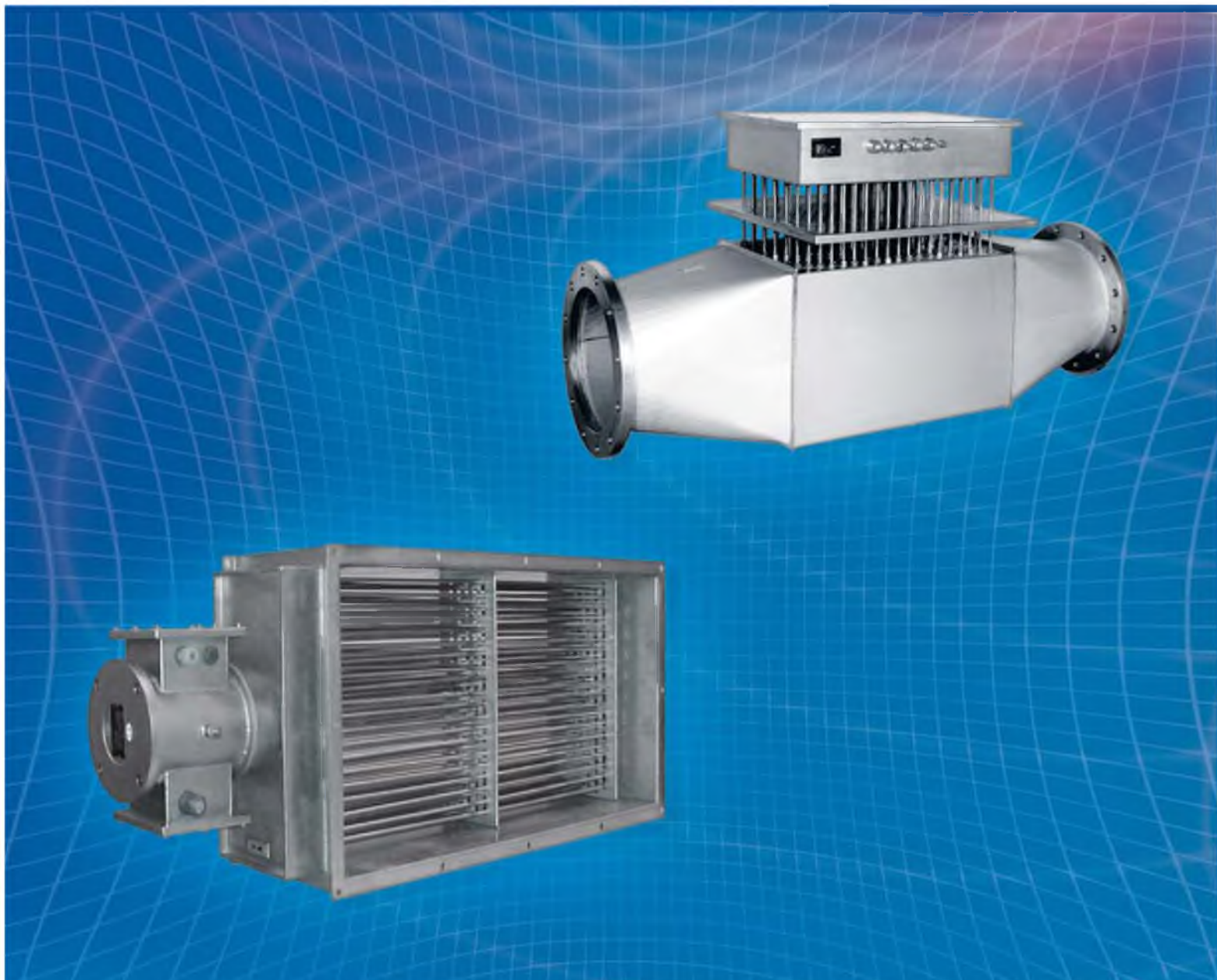


# Electrical air heaters



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### ELMESS air heater:

- safe and reliable operation
- tailored exactly to your need

#### Typical applications:

- installation in HVAC plants
- heating up of feed air or process gas
- installation in ovens, heating or drying chambers



**Air duct heater**

#### Design

Air heaters consist of tubular heating elements, fitted to a heater frame or mounting flange, and the electrical connection box. All heaters are designed and manufactured according to customer's requirements and operating conditions. Materials, painted carbon steel or stainless steel in various qualities, according to customer's requirements. A high thermal efficiency is achieved by a specific surface load  $p_a$ , which is optimized according to the operating conditions.

The temperature monitoring to the protection of the heater and compliance with the temperature class be carried out by means of temperature sensors, adjusted to the heating elements, and electro-mechanical switches or electronic monitoring equipment. For the safe operation of the heater, as a rule a flow monitor is required.



#### Explosion protection:

Explosion protected air heaters are suitable for operation in hazardous areas of category II 2 G (zone 1). They are supplied with EC type examination certificate according to ATEX directive 94/9/EC.

GOST and IECEx certificates are available on project basis.

**EX heating coil, as component of explosion protected air conditioning system.**



#### Design data

You could assist us at answering your enquiry, when you give us at least the following data:

- medium, flow rate, inlet and outlet temperature
- required heating capacity, voltage
- air duct dimensions, mounting position
- materials for heating elements, air duct and connection box
- Ex protection: area classification, temperature class
- ambient conditions

## Electrical air heaters

Ex II 2 G Ex II 2 D

### Air duct heater

with flange frame, air duct type, to be mounted in HVAC plants.  
The dimensions can be adapted to the existing air duct dimensions

### Air heater for pipe mounting

with flange connections to be mounted into air pipe systems



**Design for high operating temperatures with separate connection box, cooling distance and support sheet for thermal insulation.**

### Air heater for insertion

with mounting flange for insertion in HVAC plants, instrument housings, ovens or heating chambers

### Air blower heater

Air heater and ventilator are assembled in air duct housing.

Design variations:

- Wall mounted circulation air heater (3 to 30 kW)
- Compact type air blower heater
- Circulation air heater for mounting outside of heat chambers or containers.



### Pressurized air heater

For operating pressure over 0.5 bar, see "flow heater" leaflet.

## Additional equipment

- EX thermostat type QTREK
- Electronic thermal cut-out type eB\*6\*\*\* with ATEX approval

## Power and temperature control

If you need a simple on/off switching cabinet or a comfortable thyristor control panel with cascade loop, ELMESS-Thermosystemtechnik will offer you the appropriate control system for your heating function.



# Heat.

## And safety.

*There is quality in the detail. ELMESS' high-quality and durable industrial heating systems are put to a large variety of uses, for example on oil rigs to ensure that work can be carried out smoothly and safely.*

### **Each individual product of ELMESS is unique**

- Ex immersion heaters with flange and thread connection
- Flow heaters for fluids or gas including documentation according to PED or ASME
- Gas preheaters or vaporizers: Block type heater with a tube coil cast in an aluminium block, for reliable and safe operation also with high pressures
- Air heaters
- Ex air blower heaters for wall mounting or compact type
- Ex space heaters and finned tube heaters
- Ex temperature regulators and thermostats
- Ex level switches

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