ET 811A

2-wire DSP Intercom module for custom-designed stations

Backwards compatibility

OpenDuplex® technology

Audio + functionality

Proven 2-wire technology

The digital Intercom module ET 811A has been developed for construction of custom-designed stations. It offers a wide range of applications and solutions e.g. for elevators, gates, entryways, ticket machines and operation desks.
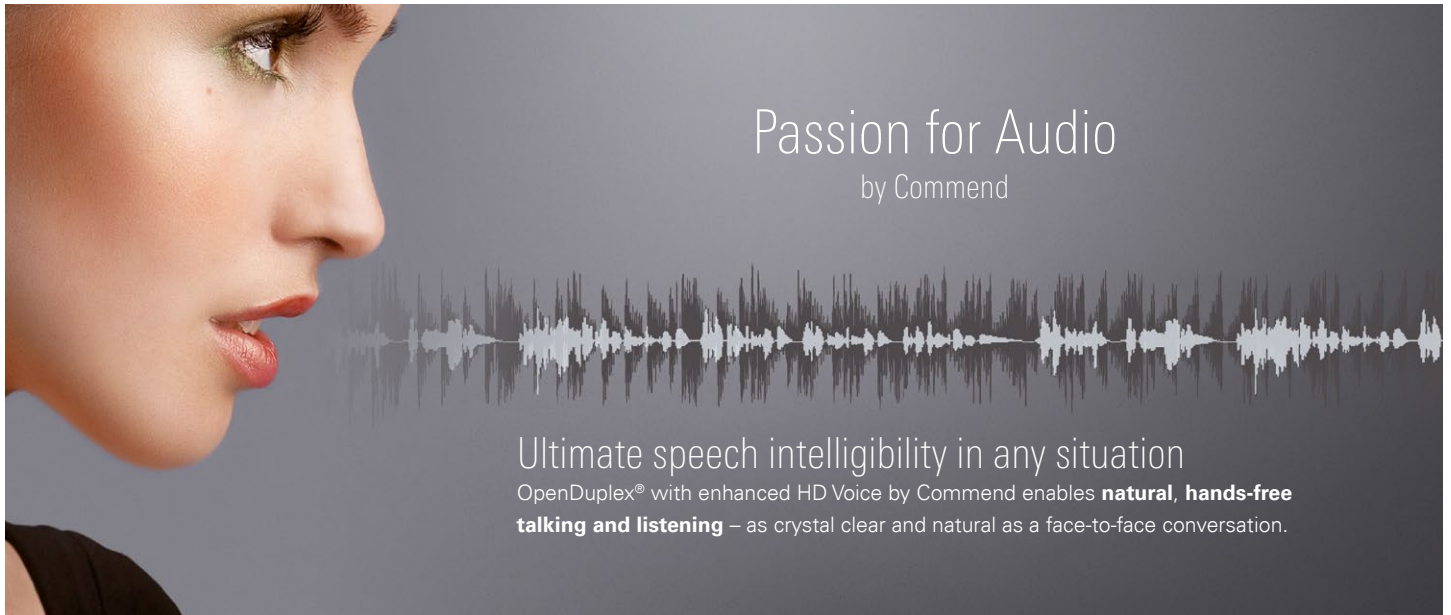
The Intercom module is comprehensively equipped with a large, illuminated graphic display, a full keypad, a sound-optimized loudspeaker and an electret condenser microphone.

The graphic display shows information like call number and name of the conversation partner as well as messages, call type and events.

The proven DSP-technology allows functions such as OpenDuplex®, audio monitoring or microphone/loudspeaker surveillance of the station.

Features and highlights

– White illuminated graphic display with on-screen menu, brightness and contrast adjustable.
– Excellent 16 kHz speech quality, for optimum intelligibility.
– For installation in 2.5 to 3 mm (0.1 to 0.12 in) thick panels.
– OpenDuplex® with powerful Blackfin DSP.
– Audio monitoring, adjustable integration time and noise level.
– Microphone/loudspeaker surveillance.
– Voltage monitoring, i.e. when in use of greater line length, the volume is reduced automatically.
– High volume levels due to digital class-D amplifier.
– Bright multifunction LED indicates the station's operation status (e.g. call indication).
– Possibility for connection of headset, headphones or gooseneck microphone.
– Input for floating contact and open collector output (possibility for retrofitting a relay).
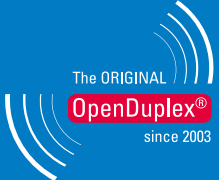
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Passion for Audio
by Commend

Ultimate speech intelligibility in any situation
OpenDuplex® with enhanced HD Voice by Commend enables **natural**, **hands-free talking and listening** – as crystal clear and natural as a face-to-face conversation.

