAL9003). Alternative colours are available, at an additional cost, to order.

Options

- Illuminated emergency exit sign (GS)
- Wall mounting bracket (GB/GS)
- Surface mounting casing (GR)
- Outside air sensor (GB/GR/GS)
- Door switch magnet set (GB/GR/GS)
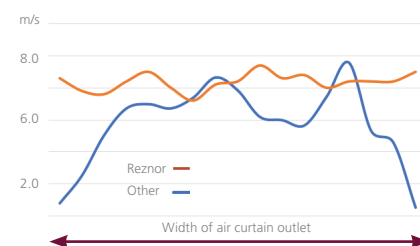
Applications

- Bars
- Hotels
- Offices
- Restaurants
- Shops
- Malls

Superior Performance

Guardian air curtains are fitted with a Honeycomb outlet, as opposed to a conventional outlet grille. The Honeycomb outlet provides superior performance by ensuring a uniform distribution of air, across the whole width of the outlet.

The graph below, shows the uniform velocity experienced across the outlet of a 1.5m wide Guardian air curtain, versus a competitors model using a conventional outlet grille.

(Measurements are taken with air curtain fan speed set to standard performance)

Features & Benefits

- Reduces heat loss around open doors by up to 80%
- Suitable for mounting heights of three or four metres depending upon application
- Energy saving controller fitted to all electric heat versions
- Good aesthetic appearance
- Honeycomb outlet
- Easily serviced
- Standard or high capacity performance from single model
- Rapid response electric heating coils
- CE approved
- Cost-effective heating solution
- Units can be placed side by side to form a continuous unit

Control

All models are supplied with a Signal Pro loose controller and 10m length of RJ45 communication cable.

Features

- Simple installation - wiring via a plug and play cable and connections are direct to the controller so no intermediary terminal blocks are required

- Easy programming - users merely select whether they require the heat on or off (not ambient models), the required fan setting (1,2 or 3 speed), and the outlet temperature setting

- BMS compatible via Modbus communication

- Maintains constant outlet temperature at required room setting with tolerance for countering air curtain velocity (not ambient models)

- Air outlet sensor mounted within the air curtain to enable accurate room set temperatures (not ambient models)

- Can be linked to optional external thermostat for proportional control in various set temperatures

Benefits

- Energy saving - intelligent controller monitors set temperatures to ensure that once reached the unit merely modulates to maintain temperature

- Cost savings - no specialist commissioning required

- Reduced payback period on investment thanks to the significant energy savings generated

- Easier installation between air curtain and control panel - via plug and play 24V Belden 8132 cabling (various lengths available)

- Centralised control - units can be mounted up to 100m from the air curtain

- Network control of up to 16 air curtains from one control panel

- Discrete appearance - the moulded plastic, slimline touch pad compliments most modern interiors and can be fitted into a standard (recessed) 2 gang electrical wall socket housing

- Enhanced security - all units can be security coded to prevent unauthorised access

