# IP Intercom System

Stay connected, stay safe

ambient SYSTEM

We make everyday life safer

# IP Intercom System

PC WORKSTATION RUNNING
**AMBIENT SYSTEM
YELLOW SOFTWARE**

DIGITAL INTEGRATION WITH
**AMBIENT SYSTEM PAVA PLATFORMS**
(miniVES, midiVES, smartVES)

System Visualization,
Remote Management
& Integrations

Management
Call handling
Voice recording
System log
Integrations

**3RD PARTY SYSTEMS:**
IP-PBX, SCADA, BMS, PSIM

Public Address
& Voice Alarm

**SOFTWARE**

**SIP GATEWAY**

**SIP SERVER**

PERIMETER
DEFENSE

**POWERED SIP
LOUDSPEAKERS**

INTEGRATED
SOLUTIONS

**MASS TRANSPORT HUBS:**
AIRPORT, METRO,
ROAD AND TRAIN TUNNELS

Message Paging
over TCP/IP

**DESKTOP UNITS**

**IP INTERCOMS**

**SIP
MODULE**

Two-way
Voice Communication /
Emergency calls

**SCHOOLS,
PUBLIC BUILDINGS**
(DIN VDE V 0827, EN 50726)

Facility
Management

Customized
Applications

INDUSTRIAL FACILITIES,
SECURITY APPLICATIONS

SECURITY AND
EMERGENCY
COMMUNICATION

**CLEANROOMS:**
HOSPITAL,
LABORATORY

LIFTS
VOICE BOX
IP AMPLIFIER

The IP Intercom System is a modern and reliable tool for voice communication. Intercom integrated with the building's security systems enable the streamlining of information flow and a reduction in response time to events. As a key element of communication and security, the system monitors the operational status of connected intercoms, logs system events, and enables audio recording, ensuring comprehensive operational support.

# System Functions

**Enables natural, two-way conversations, including conference calls,** intelligent forwarding and other advanced telecommunication functions.

**Enables remote control of secure access** by the intercom relay via remote code.
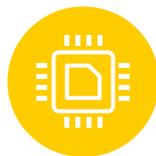
**Enables broadcasting voice messages to all intercoms, selected groups, or individual devices.** Messages can be delivered live by the user or played back from the system's memory.

**Extensive capabilities of integration with visualization and management systems** (SCADA, PSIM, BMS, etc.) via SNMP and REST API protocols (with the option of direct connection to the intercom).

**Acoustic monitoring of the speaker-microphone path.** The functional test involves the intercom emitting a specific test signal that must be correctly received by its microphone.

**Continuous monitoring of connected intercoms**, distinguishing between their active status, idle state, and any potential malfunctions.

**The server maintains a detailed log of system operations.** Additionally, for enhanced security and to facilitate the later analysis of events, there is an option to record the content of conversations.

**Digital signal processing algorithms ensure high speech intelligibility** even in challenging acoustic environments (reverberation, noise). This includes features such as automatic volume control, echo cancellation, and noise reduction.

# ISE CORE

## INTERCOM SERVER



The ISE CORE server is an advanced communication platform that ensures reliability, performance, and extensive integration capabilities. The system offers the possibility of flexible expansion with advanced functionalities that can be activated at any time. To ensure business continuity, the server provides a redundancy option, 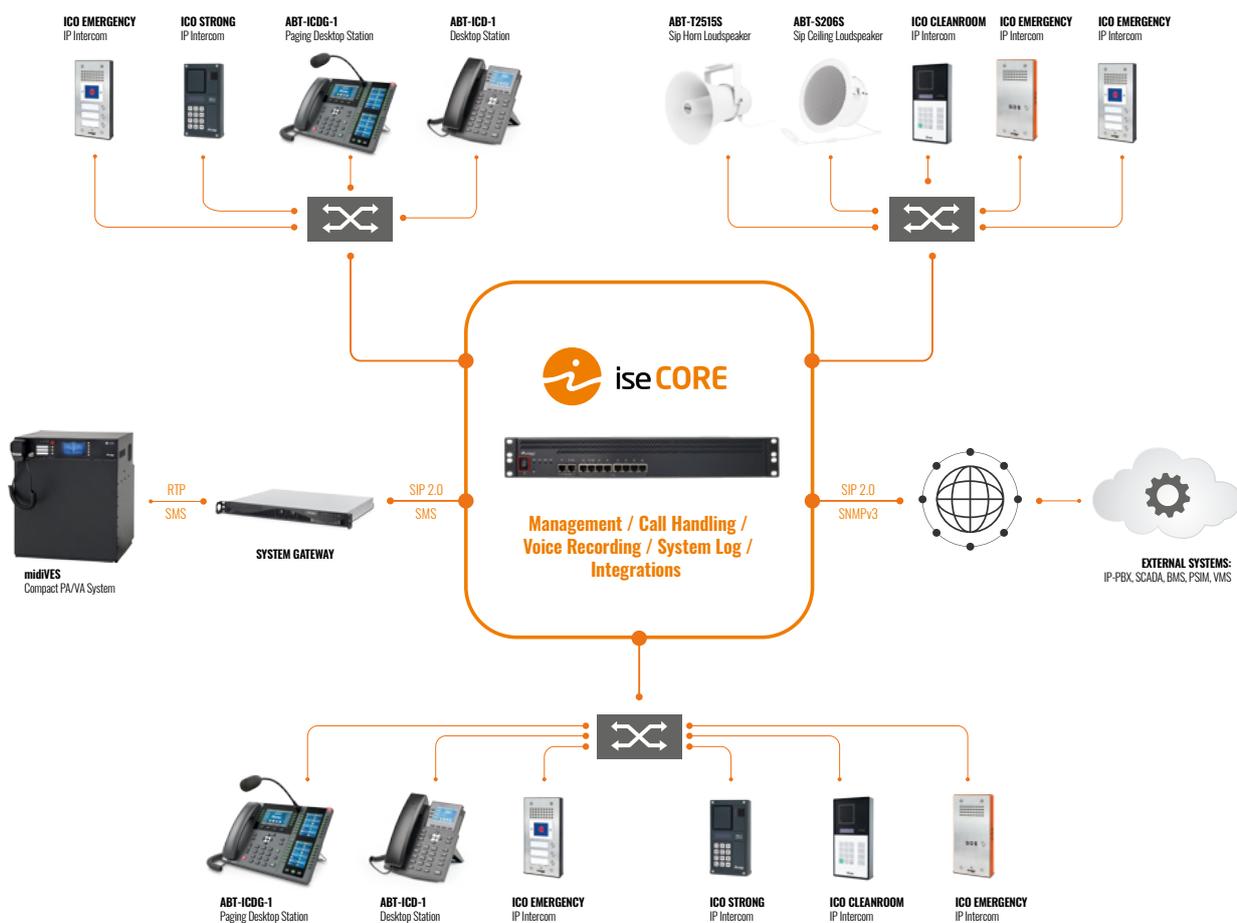both at the platform level (cooperation of two servers) and power redundancy through a built-in battery backup module. Communication is fully encrypted, protecting data from unauthorized access. The system can also be programmed and administered remotely via a web browser.

