Digital 2-Wire DSP Wall Station EF 862A

Sub station for areas, in which high requirements of security are needed (reliability, vandal proof, ...). Line saving, secure 2-wire-technology. With programmable call button, electret microphone and loudspeaker. Metal housing, resistant against dust and spray water. Front panel made of 3 mm (0.12 in) V-2A stainless steel (CrNi), with poke protection and special screws for protection against vandalism. Various call buttons available for adaption to the application. Ready for OpenDuplex®. Fitting surface mount boxes are available.

1. **EF 862A**
   Weather and vandal resistant sub-station with DSP-technology, loudspeaker, microphone and LED (protective plate in front of loudspeaker and microphone). Flush mount box GUEF 62 must be ordered separately. Several surface mount boxes available separately.
2. **EF 862AM**
   Same as EF 862A, but with red mushroom button. Flush mount box GUEF 62 must be ordered separately. Several surface mount boxes available separately.
3. **EF 862AP**
   Same as EF 862A, but with 2-color LED piezo button. Flush mount box GUEF 62 must be ordered separately. Several surface mount boxes available separately.
4. **GUEF 62**
   Flush mount box for EF 862A, EF 862AM and EF 862AP made of 1.5 mm hot galvanised sheet steel.
5. **EF 62W**
   Surface mount box for use indoors, made of 1.25 mm thick galvanised sheet steel, powder coated in RAL 9016 white.
6. **EF 62G**
   Surface mount box for use in outside areas, made of 1.25 mm thick galvanised sheet steel, powder coated in RAL 9006 grey.
7. **EF 62O**
   Surface mount box for use in outside areas, made of 1.25 mm thick galvanised sheet steel, powder coated in RAL 2004 pure orange with "SOS" labelling.
8. **EF 62OOA** (not shown)
   Surface mount box for use in outside areas, made of 1.25 mm thick galvanised sheet steel, powder coated in RAL 2004 pure orange.
9. **EF 62NIRO** (not shown)
   Surface mount box for use in outside areas, made of 1.25 mm high-grade steel.

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Technical Data – Benefits

TECHNICAL DATA

IP rating:	IP 54
Faceplate:	stainless steel (1.4301), 3 mm (0.12 in)
Microphone:	Omnidirectional electret microphone for max. 7 m (23 ft) 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
Input:	1 input for floating contacts, max. 1 kΩ (detection of 5 input states)
Output:	1 relay output 30 V / 1 A
Call indication:	multifunctional LED EF 862AP: additional LED-Ring (red / green)
Call button:	EF 862A: flat stainless steel button, EF 862AM: red mushroom button EF 862AP: piezo button with LED-ring
Transmission bandwidth:	16 kHz
Operating temperature range:	–20° C to +70° C (–4°F to 158° F)
Storage temperature range:	–20° C to +70° C (–4° F to 158° F)
Relative humidity:	up to 95%
Plug:	pluggable screw terminals - expansion plug for e.g. EB 2E2A
Cabling:	star feed, 2-wire, twisted
Power supply:	from Intercom Server EF 862AP: 24 VAC / VDC, 500 mA for LED-ring Option: external power supply for greater line length (12–24 VAC or 15–35 VDC, 500 mA)
Signalling:	2B + D (2 x 64 kBit/s speech, 16 kBit/s data
Mounting:	flush mount box required for flush and surface mounting (available separately), surface mount boxes EF62G, EF 62W, EF62O, EF62OOA or EF62NIRO
Measurements:	faceplate: 110 x 151 mm (4.33 x 5.95 in) depth flush mount: 48 mm (1.89 in) depth surface mount: 84 mm (3.3 in)
Weight incl. packaging:	ca. 1020 g surface mount box EF 62x ca. 600 g

EXTENT OF SUPPLY

1 station including:

- Short reference

BENEFITS

- Excellent 16 kHz speech quality, even from a distance (up to 7 m / 23 ft)
- Cabling with 2 wires, star feed, fully digital transmission of speech and data
- DSP-technology, prepared for software download of future functions – ready for OpenDuplex®
- Audio-Monitoring, adjustable integration time and noise level
- Microphone-Loudspeaker Monitoring
- Input for floating contacts
- Built-in loudspeaker and microphone
- Output contact for direct connection of e.g. doors or gates
- Tamper Resistant push buttons (function programmable)

SYSTEM REQUIREMENTS

FULL SCOPE OF OPERATION only with GE 800 / GE 300:

- GE 800 (min. PRO 800 1.2) with G8-GED (G3-8-SUB min. 3.2)
- GE 300 (min. PRO 800 1.2) with G3-GED (G3-8-SUB min. 3.2)

BACKWARDS COMPATIBILITY to GE 700 / GE 200:

Is recognized as ET 862 and therefore can only be used with the feature scope of the ET 862.

