

Critical communication systems for industrial environments

A single communication platform for the entire production plant.

IP intercoms, Public Address Systems, visual signalling and integration with security and facility management systems.

ambient SYSTEM

We make everyday life safer

One infrastructure – many applications

Effective communication is the cornerstone of safety and efficient operations in large industrial facilities.

When hundreds of staff, operators, suppliers and subcontractors are working simultaneously across a vast area, all information must be conveyed quickly, clearly and without the risk of losing the connection. The intercom system has been designed specifically for such environments. It ensures instant voice communication, regardless of the conditions on site.

PRODUCTION HALLS | WAREHOUSES | DISTRIBUTION CENTRES

POWER STATIONS | PORTS | INDUSTRIAL COMPLEXES

Why not a mobile phone or a two-way radio?

Wireless solutions are suitable for many applications, but industrial environments place far greater demands on communication systems.

In an emergency, even a single communication problem can lead to operational delays or an increased risk to people and infrastructure.

There is **no information regarding the exact location** of the person reporting the incident.

No signal in certain parts of the building.

Difficulties in organising communication between multiple user groups.

Devices with **flat batteries**

No access to the system for drivers, visitors and temporary staff.

An industrial intercom designed for demanding environments

The ICO Industrial series of devices has been designed to operate in the most challenging environmental conditions.



Intercoms make use of the building's existing communications infrastructure. Each device is located in a known spot and is always ready for use. This means that users do not need to search for a signal, check their battery level or carry their own communication device.

IP66 PROTECTION RATING

Full protection against dust and powerful jets of water means the intercom can also be installed in areas prone to dirt.

IK10 MECHANICAL RESISTANCE

The housing can withstand impacts with an energy of up to 20 J, protecting the intercom from mechanical damage.

CORROSION RESISTANCE

High corrosion resistance ensures the device's durability even in damp environments and outdoors.

RELIABLE 24/7 OPERATION

The design, which is suited to continuous, round-the-clock operation, ensures the system is ready for communication at all times.

RESISTANCE TO HARSH CONDITIONS

The device operates reliably in the presence of dust and moisture, and in changing weather conditions.

INSIDE AND OUTSIDE

A single solution for halls, warehouses and open spaces, such as ports or loading bays.



Effective communication despite the noise

Production halls, processing areas and transhipment terminals are among the most demanding acoustic environments.

Advanced DSP algorithms improve speech intelligibility by reducing the impact of ambient noise. However, in real-world industrial environments, users are often located far from the communication point or are wearing hearing protection. Therefore, the Ambient System solution extends the functionality of intercoms to include: horn speakers, LED indicator lights, warning lights and IP public address systems. An incoming call can be signalled simultaneously by a warning light and played through an external loudspeaker, thereby increasing the effectiveness of user notifications.

A single infrastructure: calls and broadcasting

The intercom and public address functions within the ICO system form part of a comprehensive voice communication system that enables conversations, the broadcasting of announcements and the implementation of emergency procedures.

POINT-TO-POINT COMMUNICATION

Direct communication between staff, dispatchers and technical services.

GROUP COMMUNICATION

Connecting selected production, warehousing and logistics areas.

MULTICAST ANNOUNCEMENTS

The operator broadcasts voice announcements to selected zones or the entire premises.

ANNOUNCEMENTS CAN BE PLAYED BY:

