

Series EE 7000 D

Digital 2-wire stations for harsh and industrial environments



Weather-
proof
IP66

Audio +
Functionality

IVC

Ultimate
Availability

2-wire
Technology

Product variants

Y-EE7506D

Digital 2-wire station for harsh and industrial environments, including full keypad, six direct dialling buttons, loudspeaker, microphone and class-D amplifier with 2.5 W power.

Y-EE7506DAF

Digital 2-wire station (like "Y-EE7506D") with additional 25 W class-D amplifier.

Functions and Highlights

- Perfect choice for outdoor locations and industrial environments, thanks to the robust, weatherproof construction
- Permanent availability of all functions and low maintenance due to cyclical connectivity and function checks
- Superior speech quality based on special audio functions
- Automatic volume setting adjustment to the current ambient noise level via IVC ("Intelligent Volume Control")
- For extreme noisy environments and to connect external loudspeakers, optionally available with powerful built-in 25 W amplifier
- Optimised use with protective gloves due to a large button panel
- Miscellaneous control and monitoring options by means of multiple I/Os
- Reduced cabling requirements and installation costs thanks to 2-wire digital technology

Technical data / System requirements

IP rating:	IP66
Keypad:	closed-sealed membrane surface
Microphone:	omnidirectional electret microphone
Loudspeaker:	special membrane type for optimal sound quality and high volume levels, 8 Ω
Max. sound pressure level:	Y-EE7506D: 112 dB/0.3 m resp. 102 dB/1 m Y-EE7506DAF: 118 dB/0.3 m resp. 108 dB/1 m
Amplifier:	built-in class-D amplifier with 2.5 W (Y-EE7506D) or 25 W (Y-EE7506DAF) power
Call indication:	multifunctional LED (colours: red, green, blue)
Ext. loudspeaker and microphone ¹⁾ :	possibility for connection of e.g. headset or handset EP output: max. 850 mV _{eff} (Vol. 9), R _i = 200 Ω EM input: nominal level 14 mV on 3.3 kΩ (2.5 V microphone supply)
Line input:	for audio feed-in (e.g. music, radio conference) line input: nominal level 0 dBu (0.775 V) at 10 kΩ
Inputs:	3 x inputs for floating contacts (recognises 5 input states)
Outputs:	2 x relay outputs ²⁾ max. 60 VDC, 2 A, 60 W expected life: min. 5 x 10 ⁴ (2 A), 10 ⁵ (1 A)
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%
Transmission bandwidth:	16,000 Hz
Connection:	plugable screw terminals expansion socket e.g. for EB2E2AHE
Cabling:	star feed, 2-wires, twisted
Power supply:	Y-EE7506D: 15–35 VDC or from Intercom Server Y-EE7506DAF: 20–26 VDC
Signalling:	2B + D (2 x 64 kBit/s speech, 16 kBit/s data)
Dimensions:	see "Dimensions" on page 5
Colour:	front panel: black front frame: orange housing: orange

¹⁾ Note:

The external loudspeaker and microphone are not available for the product version "Y-EE7506DAF".

²⁾ Note:

The relay output may only be connected to a SELV circuit! A SELV circuit as per IEC/EN 60950-1 must be separated safely from a dangerous electrical circuit (e.g. 230 V or 110 V mains power), e.g. by means of double insulation. The SELV circuit must not exceed 60 VDC or 42.4 VAC_{peak} (30 VAC_{eff}).

Extent of supply

Digital 2-wire station including:

- 3 x M20 cable glands and dummy plugs
- Short reference

Line length

- Max. 2,800 m (9,168 ft) with external power supply
- Max. 400 m (1,312 ft) with power supply via the Intercom Server

System requirements

- GE 800 (min. PRO 800 5.0) with G8-GED
- GE 300 (min. PRO 800 5.0) with G3-GED
- Configuration software min. CCT 800 5.0