- GE 700 (min. Pro 05.0) with G7-GED-4 (min. Software V02.2)
- GE 200 (min. Pro 05.0) with G2-GED-4 (all software versions)

See also page 5.

LINE LENGTH

	Power Supply Intercom Server		
Cable type	24 V AC	30 V DC	26 V DC
Ethernet cable e.g. Cat. 5 Loop resistance: 190 Ω/km Capacity: 48 nF/km	1500 m 4921 ft	1700 m 5577 ft	1400 m 4593 ft
Telecommunication cable e.g. F-YAY; ø 0,6/0,8 mm Loop resistance: >135 / >73 Ω/km Capacity: 100 nF/km	1500 m 4921 ft	2100 m 6889 ft	1500 m 4921 ft
External power supply	max. 2800 m / 9186 ft		

All values for connected loudspeaker ≥8 Ω and Volume level 9. Voltage Monitoring see page 5.

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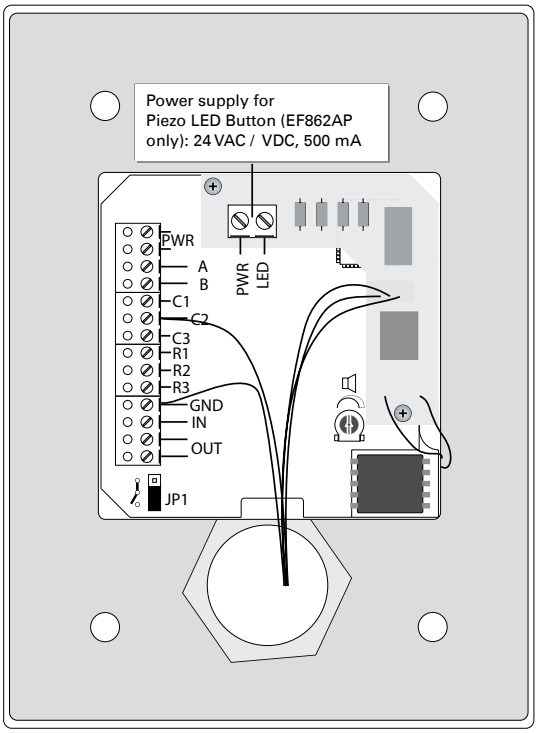
Installation

MOUNTING INSTRUCTIONS

- Do not expose the station to extreme temperature
- (under –20° C or above +70° C / –4° F to 158° F).
- For flush mounting the flush mount box GUEF 62 (sold separately) is required. For surface mounting the flush mount box as well as one of the surface mount boxes is required (not in extent of supply)
- When the included flush mount box is used, the mounting tabs must be bent out at least 15 mm (0.6 in) before applying plaster.
- Use of flush mount boxes in order to comply to the IP 54 regulations, it is mandatory to close the hole on the bottom of the frame with the included sealing screw or the threaded cable joint. No warrenty claim when not installed properly!
- For stations to be mounted in outdoor areas, the screws must be closed with a sealing compound.

CONNECTION DIAGRAMM

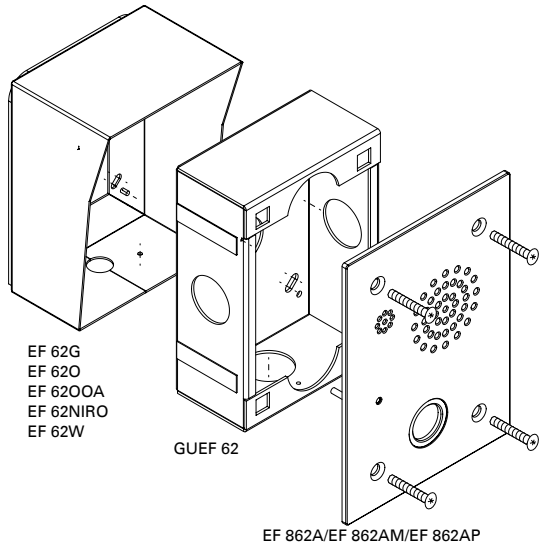
- OUT factory adjusted as “make“ contact. With the jumper JP1 it can be converted into an “open“ contact.
- Terminals PWR: external, floating power supply (12–24 VAC or 15–35 VDC, 500 mA) for greater line length or loudspeaker < 8 Ω)



