Ex-Proof Finned Tube Air Heaters

Type ERB (RVS)

The electric finned tube heater type ERB has been designed to heat up rooms where a potentially explosive atmosphere can arise from handling flammable gases, vapours and liquids. Confined spaces, like hazardous material storage containers and paint rooms, are also part of the application scope of the ERB.

SINUS JEVI

Liquids Gasses Solids Spaces Resistors

Sinus-Jevi Electric Heating B.V. Aambeeld 19 1671 NT Medemblik +31 (0) 227 549 100 www.sinusjevi.com

CONSTRUCTION

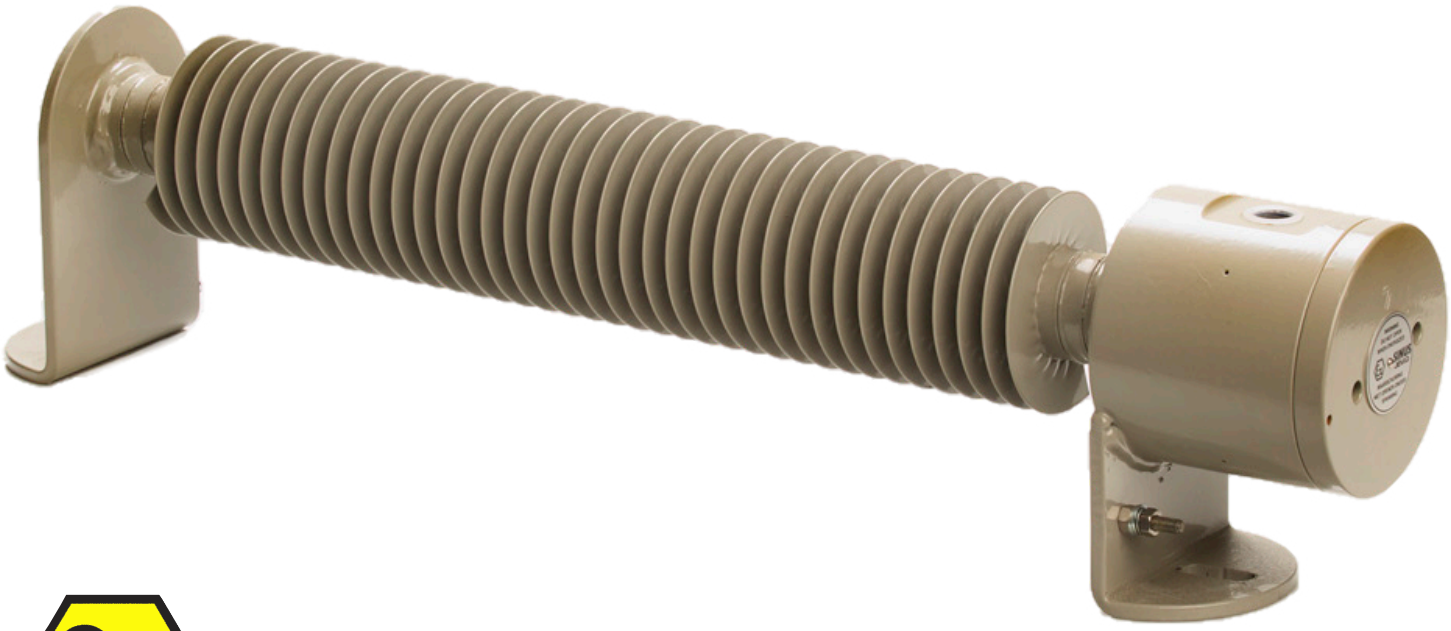
The Sinus Jevi D8500 gas and dust explosion-proof finned tube heater is built up of a flameproof enclosure together with a tube provided with fins and welded to the enclosure. The heating element consists of stacked closed ceramic parts in which the resistance wire is placed. The appliance has two supports for horizontal floor or wall mounting. The steel version is finished with a grey epoxy coating. The finned tube heater is also available as a low ambient temperature (ERB-LAT) and high ambient temperature version (ERB-HAT). The electrical connection of the appliance has to be made using cable entries of a certified flameproof type.
The electric finned tube air heater type ERB does not have a temperature regulator of its own. The heater has been designed to have stabilized heat-transfer between the heating element and the ambient air while being energized at its rated voltage and with an ambient temperature up to the maximum allowable value of 40°C (ERB / ERB-LAT) or 60°C (ERB HAT). The heat density (W/cm²) is determined in such a way that during normal operation the surface temperatures of the heater remain below the applicable temperature class (T3, 200°C or T4 135°C).
The Sinus Jevi explosion-proof finned tube heaters are Apragaz approved and comply with EN-IEC-60079-1 and EN-IEC-60079-31.
The flame proof construction is approved for gas group IIC and dust group IIIC.

