

# ET 861A

Digital 2-wire door station module



Audio +  
functionality

Backwards  
compatibility

OpenDuplex®  
technology

16 kHz  
eHD Voice

## Elegant station for doors and gates

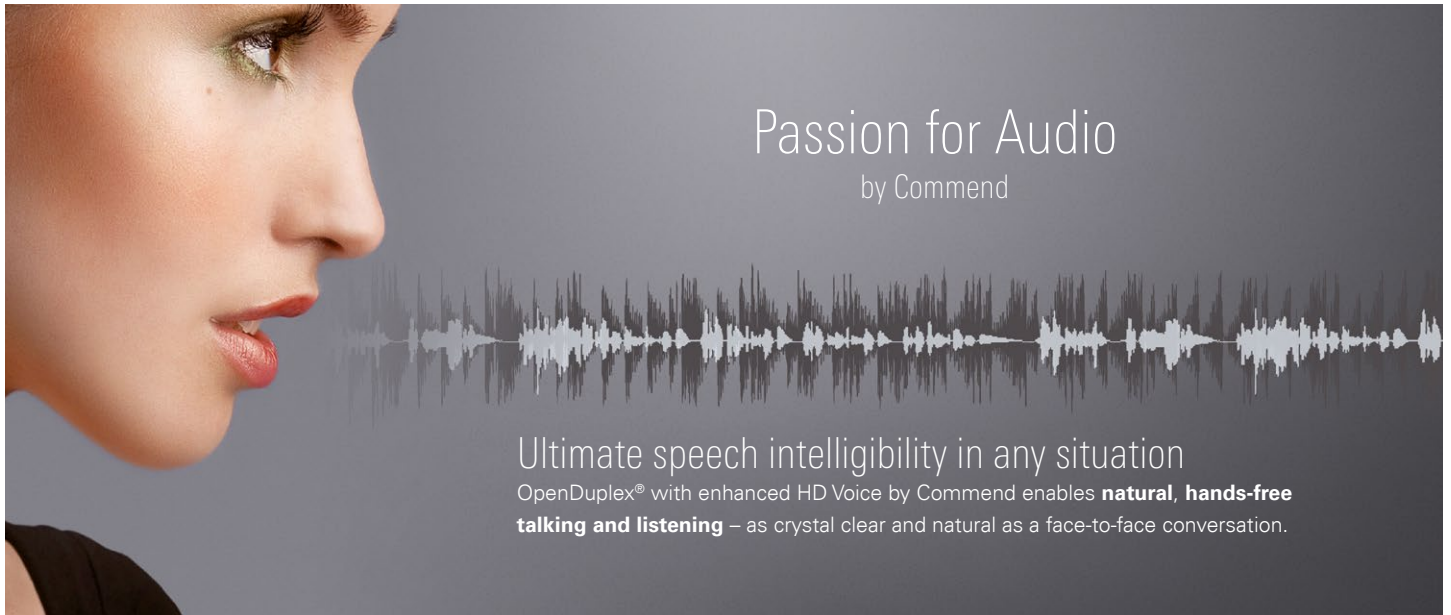
The 2-wire door station module ET 861A was developed for use at doors and gates as well as entry ways and internal security gates.

The elegant modern design is matched to the Vario 6 series from Siedle. Further function modules matching the door station module are available. This way, all areas to which a speech connection is required can be integrated into the Intercom system. Thus, all advantages of the Intercom system can be used — e.g. call transfer into the telephone or cellular network and networking. The door station module ET 861A uses the latest DSP technology, which allows functions like audio monitoring, loudspeaker/microphone surveillance or OpenDuplex®.

Typical applications of the door station module include speech solution at doors and gates, barriers and turnstiles. The ET 861A is available for flush as well as surface mounting and for integration in columns or letterbox systems.

