IP Network Audio - Video Intercom System

**IX System**

Extensive lineup, greater flexibility, covering more applications.

The IX System – getting the job done for a wide range of business applications, while providing interoperability and integration with third-party IP systems.

*Full IP-network compatibility*

*Security enhanced by Integration*

- Network Camera
- Access Control
- VMS/NVR
- IP-PBX
- Emergency Call
- Paging
**Full IP-network compatibility, simple installation, and great capacity.**

Enable communication between an unlimited number of door/master stations with no distance limitations. Save money as no servers or separate power sources are necessary to build a system.

### Unlimited number of IX units can be connected

Up to 9998* call address registrations in IX master stations. Extreme scalability - use for installations of any size.

### Peer to peer configuration results in space savings, reduced installation time, and lower cost

Simply connect the units to Power over Ethernet (PoE) switches. No need for a dedicated server, with the additional benefit of eliminating the risk of system downtime due to server malfunction.

### No wiring-distance limitations

LAN and VPN connections enable implementation over extensive areas and between remote locations. This allows for closed circuit communication and central control in large facilities, between corporate and satellite offices, and any type of application with multiple locations.

### PoE design

Electrical power is supplied over the LAN port connection.

**Integration with other IP-based security systems.**

Using existing IP infrastructure, IX System can be integrated with Video Management System, Access Control System, and Network Camera System, etc. Combining security components saves time and resources during set-up and training.

#### Compatible with third-party systems

The IX system is compatible with the ONVIF Profile S interface specifications for network camera equipment. This allows the intercom to be used with third-party systems, enabling interoperability of integrated IP systems. The open API allows for configuring IP systems with greater flexibility.

#### Examples of Integration

**Use with a Video Management System and Access Control**

Interconnection with an ONVIF Profile S-compatible network camera system lets you transform door stations into surveillance cameras for facial identification of visitors. Integrate with video management systems for 24/7 recording. Integration with third-party access control is also possible.

*VMS (video management system): XProtect® by Milestone Systems
*Access control: OnGuard® by Lenel

[Image: Clearly identify visitors with both the intercom and Network camera.]

**IP-PBX Integration**

IP-PBX integration enables the IX system to be used as a part of your internal telephone network. Make receive and transfer calls, answer visitors and release doors.

*Integration available for CUCM, Office, Aura, Digium (Switchvox) and Alcatel-Lucent systems. For further details, please contact your dealer.
*Some countries have local restrictions on connecting to a PBX. Please refer to our website (https://www.aiphone.net/) to check the countries where PBX connection is allowed.
IP Network Audio - Video Intercom System

Custom settings for all situations

Call Queuing

Master stations can receive up to 20 incoming calls simultaneously. Caller information is displayed on a call queue list, making it possible to respond selectively to high-priority calls.

Page to all*1 stations or individual groups

Page to all*1 stations and page to preset specific groups is possible. Message data registered in the master station can be transmitted in advance. Paging amplifiers and external sound sources can be connected for additional coverage and options.

Unicast/Multicast

Depending on the network infrastructure, you can choose sending data via Unicast or Multicast. Paging to all stations can be done using Multicast, and Unicast, paging up to 50 stations is possible.

Send E-mail reports

When master stations are called, IX System can send an E-mail attached with the visitor’s picture up to 3 E-mail addresses. Error and health check reports can be also sent via E-mail.
Customize with prerecorded messages

Create and import custom audio files for use as unique voice messages. For visitors at door stations, voice messages let them know the door and communication status.

For security guards/receptions at master stations, voice messages help to identify incoming calls and special situations instantly.

Notification of call and communication status

Indicator lamps and sounds or voice messages provide notification of call and communication status for security and peace of mind.

Door is open
Call from customer entry point

Usage-specific individual calls and simultaneous calls to multiple devices

Multiple calling methods suitable for various applications and user communication needs at the installation premises can be provided.