## CHARACTERISTICS

» **System Capacity: The platform supports up to 1000 users and up to 100 simultaneous calls, depending on the license.**

» **Networking: It is possible to network with other Ambient System intercom systems.**

» **Call Recording: The function of recording voice channels is available and scalable depending on needs.**

» **Compliance with Standards: The system meets a number of safety and compatibility standards:**
  › *EN 0950-1:2006+A11:2009+A1:2010 +A12:2011+A2:2013*
  › *EN 55024:2011*
  › *EN 55032:2015*
  › *EN 61000-3-2:2014*
  › *EN 61000-3-3:2013*

| ADDITIONAL SERVICES | Description |
|---|---|
| CoreTTS100 | Text-to-speech service for 100 voice announcements within one year from the date of purchase. |
| CoreTTS1k | Text-to-speech service for 1000 voice announcements within one year from the date of purchase. |
| CoreUpgSSD | SSD-1TB installation service performed by the factory service center. |

| | ISE CORE |
|---|---|
| *Physical Parameters* | |
| Min / Max Power Consumption, W | 22 / 75 |
| Housing | 19" (1.5U x 360 mm) |
| Power Supply Voltage | ~230V, 50Hz |
| Emergency Battery Power | from 12V/17-100 Ah batteries |

| ICO EMERGENCY IP Intercom | ICO STRONG IP Intercom | ABT-ICDG-1 Paging Desktop Station | ABT-ICD-1 Desktop Station | | ABT-T2515S Sip Horn Loudspeaker | ABT-S206S Sip Ceiling Loudspeaker | ICO CLEANROOM IP Intercom | ICO EMERGENCY IP Intercom | ICO EMERGENCY IP Intercom |

**ise CORE**

Management / Call Handling / Voice Recording / System Log / Integrations

**midiVES** Compact PA/VA System

RTP SMS

**SYSTEM GATEWAY**

SIP 2.0 SMS

SIP 2.0 SNMPv3

**EXTERNAL SYSTEMS:** IP-PBX, SCADA, BMS, PSIM, VMS

| ABT-ICDG-1 Paging Desktop Station | ABT-ICD-1 Desktop Station | ICO EMERGENCY IP Intercom | ICO STRONG IP Intercom | ICO CLEANROOM IP Intercom | ICO EMERGENCY IP Intercom |

| LICENSES* | Description |
|---|---|
| Core200 | Base license for launching up to 200 users, including up to 40 simultaneous voice calls. |
| Core1k | Base license for launching up to 1000 accounts, including up to 100 simultaneous voice calls. |
| CoreRec-1 | License enabling the recording of 1 voice channel. |
| CoreRec-5 | License enabling the recording of 5 simultaneous voice calls. |
| CoreConf-5 | License for 5 simultaneous conference participants. |
| CoreConf-15 | License for 15 simultaneous conference participants. |
| CoreUser-1 | License for 1 user. |
| CoreUser-10 | License for 10 users. |
| CoreUser-100 | License for 100 users. |
| CoreUserVideo-1 | License for 1 user with video calls. |
| CoreUserVideo-5 | License for 5 users with video calls. |
| CoreRedundancy200 | License enabling server redundancy with a Core200 license. Requires the use of an additional ISE CORE server. |
| CoreRedundancy1k | License enabling server redundancy with a Core1000 license. Requires the use of an additional ISE CORE server. |

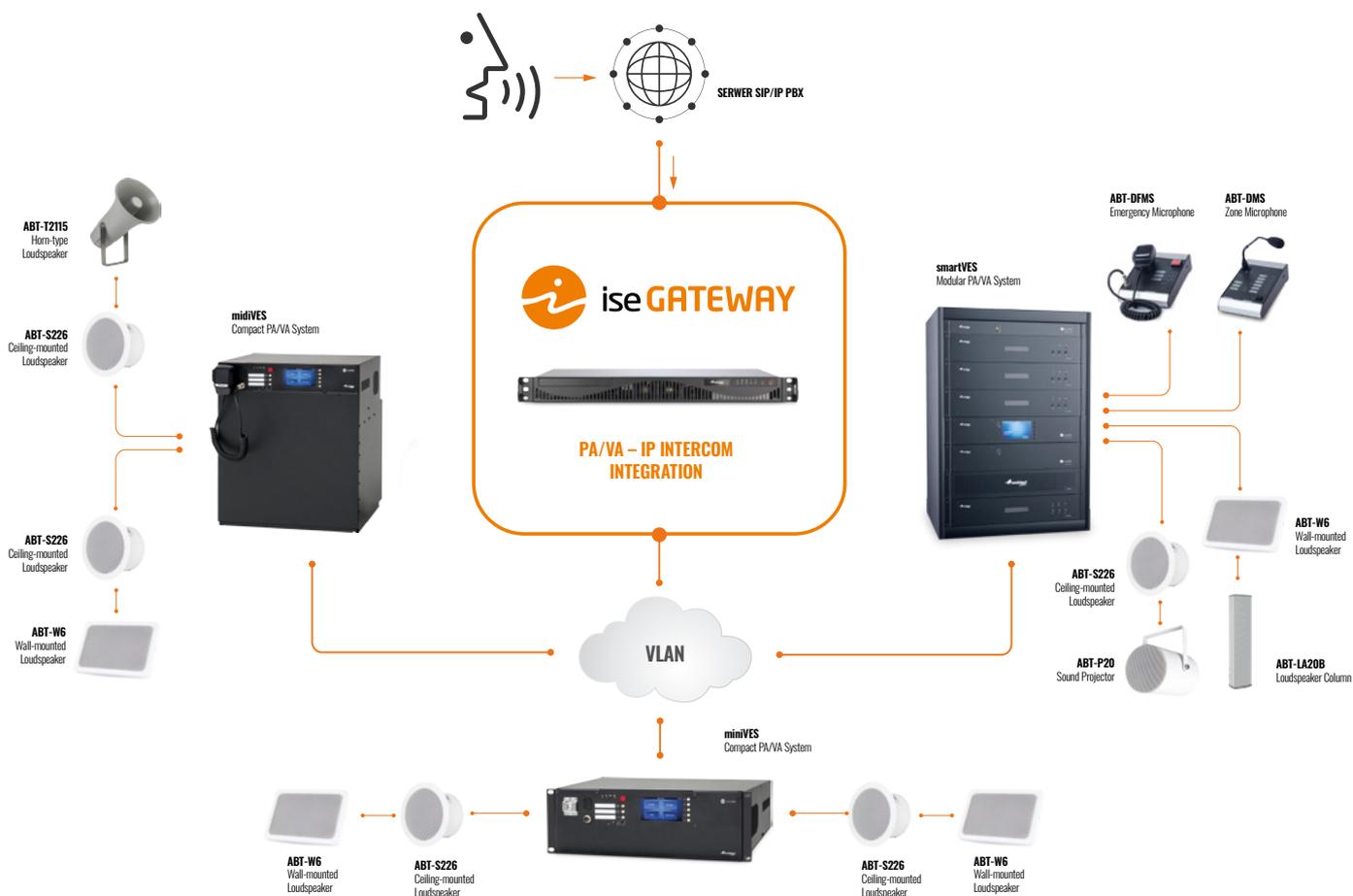# ISE VES SYSTEM GATEWAY

**SYSTEM GATEWAY**



ISE VES SYSTEM GATEWAY is a PAVA exchange server with SIP access functionality. The server enables the integration of distributed PAVA systems into an extensive audio network. It also allows for the integration of said systems with IP telephony systems in the digital domain, utilizing the SIP Trunk feature. ISE VES SYSTEM GATEWAY supports up to 8 simultaneous SIP calls into the PAVA network, allowing to route these calls to selected zones. The server has an incoming call recording functionality for subsequent analysis. It also features

a message player and scheduler, manageable through an intuitive browser interface secured against unauthorized access. Both voice messages and other broadcast functions of the server can be controlled remotely. ISE VES SYSTEM GATEWAY is a solution that enables the efficient distribution of addressed voice messages to the PAVA network from various sources. Thanks to it, IP intercom, IP telephony systems, and service providers can effectively communicate with the Public Address and Voice Alarm system.