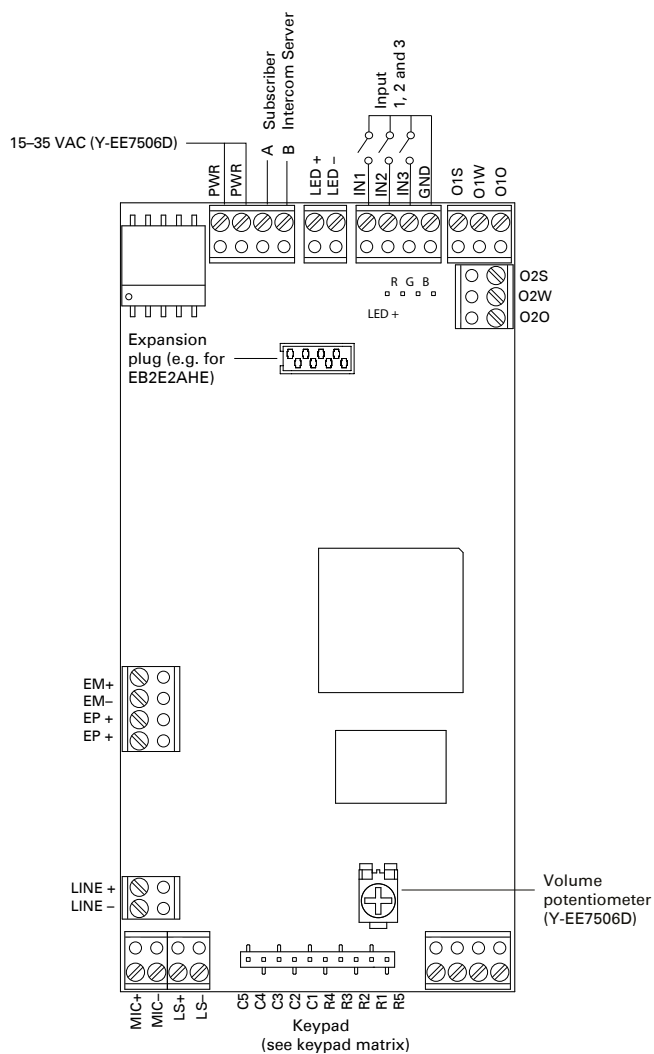
Note: In the Intercom system, the stations "Y-EE7506D" and "Y-EE7506DAF" are recognised as station types "EE 7000 D" and "EE 7000 DAF".

Installation

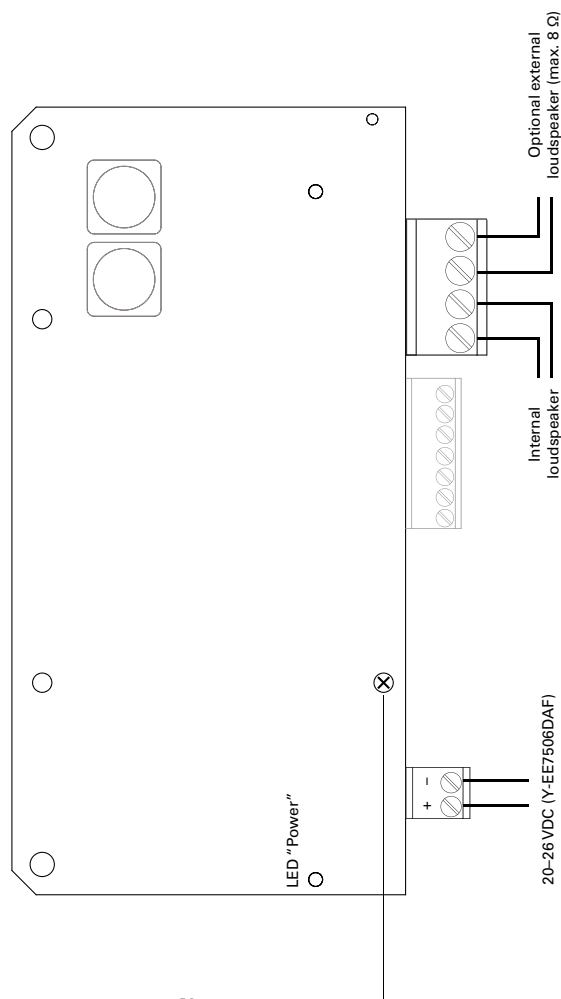
Precautions

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

Connection diagram mainboard ET 808A



Connection diagram 25 W amplifier module



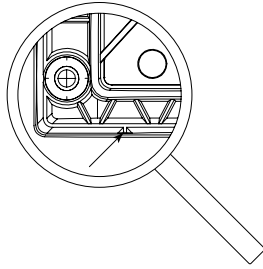
Note:
Remove this screw first, before folding up the module in order to gain access to the connectors of the mainboard.