The ORIGINAL **OpenDuplex®** since 2003	**16**kHz **e**HD Voice	🔊	IVC	🎤✔ 🔊✔
Natural communication	Enhanced HD Voice	High volume	Intelligent Volume Control	Loudspeaker/microphone surveillance

Audio // Basics

eHD Voice	Enhanced HD Voice by Commend transfers the audio signal at a bandwidth of **16 kHz**, thus capturing the entire frequency spectrum of the human voice.
STI	Speech Transmission Index **0.96** – measured under acoustic laboratory conditions (STI is a standard measure for speech intelligibility; it has a possible maximum value of 1.00, which corresponds to perfect intelligibility)
Sound pressure level	**High volume** up to **99 dB**
Amplifier	High efficient class-D amplifier with 2.5 W
Microphone	Omnidirectional electret condenser microphone for max. 7 m (23 ft) speaking distance
Loudspeaker	8 Ω loudspeaker with humidity-resistant special membrane type for optimum sound quality

Learn more
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Audio // Functions

Loudspeaker/microphone surveillance – ensures the availability of the Intercom station while reducing the need for manual verification of its functionality

Audio monitoring – fully automated emergency calls triggered by defined noise levels for more security

Peer-to-peer audio – reduces network and server load to ensure efficient use of resources

Audio recording and lip synchronous audio/video recording of conversations for documentation and evidence keeping purposes

Conference call function for simultaneous talking with multiple conversation partners

Speech activity detection senses when calls are finished (no microphone signal) and terminates the connection automatically

Simplex mode for applications requiring controlled communication – e.g. for security solutions based on the "push-to-talk/release-to-listen" method

OpenDuplex® for natural, hands-free communication

IVC (Intelligent Volume Control) automatically adjusts the device's volume setting to the ambient noise level

Public address functions

ET 811A
Technical specifications

Technical data

Keypad:	silicon type, activation force: 2.2 N, 1x10^6 cycles
Microphone:	electret condenser microphone polar pattern: omnidirectional speaking distance: max. 7 m (23 ft)
Loudspeaker:	special membrane type for optimal sound quality, sound pressure: 85 dB/1 W/1 m (3.28 ft), 8 Ω possibility for connection of an additional external loudspeaker: ≥8 Ω [1]
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
Status indicator:	multifunction LED (colours: red, green, blue)
Input:	1 input for floating contacts, max. 1 kΩ
Output:	1 open collector output (30 VDC / 50 mA)
Transmission bandwidth:	16 kHz
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 %
Connection:	modular jack 6/6 for connection to Intercom Server modular jack 4/4 for connection of headset, headphones
Cabling:	star feed, 2-wire, twisted
Power supply:	from Intercom Server option: external supply for greater line length or external loudspeaker (20 − 24 VAC or 28 − 35 VDC, 100 mA)
Dimensions (W x H x D):	keypad PCB: 79 x 173 x 18 mm (3.11 x 6.82 x 0.71 in) loudspeaker PCB: 57.5 x 82 x 35 mm (2.27 x 3.23 x 1.38 in) 16-way connection cable 150 mm (5.91 in)
Weight incl. package:	about 450 g (1 lb)

[1] Observe line length (voltage monitoring)!

Line length

The indicated line length is valid for standard stations without additional external loudspeaker. With these line lengths max. the volume level 9 and display backlight intensity 9 are possible.

Card type	Power supply Server			External power supply
	24 VAC	30 VDC	25 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	1,500 m 4,922 ft	900 m 2,953 ft	max. 3,000 m
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	1,400 m 4,593 ft	800 m 2,625 ft	

System requirements

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

Note – limited scope of function with GE 700/GE 200:

When operating the module in combination with the server generation GE 700/GE 200, this 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).
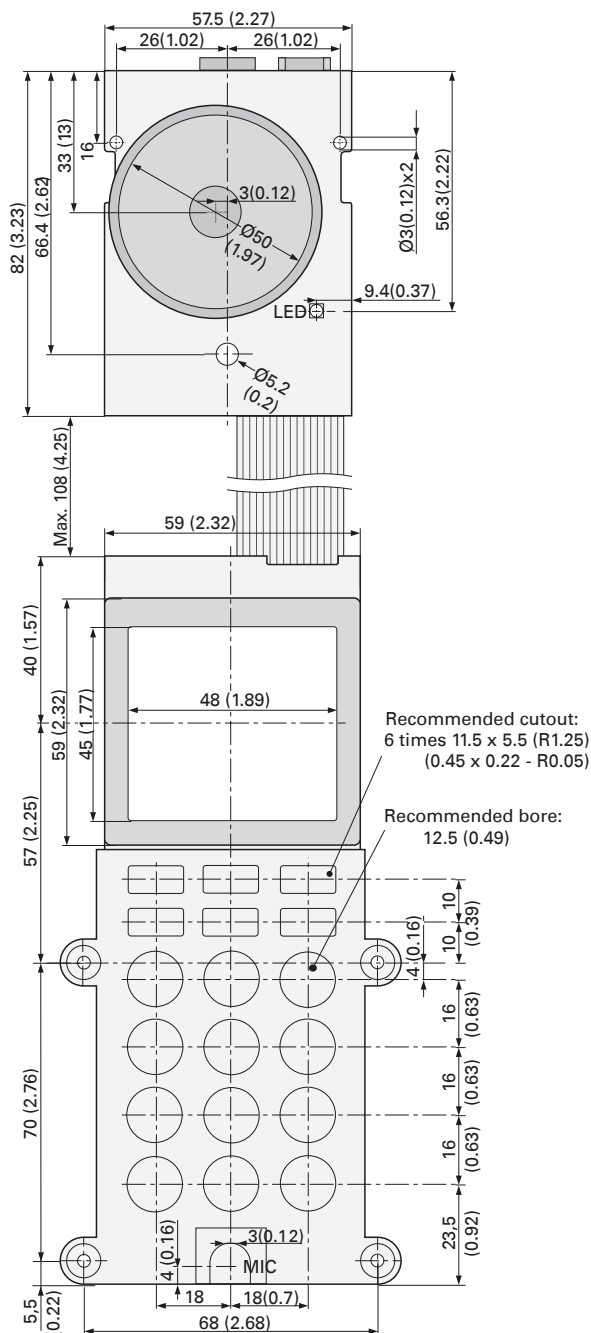
Extent of supply

1 Intercom module including:
– Short reference and operating instructions
– Connection cable, pluggable at both sides, 3 m / 9.8 ft

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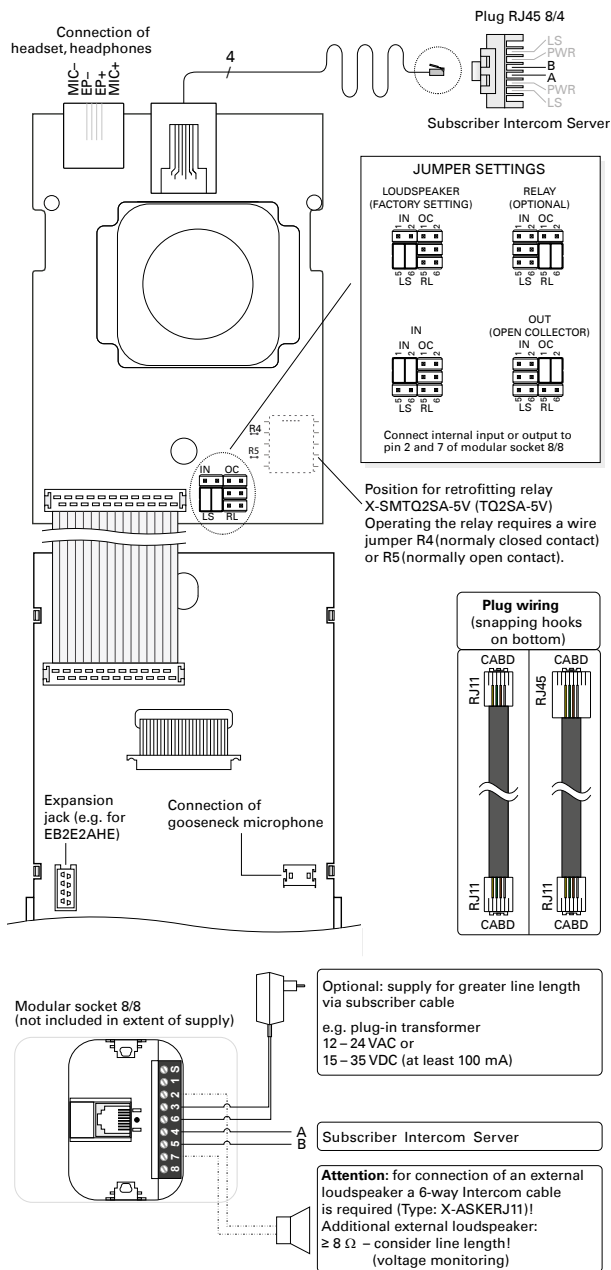## Installation instructions

Dimensions

Measuring units: mm (in), not to scale!

Precautions and mounting instructions

- For conversations in OpenDuplex®, max. the volume level 9 may be set for the station.
- When opening the stations ESD precautions must be observed.
- The stations may only be opened by authorised service engineers.
- For installation in 2.5 to 3 mm (0.1 to 0.12 in) thick panels.
- Do not expose the station to extreme temperature (see "Technical data").

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Connection diagram

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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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.

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