

# EE 900A

IP DSP Intercom station series EE 900A



Ergonomic  
Design

16 kHz  
eHD Voice

DSP  
Technology

Class-D  
Amplifier

## Timeless and multifunctional

The dynamic, timeless design of the station series EE 900A fits perfectly into any modern office environment. The graphic display with backlight shows a multitude of functions. Via the menu function, it is possible to scroll through a subscriber index or function list and to call up a specific function directly. Calling number and name are indicated as well as messages, call type and events, e.g. for alarms.

A bright multifunction LED clearly indicates different conditions of the station's operation. An integrated output amplifier allows different volume levels to be set for conversations, sounds, reception of music etc.

The Intercom station series EE 900A is manufactured in state-of-the-art DSP technology, which enables functions such as OpenDuplex®, audio monitoring or loudspeaker/microphone surveillance. The stations are prepared for future functions, which can be activated by updating the software.

## Features and highlights

- Crystal clear 16 kHz audio quality for optimum speech intelligibility
- White illuminated graphic display with on-screen menu, brightness and contrast adjustable
- Modern and ergonomic design, available in black
- Superior speech intelligibility, even from a distance (up to 7 m/23 ft)
- OpenDuplex® with powerful Blackfin DSP
- DSP technology, prepared for software download of future functions
- Audio monitoring, adjustable integration time and noise level (except stations with gooseneck microphone EE 972A)
- Loudspeaker/microphone surveillance (except stations with gooseneck microphone EE 972A)
- High volume levels due to digital class-D amplifier
- Bright multifunction LED indicates the station's operation status (e.g. call indication)
- Connection of headset or headphones (gooseneck microphone also possible)
- Easy to handle switch-over functions by use of a 3D gravitation sensor, e.g. for handset function

## Series EE 900A variants and features



### EE 900A

- Desktop master station
- Modern, ergonomic polycarbonate housing
- Reinforced alphanumeric silicone keypad
- 8-line graphic display
- Analogue MEMS microphone, loudspeaker, multifunction LED
- Handset function (automatic switching)
- Position switch can be used for other functions (e.g. call forwarding)
- Possibility for connection of external headset or headphones



### EE 972A

- Desktop master station (like EE 900A)
- Designed specifically for use in control rooms
- Noise-cancelling gooseneck microphone and special anti-tilt stand
- Handset function, audio monitoring and loudspeaker/microphone surveillance not available

# EE 900A

## Technical specifications



### Technical data

<b>IP rating:</b>	IP50 (acc. to EN 60529)
<b>Keyboard:</b>	silicon type, activation force: 2.2 N, 1 x 10 <sup>6</sup> cycles
<b>Housing:</b>	shock proof ABS polycarbonate
<b>Microphone:</b>	EE 900A: analogue MEMS microphone EE 972A: additional electret close-talking microphone with cardioid characteristic for 3–10 cm (1–4 in) speaking distance
<b>Loudspeaker:</b>	Special membrane type for optimal sound quality, sound pressure level: 85 dB / 1 W / 1 m (3.28 ft), 8 Ω
<b>Amplifier:</b>	built-in amplifier 2.5 W, output power with built-in loudspeaker: 1.5 W
<b>Display:</b>	white illuminated, full graphic 64 x 84 DOT, 8 lines x 14 characters, temperature compensated
<b>Position switch:</b>	3D gravitation sensor
<b>Frequency range:</b>	200 Hz – 16 kHz
<b>Operating temperature range:</b>	0 °C to +50 °C (32 °F to 122 °F)
<b>Storage temperature range:</b>	–20 °C to +50 °C (–4 °F to 122 °F)
<b>Relative humidity:</b>	up to 95%
<b>Plug:</b>	IP Uplink/Downlink: shielded RJ45 modular jacks modular jack 4/4 for connection of headset or head- phones
<b>Cabling:</b>	min. Cat. 5
<b>Power supply:</b>	PoE IEEE 802.3af standard power consumption of the terminal device: Class 0 (0.44 W to 12.95 W)
<b>Protocol:</b>	VoIP protocol based on UDP/IP
<b>Data rate:</b>	10/100 MBit/s (Full/Half Duplex)
<b>Dimensions (W x H x D):</b>	EE 900A: 66 x 240 x 58 mm (2.6 x 9.46 x 2.29 in) EE 972A: 179 x 240 x 58 mm (7.05 x 9.46 x 2.29 in) (gooseneck 430 mm / 16.9 in)
<b>Weight incl. package:</b>	EE 900A: about 500 g (1.1 lbs) EE 972A: about 800 g (1.8 lbs)
<b>Colours:</b>	black (like RAL 9011)