## Features and highlights

- Digital 2-wire door station provides reliable DSP technology
- Brilliant 16 kHz speech quality for optimum intelligibility
- Connector for single call button or full keypad
- Provides one input, e.g. for connecting a proximity sensor
- Provides one relay output, e.g. for direct control of a door opener
- Increased reliability thanks to configurable loudspeaker/microphone surveillance and line monitoring
- Audio monitoring
- Open for future features due to downloadable DSP software

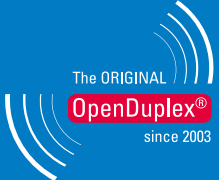





# Passion for Audio

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.

 <p>Natural communication</p>	 <p>Enhanced HD Voice</p>	 <p>High volume</p>	<p>IVC</p> <p>Intelligent Volume Control</p>	 <p>Loudspeaker/microphone surveillance</p>
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### Audio // Basics

<b>eHD Voice</b>	Enhanced HD Voice by Commend transfers the audio signal at a bandwidth of <b>16 kHz</b> , thus capturing the entire frequency spectrum of the human voice.
<b>STI</b>	Speech Transmission Index <b>0.96</b> – 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)
<b>Amplifier</b>	High efficient class-D amplifier with 2.5 W
<b>Microphone</b>	Omnidirectional electret condenser microphone for max. 7 m (23 ft) speaking distance
<b>Loudspeaker</b>	2 x 8 Ω loudspeaker with humidity-resistant special membrane type for optimum sound quality

Learn more

[audio.commend.com](http://audio.commend.com)

### 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
- 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 861A

## Technical specifications

### Technical data

<b>Front panel:</b>	Siedle Vario
<b>IP rating:</b>	IP54 (acc. EN 60529)
<b>Microphone:</b>	electret condenser microphone polar pattern: omnidirectional
<b>Loudspeaker:</b>	special membrane type for optimal sound quality sound pressure level: max. 85 dB/1 W/1 m, 8 Ω
<b>Amplifier:</b>	integrated class-D amplifier with 2.5 W output capacity with built-in loudspeaker: 1.5 W
<b>Input:</b>	for floating contacts
<b>Output:</b>	relay output (switch-over contact) <sup>1)</sup> max. 60 W (DC)/37.5 VA (AC), max. 2 A, max. 60 V DC/30 V AC expected life: min. 5 x 10 <sup>4</sup> (2 A), 10 <sup>5</sup> (1 A)
<b>Transmission bandwidth:</b>	16 kHz
<b>Operating temperature range:</b>	-20 °C to +70 °C (-4 °F to +158 °F)
<b>Power supply:</b>	via Intercom Server
<b>Cabling:</b>	star feed, 2-wire, twisted pair
<b>Signaling:</b>	2B + D (2 x 64 kBit/s speech, 16 kBit/s data)
<b>Dimensions (W x H x D):</b>	99 x 99 x 9 <sup>2)</sup> mm ( 3.9 x 3.9 x 0.35 <sup>2)</sup> in)
<b>Weight incl. package:</b>	200 g (0.45 lbs)
<b>Colours:</b>	white (RAL 9016), silver metallic (RAL 9006), mica- ceous dark grey luminous (DB 703), anthracite grey (RAL 7016)

<sup>1)</sup> Circuits connected to the relay output must meet the following safety requirements:

1. Safety extra-low voltage (SELV) according to IEC/EN 60950-1 or
  2. ES1, PS2 circuits according to IEC/EN/UL 62368-1.
- A SELV/ES1 circuit must be safely separated from a dangerous electrical circuit (e.g. 230 V or 110 V mains power), e.g. by double insulation. The SELV circuit must not exceed 60 VDC or 42.4 VAC<sub>peak</sub> (30 VAC<sub>eff</sub>)!

The wiring of the PS2 circuits must meet the requirements of IEC 62368-1 chapter 6.5.

<sup>2)</sup> Panel thickness above the surrounding frame.



### Higher volume

With door station modules ET 861A from revision "AB", the volume levels 0 to 11 are available with PRO 800 5.0 or higher.

### System requirements

- GE 800 (min. PRO 800 1.0) with G8-GED or
- GE 300 (min. PRO 800 1.0) with G3-GED or
- VirtuoSIS/S3/S6 with ET 901-D (min. firmware version 3.0)

#### Note:

The door station modules will be identified as "ET 861A (Rev1)" or "ET 861A (Rev2)" from PRO 800 5.0 and CCT 800 5.0. "ET 861A (Rev2)" with revision "AB" or higher is a device with a higher volume.

