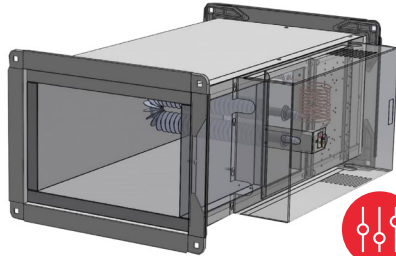




# HVAC Business Unit Newsletter

Issue 33

Jan 2024



Inside this issue:  
CPS Duct Heater

 **SPOTLIGHT ON:** CPS Duct Heater, a device used to heat the air flowing through an HVAC system or ventilation ductwork.

*Eurotec Duct Heater is manufactured from Galvanized steel and internally insulated with GIB Fyreduct.*

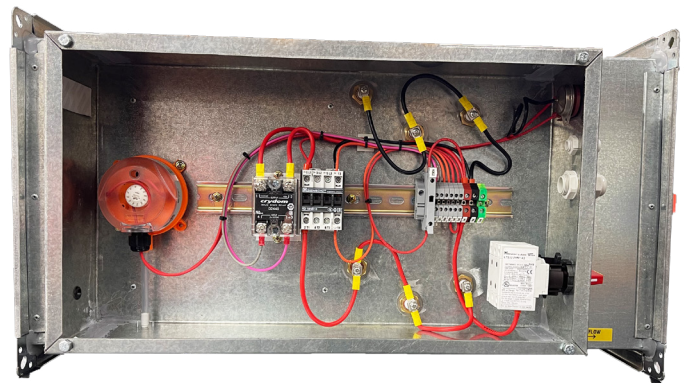
An inline electric duct heater is a device used to heat the air flowing through an HVAC system or ventilation ductwork. The heater is typically installed inside the ductwork and consists of a heating element, a fan or blower, and a control system.

When the HVAC system is turned on, the fan or blower pulls air from the surrounding area and directs it into the ductwork. As the air passes through the duct, it flows over the heating element, which uses electric resistance to generate heat. The control system regulates the temperature of the heating element to maintain the desired temperature of the air as it passes through the duct.

Our electric duct heater is fitted with Solid State Relays (SSR) and a Carel temperature controller. The Carel controller uses Pulse Width Modulation to switch the elements On and Off to maintain the set temperature range.

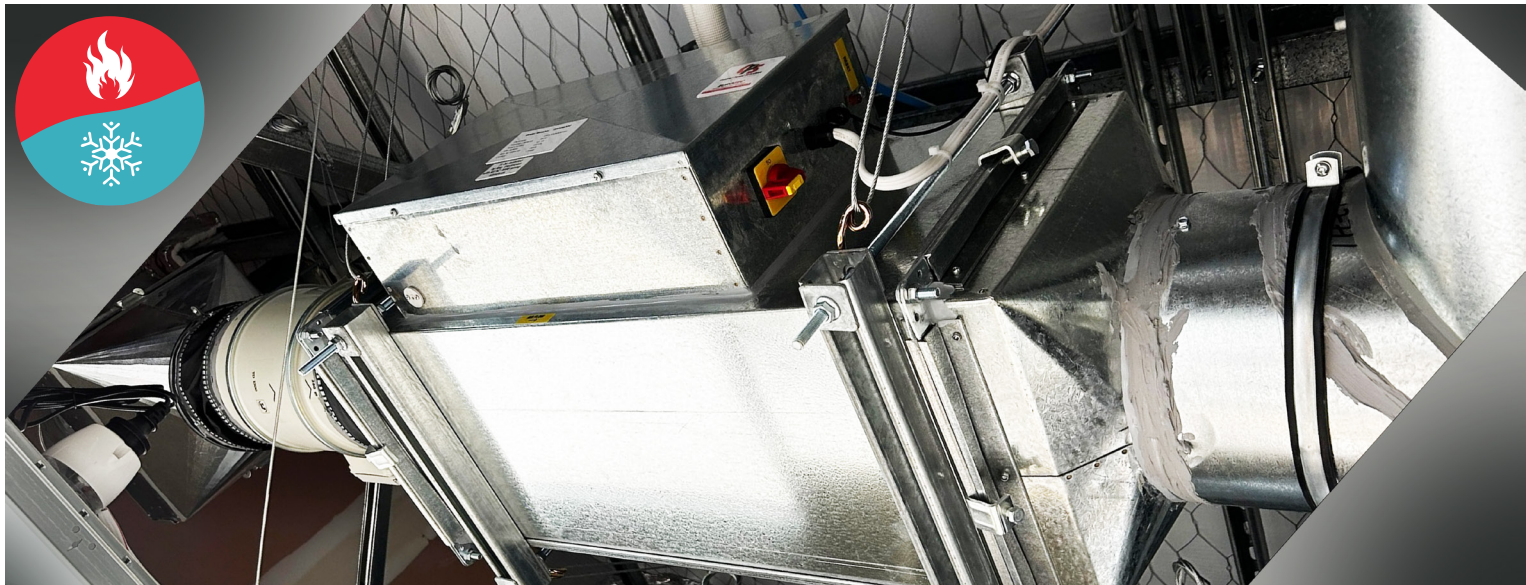
The Carel controller can be connected to a Building Management System (BMS). In these cases the BMS will send a 0-10V signal to the controller to control the heater functions.

Temperature rise, kW, and airflow are all important



factors to consider in heating systems, and they are interrelated. Adjusting one of these factors will have an impact on the others, and it is important to understand these relationships to properly design and operate heating and cooling systems.

Contact your local Eurotec HVAC Sales Engineer or give us a call on 09 579 1990.



Heater comes standard with manual Reset O'temp thermostat, a differential pressure switch, a safety relay and in duct supply air temperature sensor. All units are operated through a Solid State Relay using PWM for accurate temperature control. The duct heaters comply with AS/NZS 3102:2002.



Solid State Relay



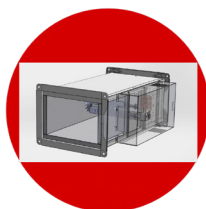
Spiral Finned Elements



Thermal Cutout with Manual reset



Safety Contactor



Electronic Controller



Differential Pressure Switch

Contact your local Eurotec HVAC Sales Engineer for further information on the products mentioned in this newsletter or to discuss your project requirements.

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## Features

- 304 Stainless Steel Finned Elements.
- Safety contactor to interrupt power supply if over temperature is detected in the heater.
- Differential pressure switch for airflow proving.
- Carel IR33 Electronic controller for accurate set point adjustment and PWM control.
- Solid State Relay for accurate PWM control and noise reduction.
- Thermal cutout with manual reset.
- Manufactured from Galvanized steel and internally insulated with GIB Fyreduct.

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