Signal Pro Controller (supplied loose)
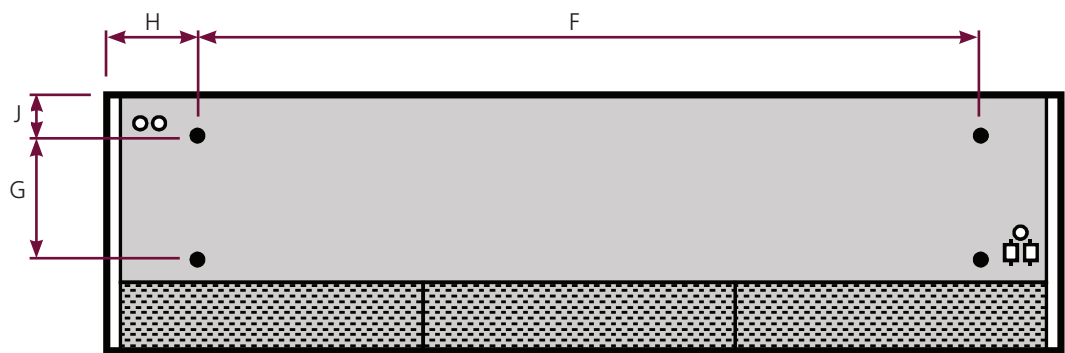

Optional external sensor

Technical Data

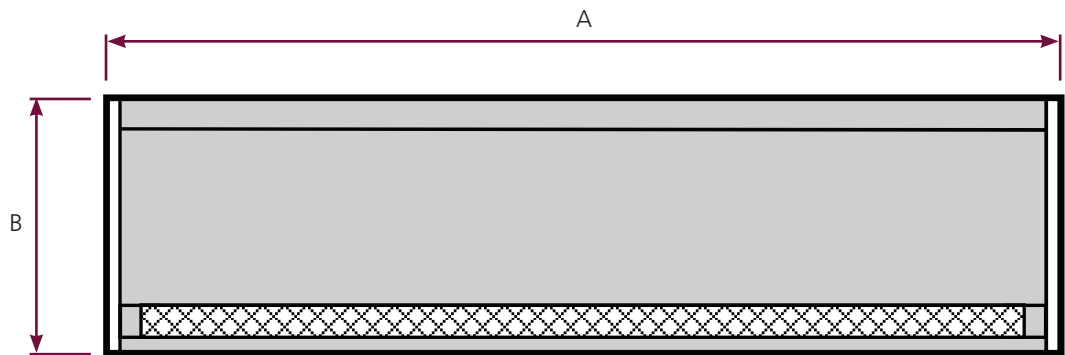| All Models		Low Speed			Medium Speed			High Speed		
		1000	1500	2000	1000	1500	2000	1000	1500	2000
Maximum door width	m	1.0	1.5	2.0	1.0	1.5	2.0	1.0	1.5	2.0
Maximum mounting height	m	3.0	3.0	3.0	3.0	3.0	3.0	4.0	4.0	4.0
Maximum air volume	m³/h	1,150	1,730	2,300	1,440	2,268	2,880	1,800	2,700	3,600
Maximum velocity	m/s	6.4	6.4	6.4	8	8.4	8	10	10	10
Motor power	W	365	530	730	365	530	730	365	530	730
Noise level @ 3m free field	dB(A)	52	52	52	55	55	55	59	59	59
Ambient Models (Unheated)										
Electrical supply		230V 1ph 50Hz								
Total electrical load	A	1.17	1.52	2.32	1.29	1.74	2.65	1.36	1.97	2.80
Weight	kg	32	48.5	60	32	48.5	60	32	48.5	60
Electric Heated Models										
Heating capacity - std/max[1]	kW	9/12	12/18	18/24	9/12	12/18	18/24	9/12	12/18	18/24
Electrical supply		415V 3ph 50Hz								
Total electrical load -per phase										
Standard - as supplied	A	13.7	18.3	27.4	13.8	18.4	27.7	13.8	18.5	27.8
Maximum - selectable by installer	A	17.9	26.6	35.7	18.0	26.8	36.0	18	27	36.2
Weight	kg	34.5	52	64.5	34.5	52	64.5	34.5	52	64.5
LTHW Heated Models										
Maximum heating capacity[2]	kW	12	18	24	12	18	24	12	18	24
Electrical supply		230V 1ph 50Hz								
Total electrical load	A	1.17	1.52	2.32	1.29	1.74	2.65	1.36	1.97	2.80
Weight (incl water)	kg	38.5	58	72	38.5	58	72	38.5	58	72

[1]Std = default heating capacity, Max = jumper selectable by installer   [2]kW ratings based upon a flow & return water temperature of 82/72°C
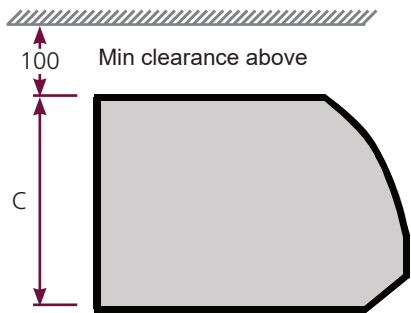
## Dimensional Data - Surface Mounted Models (GS)

Top view

Bottom view

100

Min clearance above

Side view

Dimensions				
Model		**GS1000**	**GS1500**	**GS2000**
A - Overall width	mm	1,094	1,620	2,148
B - Overall depth	mm	440	440	440
C - Height	mm	306	306	306
F - Suspension centres	mm	830	1,360	1,884
G - Suspension centres	mm	227	227	227
H - Suspension point location	mm	132	130	132
J - Suspension point location	mm	70	70	70

