

OPTIMUS
SOUND INNOVATION

INDUSTRY

In industry, public address systems provide important services, such as voice alarms, which facilitate an orderly and safe evacuation of the premises, or time signalling for shift changes. They also provide other more common services such as music broadcasting in offices and visitor areas, or location and general or zone-based warnings. Many of the sound points are installed outdoors and in aggressive environments, they must provide high acoustic pressure due to the large size of the premises, they must comply with ATEX certifications and have high levels of IP protection.



ATEX Certification

In demanding industrial environments—such as petrochemical plants, refineries, offshore platforms, or mining operations—safety and communication systems must guarantee maximum reliability. Therefore, our field equipment intended for potentially explosive atmospheres features ATEX certification, strictly complying with the most rigorous safety regulations for high-risk areas.



IP Protection Rating

While control units operate in protected spaces, field elements (loudspeakers and intercoms) are distributed outdoors and exposed to the elements. Our devices incorporate high IP protection ratings against water, dust, and moisture, ensuring optimal and long-lasting performance under any environmental condition.



IK Protection Rating

The operational continuity of field devices depends fundamentally on their physical resistance. To cope with demanding environments, vandalism, intense vibrations, or accidental mechanical impacts, our equipment features IK protection certificates, guaranteeing maximum structural robustness, reliability, and a long service life.



KEY FUNCTIONS

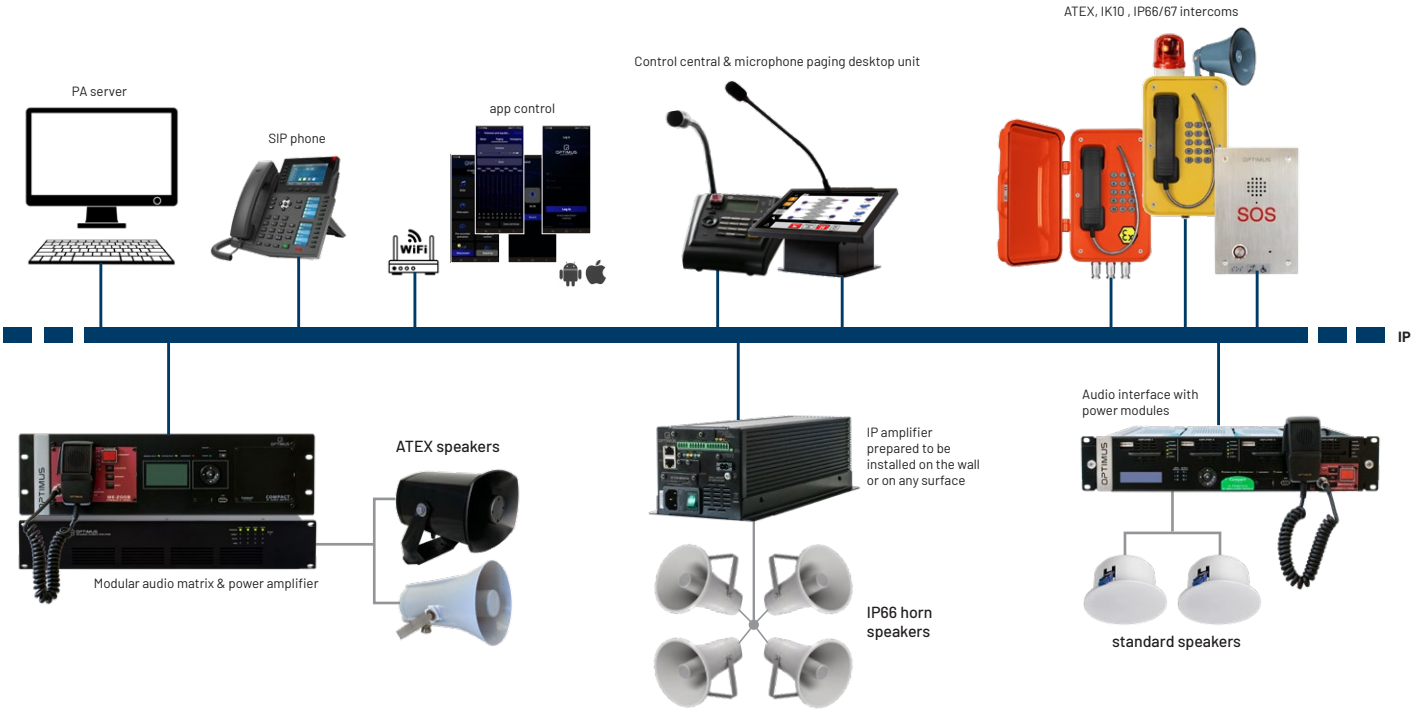
- **Extreme Protection**: Loudspeakers used in industrial environments must have **high protection levels (IP66 or higher)** to resist dust, moisture, and corrosive agents. In some applications, such as chemical plants or refineries, ATEX certification is essential for safe operation in areas at risk of explosion.
- **Integrated Intercom**: Industrial communication relies not only on public address systems but also on SIP intercom systems, which allow for seamless connections between workers, control centers, and security systems. These devices must share the rugged characteristics of loudspeakers, ensuring durability and reliability in demanding environments.
- **Total Coverage**: Audio systems must be designed to ensure **optimal sound distribution**, ensuring that messages are intelligible in noisy and large areas. This is achieved through a detailed analysis of the installation and the use of loudspeakers with high acoustic performance.
- **Reliability and redundancy**: In industrial spaces, where safety is paramount, public address and intercom systems must ensure continuous operation, even in the event of a failure. This is key for emergency management and operational communication.