## CHARACTERISTICS

» *Digital integration of VoIP and PAVA systems*

» *Digital voice announcer with scheduler*

» *Management via an easy-to-use browser interface*

| | ISE VES SYSTEM GATEWAY |
|---|---|
| Procesor | Intel Xeon |
| Chipset | Intel |
| Operating memory | 1 × 8 GB |
| Hard drive | 1 × 240 GB SSD |
| Network | 2 × Intel i210 AT Gigabit LAN |
| Ports | 2 × USB 2.0 / 2 × USB 3.0 / 2 × 1 Gbit/s |
| Dimensions | 43 mm (1U) × 437 mm × 290 mm |
| Operating system | Linux |
| Power supply | 230 V AC or 48 V DC |

## ISE VES SYSTEM GATEWAY functionality defined within the licensing structure:

| LICENSES | Description |
|----------|-------------|
| SG | Segment License – enables adding connections to Ambient System PAVA subsystem |
| Z | Zones License – enables the configuration of a broadcast group |
| SF | Store&Forward License – enables the buffering of messages addressed to busy groups |
| T | Timer License – enables the creation of an event schedule |
| P | PBX License – enables the registration of ISE VES SYSTEM GATEWAY in a SIP Proxy |
| R | Record License – enables the recording of outgoing calls to Ambient System PAVA central units |
| B | Backup License – enables the configuration of a redundant server |
| I-APIS | License SYS GW (I-APIS) - APIS server integration |

# ICO EMERGENCY

## IP INTERCOM

✓ *Intercom with emergency button / RFID reader*

✓ *Compliance with DIN EN 50726-1*
   *VDE 0827-1:2025-06 standard*

✓ *Up to 3 programmable buttons*

✓ *Vandal-resistant housing IK08/IP54*

✓ *Acoustic monitoring of speaker-microphone path*

✓ *DSP functions: noise reduction, echo cancellation,*
   *automatic volume control*

✓ *Integrations available via SNMP v3*

EDUCATIONAL FACILITIES

DIN VDE V 0827

EN 50726

ICO EMERGENCY is an emergency intercom designed in accordance with the EN 50726-1 standard, ideal for applications requiring rapid notification. It is equipped with a large, intuitive red emergency button protected by a breakable cover. Activating this button initiates a priority connection with the intercom system operator or the automatic playback of a pre-programmed voice message from the server. The intercom additionally offers 1 to 3 programmable buttons that can be configured for standard call functions. ICO EMERGENCY has 3 relays and 6 GPIO inputs/outputs, enabling integration with external devices such as strobes, electronic locks, or external buttons. ICO EMERGENCY can transmit information about its status to management systems (PSIM, BMS, etc.) directly, bypassing the SIP server, using the SNMP protocol. Voice communication is hands-free, utilizing advanced digital algorithms that improve sound quality through noise reduction, automatic volume control, and echo cancellation. ICO EMERGENCY can be powered via PoE or using an external DC power supply. The vandal-resistant housing with IP54/IK08 rating ensures reliability in harsh environmental conditions. Dedicated mounting accessories allow for surface, flush, and drywall mounting.

| MODELS | Description |
|---|---|
| ABT-ICO-EME-B1E | Intercom equipped with a single programmable button |
| ABT-ICO-EME-B3E | Intercom equipped with three programmable buttons |
| ABT-ICO-EME-B1RF | Intercom equipped with RFID reader and a single programmable button |
| ABT-ICO-EME-B3RF | Intercom equipped with RFID reader and three programmable buttons |

| ACCESSORIES | Description |
|---|---|
| ABT-IAC-BOX01-PB | Mounting box for modular and plasterboard walls |
| ABT-IAC-BOX01-F | Flush-mounting box |
| ABT-IAC-BOX01-W | Surface-mounting box |

| | ICO EMERGENCY |
|---|---|
| **Audio** | |
| Loudspeaker | 1 × built-in speaker with rated power of 5W |
| Amplifier | Class D; 15 W |
| Microphone | 1 × MEMS type  (frequency response 60 Hz – 20 kHz) |
| Audio input | 1 × balanced line input – nominal level 775 mV RMS |
| Audio output | 1 × balanced line output – nominal level 775 mV RMS |
| Headphone output | Output power 0,25W, Minimum load impedance 16 Ohm |
| Codecs | Speex, iLBC, GSM, PCMU, G722, Opus, G729, L16 |
| Indicators and Control | Output Power 0.25 W, Minimum load impedance 16 Ω |
| **Interfaces** | |
| Emergency button | 1 × red emergency button, behind breakable glass cover (versions B1E and B3E) |
| Programmable button | 1 or 3 |
| Ethernet ports | 2 × Ethernet port |
| Relays | 2 × make contact input: 30 VDC, 1A / 125 VAC, 0.3A, max. switching voltage 250 VAC / 220 VDC, max. switching power 62.5 VA / 30 W, max. load current 2A |
| GPIO | 6 × digital input/output: parametric input (2-state); logic output  0-5V, current output 18mA, common reference point |
| LED Driver | 12V, current limiting resistor 300 Ohm |
| **Power supply** | |
| PoE | IEEE 802.3af 3af / Class 0, IEEE 802.3at / max. 12.95W (RJ45) |
| DC | 12V / 2A power supply (screw terminal) |
| **Environmental parameters** | |
| Operating Temperature | -40 to +65°C |
| Relative Humidity | 10% to 95% (non-condensation) |
| Mechanical Resistance | IK08 |
| Dust/water protection | IP54 |
| **Physical parameters** | |
| Dimensions (H × W) | 137 × 277 mm |
| Weight | 1500 g |
| Material | Stainless steel |

# ICO EMERGENCY S01/S02

## IP INTERCOM WITH HANDSET, DEDICATED FOR TUNNEL APPLICATIONS

✓ *Wall-mounted intercom equipped with a handset*

✓ *Up to 2 programmable buttons*

✓ *Vandal-resistant housing IK10/IP65*

✓ *Acoustic monitoring of speaker-microphone path*

✓ *DSP functions: noise reduction, echo cancellation, automatic volume control*

✓ *Integrations available via SNMP v3*

ROAD TUNNELS

TRAIN TUNNELS

EVACUATION POINTS

HEAVY INDUSTRY

**ABT-ICO-EME-S02**

**ABT-ICO-EME-S01**

ICO EMERGENCY S01 and S02 are intercoms specifically designed for applications with very high background noise levels (e.g., ventilation noise, traffic noise). To maximize speech intelligibility, the S02 version is equipped with a handset; lifting it automatically initiates a connection with the operator. The ICO EMERGENCY S01 and S02 housing features high vandal resistance (IK09) and an IP65 protection rating, ensuring reliability in demanding environmental conditions. Both versions have 2 relays and 6 GPIO inputs/outputs, enabling integration with various external devices such as strobe, electronic locks, and specialized buttons. Additionally, the intercom can autonomously report its status to building management systems (PSIM, BMS, etc.) via the SNMP protocol, without the need to involve the SIP server. This allows for monitoring events such as the opening of shelter doors, evacuation routes, or the enclosure in which the device is mounted. ICO EMERGENCY S01 and S02 offer flexible mounting options: surface-mounted, flush-mounted, or in drywall constructions. An orange housing variant with 'SOS' markings on the sides is also available, further enhancing its visibility in emergency situations. Both intercoms can be powered via standard PoE or using an external DC power supply.

| MODELS | Description |
|---|---|
| ABT-ICO-FRO-S01 | Intercom equipped with a single programmable button |
| ABT-ICO-FRO-S02 | Intercom equipped with handset, no buttons |

| ACCESSORIES | Description |
|---|---|
| ABT-IAC-BOX01-PB | Mounting box for modular and plasterboard walls |
| ABT-IAC-BOX01-F | Flush-mounting box |
| ABT-IAC-BOX01-W | Surface-mounting box |
| ABT-IAC-BOX01-WO | Orange surface-mounted housing with 'SOS' markings, supports IP65 |

| | ICO EMERGENCY S01 / S02 |
|---|---|
| **Audio** | |
| Loudspeaker | 1 × built-in speaker with rated power of 5W |
| Amplifier | Class D; 15 W |
| Microphone | 1 × MEMS type (frequency response 60 Hz – 20 kHz) |
| Handset | 1 × handset with flexible cord (S01 variant) |
| Audio input | 1 × balanced line input – nominal level 775 mV RMS |
| Audio output | 1 × balanced line output – nominal level 775 mV RMS |
| Headphone output | Output power 0,25W, Minimum load impedance 16 Ohm |
| Codecs | Speex, iLBC, GSM, PCMU, G722, Opus, G729, L16 |
| **Indicators and control** | |
| Programmable button | 1 (S01 variant) |
| **Interfaces** | |
| Ethernet ports | 2 × Ethernet port |
| Relays | 2 × make contact input: 30 VDC, 1A / 125 VAC, 0.3A, max. switching voltage 250 VAC / 220 VDC, max. switching power 62.5 VA / 30 W, max. load current 2A |
| GPIO | 6 × digital input/output: parametric input (2-state); logic output 0-5V, current output 18mA, common reference point |
| LED Driver | 12V, current limiting resistor 300 Ohm |
| **Power supply** | |
| PoE | IEEE 802.3af 3af / Class 0, IEEE 802.3at / max. 12.95W (RJ45) |
| DC | 12V / 2A power supply (screw terminal) |
| **Environmental parameters** | |
| Operating Temperature | -40 to +65°C |
| Relative Humidity | 10% to 95% (non-condensation) |
| Mechanical Resistance | IK10 |
| Dust/water protection | IP65 |
| **Physical parameters** | |
| Dimensions (H × W) | 137 × 277 mm |
| Weight | 1500 g |
| Material | Stainless steel |