## Dimensional Data - Recessed Models (GR)
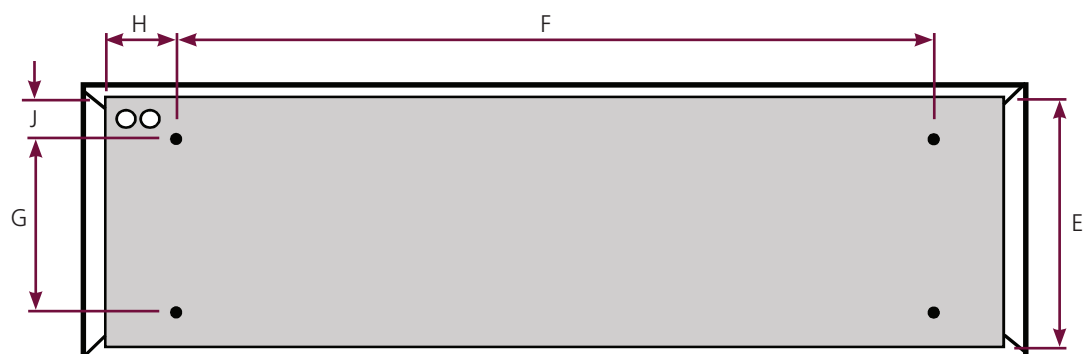
Top view
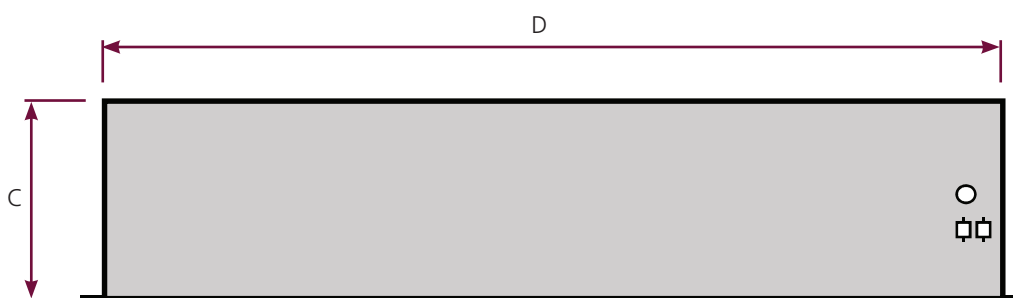
Front view
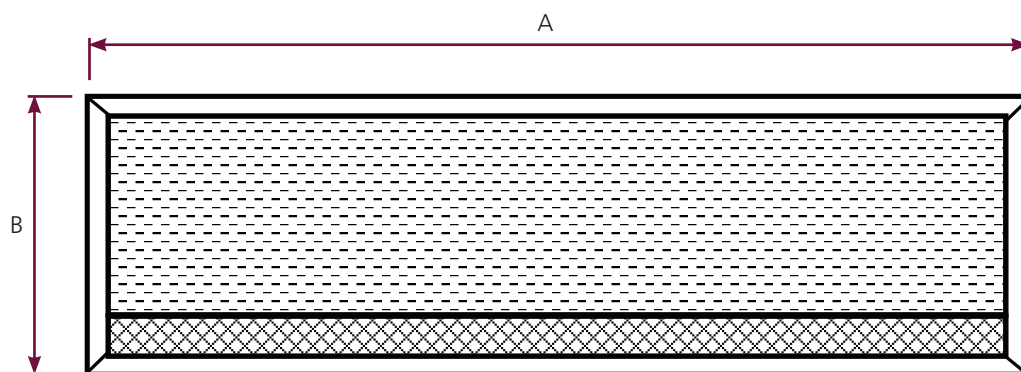
Bottom view

Dimensions				
Model		GR1000	GR1500	GR2000
A - Overall width	mm	1,125	1,650	2,177
B - Overall depth	mm	457	457	457
C - Height	mm	273	273	273
D - Casing width	mm	1,060	1584	2,111
E - Casing depth	mm	438	438	438
F - Suspension centres	mm	830	1360	1,884
G - Suspension centres	mm	298	298	298
H - Suspension point location	mm	114	112	114
J - Suspension point location	mm	70	70	70

Dimensional Data - Bulkhead Mounted Models (GB)