PRECAUTIONS

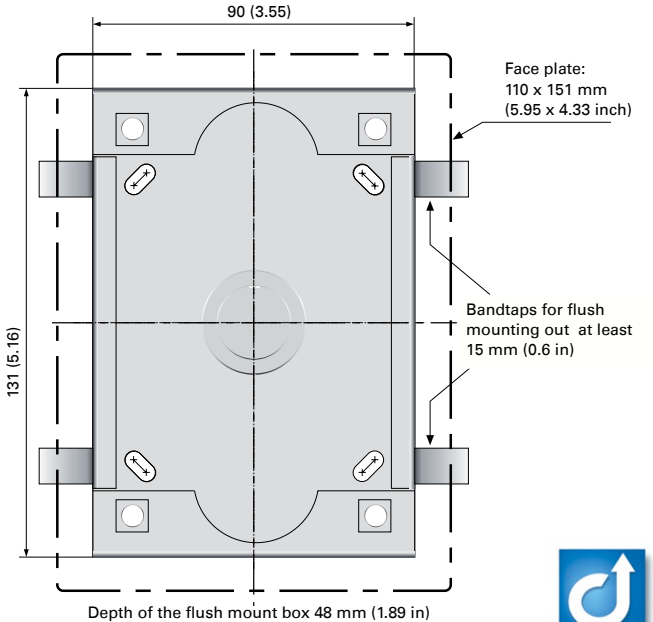
- When opening the stations ESD precautions must be observed.
- The stations may only be opened by authorised service engineers.
- The station may only be cleaned with cleaning agents for stainless steel – in **NO** case with cleaning agents containing chlorine

MOUNTING



MEASUREMENTS FLUSH MOUNT BOX GUEF 62

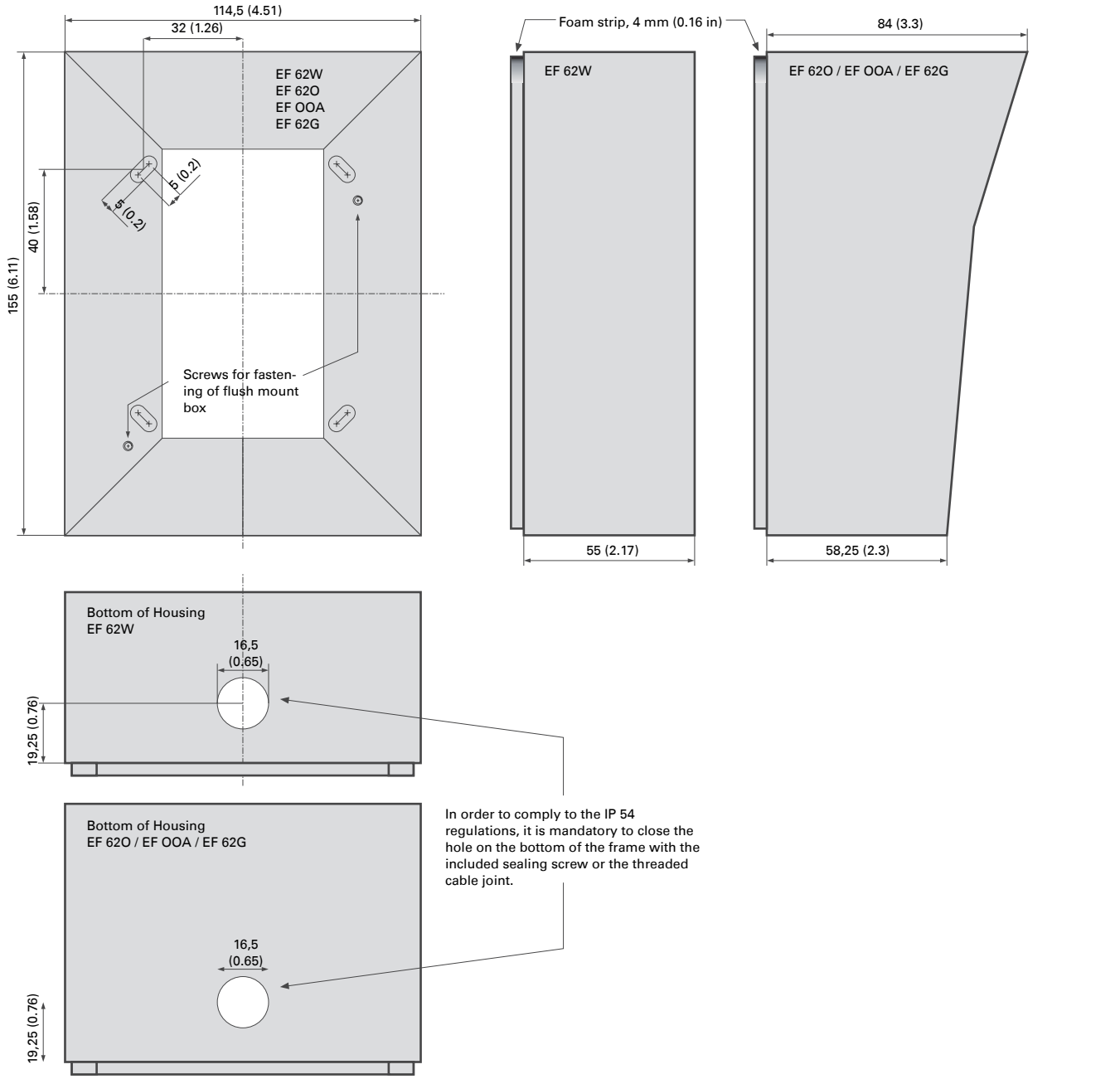
Measuring units: mm (inch), not to scale