**Individual calls (Master station)**
Master station can call and talk with each station individually.

**Group calls (Master station)**
Up to 50 stations can be called at one time. (Up to 50*1 or 99*2 groups can be registered)

Select the group to call on the screen.

Group calling is also available for door stations and sub stations.

**Group calls (Door station/Sub station)**
Up to 20 stations can be called at one time. (Up to 10 groups can be registered)

Call preset groups. Groups can be switched according to preset schedules.

*1.Standard mode
*2.Expanded mode
A wide range of call transfer features

The system offers multiple call transfer features that can be customised to meet users' demands.

**Manual transfer**
Calls can be placed on hold and transferred to another master station manually by the operator.

**Delay transfer**
If no response occurs within a set interval, calls are automatically transferred to a pre-programmed master station.

**Absent transfer**
Calls are automatically transferred to a different master station immediately.

**Schedule transfer**
Calls are automatically transferred to a preset master station during scheduled times, such as after normal business hours.

**Powerful and clear sound in all situations**

- Conversations can be heard clearly while talking even in places with background noise.
- Integrate with PA systems for even more flexibility and power.
Audio and video recording

Audio and video can be recorded onto a microSD card that can be installed in the IX master and door stations. Integration with third party recording systems is also available.

* IX-SS-2G, IX-DA and IX-BA do not have a microSD slot for recording.

* IX-RS-B and IX-RS-W do not have a microSD slot for recording.

**Master station**

**Door station**

**3rd Party NVR/VMS**

* IX-SS-2G, IX-DA and IX-BA do not have a microSD slot for recording.
The software can record the video and audio from conversations automatically or manually. Up to 999 recorded files can be saved and can be viewed by selection through the Recordings function.

**IX Intercom application for PC**

The software offers the same features as a physical IX master station. Video and audio communication, door release, monitoring and paging can all be done through the software.

**Audio and video recording on PC**

The software can record the video and audio from conversations automatically or manually. Up to 999 recorded files can be saved and can be viewed by selection through the Recordings function.

**Speed dial buttons**

The speed dial buttons can be used to quickly perform functions that have been pre-assigned. Up to 50 favorite buttons can be configured.

**Interactive map is a visual, efficient way of selecting stations**

Interactive map allows system operation and status from a bird’s eye view via station icons.

Layering maps provides the ability to zoom into specific areas for easier selection. (campus, building, floor, etc.)
Mullion Door Station

Slim design, suitable for door mullion
The slimmest video door station in the IX range is 48 mm wide and fits the size of the mullions. Able to be installed in a variety of Locations, such as entrance in office buildings, commercial facilities, and outdoor gates.

Contactless call sensor
Calls just by holding a hand over the sensor without pressing the physical call button. Employed algorithms reduce false calls caused by sensing rain, snow, and dust etc.

Clear panoramic view
Corrects wide-angle lens distortion and adjusts video images for easy viewing all the way to the edge.

WDR (Wide Dynamic Range)
Corrects for differences in brightness and darkness, such as in backlighting, and provides natural video images that allow to clearly see both visitor and the background.
As a surveillance camera with high-performance video correction and communication functions, IX-DVM is ideal for the Video Sentry of security doors.

24/7 recording
VMS/NVR (Third party product)
Examples of Popular Applications

Commercial facilities and offices
All-in-one system for internal communication and emergency assistance.

The new IX allows mutual communication between commercial facilities and offices combining emergency assistance functionality at parking areas and toilets. All-in-one system configuration also enables support for outside lines.

Railsways
All-in-one system for Help points, Communication between remote stations, and Video surveillance.

Respond to calls and queries from ticket machines, ticket gates, and platforms with video monitoring. Communication between remote stations is also possible.
**Schools**

All-in-one system for Door Entry management, Call transfer for after hours, and Emergency paging.