Top view

Bottom view

Side view
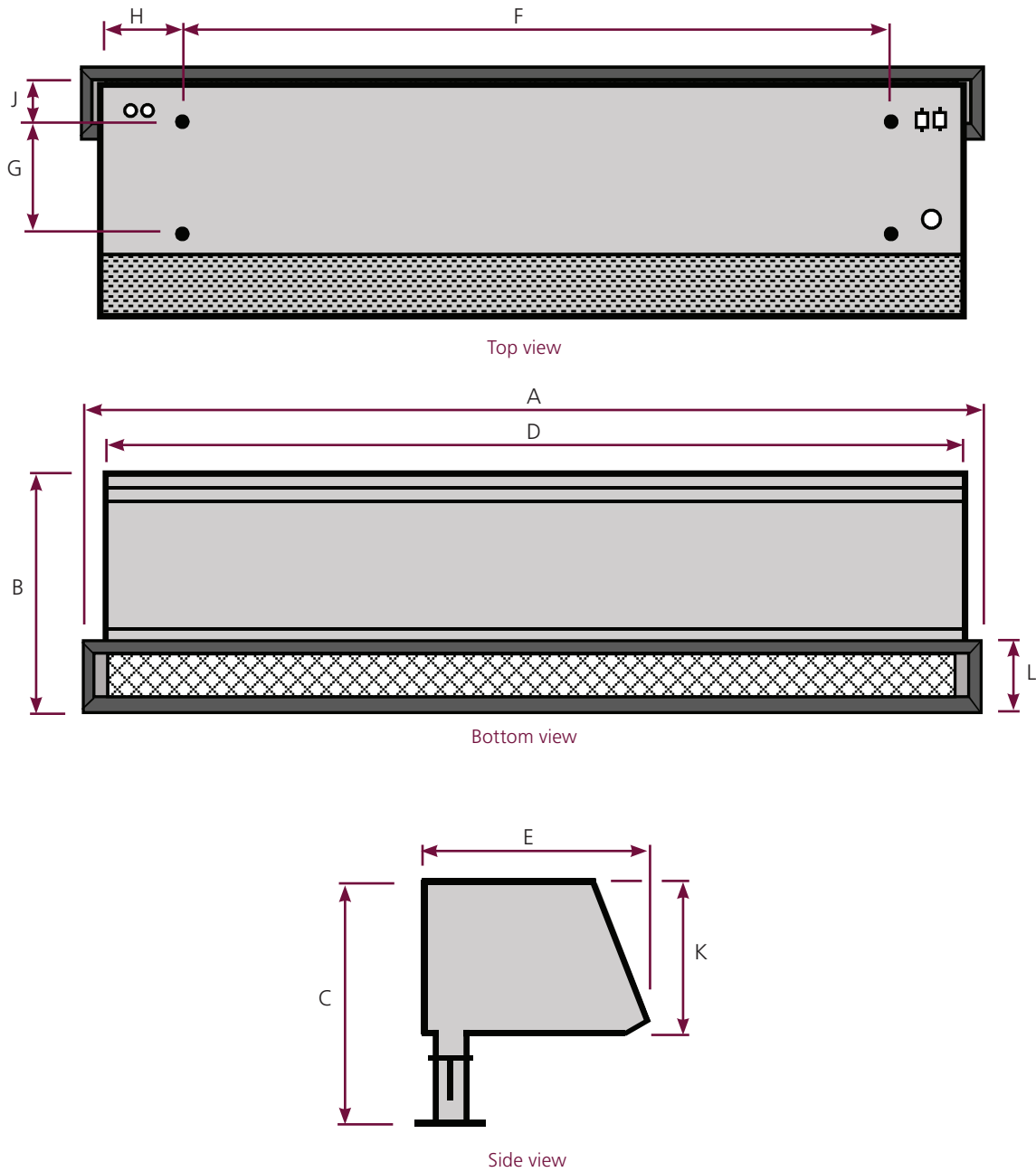
Dimensions				
Model		**GB1000**	**GB1500**	**GB2000**
A - Overall width	mm	1,125	1,650	2,177
B - Overall depth	mm	448	448	448
C - Height (min/max)	mm	427/487	427/487	427/487
D - Casing width	mm	1,060	1,584	2,111
E - Casing depth	mm	436	436	436
F - Suspension centres	mm	830	1,360	1,884
G - Suspension centres	mm	226	226	226
H - Suspension point location	mm	114	112	114
J - Suspension point location	mm	70	70	70
K - Casing height	mm	300	300	300
L - Outlet width	mm	137	137	137