# ICO EMERGENCY S03

## IP INTERCOM FOR PENITENTIARY FACILITIES

✔ *Heavy-duty wall-mounted intercom*

✔ *Vandal-resistant housing IK10/IP65*

✔ *2 programmable buttons*

✔ *4 auxiliary buttons*

✔ *Acoustic monitoring of speaker-microphone path*

✔ *DSP functions: noise reduction, echo cancellation, automatic volume control*

✔ *Integrations available via SNMP v3*

CORRECTIONAL FACILITIES

DETENTION CENTERS

REHABILITATION CENTERS

ICO EMERGENCY S03 is an intercom dedicated to penitentiary facilitiy applications, where there is a need for increased mechanical resistance and necessity to integrate additional functionalities, such as operating window opening mechanisms, controlling lighting, or managing the public address system. The ICO EMERGENCY S03 housing features high vandal resistance (IK10) and an IP65 protection rating, ensuring reliability in demanding environmental conditions.

It is designed for flush mounting using the dedicated mounting box ABT-IAC-BOX01-F. The front panel of the ICO EMERGENCY S03 is equipped with 2 quick dial buttons and a group of 4 auxiliary buttons. Two buttons are used to operate the integrated multicast radio receiver. The remaining two buttons enable the control of external devices such as the window operator and room lighting. ICO EMERGENCY S03 has 3 relays and 6 GPIO inputs/outputs, enabling integration with

various external devices such as strobe, electronic locks, and specialized buttons. Moreover, ICO EMERGENCY S03 can autonomously transmit information about its status and the status of the aforementioned relays and GPIOs to building management systems (PSIM, BMS, etc.) directly, bypassing the SIP server, using the SNMP protocol. ICO EMERGENCY S03 can be powered via standard PoE or using an external DC power supply.

| MODELS | Description |
|---|---|
| ABT-ICO-FRO-S03 | Intercom dedicated to penitentiary applications |

| ACCESSORIES | Description |
|---|---|
| ABT-IAC-BOX01-F | Flush-mounting box |

| | ICO EMERGENCY S03 |
|---|---|
| **Audio** | |
| Loudspeaker | 1 × built-in speaker with rated power of 5W |
| Amplifier | Class D; 15 W @4 Ohm (1% THD+N) |
| Microphone | 1 × MEMS type (frequency response 60 Hz – 20 kHz) |
| Audio input | 1 × balanced line input – nominal level 775 mV RMS |
| Audio output | 1 × balanced line output – nominal level 775 mV RMS |
| Headphone output | Output power 0,25W, Minimum load impedance 16 Ohm |
| Codecs | Speex, iLBC, GSM, PCMU, G722, Opus, G729, L16 |
| **Indicators and control** | |
| Quick dial button | × 2 |
| Radio buttons | 2 × (VOL+, VOL-) |
| **I/O (Input/Output)** | |
| Number of terminals | 6 pcs of programmable terminals, each can be input/output or LED driver |
| Digital input | Self polarized 2 state logical input with hysteresis for resistance defined source, two 4k7 series resistors for LOW state and one 4k7 resistor for HIGH state. OPEN and SHORT states also supported. |
| Digital output | 0-5V, current 18mA, overvoltage and reverse current protected -0,7...5,5V, common reference ground |
| LED driver | source series resistance 300R |
| **Power supply** | |
| PoE | IEEE 802.3af 3af / Class 0, IEEE 802.3at / max. 12.95W (RJ45) |
| DC | 12V / 2A power supply (screw terminal) |
| **Environmental parameters** | |
| Operating Temperature | -40 to +65°C |
| Relative Humidity | 10% to 95% (non-condensation) |
| Mechanical Resistance | IK10 |
| Dust/water protection | IP65 |
| **Physical parameters** | |
| Dimensions (H × W) | 137 × 277 mm |
| Weight | 1500 g |
| Material | Stainless steel |

# ICO FRONTIER

## IP INTERCOM

✔ *Basic intercom*

✔ *Up to 3 programmable buttons*

✔ *Vandal-resistant housing IK08/IP54*

✔ *Acoustic monitoring of speaker-microphone path*

✔ *DSP functions: noise reduction, echo cancellation, automatic volume control*

✔ *Integrations available via SNMP v3*

PUBLIC BUILDINGS

GENERAL USE

ICO FRONTIER is a basic intercom type equipped with 1 to 3 programmable buttons used for call functions. It provides high-quality, hands-free voice communication thanks to advanced digital algorithms such as noise reduction, automatic volume control, and echo cancellation. ICO FRONTIER is equipped with 3 relays and 6 GPIO inputs/outputs, which enables easy integration with various external devices, such as strobes, electronic locks, and external buttons. Moreover, ICO FRONTIER can autonomously report its status to building management systems (PSIM, BMS, etc.) using the SNMP protocol, without the need to involve the SIP server. The robust, vandal-resistant housing with an IP54/IK08 rating guarantees reliable operation in various environmental conditions. Dedicated mounting accessories allow for flexible surface, flush, or drywall installation. ICO FRONTIER can be powered via standard PoE or using an external DC power supply.

| MODELS | Description |
|---|---|
| ABT-ICO-FRO-B1E | Intercom equipped with a single programmable buton |
| ABT-ICO-FRO-B3E | Intercom equipped with three programmable buttons |

| ACCESSORIES | Description |
|---|---|
| ABT-IAC-BOX01-PB | Mounting box for modular and plasterboard walls |
| ABT-IAC-BOX01-F | Flush-mounting box |
| ABT-IAC-BOX01-W | Surface-mounting box |

| | ICO FRONTIER |
|---|---|
| **Audio** | |
| Loudspeaker | 1 × built-in speaker with rated power of 5W |
| Amplifier | Class D; 15 W |
| Microphone | 1 × MEMS type  (frequency response 60 Hz – 20 kHz) |
| Audio input | 1 × balanced line input – nominal level 775 mV RMS |
| Audio output | 1 × balanced line output – nominal level 775 mV RMS |
| Headphone output | Output power 0,25W, Minimum load impedance 16 Ohm |
| Codecs | Speex, iLBC, GSM, PCMU, G722, Opus, G729, L16 |
| **Indicators and control** | |
| Programmable button | 1 or 3 |
| **Interfaces** | |
| Ethernet ports | 2 × Ethernet port |
| Relays | 2 × make contact input: 30 VDC, 1A / 125 VAC, 0.3A, max. switching voltage 250 VAC / 220 VDC, max. switching power 62.5 VA / 30 W, max. load current 2A |
| GPIO | 6 × digital input/output: parametric input (2-state); logic output  0-5V, current output 18mA, common reference point |
| LED Driver | 12V, current limiting resistor 300 Ohm |
| **Power supply** | |
| PoE | IEEE 802.3af 3af / Class 0, IEEE 802.3at / max. 12.95W (RJ45) |
| DC | 12V / 2A power supply (screw terminal) |
| **Environmental parameters** | |
| Operating Temperature | -40 to +65°C |
| Relative Humidity | 10% to 95% (non-condensation) |
| Mechanical Resistance | IK08 |
| Dust/water protection | IP54 |
| **Physical parameters** | |
| Dimensions (H x W) | 137 × 277 mm |
| Weight | 1500 g |
| Material | Stainless steel |