### Line length

Cable type	Power supply 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)	2,100 m 6,899 ft <sup>1)</sup> 1,300 m 4,265 ft <sup>2)</sup>	1,900 m 6,233 ft <sup>1)</sup> 1,000 m 3,280 ft <sup>2)</sup>	1,300 m 4,265 ft <sup>1)</sup> 700 m 2,296 ft <sup>2)</sup>
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)	1,900 m 6,233 ft <sup>1)</sup> 1,200 m 3,937 ft <sup>2)</sup>	1,700 m 5,577 ft <sup>1)</sup> 1,000 m 3,280 ft <sup>2)</sup>	1,300 m 4,265 ft <sup>1)</sup> 700 m 2,296 ft <sup>2)</sup>

<sup>1)</sup> With volume level 9

<sup>2)</sup> With volume level 11

#### Note:

The maximum line length rises significantly with a decreasing volume level.

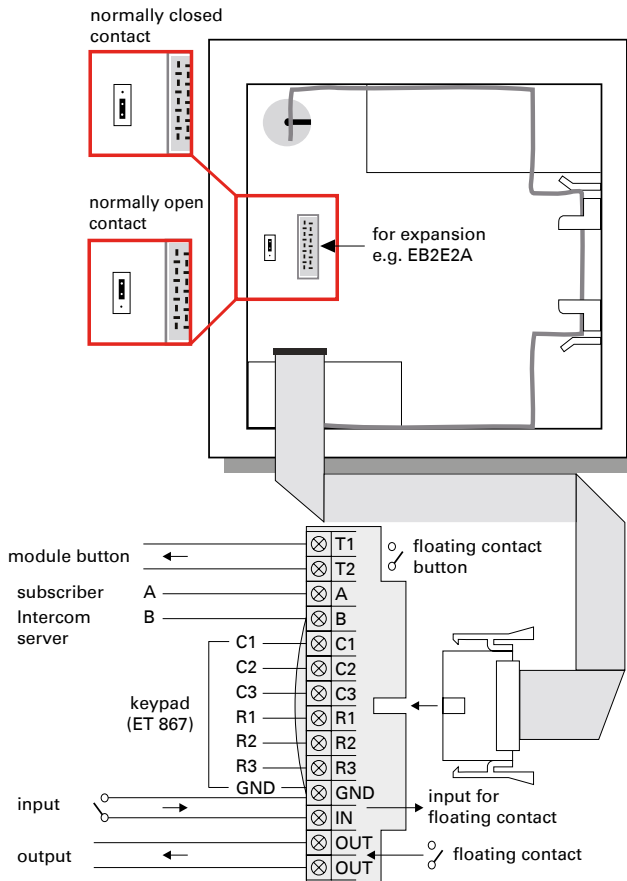
# ET 861A

## Installation instructions

### Safety instructions

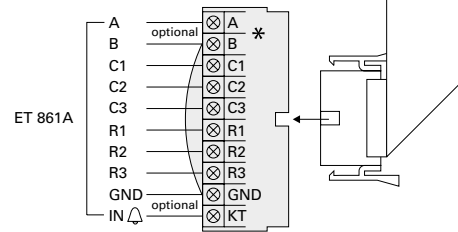
- This device shall be installed or replaced by trained and qualified personnel only.
- Do not expose the device to extreme temperatures (below -20 °C/-4 °F or above +70 °C/+158 °F).
- Only use recommended tools when installing the device.
- Observe the country-specific standards for installation, mounting and configuration.
- Only accessories that comply with the device's technical specifications shall be used.
- Do not make any unauthorised modifications to the device.

### Connection ET 861A



### Connection ET 867

1	2	3	N.A.
4	5	6	• N.A.
7	8	9	↔ N.A.
F (=T)	0	△ (IN)	C (=X)



**\* Note: A, B for optional keypad illumination only. ET 867 cannot be used without ET 861A!**

- A, B (optional power supply for keypad illumination): plug-in transformer (12–24 VAC/15–34 VDC) or supply from the Intercom Server (connection at ET 861A, in parallel to A,B)
- GND, IN: The "bell"-button can be connected at the input (IN and GND) of the ET 861 and given a function via the Intercom Server.