Management of entry and exit points integrated with access control can be accomplished. The system can also be used to enable teachers and staff members to easily communicate with one another. After hours control for schools within the district can be performed at a central control site. Use handset sub stations for privacy inside classrooms.

Audio communication and video identification allows for immediate response where assistance is needed. Crime prevention can be enhanced further through simultaneous installation of network cameras.

**Parking facilities**

All-in-one system for Emergency call, Remote control of distant parking spaces, and Video surveillance.
System Configuration

Number of station registrations in address book

<table>
<thead>
<tr>
<th>Product number</th>
<th>Product name</th>
<th>Number of station registrations in address book</th>
</tr>
</thead>
<tbody>
<tr>
<td>IX-MV7-HB, IX-MV7-HW, IX-MV7-B, IX-MV7-W</td>
<td>Master Station</td>
<td>Expanded mode 9998 stations Standard mode 500 stations</td>
</tr>
<tr>
<td>IX-SOFT</td>
<td>Intercom Application for PC</td>
<td>Expanded mode 9998 stations Standard mode 499 stations</td>
</tr>
<tr>
<td>IX-RS-B, IX-RS-W</td>
<td>Handset Sub Station</td>
<td>20 stations*¹</td>
</tr>
<tr>
<td>IX-DV, IX-DVF, IX-DVF-P, IX-DVF-RA, IX-DVF-2RA, IX-DVM, IX-EA, IX-DA</td>
<td>Video Door Station</td>
<td>20 stations*¹</td>
</tr>
<tr>
<td>IX-SS-2G, IX-SSA, IX-SSA-RA, IX-SSA-2RA, IX-BA</td>
<td>Audio Only Door Station</td>
<td>20 stations*¹</td>
</tr>
</tbody>
</table>

*¹Master stations, sub stations and intercom applications can be registered (Max. 20).
Serverless Configuration Achieves Savings in Space and Installation Work, and Lower Costs

Typical Systems
Typical systems require a "separate server" and the attendant effort of installation work, maintenance and administration. In addition, the server requires a power supply.

IX System
The IX System is serverless, which eliminates the risk of system downtime due to server malfunction. The IX door stations*1 can be used to connect IP cameras.

ONVIF (Open Network Video Interface Forum)
The interface specifications established by ONVIF provide standards that enable exchange of live video and audio as well as control information and the like by surveillance cameras and other network video devices feed, even among products from different manufacturers.

VMS (Video Management Software or "System")
This refers to video management software using an IP network. Servers and cameras of any make can be installed, enabling configuration of systems matched to user needs.

NVR (Network Video Recorder)
This is a device that records video feed from a network camera over an IP network.

API
This refers to a publicly disclosed set of commands and functions that can be used in programming. It enables control of intercom functioning by user programs, and also makes it possible for user programs to acquire information from intercoms.

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*2. When PoE passthrough function is used, the IX unit must be connected to an IEEE 802.3at compatible PoE switch or hub.
### Master station

**IX-MV7-HB**  
IP Audio and video master station (Black)  
- UL listed: UL 62368-1

**IX-MV7-HW**  
(Color variation White)  
- UL listed: UL 62368-1

**IX-MV7-B**  
IP Audio and video master station (Black)  
- UL listed: UL 62368-1

**IX-MV7-W**  
(Color variation White)  
- UL listed: UL 62368-1

### Features
- 7 inch touch display for easy operation and video monitoring
- Camera with privacy cover
- A variety of display modes designed for different situations
- Hands-free, touch-to-talk or handset (IX-MV7-HB, IX-MV7-HW) audio communication
- Direct voice call from master station to another station
- Video image adjusting function
- Record audio and video to a microSD card at the start of or during a call
- Play an audio or video recordings saved to a microSD card on a computer
- Call or communication transferring to another master station
- Paging to a group or all stations
- Message paging: Broadcast messages and notifications through the system
- External input paging: Send a page using contact input and external sound input
- Monitor other audio sub stations and door stations
- Others: Door release: Release an electric lock during communication, or during monitoring.
- Transmitting video through ONVIF
- Send e-mails: E-mails can be sent to pre-registered e-mail addresses when triggering events occur.

