

# O2 Arena

## The O2 Arena takes centre stage with Johnson Controls



Situated on London's Greenwich Peninsula, The O2 is London's state-of-the-art music and entertainment destination. The venue can hold up to 23,000 people and is surrounded by an Entertainment Avenue which boasts a myriad of leisure attractions that include an 11-screen cinema, exhibition spaces, an additional music venue, restaurants, bars and cafes.

The O2 is the first destination of its kind in the UK and is equivalent in size to 12 football pitches. In a space so vast, with the potential to be densely occupied, first-class security and fire protection is vital.

### Challenges

The security solutions needed to be discreet but effective, as those managing security at the O2 needed to have continuous surveillance of the arena and its visitors. It was important to ensure that those experiencing the venue could do so in a safe, secure and enjoyable manner.

The fire detection systems also needed to operate in a unique environment, particularly in the concert arena that houses a sound system that pumps out 650,000 watts. Additionally, the shows that take place at the arena often use increasingly advanced pyrotechnic, light and atmospheric displays.

Applications	Arena	Entertainment district	Other areas
MX fire panels	37	6	
Smoke and heat detector devices	922	146	
Call points	114	114	
CCTV cameras	168	85	100
PAVA Public Address Voice Alarm speakers	1552	59	
VESDA Very Early Smoke Detection Apparatus	34	2	
Access control doors	55	20	
IDS contacts	549	70	
Optic cable (total)		14,000 m	
Fire alarm cable (total)		118,700 m	

“Johnson Controls has played an important role in delivering a safety and security solution that plays a vital role in enhancing The O2 customer experience.”

– David Campbell,  
President and CEO of AEG Europe

## Solutions

Johnson Controls delivered security solutions that have met all of The O2’s requirements. CCTV cameras have been installed in all areas of Peninsula Square that feed into The O2 Operations room, enabling operators to view all areas of the entertainment avenue from the entrance of Peninsula Square to the inside of the arena bowl.

Discreetly placed, the cameras monitor the site for any unusual behaviour and also provide valuable data for evacuations. The CCTV system is supported by access control doors where necessary.

Very Early Smoke Detection Apparatus (VESDA) was installed in the arena and concourses. This system is supported by call points and detection around the O2 as well as voice-activated alerts. These alerts are connected to the extensive sound system that informs visitors of what they need to do in the event of a fire. The system has also been designed so that the voice-activated alerts can operate independently of each other, evacuating areas, if necessary, in an orderly and controlled way.

Anschutz Entertainment Group (AEG) and its sub-contractor, Sir Robert McAlpine, set an ambitious target of less than three years to complete what has been the UK’s largest development project in recent years. Our biggest success with this project has been delivering high-quality technology within this tight timeframe, achieving the completion date and Johnson Controls managing deadlines scrupulously.

As one of the contractors working on this project, we coordinated a team of 80 subcontractors (totalling more than 2,000 workers) along with Johnson Controls staff, working to install more than 5,000 pieces of equipment. Since January 2006, we’ve invested more than 44,000 days of manpower in the site.

Initially, we’d been commissioned to provide and manage the installation of fire and electronic security systems solely for the arena. However, our proven ability to work to a tight schedule and manage our contractor base effectively secured further projects in the entertainment avenue and waterfront area, bringing the total contract value to more than £7 million.

Outcomes	Total number
Total venue capacity	Approximately 23,000 and 10,000 in the entertainment district
Manpower invested by Johnson Controls	44,000
Contract value	£8m+
Contractors involved	80 companies, 2000+ employees
Johnson Controls engineers on site following completion	3

We provided a reliable and discreet solution to The O2 by installing innovative technology, allowing visitors to have a safe and secure experience at the venue.

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