Installation

MEASUREMENTS SURFACE MOUNT BOXES

Measuring units: mm (inch), not to scale



Features EF 862A

COMPATIBILITY EF 862 / EF 862A

- When operated with Intercom Servers GE 700/GE 200 the station EF 862A is recognized as ET 862 in the system.
- The following new features of the EF 862A are available only with Intercom Servers GE 800/GE 300 (**min. PRO 800 1.2**). (and configuration software min. CCT 800 1.2):
  - 16 kHz audio bandwidth
  - Higher volume (incl.Voltage Monitoring)
  - Multifunction RGB-LED

MULTIFUNCTION LED

The multifunctional LED of the EF 862A can display the colours RED, GREEN and BLUE. With the configuration software CCT 800 the LED can be configured individually and separately for:

- Tone Signals – e.g. error tone, privacy tone, "waiting signal for busy" etc.
- Operating states – e.g. emergency call, "state group call", "state conference listen" etc.

For LED indication of the tone signals / operating states, the following configurations are possible:

Mode of LED indication	Colour for permanent LED / 1st colour for blink rhythm	2nd colour for blink rhythm
Selection of a blink rhythm or permanent LED	Selection of Red/Green/Blue or no colour	Selection of Red/Green/Blue or no colour

Additional to the multifunctional LED the EF 862AP has a LED piezo button for indicating. The configured template of the multifunctional LED applies also to the LED piezo button.

Note: The LED piezo button is a 2-color LED which can indicate the colours RED and GREEN.

Farbtabelle:

Colour multifunctional LED	Colour LED Piezo button
green	green
red	red
blue	green

HIGHER VOLUME

- When operating the stations at Intercom Servers GE 800/GE 300, volume levels from **0–11** are available. (operation at GE 700/GE 200 up to Pro 06.1 → only volume levels 0–9; GE 700/GE 200 as of Pro 06.1 → volume levels 0–11).
- These volume levels are available for the different conversation modes and tones.

VOLTAGE MONITORING

- At power supply from the Intercom Server, the station automatically monitors whether the current supply is sufficient for the operation of the station with the respective volume level. If at higher line lengths the current supply is too low, the maximum volume is reduced automatically to the highest possible level, in order to ensure the functionality of the station.
  - Vice versa, when in use of lower line lengths, then also a higher maximum volume level is available.
- This means, full scope of operation with higher volume can only be guaranteed with external power supply of the station.

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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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