### Specifications
- **Power source**: Power-over-Ethernet (IEEE 802.3af Class 0)
- **Type of communication**: Hands-free: Automatic voice switching/touch-to-talk, Handset: Full-duplex (for calls between handsets only) (IX-MV7-HB, IX-MV7-HW)
- **Monitor**: 7 inch TFT color LCD
- **Camera**: 1/4 inch CMOS
- **Minimum illumination**: 15 lux
- **Mounting**: Desktop use (with desktop stand) or wall-mount
- **Material**: Flame resistant PC + ABS resin

### Unit dimensions

<table>
<thead>
<tr>
<th>IX-MV7-HB, IX-MV7-HW</th>
<th>IX-MV7-B, IX-MV7-W</th>
</tr>
</thead>
<tbody>
<tr>
<td>280 x 55.5 x 31.7</td>
<td>220 x 31.7 x 12</td>
</tr>
</tbody>
</table>

### Wiring

![Wiring Diagram]

*1. Contact Input Specifications
- **Input method**: Programmable dry contact (N/O or N/C)
- **Level detection method**: 200msec–600ksec by settings
- **Contact resistance**: Max: 200Ω or less, Break: 3kΩ or more
- **Terminal short-circuit current**: 10mA or less
- **Voltage between terminals**: 5.0V DC or less (between open terminals)

*2. Relay Output Specifications
- **Output method**: Form C dry contact (N/O or N/C)
- **Contact rating**: 24V AC, 1A (resistive load), 24V DC, 1A (resistive load)
- **Minimum overload**: 100mV, 0.1mA

*3. Paging Audio Input Specifications
- **Input impedance**: 600Ω
- **Input audio level**: 50mVrms

*4. External Speaker Output Specifications
- **Output impedance**: 8Ω
- **Maximum output power**: 0.5W

*5. *IEEE802.3af
**Features**

- **Calling**
  - Group Call: Make an outgoing call to all stations that belong to the selected group.
  - Contact input call: Make an outgoing call to all stations that belong to the selected contact input call group.
  - Calling up to 20 preprogrammed stations simultaneously.
  - Receive a paging
  - Others: Door release: Release an electric lock during communication.
  - Send e-mails: E-mails can be sent to pre-registered e-mail addresses when triggering events occur.

- **Software performs all master station functions**
- **3 languages available for user interface** (English, French and Japanese)
- **Up to 50 speed dial function**
- **Receive a paging**
- **Others**
  - Door release: Release an electric lock during communication.
  - Send e-mails: E-mails can be sent to pre-registered e-mail addresses when triggering events occur.

**System requirements**

- **OS**

- **CPU**
  - 32 bit (x86) processor or 64 bit (x64) processor of 2 GHz or higher (Windows 7 is 64bit only)

- **Memory**
  - 1 GB or more

- **Screen resolution**
  - 1024x768 or greater

- **Runtime**
  - .NET Framework 4.6.2 or later (Windows 7 requires SP1)

- **Microsoft® Visual C++ Redistributable Package for Visual Studio 2017 or later**

- **Power source**
  - Power-over-Ethernet (IEEE 802.3af Class 0)

- **Type of communication**
  - Handset: Full-duplex (for calls between handsets only)
  - Hands-free: Automatic Voice switching

**Specifications**

- **Mounting Surface**
  - Wall-mount

- **Material**
  - Flame resistant PC + ABS resin

**Wiring**

- **LAN/PE**: 10BASE-T, 100BASE-TX (Cat.5e/6 straight)
- **Full common (H/L)**
- **Broday (Red)**
- **Broday (Yellow)**
- **Green**
- **Blue**
- **Purple**
- **10m**

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*1. Download the software from our website (https://www.aiphone.net/) to the PC.
*2. USB dongle must be connected to PC while using software.