KEY FEATURES

- **Speakers resistant** to shock, vibration, extreme temperatures, and corrosive agents, with materials such as stainless steel and reinforced polymers.
- **Advanced communication** protocols, including SIP, for seamless integration with intercom and control systems.
- **Strategic distribution** of transmission points to ensure full coverage in large spaces.
- **Optimized audio** processing, with filters and delays, to improve intelligibility in noisy environments.
- **Backup and monitoring** systems, which allow system status monitoring and trigger alerts in the event of a failure.

EXAMPLE



BENEFITS

- **Greater security** in the transmission of critical messages, enabling effective emergency management.
- **Extreme durability**, reducing maintenance costs and ensuring long-term operation in adverse environments.
- **Optimized communication**, improving coordination between work teams and responding to unforeseen situations.
- **Efficient integration** with other security and automation systems, such as alarms and access control.
- **Regulatory compliance**, ensuring that the equipment meets the safety and quality standards required in industrial environments.



Security Paging Information Communication Music

Some reference projects where our solutions have been installed:

COMBINED-CYCLE POWER PLANT
Salamanca (Guanajuato, Mexico)



IBERDROLA FACILITIES
Locations across Spain



SUGAR REFINERY
Yanbu (Saudi Arabia)



BASF PRODUCTION CENTRE
Guadalajara (Spain)



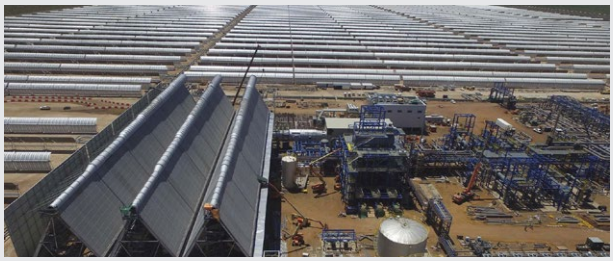
LIQUID BULK TERMINAL
Puerto Tartessos (Huelva, Spain)



THERMAL POWER PLANT
Ashuganj (Bangladesh)



SOLAR THERMAL POWER PLANT
Bokpoort (South Africa)



SOLAR THERMAL POWER PLANT
Écija (Sevilla, Spain)



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OPTIMUS S.A.
C/Barcelona 101
17003 Girona (Spain)
(+34) 972 203 300

www.optimusaudio.com