# ICO CLEANROOM

## IP INTERCOM FOR CLEANROOM APPLICATIONS

✓ *Intercom for clean rooms*

✓ *Antibacterial protective coating*

✓ *Resistance to chemical agents PZH hygiene certificate*

✓ *Full backlit keypad OLED display*

✓ *DSP functions: noise reduction, echo cancellation, automatic volume control*

✓ *Integrations available via SNMP v3*

**HEALTHCARE FACILITIES**  **OPERATING ROOMS**  **LABORATORIES**  **PHARMACEUTICAL INDUSTRY**  **HI-TECH INDUSTRY**

ICO CLEANROOM is an IP intercom dedicated to clean room environments. The device features a housing with an environmental protection rating of IP67 and a front panel secured with a chemical-resistant, antibacterial protective coating, which prevents the accumulation of dirt in crevices and allows the intercom to be cleaned using detergents commonly used in healthcare. The device's properties are confirmed by the Hygiene Certificate of the National Institute of Public Health PZH. ICO CLEANROOM is adapted for installation in modular wall systems. ICO CLEANROOM is equipped with a hands-free system, a clear 2.23-inch OLED display, and a full functional keypad with a backlight option, which improves button visibility in low light conditions and increases contrast in bright light. The keypad allows for adjusting the display backlight and device volume, as well as selecting entries from the contact book in case communication with personnel outside the speed dial list is needed. ICO CLEANROOM has 3 relays and 6 GPIO inputs/outputs, enabling integration with various external devices such as strobe, electronic locks, and specialized buttons. ICO CLEANROOM allows for flush mounting, surface mounting, or installation in modular wall systems. The intercom can be powered via standard PoE or using an external DC power supply.

| MODELS | Description |
|---|---|
| ABT-ICO-CLR | Intercom for clean rooms, with full keypad and protective coating |

| ACCESSORIES | Description |
|---|---|
| ABT-IAC-BOX01-PB | Mounting box for modular and plasterboard walls, supporting IP65 mounting method |
| ABT-IAC-BOX01-F | Flush-mounting box, supporting IP65 mounting methods |
| ABT-IAC-BOX01-W | Surface-mounting box |

| | ICO CLEANROOM |
|---|---|
| **Audio** | |
| Loudspeaker | 1 × built-in speaker with rated power of 5W |
| Amplifier | Class D; 15 W |
| Microphone | 1 × MEMS type (frequency response 60 Hz – 20 kHz) |
| Audio input | 1 × balanced line input – nominal level 775 mV RMS |
| Audio output | 1 × balanced line output – nominal level 775 mV RMS |
| Headphone output | Output power 0,25W, Minimum load impedance 16 Ohm |
| Codecs | Speex, iLBC, GSM, PCMU, G722, Opus, G729, L16 |
| **Indicators and control** | |
| LED indicators | 3 × RGBW LED (device status, door open, dialing/conversation) |
| Display | OLED 2,23" |
| Keyboard | Full function keyboard with backlight |
| **Interfaces** | |
| Ethernet ports | 2 × Ethernet port |
| Relays | 2 × make contact input: 30 VDC, 1A / 125 VAC, 0.3A, max. switching voltage 250 VAC / 220 VDC, max. switching power 62.5 VA / 30 W, max. load current 2A |
| GPIO | 6 × digital input/output: parametric input (2-state); logic output 0-5V, current output 18mA, common reference point |
| LED Driver | 12V, current limiting resistor 300 Ohm |
| **Power supply** | |
| PoE | IEEE 802.3af 3af / Class 0, IEEE 802.3at / max. 12.95W (RJ45) |
| DC | 12V / 2A power supply (screw terminal) |
| **Environmental parameters** | |
| Operating Temperature | -40 to +65°C |
| Relative Humidity | 10% to 95% (non-condensation) |
| Dust/water protection | IP67 |
| Mechanical Resistance | IK05 |
| **Physical parameters** | |
| Dimensions (H × W) | 137 × 277 mm |
| Weight | 1500 g |
| Material | Aluminum |

# ICO STRONG

## IP INTERCOM

✓ *Intercom for special applications*

✓ *Modular design*

✓ *Full backlit keypad*

✓ *OLED display*

✓ *DSP functions: noise reduction, echo cancellation, automatic volume control*

✓ *Integrations available via SNMP v3*

INDUSTRIAL FACILITIES   STRATEGIC FACILITIES   MILITARY FACILITIES   PENITENTIARY FACILITIES

**ABT-ICO-STR-K**

**ABT-ICO-STR-B4**

ICO STRONG is an intercom dedicated to applications requiring devices with high resistance to external factors. Its housing features vandal resistance at the IP67/IK10 level. ICO STRONG has a modular design. It is standardly equipped with a hands-free system, a 2.23-inch OLED display, and a full functional keypad with a backlight option. It can be further expanded with modules such as a camera, RFID reader, emergency button, or additional speaker. There is also the possibility to replace the full functional keypad with 1 or 4 quick dial buttons. The device has 3 relays and 6 GPIO inputs/outputs, enabling integration with various external devices such as strobe, electronic locks, and specialized buttons. Furthermore, it has the ability to directly transmit information about its status to management systems (PSIM, BMS, etc.) bypassing the SIP server, using the SNMP protocol. ICO STRONG can be surface-mounted or flush-mounted (using dedicated mounting accessories). The device is powered via PoE or using an external DC power supply.

| MODELS | Description |
|---|---|
| ABT-ICO-STR-K | Intercom with 1 speaker, display and keypad |
| ABT-ICO-STR-KC | Intercom with 1 speaker, IP camera, display and keypad |
| ABT-ICO-STR-B1 | Intercom with 2 speakers, display and 1 button |
| ABT-ICO-STR-B1C | Intercom with 1 speaker, IP camera, display and 1 button |
| ABT-ICO-STR-B4 | Intercom with 2 speakers, display and 4 buttons |
| ABT-ICO-STR-B4C | Intercom with 1 speaker, IP camera, display and 4 buttons |

| ACCESORIES | Description |
|---|---|
| ABT-IAC-BOX02-W | Mounting box for modular and plasterboard walls |
| ABT-IAC-BOX02-PB | Flush-mounting box |
| ABT-IAC-BOX02-F | Surface-mounting box |

| | ICO STRONG |
|---|---|
| **Audio** | |
| Loudspeaker | 1 × built-in speaker with rated power of 5W |
| Amplifier | Class D; 15 W |
| Microphone | 1 × MEMS type (frequency response 60 Hz – 20 kHz) |
| Audio input | 1 × balanced line input – nominal level 775 mV RMS |
| Audio output | 1 × balanced line output – nominal level 775 mV RMS |
| Headphone output | Output power 0,25W, Minimum load impedance 16 Ohm |
| Codecs | Speex, iLBC, GSM, PCMU, G722, Opus, G729, L16 |
| **Indicators and control** | |
| LED indicators | 3 × RGBW LED (device status, door open, dialing/conversation) |
| Display | OLED 2,23″ |
| Keyboard | Full function keyboard with backlight |
| **Interfaces** | |
| Ethernet ports | 2 × Ethernet port |
| Relays | 2 × make contact input: 30 VDC, 1A / 125 VAC, 0.3A, max. switching voltage 250 VAC / 220 VDC, max. switching power 62.5 VA / 30 W, max. load current 2A<br>1x active relay: 12 VDC, max. current 100mA |
| GPIO | 6 × digital input/output: parametric input (2-state); logic output 0-5V, current output 18mA, common reference point |
| LED Driver | 12V, current limiting resistor 300 Ohm |
| **Power supply** | |
| PoE | IEEE 802.3af 3af / Class 0, IEEE 802.3at / max. 12.95W (RJ45) |
| DC | 12V / 2A power supply (screw terminal) |
| **Environmental parameters** | |
| Operating temperature | -40 to +65°C |
| Relative Humidity | 10% to 95% (non-condensation) |
| Mechanical Resistance | IK10 |
| Dust/water protection | IP67 |
| **Physical parameters** | |
| Dimensions (H × W × D) | 250 × 130 × 60 mm |
| Weight | 1500 g |
| Material | Aluminum |

# ICO PHP S01/S02

## INFO/SOS HELP POINT INTERCOM

✓ *Free-standing intercom*

✓ *Vandal-resistant design IK10*

✓ *Protection rating IP65*

✓ *Modular configuration*

✓ *DSP functions: noise reduction, echo cancellation, automatic volume control*

✓ *Integrations available via SNMP v3*

RAILWAY   SUBWAY   AIRPORTS   ROAD TUNNELS   PUBLIC BUILDINGS

ICO-PHP is a free-standing intercom column serving as an emergency call point. It features a vandal-resistant housing with an IK10/IP65 protection rating. ICO-PHP has a modular design. It consists of a free-standing enclosure equipped with an intercom module and additional elements such as a camera, induction loop amplifier, or network switch. The configuration and mechanics of the column can be customized to meet individual customer needs. The ICO-PHP intercom module is equipped with 2 relays and 6 GPIO inputs/outputs, enabling integration with various external devices such as strobe, electronic locks, and specialized buttons. Furthermore, it has the ability to directly transmit information about its status to management systems (PSIM, BMS, etc.) bypassing the SIP server, using the SNMP protocol.