APPLICATION

The Sinus Jevi explosion-proof finned-tube heaters can be used for heating areas where explosive gases or vapours may be present. For example: on oil/gas rigs, in the chemical and petrochemical industries and areas where combustible and/or inflammable products are stored. We recommend that you read the instruction manual before installation. The explosion-proof finned-tube heaters needs to be regulated by means of an explosion-proof thermostat, e.g. type ERT-10 :-20°C - +40°C.

MODEL T3/T4 D8500 GAS AND DUST EXPLOSION-PROOF

* Grey epoxy-coating
* Steel flame proof construction
* Ambient temperature range ERB-T3/T4: -30°C - +40°C
  Ambient temperature range ERB-HAT-T3: -30° - +60°C
  Ambient temperature range ERB-LAT-T3/T4: -50° - +40°C
* Marking (ATEX):
  Ex II 2 G - Ex db IIC T4 Gb of II 2 G Ex db IIC T3 Gb
  Ex II 2 D – Ex tb IIIC T135°C Db of Ex II 2 D Ex tb IIIC T200°C Db
* IP 66
* 230 Volt standard (other voltages on request)
* Option: cable gland M20 x 1.5mm, see brochure "Cable glands".



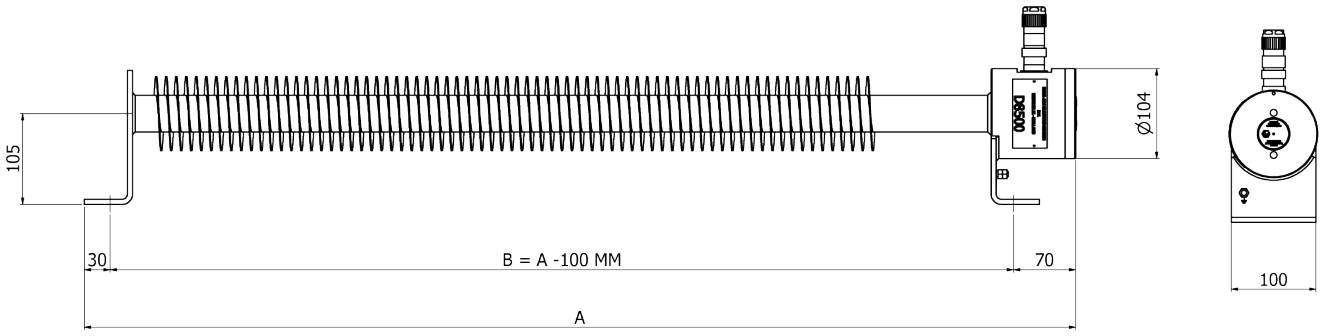
Available types ERB (standard) D8500

Type	Output	Article number
ERB 5 **T3**	400 Watt	B220 510 400
ERB 7 **T3**	500 Watt	B220 710 500
ERB 10 **T3**	750 Watt	B221 010 750
ERB 13 **T3**	1000 Watt	B221 311 000
ERB 19 **T3**	1520 Watt	B221 911 520
ERB 25 **T3**	2000 Watt	B222 512 000
ERB 30 **T3**	2400 Watt	B223 012 400