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**Unlock the door after verifying visitor identity**

**Simultaneous video from door station and network camera**

**Page to all stations or individual groups**

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**Handset sub station**

**Features**

- **Calling**
  - Group Call: Make an outgoing call to all stations that belong to the selected group.
  - Contact input call: Make an outgoing call to all stations that belong to the selected contact input call group.
  - Calling up to 20 preprogrammed stations simultaneously.
  - Receive a paging.
  - Others: Door release: Release an electric lock during communication.
  - Send e-mails: E-mails can be sent to pre-registered e-mail addresses when triggering events occur.

**License authentication USB dongle**

**Intercom application for PC**

**Unlock**

**License authentication USB dongle**

*1. Download the software from our website (https://www.aiphone.net/) to the PC.
*2. USB dongle must be connected to PC while using software.
**Video door station**

- **Features**
  - Door release output
  - Status indication for calling, communication and door release
  - Nighttime LED illumination
  - Calling up to 20 preprogrammed stations simultaneously
  - Calling Group Call: Make an outgoing call to all stations that belong to the selected group.
  - Contact input call: Make an outgoing call to all stations that belong to the selected contact input call group.
  - Call response function
  - Record audio and video to a microSD card
  - Receive a paging
  - Others: Send e-mails, Transmitting video through ONVIF, Schedule-linked message
  - Power supply from PoE or external power supply

- **Specifications**
  - **Power source**: Power-over-Ethernet (IEEE 802.3af/at Class 4) or PS-2420S/UL/8F/DM-0
  - **Type of communication**: Hands-free: automatic voice switching
  - **Camera**: 1/3 inch color CMOS
  - **Minimum illumination**: 5 lux
  - **Mounting**: IX-DV: Surface Wall-mount, IX-DVF, IX-DVF-P: Flush wall-mount
  - **Material**: Front panel
    - IX-DV: Die-cast aluminum, IX-DVF, IX-DVF-P: Stainless steel
  - **Unit dimensions**
    - IX-DV
      - Width: 297 mm
      - Height: 297 mm
      - Depth: 60 mm
    - IX-DVF
      - Width: 297 mm
      - Height: 297 mm
      - Depth: 60 mm
    - IX-DVF-P
      - Width: 297 mm
      - Height: 297 mm
      - Depth: 60 mm

- **Wiring**
  - **Input/Output**: Contact input: 6*1, Audio output: 1, Relay output: 2
  - **Power source**: Power-over-Ethernet (IEEE 802.3af/at Class 4) or PS-2420S/UL/8F/DM-0
  - **Output impedance**: 600 Ω
  - **Output audio level**: 100 mVrms with 600 Ω terminals

- **Image view area**
  - IX-DV, IX-DVF (*) For IX-DVF-P
    - View angle: 0° (approx. 150 cm)
    - View angle: 13° (approx. 140 cm)
    - View angle: 52° (approx. 178 cm)

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*Non-touch key reader not included

*1. Contact Input Specifications
*2. Audio Output Specifications
*3. Relay Output Specifications
*4. The intercom unit can be powered by using a PoE switch or Aiphone PS-2420 power supply. In the case of PoE output of the intercom unit is used to power other devices, IEEE802.3af compatible PoE switch must be used to power the intercom unit. In the case both a PoE switch and Aiphone PS-2420 power supply are used in combination to power the intercom unit, PS-2420 can provide back-up power if the PoE power supply fails. This allows continuous recording function etc. to continue operating.