**ICO PHP S01**

**ICO PHP S02**

| MODELS | Description |
|---|---|
| ABT-ICO-PHP S01 | Emergency call point for railway applications |
| ABT-ICO-PHP S02 | INFO/SOS point for emergency and/or information calls |

| | ICO PHP |
|---|---|
| **Audio** | |
| Loudspeaker | 1 × built-in speaker with rated power of 5W |
| Amplifier | Class D; 15 W |
| Microphone | 1 × MEMS type (frequency response 60 Hz – 20 kHz) |
| Audio input | 1 × balanced line input – nominal level 775 mV RMS |
| Audio output | 1 × balanced line output – nominal level 775 mV RMS |
| Headphone output | Output power 0,25W, Minimum load impedance 16 Ohm |
| Codecs | Speex, iLBC, GSM, PCMU, G722, Opus, G729, L16 |
| **Interfaces** | |
| Ethernet ports | 2 × Ethernet port |
| Relays | 2 × make contact input: 30 VDC, 1A / 125 VAC, 0.3A, max. switching voltage 250 VAC / 220 VDC, max. switching power 62.5 VA / 30 W, max. load current 2A |
| GPIO | 6 × digital input/output: parametric input (2-state); logic output 0-5V, current output 18mA, common reference point |
| LED Driver | 12V, current limiting resistor 300 Ohm |
| **Power supply** | |
| PoE | IEEE 802.3af 3af / Class 0, IEEE 802.3at / max. 12.95W (RJ45) |
| DC | 12V / 2A power supply (screw terminal) |
| **Environmental parameters** | |
| Operating temperature | -40 to +65°C |
| Relative Humidity | 10% to 95% (non-condensation) |
| Mechanical Resistance | IK10 |
| Dust/water protection | IP65 |

# ABT-IAC-BOX01-W/W0 / BOX02-W

## SURFACE MOUNT HOUSING

✔ *Surface mount housing for IP Intercoms*



| ABT-IAC-BOX01-W | ABT-IAC-BOX01-W0 | ABT-IAC-BOX02-W |

| MODELS | Description |
|---|---|
| ABT-IAC-BOX01-W | Surface mount housing for ICO EMERGENCY series devices |
| ABT-IAC-BOX01-W0 | Surface mount housing for ICO EMERGENCY series devices in orange with SOS markings on the side of the housing |
| ABT-IAC-BOX02-W | Surface mount housing for ICO STRONG series devices |

| | ABT-IAC-BOX01-W | ABT-IAC-BOX01-W0 | ABT-IAC-BOX02-W |
|---|---|---|---|
| Dimensions (WxHxD) | 137 x 277 x 46 mm | 137 x 277 x 46 mm | 1130 x 250 x 61,8 mm |
| Weight | 1538 g | 1538 g | 900 g |
| Material | Steel | Steel | Aluminum |

# ABT-IAC-BOX01-F/PB / BOX02-FPB

## RECESSED HOUSING

✔ *Flush-mounting housing*

✔ *Housing for installation in modular and plasterboard walls*

**ABT-IAC-BOX01-PB**

| MODELS | Description |
|---|---|
| ABT-IAC-BOX01-F | Flush-mount housing for ICO EMERGENCY family devices |
| ABT-IAC-BOX01-PB | Plasterboard housing for ICO EMERGENCY family devices |
| ABT-IAC-BOX02-F | Flush-mount for ICO STRONG family devices |
| ABT-IAC-BOX02-PB | Plasterboard housing for ICO STRONG family devices |

| | ABT-IAC-BOX01-F | ABT-IAC-BOX01-PB | ABT-IAC-BOX02-FP/B |
|---|---|---|---|
| Dimensions (WxHxD) | 125 x 265 x 40 mm | 125 x 265 x 40 mm | 130 x 250 x 57,8 mm |
| Weight | 659 g | 601 g | 500 g |
| Material | Steel | Steel | Steel |

# ABT-ICDG-1

## SIP PAGING UNIT

✓ *Desktop station with handset and gooseneck microphone*

✓ *4.3'' main display*

✓ *H.264 video codec support*

✓ *Two 3.5'' auxiliary displays*

✓ *Programmable buttons*

✓ *Full functional keypad*

✓ *Headset connection possibility*

✓ *Built-in Bluetooth module*

ABT-ICDG-1 is an operator console that combines the functionality of an IP phone and a public address desk. It is equipped with a 4.3-inch display, an auxiliary display, a full functional keypad, a block of 32 programmable buttons, a handset for calls, a hands-free system, and a goose-neck microphone. The numeric keypad of the ABT-ICDG-1 allows the operator to select any intercom by entering its assigned number. On the graphic LCD display, the operator can clearly verify the station with which a connection has been established and access additional functions such as settings and the address book. The quick selection button block, located on the right side of the station, offers programming of 32 physical buttons (a total of 96 logical functions across 3 layers). These can be assigned various tasks, such as selecting a recipient, selecting a zone, and activating voice messages from the server memory.

| MODELS | Description |
|---|---|
| ABT-ICDG-1 | Operator console / IP intercom with gooseneck microphone |
| ABT-ICDG-1B | Operator console / IP intercom with gooseneck microphone; enhanced IK rating |

| | ABT ICDG-1 / ABT ICDG-1B |
|---|---|
| **Audio** | |
| Microphone | 1 × directional gooseneck microphone; Frequency response: 20 Hz - 20 kHz; SNR: > 60 dB. @1kHz |
| Handset | 1 × RJ9 handset with cord |
| **Indicators and control** | |
| Main display | 1 × LCD color display 4,3'' (480 x 272) |
| Auxiliary display | 2 × LCD color display 3,5'' (320 x 480) |
| Keyboard | Full functional telephone keyboard 42 × Programmable buttons |
| Indicators | 1 × status LED (red) |
| **Interfaces** | |
| Ethernet ports | 2 × Ethernet port |
| **Power supply** | |
| PoE | PoE: IEEE 802.3af / class 0, IEEE 802.3at / max. 9W |
| DC | External adapter - 5V / 2A (option) |
| **Environmental parameters** | |
| Operating temperature | -10 to +40℃ |
| Relative Humidity | 10% to 95% (non-condensation) |
| Mechanical Resistance | IP30 |
| Dust/water protection | IK07 (ABT-ICDG-1B) |
| Dimensions | 309 × 214 × 187mm (base option 1) 309 × 226 × 167mm (base option 2) |

# ABT-ICD-1

## DESKTOP INTERCOM

✔ *Basic desktop Unit with handset*

✔ *2.8'' display*

✔ *Full functional keypad*

✔ *Headset connection possibility*

ABT-IDC-1 is a stylish desktop intercom designed for intuitive call handling and convenient voice announcements. Equipped with a clear 2.8-inch display, a functional keypad, a hands-free mode, and a dedicated handset, it ensures comfortable communication. Thanks to the graphic LCD display, the ABT-IDC-1 operator has a clear view of the call status and easy access to additional functions such as the address book and device settings. The intercom enables initiating calls and conducting conversations with any system user, as well as effectively broadcasting voice messages.

| MODELS | Description |
|---|---|
| ABT-ICD-1 | Desktop station with display and headset |

| | ABT-ICD-1 |
|---|---|
| **Audio** | |
| Handset | 1 × RJ9 handset with cord |
| **Indicators and control** | |
| Display | 1 × LCD color display 2,8'' (320 x 240) |
| Keyboard | Full functional telephone keyboard |
| Indicators | 1 × status LED (red) |
| **Interfaces** | |
| Ethernet ports | 2 × Ethernet port |
| **Power supply** | |
| PoE | PoE: IEEE 802.3af / class 0, IEEE 802.3at / max. 9W |
| DC | External DC adapter - 5V / 0.6A (option) |
| **Environmental parameters** | |
| Operating temperature | 0 to +45°C |
| Relative Humidity | 10% to 95% (non-condensation) |
| Dimensions | 169 × 186.3 × 174.5 mm (setup A) 169 × 177.6 × 183.7 mm (setup B) 169 × 115.6 × 212.5 mm (wall mounted) |

# ICO BOX

## INTELLIGENT IP AMPLIFIER

✔ *Audio transmission using SIP, UDP, RTP*

✔ *20W power amplifier (Class D)*

✔ *Noise tracking capability*

✔ *Remote status monitoring*

✔ *Reporting via SNMP*

✔ *Browser-based configuration and management*

ICO-BOX is an IP network amplifier that enables the integration of conventional loudspeakers into an intercom system. It is equipped with a digital amplifier with rated power of 20W (at 4 Ohms). ICO-BOX is capable of receiving audio signals transmitted using SIP 2.0, RTP, and RAW UDP standards. The device also has a local line input.