## Connection of buttons

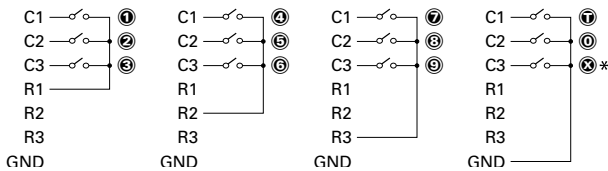
### Connection keypad/buttons

It is possible to connect either a complete keypad with row-column matrix (e.g. ET 867) or single buttons (e.g. TM 611-04).

A maximum of 4 single buttons with common ground can be connected. The button symbols show the dialling numbers in the Intercom Server.

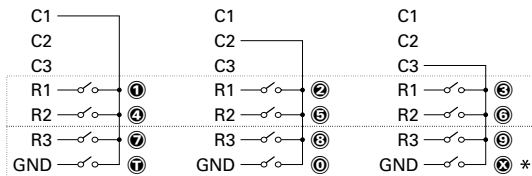
#### Connection of 4 times 3 buttons

Up to 4 x 3 buttons can be connected if each 3 buttons have their own common ground.



#### Connection of 3 times 4 (6 times 2) buttons

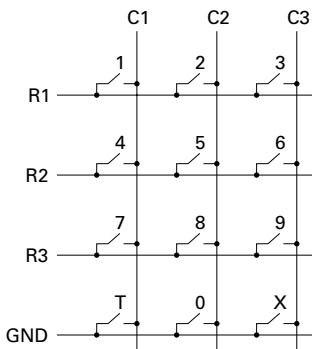
Up to 3 x 4 (or 6 x 2) buttons can be connected if each 4 (2) buttons have their own common ground.



\* **Attention:** ⊗ cannot be used for direct dialling!

### Keypad matrix

Line length between keypad and ET 861A: max. 50 cm (19.7 in)



### Quality tested. Reliable. Smart.

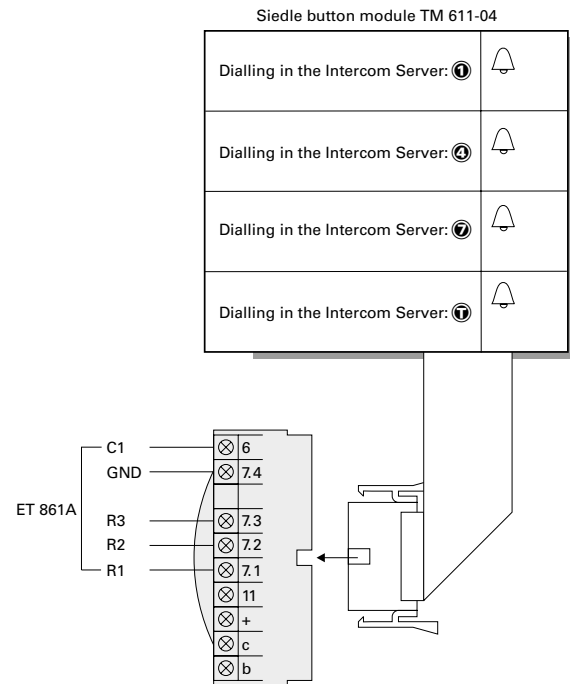
COMMEND products are developed and manufactured by Commend International in Salzburg, Austria.

The development and manufacturing processes are certified in accordance with **EN ISO 9001:2015**.



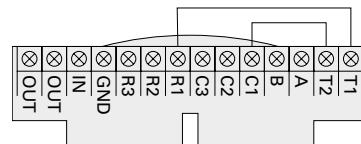
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### Example: Siedle button module TM 611-04



### Example: ET 861A module button

Usage of the module button (⊗) as button 1 in the Intercom Server:



### 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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