

# Series EE 311A

Digital Intercom stations for desk and wall



OpenDuplex®  
technology

Backwards  
compatibility

Desk & wall  
mounting

Audio +  
functionality

## Reliable 2-wire technology

The stations feature both ergonomic design and ease of use. The 6-character alphanumeric display allows immediate identification of the called or calling station and displays operating states.

The stations have three additional, context sensitive function keys that can perform different functions depending on the implemented features, e.g. electronic volume control and scrolling of display messages. An index field is available to hold important numbers and functions.

A multifunction LED clearly indicates if the station is active. An integrated output amplifier allows different volume levels to be set for conversations, sounds and reception of music.

## Features and highlights

- Excellent 16 kHz speech quality, for optimum intelligibility
- OpenDuplex® with powerful Blackfin DSP
- Audio Monitoring, adjustable integration time and threshold level (except EE 372A)
- Loudspeaker/microphone surveillance (except EE 372A)
- Integrated amplifier with 2.5 W output power
- Modular jack 6/6 for connection cable (EE 320A, EF 320A: coiled connection cable)
- Connection of headset, headphones or gooseneck microphone possible (except EE 301A)
- EE 311A, EF 311A and EE 320A, EF 320A available with handset function

## Product details

### Station versions

This series includes the following versions:

#### EE 311A

The EE 311A is a desktop master station with reinforced silicone keypad (standard keypad with three additional function keys), 6-character (16-segment) alphanumeric display, electret condenser microphone, loudspeaker, multifunction LED, and a 3 m (9.8 ft) connection cable.

The Intercom station also has a handset facility with automatic switching, therefore it can be used on the desk as desktop station with excellent speech quality, as well as a handset with reduced volume when it is picked up. The 3D gravitation sensor can also be used for other functions, e.g. call forwarding.

Furthermore, an optional input or open-collector output can be used e.g. to connect an external loudspeaker to the station (switchable via internal jumper, not possible with EE 320A, EF 320A). The Intercom station is also prepared for retrofitting a relay. Additionally, a headset, headphones or a gooseneck microphone can be connected (not possible with EE 301A). Version EF 311A is a desktop sub station with restricted dialling possibilities (T, 0, X).



#### EE 372A

The EE 372A is a desktop master station like EE 311A, but with noise cancelling gooseneck microphone and special anti-tilt stand, without handset function.

The DSP features Audio Monitoring and loudspeaker/microphone surveillance are not available for this station type due to the gooseneck microphone.

#### EE 320A

The EE 320A is a wall mount master station like EE 311A. It has a handset function with automatic switching (with hands-free speech with excellent speech quality, when lifted out of the wall bracket with reduced volume). Version EF 320A is a wall mount station with restricted dialling possibilities (T, 0, X).



# Series EE 311A

## Technical specifications



### Technical data

<b>IP rating:</b>	IP50 (acc. EN 60529)
<b>Keyboard:</b>	silicon type with plastic layer activation force: 1.3 N, 1 x 10 <sup>6</sup> cycles
<b>Housing:</b>	shock proof ABS polycarbonate
<b>Microphone:</b>	EE 311A, EE 301A, EF 311A, EE 320A, EF 320A: electret condenser microphone polar pattern: omnidirectional speaking distance: max. 7 m (23 ft) EE 372A: electret condenser microphone polar pattern: cardioid speaking distance: 3 – 10 cm (1 – 4 in)
<b>Loudspeaker:</b>	special membrane type for optimal sound quality sound pressure level: 85 dB/1 W/1 m (3.28 ft), 8 Ω possibility for connection of an external loudspeaker ≥ 8 Ω
<b>Amplifier:</b>	integrated class-D amplifier with 2.5 W output power with built-in loudspeaker: 1.5 W
<b>Display:</b>	6-character, alphanumeric (16-segment)
<b>Status indication:</b>	multifunction LED (multi-coloured: red, green, blue)
<b>Input:</b>	for floating contacts, max. 1 kΩ
<b>Output:</b>	open collector output (30 VDC / 50 mA)
<b>Transmission bandwidth:</b>	16 kHz
<b>Operating temperature range:</b>	–10 °C to +60 °C (14 °F to +140 °F)
<b>Storage temperature range:</b>	–20 °C to +60 °C (–4 °F to +140 °F)
<b>Relative humidity:</b>	up to 95%, not condensing
<b>Connection:</b>	EE 311A, EE 301A, EF 311A, EE 372A: modular jack 6/6 for connection to Intercom Server modular jack 4/4 for connection of headset and headphones EE 320, EF 320A: pluggable screw terminals
<b>Power supply:</b>	from Intercom Server option: external supply for greater line length or external loudspeaker (20 – 24 VAC or 28 – 35 VDC, 100 mA)
<b>Cabling:</b>	star feed, 2-wires, twisted
<b>Signalling:</b>	2B + D (2 x 64 kBit/s speech, 16 kBit/s data)
<b>Dimensions (W x H x D):</b>	EE 311A, EE 301A, EF 311A: 66 x 230 x 55 mm (2.6 x 9.1 x 2.2 in) EE 320A, EF 320A: 73 x 232 x 57 mm (2.9 x 9.1 x 2.2 in) EE 372A: 179 x 230 x 57 mm (7.1 x 9.1 x 2.2 in) (gooseneck 400 mm / 15.7 in)
<b>Weight incl. package:</b>	EE 311, EE 301: 380 g (0.8 lbs) EF 311: 360 g (0.8 lbs) EE 320, EF 320: 460 g (1.0 lbs) EE 372: 715 g (1.6 lbs)
<b>Optional accessories:</b>	all types: black (like RAL 9011) EE 311A, EE 301A, EE 320A, EF 320A: light-grey (like RAL 7035) EE 320A: red (like RAL 3020)