1



ICO INDUSTRIAL

2



ICO BOX

3



ICO NAM

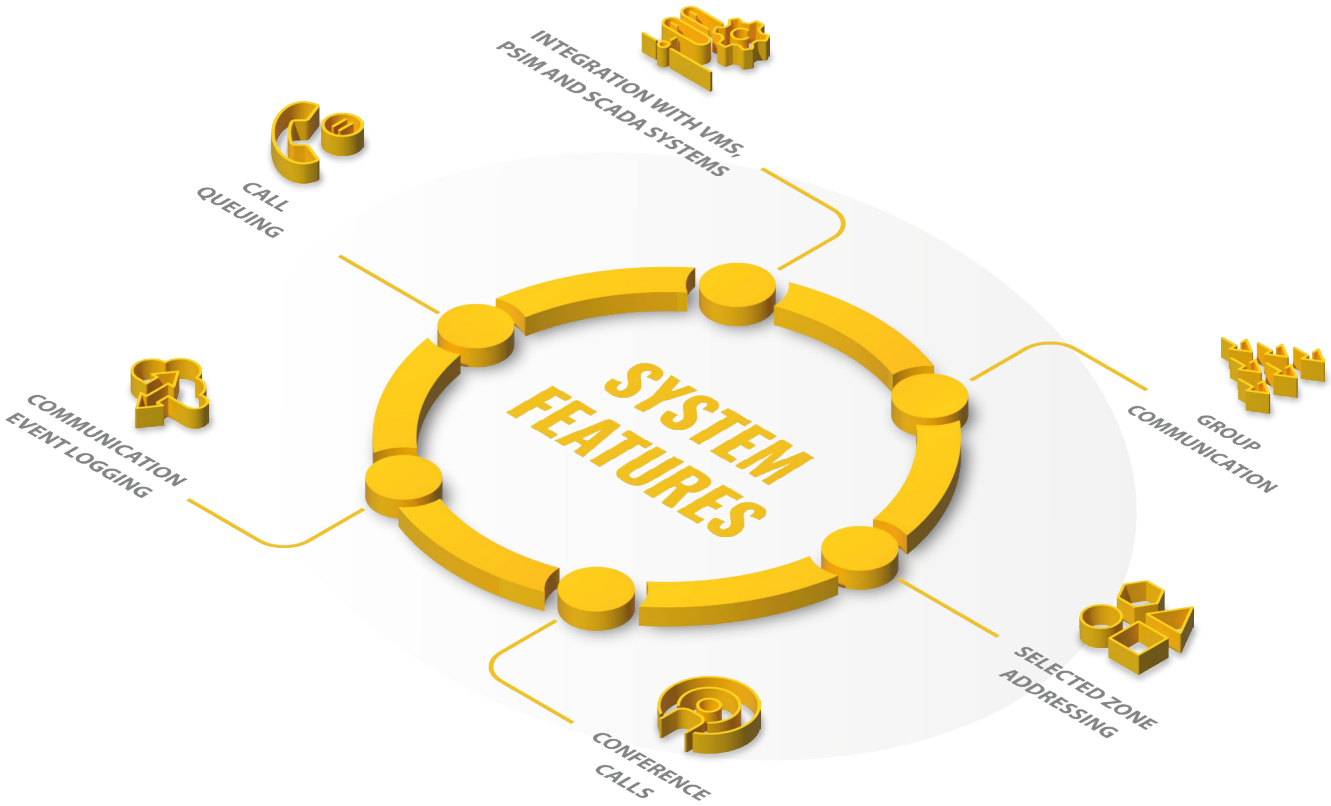
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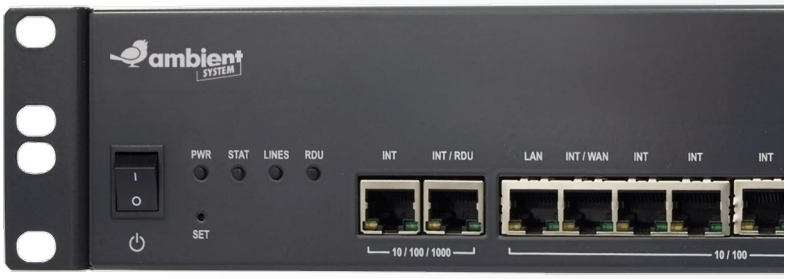


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A swift response and effective coordination

The system offers features designed to support the organisation of work in large facilities. Each call can be assigned to a specific location, enabling a faster response to reports and more efficient coordination of operational activities.





Monitoring system performance

Intercoms can integrate with the Public Address System (PAVA), acting both as communication points and as receivers of voice announcements. This enables the effective management of both day-to-day operational communications and emergency and evacuation procedures.

Intercom and PAVA in a single ecosystem

In modern industrial plants, operational communication and safety communication increasingly form a single, cohesive system.

Intercoms can work together with the Public Address and Voice Alarm (PAVA) system, acting both as communication points and as receivers of voice announcements. This makes it possible to effectively manage both day-to-day operational communication and alarm and evacuation procedures.