*5. Works only with LAN PoE PSE (IEEE802.3at) switch.
Features

- Door release output
- Status indication for calling, communication and door release
- Nighttime LED illumination
- Calling up to 20 preprogrammed stations simultaneously
- Calling Group Call: Make an outgoing call to all stations that belong to the selected group.
- Contact input call: Make an outgoing call to all stations that belong to the selected contact input call group.
- Call response function (except IX-DA)
- Record audio and video to a microSD card (except IX-DA)
- Receive a paging
- Others: Send e-mails, Transmitting video through ONVIF, Schedule-linked message (except IX-DA)

Specifications

Power source: Power-over-Ethernet (IEEE 802.3af Class 0)
Type of communication: Hands-free; automatic voice switching
Camera: IX-EA: 1/3 inch color CMOS
IX-DA: 1/3.2 inch color CMOS
Minimum illumination: 5 lux
Mounting: Surface Wall-mount
Material: IX-EA: Self-extinguishing ABS resin
IX-DA: Fire-retardant ABS plastic

Wiring

Image view area

- Contact Input Specifications
  - Input method: Form C dry contact (N/O or N/C)
  - Level detection method: 200msec - 600msec by setting
  - Contact resistance: Make: 700Ω or less
  - Break: 3kΩ or more
  - Terminal short-circuit current: 10mA or less
  - Voltage between the terminals: 5.5V DC or less (between open terminals)

- Audio Output Specifications
  - Output impedance: 600Ω
  - Output audio level: 300 mVrms (with 600Ω terminal)

- Relay Output Specifications
  - Output method: Form C dry contact (N/O or N/C)
  - Contact rating audio level: 24V AC, 1A (resistive load)
  - Minimum overload (AC/DC): 100mV, 0.1mA

- IEEE802.3af

- Contact Input Specifications
  - Input method: Programmable dry contact (N/O or N/C)
  - Level detection method: 200msec - 600msec by setting
  - Contact resistance: Make: 700Ω or less
  - Break: 3kΩ or more
  - Terminal short-circuit current: 10mA or less
  - Voltage between the terminals: 5.5V DC or less (between open terminals)

- Audio Output Specifications
  - Output impedance: 600Ω
  - Output audio level: 300 mVrms (with 600Ω terminal)

- Relay Output Specifications
  - Output method: Form C dry contact (N/O or N/C)
  - Contact rating audio level: 24V AC, 1A (resistive load)
  - Minimum overload (AC/DC): 100mV, 0.1mA

- IEEE802.3af
IP Network Audio - Video Intercom System

Video door station (Mullion and contactless call sensor model)

Features

- Door release output
- Status indication for calling, communication and door release
- Nighttime LED illumination
- Calling up to 20 preprogrammed stations simultaneously
- Calling Contactless Call: A call can also be placed by holding a hand over the contactless call sensor. Group Call: Make an outgoing call to all stations that belong to the selected group. Contact input call: Make an outgoing call to all stations that belong to the selected contact input call group.
- Call response function
- Record audio and video to a microSD card
- Receive a paging
- Others: Send e-mails, Transmitting video through ONVIF, Schedule-linked message

Specifications

<table>
<thead>
<tr>
<th>Power source</th>
<th>Power-over-Ethernet (IEEE 802.3af at Class 0)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type of communication</td>
<td>Hands-free: automatic voice switching</td>
</tr>
<tr>
<td>Camera</td>
<td>1/3.8 inch color CMOS</td>
</tr>
<tr>
<td>Minimum illumination</td>
<td>5 lux</td>
</tr>
<tr>
<td>Mounting</td>
<td>Surface Wall-mount</td>
</tr>
<tr>
<td>Material</td>
<td>Unit: Die-cast aluminum</td>
</tr>
<tr>
<td>Remarks</td>
<td>This product incorporates a Class 1 laser. Laser emissions conform with IEC 60825-1:2014.</td>
</tr>
</tbody>
</table>

Wiring

- Relay Output Specifications
  - Output method: Form C dry contact (N/O or N/C)
  - Voltage between terminals: 24V AC, 1A (resistive load)
  - 24V DC, 1A (resistive load)
  - Minimum overload (AC/DC): 100mV, 0.1mA

