



CASE STUDY

COMFORTABLE & CONVENIENT LIBRARY HEATING

Somersham Community Library | Great Britain

THE EXISTING SITUATION.

The gas-fired boiler and warm air heating system in the Library needed to be updated for various reasons. The age and inefficiency of the boiler meant running/maintenance costs were increasing year-on-year, sourcing replacement parts was becoming increasingly difficult and customers were experiencing 'cold-spots' within the library. The over-sized boiler was also occupying a room that could be put to better use providing additional facilities for the Library users.

THE CHALLENGE.

The need to maximise the floor space for bookshelves and desks meant there was little or no wall space available to mount radiators. The Committee therefore looked into other options, namely heating from the ceiling or from under the floor. The disruption and cost associated with installing underfloor heating quickly ruled-out this option and attention switched to a ceiling mounted system. Infrared heating was suggested as a system which could potentially solve their problems.

THE SOLUTION.

The real innovation in infrared heating technology lies in the energy efficient way in which it heats a room. In contrast to convection heating, Infrared heating directly warms thermal mass (ceiling, walls, furniture and people) where the energy is stored and gradually released back into the room as heat. This homogeneous heating of the room results in a pleasant environment with a constant humidity (approx. 45%) and minimal convection currents. The room air temperature can be reduced by up to 2-3°C whilst maintaining the same level of thermal comfort and the warm, drier walls become better insulators and prevent condensation.

Installing the infrared heating panels on the ceiling provides a discrete installation, prevents accidental damage and ensures the optimum distribution of heating throughout the library, avoiding cold spots and keeping floor space free for bookshelves and furniture.

The infrared system benefits the library with lower running costs and no ongoing maintenance/servicing costs and the 'users/borrowers' with a more comfortable environment in which to relax and enjoy the books.

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THE SOLUTION IN DETAIL

Heating in the main library comprised of six LAVA® BASIC-DM 1000 W infrared panels mounted on the ceiling down the centre of the room and installed on one electrical circuit. The panels were fitted with ET-111A wireless receivers and controlled in unison by a wireless ET-14A programmable thermostat. The wireless connectivity simplified the installation process and avoided the need for 'chasing-in' new cabling and the need for subsequent redecorating.

The LAVA® BASIC-DM 350 W panel in the entrance hall was also wirelessly controlled by the ET-14A programmable thermostat.

PRODUCT BENEFITS LAVA® BASIC-DM

- + Very high proportion of radiation
- + Large infrared emitting surface
- + Lightweight design for easy ceiling mounting
- + Pleasant room climate thanks to comfortable infrared radiant heat
- + Magnetic field & maintenance free

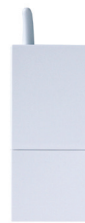


LAVA® BASIC-DM

PRODUCT BENEFITS ET-14A



- + Large, illuminated LCD display
- + 5 Operating modes (Comfort, reduction, frost protection, AUTO, OFF)
- + Week and day programming
- + Battery level indicator
- + Open window detection (in combination with ET-14A-FK)
- + Ecodesign guidelines compliant (see also page 6)
- + Adaptive start-up control



Receiver ET-111A



Thermostat ET-14A

COMPETANCE AND QUALITY FOR OVER 35 YEARS.



With ETHERMA you have a competent partner for your heating solutions with more than 35 years of experience. ETHERMA relies on constant innovation, highest product quality and modern design. We support you with a comprehensive service to ensure you use the most suitable product solution for your project. ETHERMA is an Austrian company with international reputation, producing high quality electrical heating systems for our clients, custom-made and manufactured right here.