ICO-BOX offers a noise tracking function – the level and characteristics of the emitted sound can be automatically adjusted to the ambient noise level measured by a connected microphone. This improves the intelligibility of the reproduced speech. ICO-BOX has advanced mechanisms for monitoring its operational status, including acoustic control of the correct functioning of the loudspeaker-microphone system. The device status can be reported to external management systems using the SNMP protocol. The configuration of ICO-BOX is done remotely via an intuitive web interface.

| MODELS | Description |
|---|---|
| ABT-ICO-BOX | Network amplifier with noise tracking function |

| | ICO BOX |
|---|---|
| **Audio** | |
| Amplifier | 20W, Class D |
| Local input | 1 × balanced line input, 20 kOhm, nominal level 775 mV RMS |
| Sensor input | 1 × microphone input, 100 kOhm, 2V Phantom Power |
| **Interfaces** | |
| Ethernet ports | 2 Ethernet ports |
| Protocols | SIP2.0, RTP, RAW UDP, SNMP, HTTP |
| **Power supply** | |
| PoE | PoE: IEEE 802.3af / class 0, IEEE 802.3at / max. 12,95W |
| DC | External DC adapter - 12V / 2A (option) |
| **Environmental parameters** | |
| Operating temperature | -40 to +65°C |
| Relative Humidity | 10% to 95% (non-condensation) |
| Dust/water protection | IP30 |
| **Physical parameters** | |
| Material | Aluminum |
| Weight | 400g |
| Dimensions (W x H x D) | 50 × 140 × 120 mm |
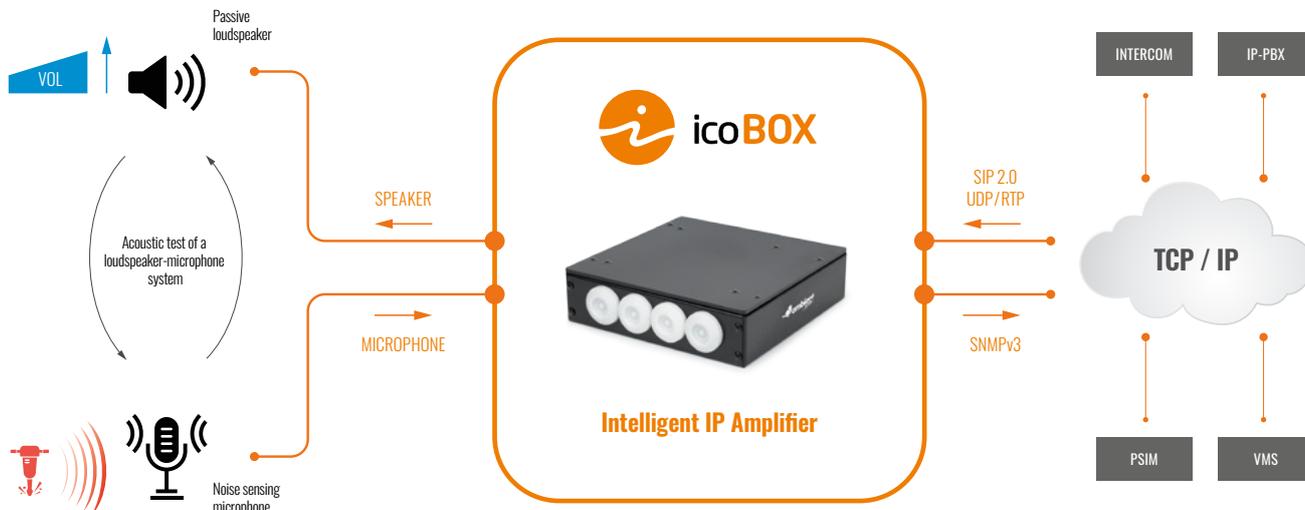
# ABT-S206S

## SIP CEILING LOUDSPEAKER

✓ *Powered ceiling loudspeaker*

✓ *Quick and simple installation*

The ABT-S206S is a SIP recessed ceiling loudspeaker with built-in amplifier. The loudspeaker can be powered via PoE or using a DC adapter. It is dedicated for security and safety applications, allowing it to interface to intercom systems, PSIM software, VMS, CCTV systems and other, directly via TCP/IP network.
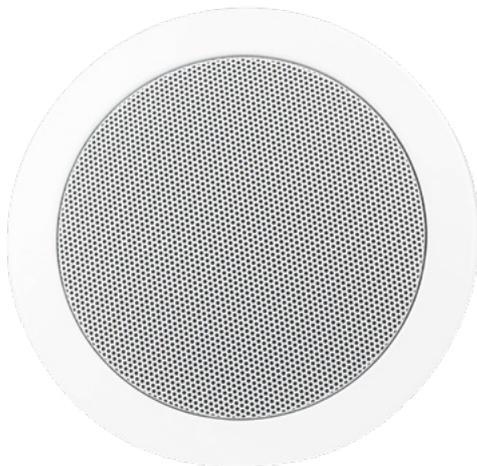
| | ABT-S206S |
|---|---|
| **Electrical** | |
| Rated power | 6 W |
| Network interface | 10/100BASE-TX, RJ45 |
| Power supply | DC 12 – 24 V or POE |
| Decoding mode | Max. 48 kHz, 320 kbps audio stream, support MP3, G.711 a/u, G.722. min. delay: 50 ms |
| Effective frequency range | 120 Hz – 20 000 Hz |
| Dispersion at 1 kHz | 180° |
| SPL (6 W @ 1 m) | 99 dB |
| **Environmental** | |
| IP rating | IP32 |
| Min. / max. ambient temperature | -20°C / 55°C |
| **Mechanical** | |
| Dimensions | Height 130 mm, ø 204  mm |
| Net Weight | 1,1 kg |
| Colour | White (RAL 9003) |
| Material | Steel |
| Mounting | Spring clamp |
| **Accessories** | |
| Power supply | 12 VDC / 2 A / 24 W |

Frequency band:



Circular chart of directional characteristic:



500 Hz
1000 Hz
2000 Hz
4000 Hz
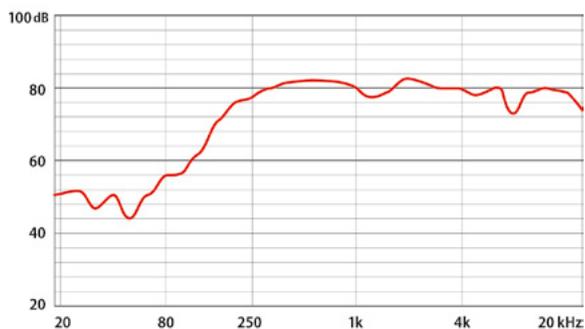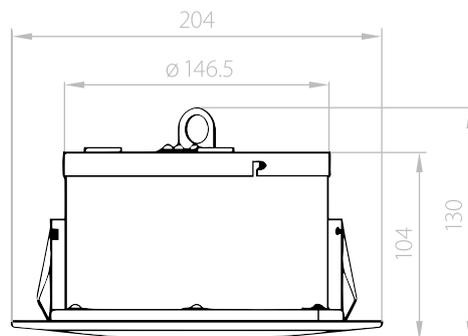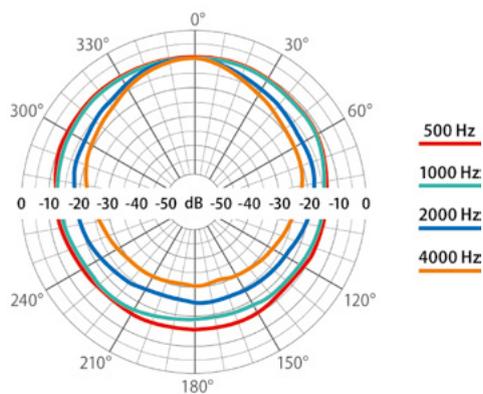
# ABT-W6S