### Line length in LAN

The maximum line length of Cat. 5 cabling in a LAN is 100 m (328 ft) – e.g. from switch to Intercom station.

### Extent of supply

- Intercom station
- Short reference
- Operating instructions

A PoE injector (e.g. C-PA15WPOE) for power supply must be ordered separately when PoE supply via the switch is not available.

### System requirements

#### GE 800 / GE 300 / GE 700-UPG

- Intercom Server software min. PRO 800 1.2
- IP subscriber card G8-IP / G3-IP
- Configuration software min. CCT 800 1.2
- IP Station Config min. version 2.0.3021

### Requirements to the network

#### IP addresses and ports

- For the EE 900A, the DHCP functionality is available. If DHCP is not used, the EE 900A must have a fixed IP address.
- In case of a changing public IP address, dynamic registration of an EE 900A is possible.
- Communication from the program IP Station Config is done via port 16399 (cannot be configured).
- Communication from the EE 900A to the Intercom Server (UDP protocol) is done via port 16400 (configurable).

#### QoS requirements

- Maximum one-way delay 100 ms
- Delay-Jitter not above 50 ms
- 0% packet loss for perfect audio quality

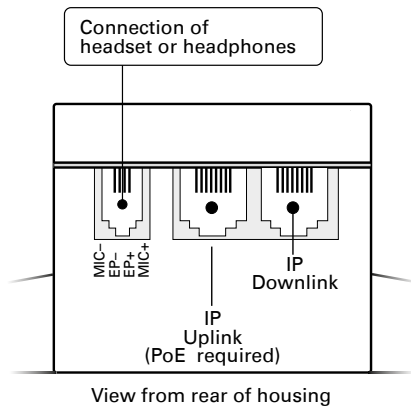
#### Bandwidth

- Required bandwidth incl. protocol overhead per EE 900A, for upload/download each, speech and data: 96 kBit/s
- Speech is compressed according to G.722 standard

# EE 900A

## Installation instructions

### Connection EE 900A / EE 972A



Special anti-tilt stand and gooseneck microphone only available at EE 972A.

### Safety and mounting instructions

- This device shall be installed or replaced by trained and qualified personnel only.
- Devices belonging to another earthing network must not be connected to the device's connectors.
- All connected circuits shall fulfill the following requirements:
  - Safety Extra Low Voltage (SELV) and Limited Power Source (LPS) according to IEC/EN 60950-1 or
  - ES1, PS2 circuits and Annex Q (Limited Power Source) according to IEC/EN/UL 62368-1
- The device is intended for appropriate installation in locations where possible high transient voltage surges are not likely to occur.
- Only accessories that comply with the device's technical specifications shall be used.
- Disconnect all cables for any maintenance.
- All changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.
- There must be no direct connection to a cable outside of a building.
- When opening the station, ESD precautions must be observed.
- The station may only be opened by authorised service engineers.
- Do not place the device in areas where it may become wet or damp.
- Use shielded Ethernet cables only.
- Before using the device, ensure all cables are connected correctly and are not damaged.
- This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

### Quality tested. Reliable. Smart.

COMMEND products are developed and manufactured by Commend International in Salzburg, Austria.

The development and manufacturing processes are certified in accordance with **EN ISO 9001:2015**.



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### A strong worldwide network

COMMEND is represented all over the world by local Commend Partners and helps to improve security and communication with tailored Intercom solutions.

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