



2-WIRE DSP-INTERCOM STATIONS WITH DISPLAY

SERIES 311

Main stations in new DSP-technology for hands-free speech even from a great distance, with display for caller identification and indication of messages (e.g. alarms).



GLOBAL INTERCOM BY COMMEND.

2-Wire DSP-Stations

SERIES 311

The intercom station series 311 distinguishes itself with its ergonomic design and outstanding operating convenience. On the alphanumeric display the calling number and name of the conversation partner is visible and operating states, e.g. alarms, are indicated. To the three function buttons variable functions can be assigned, e.g. scrolling of messages and calls or volume control. A bright lamp clearly indicates, if the station is active. An integrated output amplifier allows different volume levels to be set for conversations,

sounds, reception of music etc. The index field is ideal for listing the call numbers and other important information.

The intercom series 311 are manufactured in the new DSP-technology, which enables functions such as Audio Monitoring or Loudspeaker- / Microphone Monitoring. The stations are also prepared for future download of new functions and can utilize the Open-Duplex capability of the GE 200 and GE 700 communication servers.



1. EE 311

Desktop master station with reinforced silicone keypad (standard keypad with three additional function keys), 6-character (16-segment) alphanumeric display, electret microphone, loudspeaker, red function light, 3 m (9.8 ft) connection cable. Handset function with automatic switching (on the desk as a desktop station with excellent handsfree speech quality, when picked up as handset with reduced volume). The position switch can also be used for other functions, e.g. call forwarding. Optional input or open-collector output (switchable via internal jumper, not with EE 320). Prepared for soldering in an output relay. Connection of headset, headphones or gooseneck microphone. Version EF 311 with restricted dialling possibilities (T, 0, X).

2. EE 372

Desktop master station like EE 311, but with noise cancelling gooseneck microphone and special anti-tilt stand. Without handset function. The DSP-features Audio Monitoring or Loudspeaker- / Microphone Monitoring are not available for this station type due to the gooseneck microphone.

3. EE 320

Wall-mount master station like EE 311. Handset function with automatic switching (in the wall mount with hands-free speech with excellent speech quality, when lifted out of the wall bracket with reduced volume).

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Technical Data - Benefits

SERIES 311

TECHNICAL DATA

IP rating:	IP 50, resistant against dust, dirt, aggressive air
Keyboard:	silicon type with plastic layer, activation force: 1,3 N, 1 x 10 ⁶ cycles
Housing:	shock proof ABS plastic
Microphone:	EE 311, EF 311, EE 320: omnidirectional electret microphone for max. 7 m (23 ft) speaking distance EE 372: electret noise cancelling microphone with cardioid characteristic for 3–10 cm (1–4 inch) speaking distance
Loudspeaker:	Special membrane type for optimal sound quality, sound pressure: 85 dB/1 W/1 m (3.28 ft), 50 Ohm. Possibility for connection of an external loudspeaker ≥ 8 Ohm, with loudspeakers < 50 Ohm external supply is required
Amplifier:	built-in amplifier 1.5 W; output power: with built-in loudspeaker: 0.5 W with external 8 Ohm loudspeaker: 1.5 W
Display:	6-character, alphanumeric (16-segment)
Input:	1 input for floating contacts, max. 1 kOhm *
Output:	1 open collector output (30 VDC / 50 mA) *
Frequency range:	200 – 7000 Hz
Operating temperature range:	-10° C to +60° C (14°F to 140°F)
Storage temperature range:	-20° C to +60° C (-4°F to 140°F)
Relative Humidity:	up to 95 %
Plug:	EE 311, EF 311, EE 372: modular jack RJ11 for 6-way modular sockets, EE 320: plugable screw terminals
Cabling:	star feed, 2-wires, twisted
Power supply:	from central option: external supply for greater line length or external loudspeaker (12–24 VAC or 15–35 VDC, 500 mA)
Signalling:	2B + D (2 x 64 kBit/s speech, 16 kBit/s data)
Measurements:	EE 311, EF 311: 66 x 230 x 55 mm (2.6 x 9.1 x 2.2 inch) EE 320: 73 x 232 x 57 mm (2.9 x 9.1 x 2.2 inch) EE 372: 179 x 230 x 57 mm (7.1 x 9.1 x 2.2 inch) (gooseneck 430 mm / 16.9 inch)
Weight incl. package:	EE 311: 377 g (0.8 lbs), EF 311: 360 g (0.8 lbs) EE 320: 455 g (1 lbs), EE 372: 712 g (1.6 lbs)
Colours:	all types available in translucent-blue (like RAL 5022), and black (like RAL 9011)

EXTENT OF SUPPLY

1 intercom station including:

- Connection cable RJ 11, 3 m (9.8 ft), plugable at both sides (EE 320 with curly cord, plugable at one side)
- Short reference and operating instructions
- EE 320 includes screws and dowels for wall mounting

BENEFITS

- Modern and ergonomic design, available in black or translucent-blue
- High quality speech, even from a distance (up to 7 m/23 ft)
- Cabling with two wire, star feed
- DSP-technology, prepared for software download of future functions
- Audio-Monitoring, adjustable integration time and threshold level (except stations with gooseneck microphone)
- Microphone-Loudspeaker Monitoring (except stations with gooseneck microphone)
- Integrated amplifier with 1.5 W output power
- RJ11 socket for connection cable (EE 320: plug on one side, coiled connection cable)
- The connection for external loudspeaker can be switched to an input or open-collector output via internal jumper (prepared for soldering in an output relay)
* **Not with EE 320. The conversion may be carried out by authorised sales partners!**
- Connection of headset, headphones or gooseneck microphone
- EE 311, EF 311 and EE 320 with handset function
- 6-digit alphanumeric display
- Subscriber index with plastic cover for call numbers etc.