## SIP WALL-MOUNTED LOUDSPEAKER

✔ *Powered cabinet loudspeaker*

✔ *Suitable for wall and ceiling installation*



The ABT-W6S is a cabinet loudspeaker with a metal enclosure. The loudspeaker is designer for on-wall and/or on-ceiling installation, with the option for recessed installation (using an accessory bracket). The loudspeaker is fitter with a built-in power amplifier and SIP module, allowing it to interface directly with SIP-based life safety and security systems.

| | ABT-W6S |
|---|---|
| **Electrical** | |
| Rated power | 6 W |
| Network interface | 10/100BASE-TX, RJ45 |
| Power supply | DC 12 – 24 V or POE |
| Decoding mode | Max. 48 kHz, 320 kbps audio stream, support MP3, G.711 a/u, G.722. min. delay: 50 ms |
| Effective frequency range | 120 Hz – 20 000 Hz |
| Dispersion at 1 kHz | 180° |
| SPL (6 W @ 1 m) | 101 dB |
| **Environmental** | |
| IP rating | IP32 |
| Min. / max. ambient temperature | -20°C / 55°C |
| **Mechanical** | |
| Dimensions | 260 × 180 × 80 mm |
| Net weight | 1,5 kg |
| Colour | White (RAL 9003) |
| Material | Steel |
| Mounting | Screw |
| **Accessories** | |
| Power Supply | 12 VDC / 2 A / 24 W |

Frequency band:
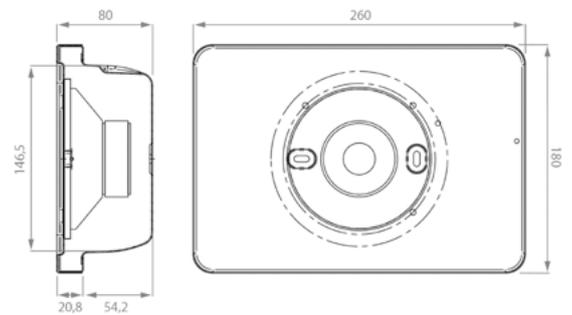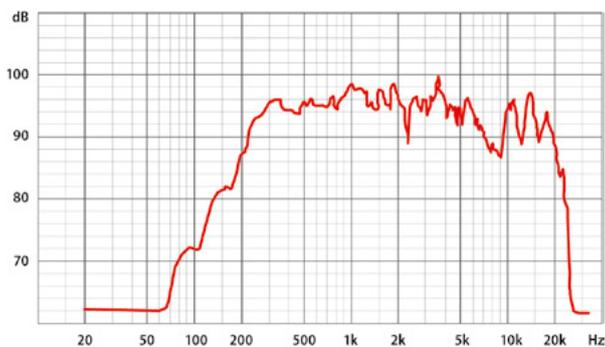




Circular chart of directional characteristic – horizontal:
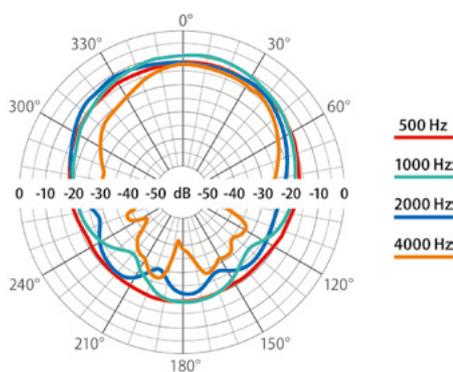


Circular chart of directional characteristic – vertical:
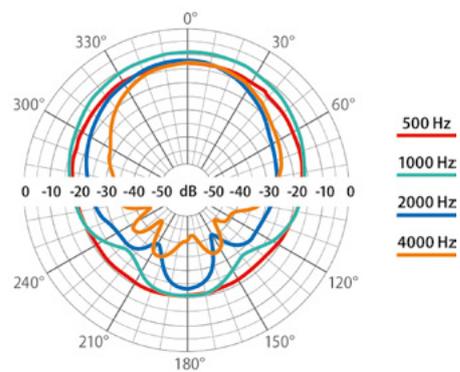
# ABT-T2515S

## SIP HORN LOUDSPEAKER WITH BUILT-IN 15 W AMPLIFIER

✔ *High sound pressure level*

✔ *Aluminium housing*

✔ *Protection from dust and humidity: IP65 rating*

ABT-T2515S is a SIP horn loudspeaker with a built-in 15 W amplifier. It can be powered by PoE that allows to easily connect it to existing local area networks using one CAT5 / CAT6 cable connection. It is an ideal choice for applications in security systems, industrial and commercial systems in both outdoor and indoor areas such as train stations, airports, parking lots, parks, gardens, corridors and much more. The high efficiency and directionality of the loudspeaker allow broadcasting voice messages directly to even distant places, while ensuring a high sound pressure level. The aluminium housing guarantees increased resistance to adverse weather conditions provided by the IP65 rating.

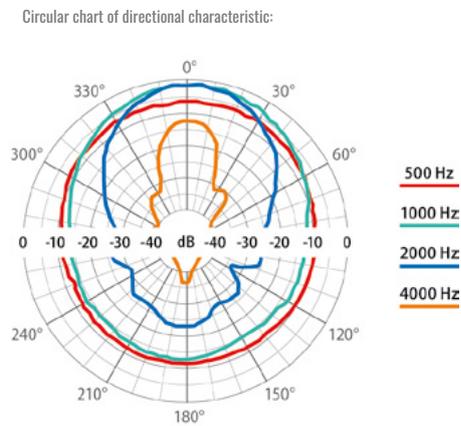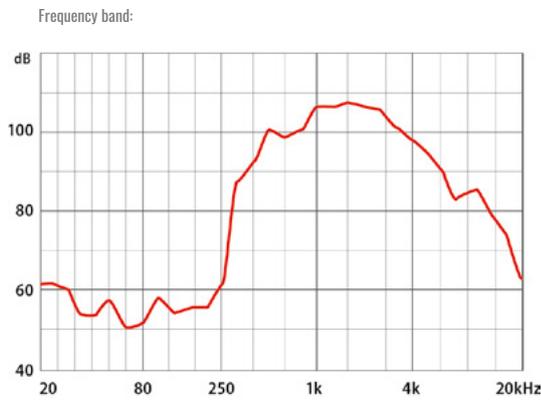| | ABT-T2515S |
|---|---|
| **Electrical** | |
| Rated power of amplifier | 15 W |
| Network interface | 10/100BASE-TX, RJ45 |
| Power supply | DC 12 – 24 V or POE |
| Decoding mode | Stereo playing, max. 48 kHz, 320 kbps audio stream, support MP3, WAV (PCM +IMA ADPCM), G.711 a/u, G.722., min. delay: 50 ms |
| Encoding mode | G.711a/u, G.722 and RTP mode, min. delay: 30 ms |
| Effective frequency range | 350 Hz – 7 kHz |
| Dispersion at 1 kHz | 110° |
| SPL (15 W @ 1 m) | 111 dB |
| **Environmental** | |
| IP rating | IP65 |
| Min. / max. ambient temperature | -20°C / 55°C |
| **Mechanical** | |
| Dimensions | 250 × 320 mm |
| Net weight | 2,3 kg |
| Colour | Light grey (RAL 7035) |
| Material | Aluminium |
| Mounting | U type bracket |
| **Accessories** | |
| Power Supply | 12 VDC / 2 A / 24 W |

Frequency band:



Circular chart of directional characteristic:



500 Hz
1000 Hz
2000 Hz
4000 Hz

*We make everyday life safer*

EN / 02.2026