

Eden Project

Johnson Controls puts visitor safety first in Cornish Tropical Bio Domes



Project overview

Described as a “living theatre of plants and people”, the Eden Project is a landmark tourist attraction of Cornwall. Two vast greenhouses (Biomes) nestle in the heart of a former Cornwall quarry and house a variety of plants, crops and landscapes from the humid tropics and warm temperate regions.

With around 1.25 million visitors per year it is one of the UK’s most popular attractions that promotes understanding of the relationship between plants, people and resources.

With this level of footfall it was a key priority to install a highly effective fire and security solution to ensure visitors can enjoy the award winning attraction in a safe and secure environment.

Product and services applications

- Fire and security system
- Integrated public address/voice alarm system

Customer needs

For Johnson Controls, this project was a complex challenge. The unique design and size of the Biome buildings (the Humid Tropics Biome alone measures 15,590 m²) required a tailor-made solution, utilising ecological materials in keeping with the project’s sustainable principles (such as environmentally friendly Vesda piping).

The “evolutionary” nature of the project meant it was important to consider potential expansion of the site and, as a result, additional fire and security solutions.

Prior to the opening, over 18 months of planning and implementation went into the initial fire and security solution at the Eden Project. Central to the system were the 200 smoke & heat detectors and 500 PA/VA speakers which were carefully blended into the overall environment with recessed colour coded speakers and IP66 call points that could operate efficiently within the extreme climates.

These systems were installed across the site and linked back to the central control house. This enabled the exact position of an incident to be located, monitored and isolated, avoiding unnecessary evacuation of the entire site.



Johnson Controls solution

Last year the Eden Project expanded with the construction of a £15m educational centre, 'The Core' with a distinct design comprised of a central trunk and canopy copper clad roof.

Following the success of the initial installation, Johnson Controls undertook the fitting of a fire and security solution to The Core building which was fully networked with the original system. Due to the complexity and unusual nature of the design, The Core project took over a year of planning and nine months to install. Careful consideration was given to each piece of equipment, including the use of specialist air sampling units and creative design of the speaker layout to cater for the height of the interior space and enable easy maintenance. Integrating the two systems was essential. The main task was to lay cabling from the central control house across the site and into the new Core building.

The result was a fully integrated public address/voice alarms and advanced fire detection system allowing full or zonal public address and/or evacuation of the entire Eden Project where necessary. The bespoke solution also ensured that every aspect was in keeping with the overriding principles of the project itself preservation of the natural environment and sustainability.

For further information or advice, call: **0800 804 6227**

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