SYSTEM REQUIREMENTS

GE 200: with G2-GED-4 (all software versions)

GE 700: - min. Pro 04.1 with G7-GED-4 (software min. V02.2) or
- min. Pro 05.3 with G7-GED-DSP

For the DSP-functions software min. Pro 05.0A is required.

LINE LENGTH

Cable type: AWG:	∅ 0.5 mm 24	∅ 0.6 mm 22	∅ 0.8 mm 20
F-YAY (installation cable PVC) 100 nF/km (30.5 nF/1000 ft)	*	2000 m 6562 ft	2000 m 6562 ft
J-02YS(St)Y: Cat. 5 cable, foamed polyethylene, 45 nF/ km (13.7 nF/1000ft)	1500 m 4922 ft	2000 m 6562 ft	3000 m 9843 ft
J-02YS(St)Y (above) with external supply	3000 m 9843 ft	3000 m 9843 ft	3000 m 9843 ft

*...no data, because this diameter is not available for this cable type.

The indicated line length is valid for standard stations without additional loudspeaker. If an additional loudspeaker with less than 50 Ohm is used, external power supply is required.

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Installation

SERIES 311

PRECAUTIONS

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

POSITION AND MOUNTING INSTRUCTIONS

- Do not expose the station to extreme temperature under $-10^{\circ}\text{C}/14^{\circ}\text{F}$ or above $+60^{\circ}\text{C}/140^{\circ}\text{F}$.
- The desk stations 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.

Recommended mounting height EE 320

The upper edge of the station approx. 1.65 m (5.4 ft) from the finished floor. Please adapt the mounting height to the individual needs.

STATION TESTS

The station tests are started as follows: Keep button **⏪** pressed, press the button for the desired test (e.g. **1** for test 1), release button **⏪**, release the button for the test. The test is cancelled by calling up „test X“.

Button **1**: Display test with „888888“ - with this test the display can be tested.

Button **2**: Dialling test - with this test the buttons can be tested.

Button **3**: Input/Output test - (0=inactive, 1=active)
2nd digit = OUT1, 4th digit = IN1

Button **4**: Display test with all segments - with this test all segments of the display are switched on, so any defects of the display can be diagnosed.

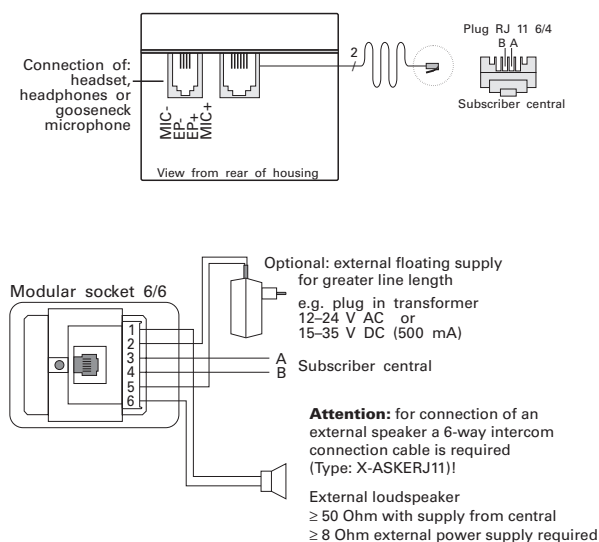
Button **5**: Indication software version : e.g. *V02.0* means: station software version 02.0

Button **6**: Test for line errors - a number is indicated (counts upward every 10000 error free messages, max. 99).

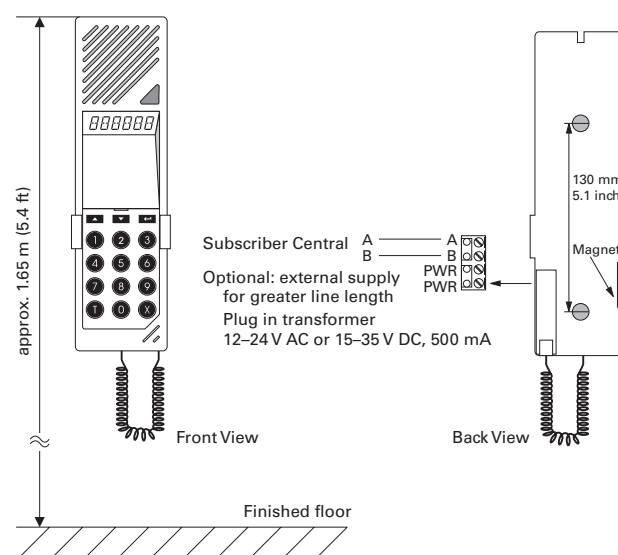
Button **7**: Line quality: a number between 0 and 3 appears in the display (3 = best quality).

CONNECTION DIAGRAMS

EE 311, EF 311, EE 372



EE 320



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