Installation

Mounting instructions

Outdoor mounting:

In case of outdoor mounting, it is recommended to cut out the two water outlets on the bottom of the housing.

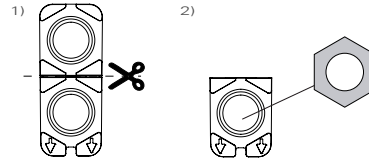


Recommended mounting height

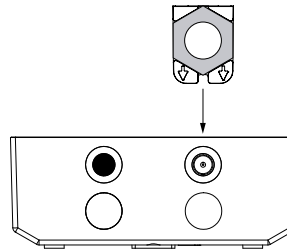
The station shall be mounted in such a way that the microphone is about 1.40 m (4.6 ft) above the floor. Adapt the mounting height to the individual needs.

Mounting gland

- ① Before mounting the station, break out the expansion openings with a blunt object.
- ②
 - 1) Cut the gasket in half (if one expansion opening is used).
 - 2) Put the screw nut into the used gasket opening.



- ③ Put the gasket and the screw nut into the mounting (note the mounting direction).



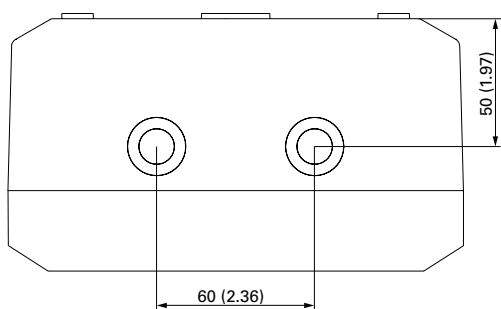
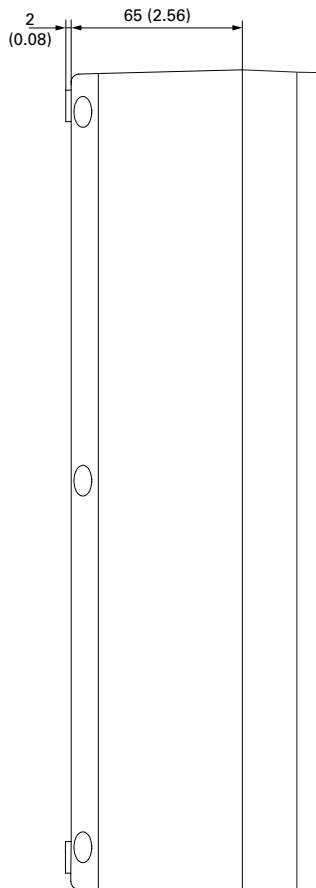
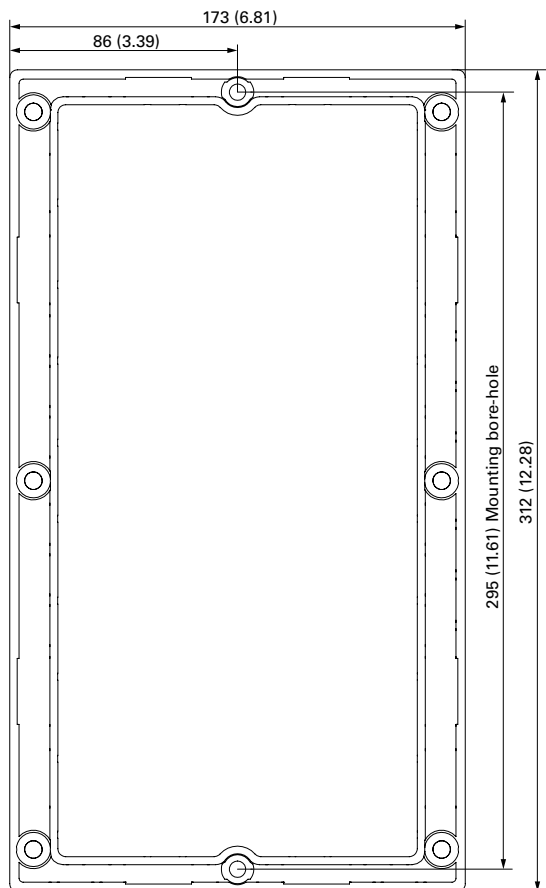
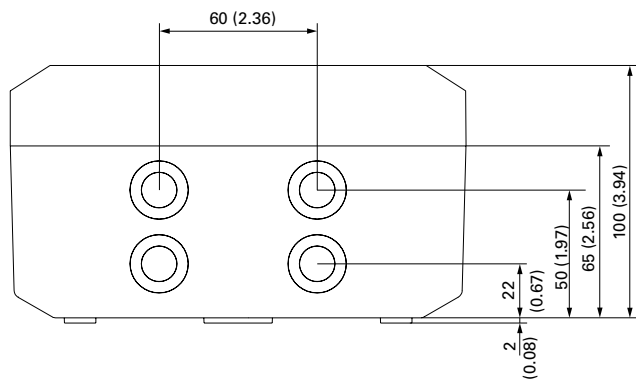
- ④ Fasten the gland.
- ⑤ Close the not-used expansion openings with dummy plugs.