- Contact Input Specifications
  - Input method: Programmable dry contact (N/O or N/C)
  - Level detection method: Programmable detection time: 100ms - 600sec by setting
  - Contact resistance: Make: 100kΩ or less
  - Break: 3kΩ or more
  - Terminal short-circuit current: 20mA or less
  - Voltage between terminals: 5.5V DC or less (between open terminals)
  - If the device sending out alarms to contact points has polarity, connect with the polarity of S (+) and SE (-). |

Image view area

IX-DVM

<table>
<thead>
<tr>
<th>Unit dimensions</th>
</tr>
</thead>
<tbody>
<tr>
<td>IX-DVM</td>
</tr>
<tr>
<td>175</td>
</tr>
<tr>
<td>48</td>
</tr>
<tr>
<td>3</td>
</tr>
<tr>
<td>34</td>
</tr>
</tbody>
</table>
### Video door station (Emergency call button and braille models)

**Features**
- **Door release output**
- **Status indication for calling, communication and door release**
- **Nighttime LED illumination**
- **Calling up to 20 preprogrammed stations simultaneously**
- **Calling** Group Call: Make an outgoing call to all stations that belong to the selected group.
- **Contact input call**: Make an outgoing call to all stations that belong to the selected contact input call group.
- **Call response function** (except IX-DVF-RA)
- **Record audio and video to a microSD card**
- **Receive a paging**
- **Others**: Send e-mails, Transmitting video through ONVIF, Schedule-linked message
- **Power supply from PoE or external power supply**

**Specifications**

<table>
<thead>
<tr>
<th>Power source</th>
<th>Power-over-Ethernet (IEEE 802.3at/Class 4) or PS-2420S/UL/BF/DM-O</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type of communication</td>
<td>Hands-free: automatic voice switching</td>
</tr>
<tr>
<td>Camera</td>
<td>1/3 inch color CMOS</td>
</tr>
<tr>
<td>Minimum illumination</td>
<td>5 lux</td>
</tr>
<tr>
<td>Mounting</td>
<td>Flush wall-mount</td>
</tr>
<tr>
<td>Material</td>
<td>Front panel: Stainless steel</td>
</tr>
</tbody>
</table>

**Unit dimensions**

- IX-DVF-RA
- IX-DVF-2RA

**Wiring**

*1. Contact Input Specifications*
- **Input method**: Programmable dry contact (N/O or N/C)
- **Level detection method**: Hysteresis detection
- **Detection time**: 200ms or less
- **VOLTAGE**: Make: 25V or less, Break: 50V or less
- **Terminal load resistance**: 250ohm or less
- **Voltage between terminals**: 9V DC or less (between open terminals)

*2. Audio Output Specifications*
- **Output impedance**: 600Ω
- **Output audio level**: 300 mV/m (with 600Ω terminal)

*3. Relay Output Specifications*
- **Input method**: Form C dry contact (N/O or N/C)
- **Contact rating audio level**: 24V AC, 1A (resistive load), 24V DC, 1A (resistive load)
- **Minimum overload**: (AC): 100mA, (DC): 0.1mA

*4. The intercom unit can be powered by using a PoE switch or Aiphone PS-2420 power supply. In the case that PoE/PSG output of the intercom unit is used to power other devices, IEEE802.3at compatible PoE switch must be used to power the intercom unit.

*5. Works only with LAN PoE PSE (IEEE802.3at) switch.