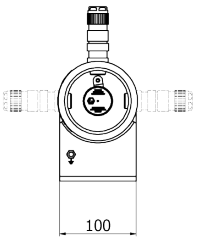
Type	Output	Article number
ERB 5 **T4**	230 Watt	B225 510 230
ERB 7 **T4**	320 Watt	B225 710 320
ERB 10 **T4**	460 Watt	B226 010 460
ERB 13 **T4**	600 Watt	B226 310 600
ERB 19 **T4**	880 Watt	B226 910 880
ERB 25 **T4**	1160 Watt	B227 511 160
ERB 30 **T4**	1400 Watt	B228 011 400

Total length (A)	Weight (approx.)
650 mm	10,0 kg
850 mm	11,5 kg
1150 mm	13,5 kg
1450 mm	16,0 kg
2050 mm	19,5 kg
2650 mm	24,5 kg
3150 mm	28,5 kg

* stock models
Other dimensions, output or voltage on request



Option: Cable gland 3 or 9 o'clock



Available types D8500 (steel enclosure)					
ERB (-LAT) / (-HAT)			**ERB / (-LAT)**	**ERB / (-LAT)**	**ERB-HAT**
Type no.	**Total length**	**Weight (approx.)**	**Output class T3**	**Output class T4**	**Output class T3**
ERB 5	650 mm	10,0 kg	400 Watt	230 Watt	230 Watt
ERB 7	850 mm	11,5 kg	500 Watt	320 Watt	320 Watt
ERB 10	1150 mm	13,5 kg	750 Watt	460 Watt	460 Watt
ERB 13	1450 mm	16,0 kg	1000 Watt	600 Watt	600 Watt
ERB 19	2050 mm	19,5 kg	1520 Watt	880 Watt	880 Watt
ERB 25	2650 mm	24,5 kg	2000 Watt	1160 Watt	1160 Watt
ERB 30	3150 mm	28,5 kg	2400 Watt	1400 Watt	1400 Watt

MODEL T3/T4, *STAINLESS STEEL* (AISI 316), D8505 GAS AND DUST EXPLOSION-PROOF

* Completely constructed of stainless steel (AISI 316)
* Flame proof construction
* Especially suitable for **corrosive** areas
* Ambient temperature range ERB: -30°C - +40°C
  Ambient temperature range ERB-HAT-T3: -30° - +60°C
  Ambient temperature range ERB-LAT-T3/T4: -50° - +40°C
* Marking (ATEX):
  EN-IEC-60079-1 Ex II 2G Ex db IIC T3/T4 Gb
  EN-IEC-60079-31 Ex II 2D Ex tb IIIC T200°C/T135°C Db
* IP 66
* 230 Volt (other voltages on request)
* Option: cable gland M20 x 1.5mm, see brochure "Cable glands".

ERB RVS stainless steel (optional cable gland)

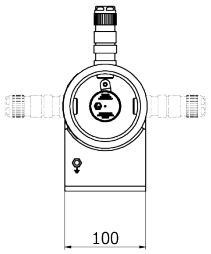
Available types ERB erb (standard) D8505

Type	Output	Article number	Type	Output	Article number	Total length (A)	Weight (approx.)
ERB 5 **T3 RVS**	300 Watt	B240 510 300	ERB 5 **T4 RVS**	150 Watt	B245 510 150	650 mm	10,0 kg
ERB 7 **T3 RVS**	450 Watt	B240 710 450	ERB 7 **T4 RVS**	230 Watt	B245 710 230	850 mm	11,5 kg
ERB 10 **T3 RVS**	675 Watt	B241 010 675	ERB 10 **T4 RVS**	350 Watt	B246 010 350	1150 mm	13,5 kg
ERB 15 **T3 RVS**	1140 Watt	B241 511 140	ERB 15 **T4 RVS**	540 Watt	B246 510 540	1650 mm	17,0 kg
ERB 19 **T3 RVS**	1520 Watt	B241 911 520	ERB 19 **T4 RVS**	700 Watt	B246 910 700	2050 mm	19,5 kg
ERB 25 **T3 RVS**	2000 Watt	B242 512 000	ERB 25 **T4 RVS**	950 Watt	B247 510 950	2650 mm	24,5 kg
ERB 30 **T3 RVS**	2400 Watt	B243 012 400	ERB 30 **T4 RVS**	1150 Watt	B248 011 150	3150 mm	28,5 kg