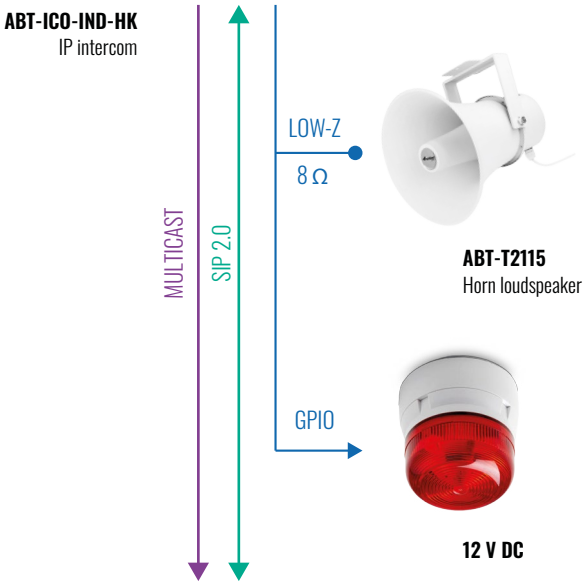


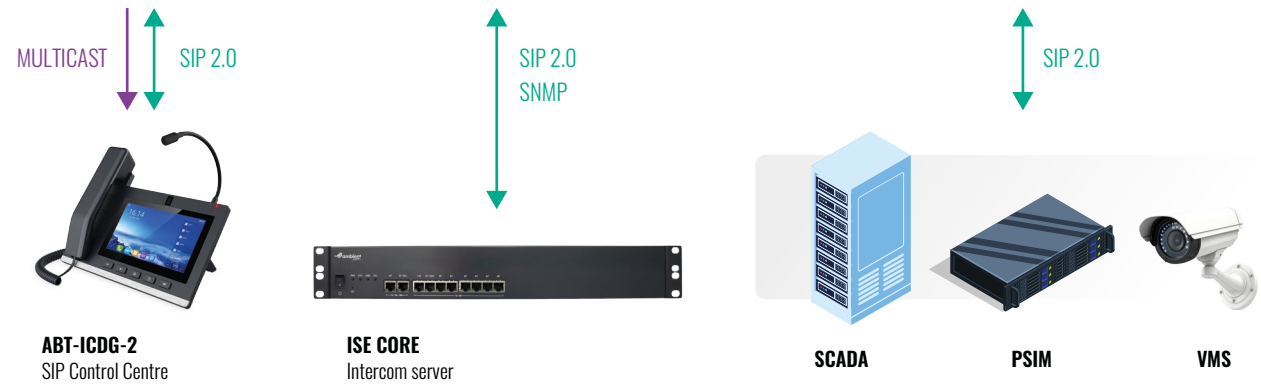
Integration with security systems

The communication system can form an integral part of a facility's security infrastructure. Thanks to its open architecture, it can work with PSIM, VMS, SCADA, BMS, access control systems and video surveillance systems. Supported integration mechanisms include: SNMP, Modbus and API.

EVENT-DRIVEN CONTROL

Intercom systems can automatically respond to events triggered by other systems or initiate actions across the entire security infrastructure.





Full control over communication

In an industrial environment, reliability is not an option. It is essential for safe and efficient operations.

An intercom system ensures constant communication, high speech intelligibility and full control over the flow of information throughout the entire site. This enables operators, maintenance teams and staff to respond more quickly, collaborate more effectively and carry out their daily tasks more safely.

SIP COMMUNICATION

Instant voice communication using ICO Industrial and ISE CORE.

MULTICAST MESSAGES

Broadcasting announcements to selected zones using ICO Industrial, ICO BOX and ICO NAM.

INTERCOM AND PA SYSTEMS

Conversations and voice announcements within a single IP infrastructure.

TRAFFIC LIGHTS

Integration with warning lights and alarm devices via GPIO.

SYSTEM INTEGRATION

Integration with PSIM, VMS, SCADA and BMS systems via SNMP and Modbus.

SAFETY SCENARIOS

Automatic alerting, warning and support for evacuation procedures.

Where is an intercom system most effective?



PRODUCTION HALLS



HIGH-BAY WAREHOUSES



LOGISTICS AND DISTRIBUTION CENTRES



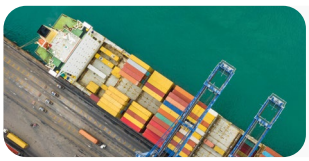
PARCEL SORTING CENTRES



LOADING AND UNLOADING AREAS



POWER STATIONS



SEAPORTS



INDUSTRIAL PLANTS WITH DISTRIBUTED INFRASTRUCTURE

We make everyday life safer

Ambient System products are continually improved. All specifications are therefore subject to change without prior notice.

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