### Extent of supply

- Connection cable 3 m (9.8 ft), pluggable at both sides (EE 320A, EF 320A with coiled connection cable, pluggable at one side)
- Short reference and operating instructions
- EE 320A, EF 320A incl. screws and dowels for wall mounting

### Line length in LAN

Cable type	Power supply Intercom Server		
	24 VAC	30 VDC	26 VDC
Ethernet cable e. g. Cat 5 Loop resistance: 190 Ω/km Capacity: 48 nF/km (14.4 nF / 1000 ft)	1,500 m (4,922 ft)	1,600 m (5,249 ft)	1,200 m (3,937 ft)
Telecommunication cable e. g. F-YAY; ø 0.6 / 0.8 mm; AWG: 22 / 20 Loop resistance: > 135 / 73 Ω/km Capacity: 100 nF/km (30.5 nF / 1000 ft)	1,500 m (4,922 ft)	1,500 m (4,922 ft)	1,100 m (3,609 ft)

The indicated line length is valid for standard stations without additional external loudspeaker and max. volume level 9.

Cable type	External power supply		
	24 VAC	30 VDC	26 VDC
Ethernet cable e. g. Cat 5 Loop resistance: 190 Ω/km Capacity: 48 nF/km (14.4 nF / 1000 ft)	3,000 m (9,843 ft)	3,000 m (9,843 ft)	3,000 m (9,843 ft)
Telecommunication cable e. g. F-YAY; ø 0.6 / 0.8 mm; AWG: 22 / 20 Loop resistance: > 135 / 73 Ω/km Capacity: 100 nF/km (30.5 nF / 1000 ft)	2,000 m (6,561 ft)	1,800 m (5,905 ft)	1,800 m (5,905 ft)

### System requirements

#### Intercom Server

- GE 800 (min. PRO 800 1.0) with G8-GED or
- GE 300 (min. PRO 800 1.0) with G3-GED or
- GE 200 (as of Pro 05.4) with G2-GED-4 or
- GE 700 (as of Pro 05.4) with G7-GED-4 (min. software V02.2)

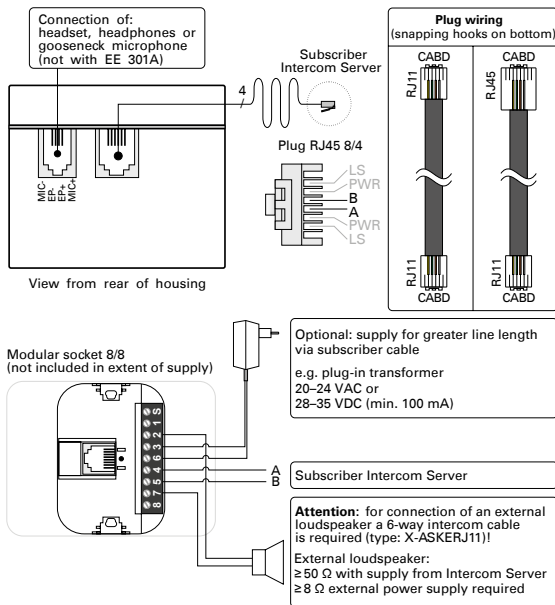
#### Note – limited scope of functions with GE 700/GE 200:

When operating the module in combination with the server generation GE 700/GE 200, the limited scope of function affects applications like volume control (only possible in a range from 0 to 9) or call indication (only red light indication).

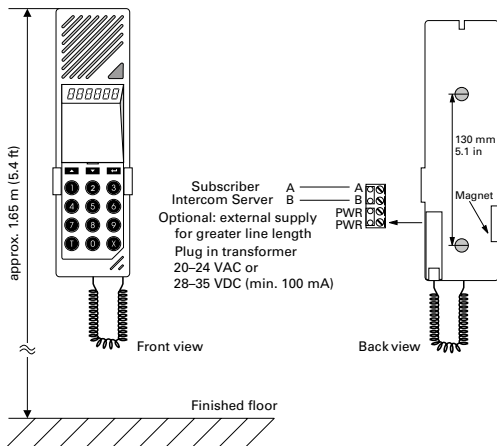
# Series EE 311A Installation instructions

## Connection diagrams

### EE 311A, EE 301A, EE 372A, EF 311A



### EE 320A, EF 320A



## 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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## Precautions and mounting instructions

- Do not expose the station to extreme temperatures (see “Technical data”).
- When opening the stations, ESD precautions must be observed.
- The stations shall be installed or replaced by trained and qualified personal only.
- The desk stations EE 311A may only be positioned on level surfaces because of the handset function. The angle of inclination may not be more than 30°.
- The station must stand on its own, not e. g. in a shelf or under a filing tray.
- Do not position the stations directly besides the base station of a cordless phone.

### Note:

The connection for an external loudspeaker can be switched to an input or open-collector output via internal jumper (output relay retrofittable).

### Attention:

The conversion may only be carried out by authorised sales partners!

### Recommended mounting height:

It is recommended to mount the upper edge of the station approx. 1.65 m (5.4 ft) from the finished floor. Adapt the mounting height to the individual needs.

## 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.