Available types D8505 (stainless steel enclosure)					
ERB RVS (-LAT) / (-HAT)			**ERB RVS / (-LAT)**	**ERB RVS/ (-LAT)**	**ERB RVS -HAT**
Type no.	**Total length**	**Weight (approx.)**	**Output class T3**	**Output class T4**	**Output class T3**
ERB 5 RVS	650 mm	10,0 kg	300 Watt	150 Watt	150 Watt
ERB 7 RVS	850 mm	11,5 kg	450 Watt	230 Watt	230 Watt
ERB 10 RVS	1150 mm	13,5 kg	675 Watt	350 Watt	350 Watt
ERB 13 RVS	1450 mm	16,0 kg	930 Watt	470 Watt	470 Watt
ERB 19 RVS	2050 mm	19,5 kg	1520 Watt	700 Watt	700 Watt
ERB 25 RVS	2650 mm	24,5 kg	2000 Watt	950 Watt	950 Watt
ERB 30 RVS	3150 mm	28,5 kg	2400 Watt	1150 Watt	1150 Watt

Options

Sand-filled heaters
Sand filled shock and vibration resistant ERB heaters are available at request.



Cable gland position(s)
Standard position single cable gland: 12 o' clock
ERB enclosure with cable gland holes at 3 positions (3-9-12 hrs) available at request.

Protection grid ERB-PG
Optional protection grid ERB-PG provides extra protection against damage and touching.
The grid is made of AISI 304, 2 mm thickness.

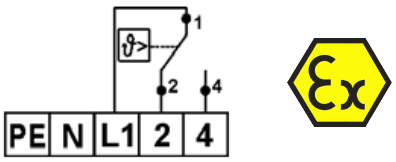
Protection grid for ERB

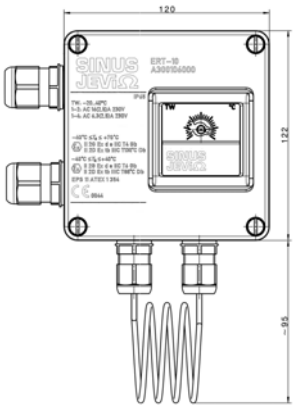
ERB Protection Grids		
ERB type	**Length protection grid**	**Article number**
ERB 5	500 mm	B220 000 005
ERB 7	700 mm	B220 000 007
ERB 10	1000 mm	B220 000 010
ERB 13	1300 mm	B220 000 013
ERB 19	1900 mm	B220 000 019
ERB 25	2500 mm	B220 000 025
ERB 30	3000 mm	B220 000 030

Control

Ex. proof room thermostat type ERT-10

Hazardous area thermostat type ERT-10 is suitable for direct control of Sinus Jevi explosion proof space heaters, e.g. finned tube heater type ERB. The ERT-10 surface mounted thermostat stands for reliable temperature control, even under extreme conditions. A convenient view window enables you to see the adjustable set point of the thermostat without removing the lid. The (outside) construction and enclosure of the thermostat comply with increased safety (Ex 'e') requirements and enable usage of 'simple' (Ex 'e') cable glands. Two cable glands are available for both incoming and outgoing cable. Maximum 16A / 230 VAC load can be switched by the single pole (double throw) potential free thermostat contact. The adjustable temperature range is -20°C up to +40°C and the admissible ambient temperature is -40°C up to +40°C. The (outside) IP65 enclosure is made of reinforced Polyester, making it suitable for placement in harsh environments. Its Ex approvals apply to explosive gas atmospheres (zone 1 and 2) or dust atmospheres (zone 21 and 22).





ERT-10

SINUS JEVI Ω

Sinus was one of the pioneers in the field of explosion proof heating equipment, today we are still operating at the forefront. We design and manufacture according to ATEX as well as IECEx directives.

Our company is certified to design and produce Ex-equipment. and we also in the possession of ISO 9001 and ISO 14001 certificates.

NIBE

A22.1301E • 11-25

Sinus-Jevi Electric Heating B.V. Aambeeld 19 1671 NT Medemblik +31 (0) 227 549 100 www.sinusjevi.com