Note: The M20 gland (included in extent of supply) is for mounting cables with a diameter between 4 mm and 9 mm (AWG 6 to AWG 00).

Installation

Dimensions

Measuring units in mm (inch), not scale!



Configuration CCT 800

External Power Supply Configuration

To operate the station "Y-EE7506D" resp. "Y-EE7506DAF" with an external power supply, carry out the following configuration:

- Go to **Subscriber > Station Properties > EE7000 > tab General**.
- Activate the checkbox **External power supply** to disable the power supply via Intercom Server.

Attention:

In this configuration, the station "Y-EE7506D" resp. "Y-EE7506DAF" can only be supplied with external power!

Function key configuration

The function key configuration allows an easy operation with direct dialling buttons and input messages. For this, carry out the following configuration:

- Go to **Subscriber > Station Properties > EE7000 > tab Function Keys**.
- Activate the checkbox **Input** to enable the respective field **Call number input** for input messages. The associated field **Short dial selective** will be disabled.
- In the enabled field **Call number input**, enter the respective input call number.

Microphone configuration

To ensure a high speech quality, the equalization preset for the built-in microphone MIC 480 has to be selected. For this, carry out the following configuration:

- Go to **Subscriber > DSP-Features > tab Microphone, Tones**.
- In the drop-down list **Mode MIC - frequency response**, select the option "MIC480".

For realising a permanent close-talking sound characteristic in extreme noisy environments, it is recommended to reduce the microphone gain by 12 dB. For this, carry out the following configuration:

- Go to **Subscriber > DSP-Features > tab Microphone, Tones**.
- In the drop-down list **mic level internal**, select the option "-12 dB".

Note:

By reducing the microphone gain by 12 dB, the ideal speaking distance in extreme noisy environments is approx. 10 cm (4 inch).

Volume Configuration

If for the Intercom station with built-in amplifier (Y-EE7506DAF) the call mode OpenDuplex® is configured, it is recommended to set the volume level to maximum "5". For this, carry out the following configuration:

- Go to **Subscriber > Audio - Features > tab Duplex, Simplex, Full Duplex**.
- In the drop-down list **Full Duplex limit**, select the option "5".

To enable the best call comfort, it is recommended to activate the IVC function (short for "Intelligent Volume Control"). For this, carry out the following configuration:

- Go to **Subscriber > DSP-Features > tab voice control**.
- Make sure the checkbox **IVC** is activated.

Note:

For further information about configuring CCT 800, see manual "PRO 800 Basic".

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The development and manufacturing processes are certified in accordance with **EN ISO 9001:2008**.

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