Series EE 900A

IP DSP-Intercom Stations Series EE 900A

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, for e.g. 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.

1. **EE 900A**
   Desktop master station in a modern, ergonomic housing. Reinforced alphanumeric, silicone keypad (alphanumeric keypad with six additional function keys), temperature-compensated graphic display (8 lines with 14 characters each), electret microphone, loudspeaker, multifunction LED. Handset function with automatic switching (on the desk as a desktop station with excellent hands free speech quality, when picked up as handset with reduced volume). The position switch (3D gravitation sensor) can also be used for other functions, e.g. call forwarding. Possibility for connection of external headset or headphones.

2. **EE 972A**
   Desktop master station like EE 900A, in particular for control rooms, with noise cancelling gooseneck microphone and special anti-tilt stand. Without handset function. The DSP-features Audio Monitoring or Loudspeaker-/Microphone Surveillance are not available for this station type due to the gooseneck microphone.

Technical Data – Benefits

TECHNICAL DATA

IP rating:	IP 50, resistant against dust, dirt, aggressive air
Keyboard:	silicon type, activation force: 2.2 N, 1×10^6 cycles
Housing:	shock proof ABS plastic
Microphone:	EE 900A: omnidirectional electret microphone for max. 7 m (23 ft) speaking distance EE 972A: additional electret noise cancelling microphone with cardioid characteristic for 3 – 10 cm (1 – 4 in) speaking distance
Loudspeaker:	Special membrane type for optimal sound quality, sound pressure: 85 dB/1 W/1 m (3.28 ft), 8 Ω
Amplifier:	built-in amplifier 2.5 W output power with built-in loudspeaker: 1.5 W
Display:	White illuminated, full graphic 64 x 84 DOT, 8 lines x 14 characters, temperature compensated
Position switch:	3D gravitation sensor
Frequency range:	200 – 16,000 Hz
Operating temperature range:	0° C to +50° C (32° F to 122° F)
Storage temperature range:	–20° C to +50° C (–4° F to 122° F)
Relative Humidity:	up to 95 %
Plug:	IP Uplink/Downlink: shielded RJ 45 modular jacks Modular jack 4/4 for connection of headset, headphones
Cabling:	min. Cat. 5
Power supply:	via PoE
PoE:	IEEE 802.3af standard Power consumption of the terminal device: Class 0 (0.44 W to 12.95 W)
Protocol:	IoIP-Protocol based on UDP/IP
Data rate:	10/100 MBit/s (Full/Half Duplex)
Measurements:	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)
Weight incl. package:	EE 900A: about 500 g (1.1 lbs) EE 972A: about 800 g (1.8 lbs)
Colours:	black (like RAL 9011)

BENEFITS

- Crystal clear 16 kHz speech quality for optimum intelligibility
- White illuminated graphic display with on-screen menu, brightness and contrast adjustable
- Modern and ergonomic design, available in black
- High quality speech, 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)
- Microphone-/Loudspeaker 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

EXTENT OF SUPPLY

1 Intercom station including:
- Short reference and 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.

LINE LENGTH

The maximum line length of Cat. 5 cabling in a LAN is 100 m (328 ft) – e.g. from switch to EE 900A.

Attention: For system and network requirements see .

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System / Network Requirements

SYSTEM REQUIREMENTS

MINIMUM 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
IPStationConfig 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 IPStationConfig is done via Port 16399 (can not be configured).
- Communication from the EE 900A to the Intercom Server (UDP protocol) is done via port 16400 (configurable).
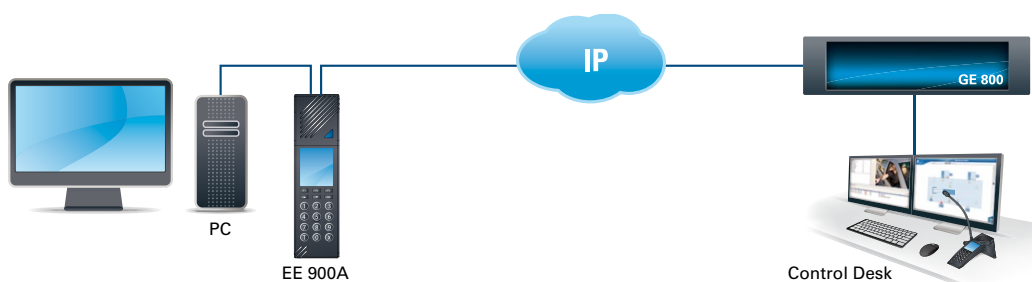
QoS Requirements

- Maximum One-Way-Delay 100 ms
- Delay-Jitter not above 50 ms
- 0% packet loss for perfect audio quality
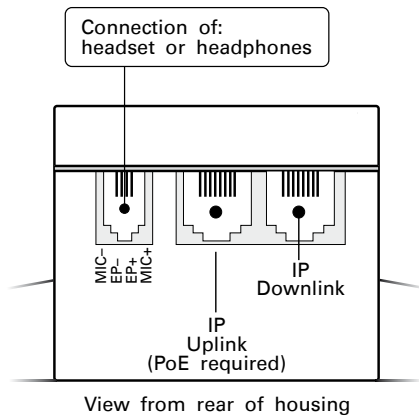
Bandwidth

- 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

SYSTEM OVERVIEW

Installation

CONNECTION EE 900A / EE 972A

Connection of:
headset or headphones

MIC–
EP–
EP+
MIC+

IP
Downlink

IP
Uplink
(PoE required)

View from rear of housing

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

POSITION AND MOUNTING INSTRUCTIONS

- Do not expose the station to extreme temperature (below 0° C or above +50° C / 32° F to 122° F).
- The desk stations EE 900A may only be positioned on level surfaces because of the handset function. The angle of inclination may not be more than 30 degrees.
- The station must stand on its own, not e.g. in a shelf or under a filing tray.
- Do not position the stations besides the base station of a cordless phone.

PRECAUTIONS

- When opening the stations ESD precautions must be observed.
- The stations may only be opened by authorised service engineers.

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