Optional Equipment

## Wall suspension bracket
(For use with GS & GB models)

Dimensions		
A - Length	mm	355
B - Height	mm	300
C - Thickness	mm	25
D - Width	mm	82
E - Wall fixing location	mm	30
F - Wall fixing centres	mm	150
G - Wall fixing centres	mm	120
H - Fixing diameter	mm	11
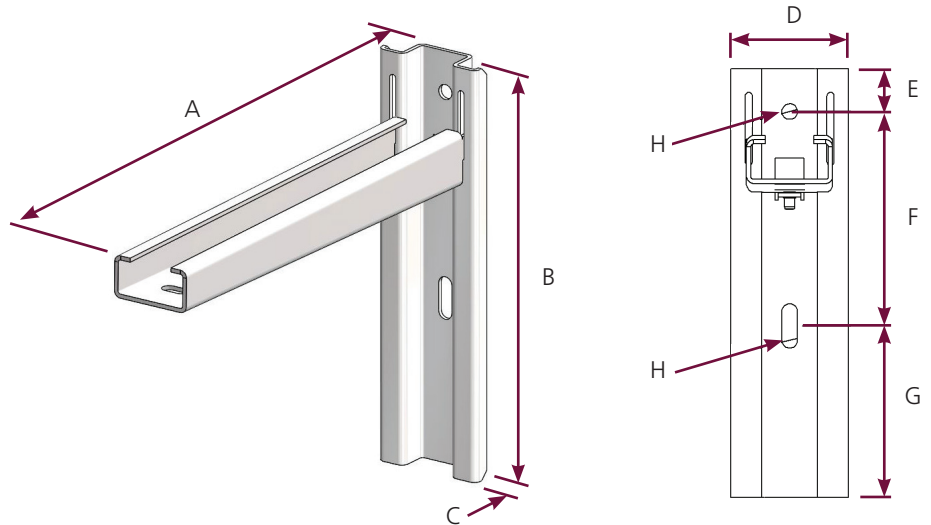
Surface mounting conversion skirt
(For use with GR models only)

Dimensions (mm)	GR1000	GR1500	GR2000
A - Height	292	292	292
B - Length	1124	1648	2176
C - Width	458	458	458
D - Overall Width	472	472	472
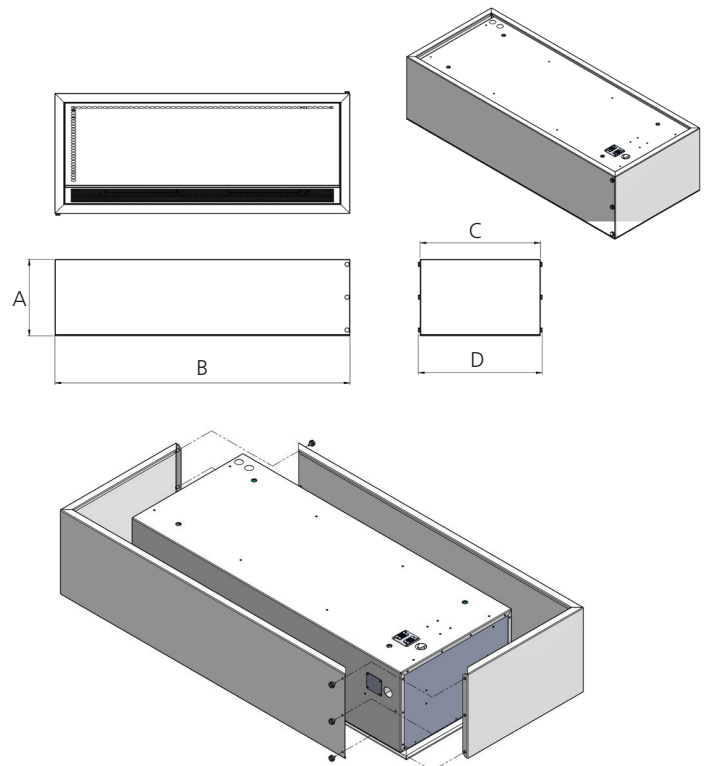
Emergency exit sign
(For use with GS models only)

449mm

228mm
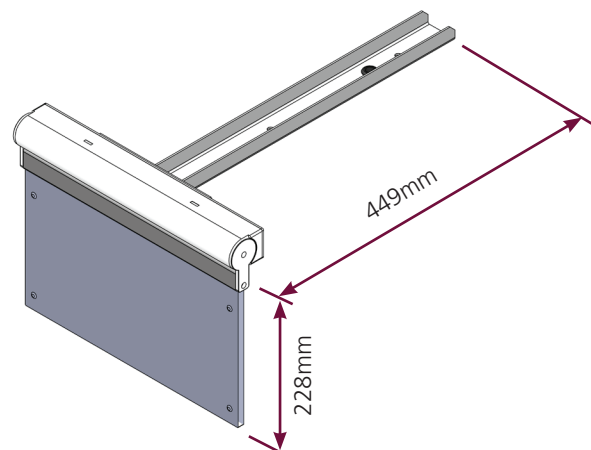
Other products in the Reznor range:-

- Warm air heaters
- Radiant heating
- Destratification fans
- Heating & ventilation units
- Packaged rooftop units
- Air induction systems
- Gas fired heater modules
- Evaporative cooling

GB/REZ/GUAR/002/0821

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