**Image view area**

- IX-DVF-RA, IX-DVF-2RA

![Image view area diagram](image_url)
**Audio door station**

**Features**
- Door release output
- Status indication for calling, communication and door release
- Calling up to 20 preprogrammed stations simultaneously
- Calling Group Call: Make an outgoing call to all stations that belong to the selected group.
- Contact input call: Make an outgoing call to all stations that belong to the selected contact input call group.
- Call response function (except IX-BA)
- Record audio to a microSD card (except IX-SS-2G, IX-BA)
- Receive a paging
- Others: Send e-mails, Schedule-linked message (except IX-BA)
- Power supply from PoE or external power supply (except IX-SS-2G, IX-BA)

**Specifications**

- **Power source**: IX-SSA: Power-over-Ethernet (IEEE 802.3af/at Class 4) or PS-2420/UL/5F/DMi-O
- **Type of communication**: Hands-free: automatic voice switching
- **Mounting**: IX-SSA, IX-SS-2G: Flush wall-mount
- **Material**: Front panel: IX-SSA, IX-SS-2G: Stainless steel
- **IX-BA**: Fire-retardant ABS plastic

**Wiring**

- **Contact Input Specifications**
  - **Input method**: Programmable dry contact (N/O or N/C)
  - **Detection time**: 200ms - 600ms by settings
  - **Contact resistance**: Make: 700Ω or less,
  - **Break: 3kΩ or more
  - **Terminal short-circuit current**: 20mA or less
  - **Voltage between terminals**: IX-SSA: 5V DC or less (between open terminals)
  - **IX-SS-2G: 5.5V DC or less (between open terminals)

- **Audio Output Specifications**
  - **Output impedance**: 600Ω
  - **Minimum load (AC/DC)**: 100 mV, 0.1 mA
  - **Maximum overload (AC/DC)**: 24V DC, 1A (resistive load)
  - **Minimum overload (AC/DC)**: 100 mA, 0.1mA

- **Contact Input Specifications**
  - **Input method**: Form C dry contact (N/O or N/C)
  - **Fixed detection time**: 200msec - 2000msec by settings
  - **Contact resistance**: Make: 700Ω or less,
  - **Break: 3kΩ or more
  - **Terminal short-circuit current**: 10mA or less
  - **Voltage between terminals**: IX-SSA: 5V DC or less (between open terminals)
  - **IX-SS-2G: 5.5V DC or less (between open terminals)

**Unit dimensions**

- **IX-SSA**
  - Dimensions: 150 x 97 x 42 mm

- **IX-SS-2G**
  - Dimensions: 150 x 50.5 x 50.5 mm

- **IX-BA**
  - Dimensions: 194 x 75 x 23.4 mm
Audio door station (Emergency call button and braille models)

Features
- Door release output
- Status indication for calling, communication and door release
- Calling up to 20 preprogrammed stations simultaneously
- Calling Group Call: Make an outgoing call to all stations that belong to the selected group.
- Contact input call: Make an outgoing call to all stations that belong to the selected contact input call group.
- Call response function (except IX-SSA-RA)
- Record audio to a microSD card
- Receive a paging
- Others: Send e-mails, Schedule-linked message
- Power supply from PoE or external power supply

Specifications
- Power source: Power-over-Ethernet (IEEE 802.3at/Class 4) or PS-2420S/UL/BF/DM/O
- Type of communication: Hands-free; automatic voice switching
- Mounting: Wall-mount
- Material: Front panel: Stainless steel

Wiring

IX-SSA-RA, IX-SSA-2RA
- Relay Output 1
- Relay Output 2
- Contact Input 1 to 5

IX-SSA-RA
- Mounting box included
- Input/Output: Contact input x 5
- Relay output x 2
- Audio output x 1
- No call button
- With Emergency call button and braille (English braille)
- UL listed: UL 62368-1

IX-SSA-2RA
- Mounting box included
- Input/Output: Contact input x 5
- Relay output x 2
- Audio output x 1
- With call button and braille (English braille)
- With Emergency call button and braille (English braille)
- UL listed: UL 62368-1

Multi-purpose adaptor

IXW-MA
- Multi-purpose adaptor
- 4 Contact inputs
- 10 Relay outputs
- Power supply from PoE

Specifications
- Power source: Power-over-Ethernet (IEEE 802.3at Class 0)
- Mounting: Wall-mount
- Material: Self-extinguishing PC+ABS resin