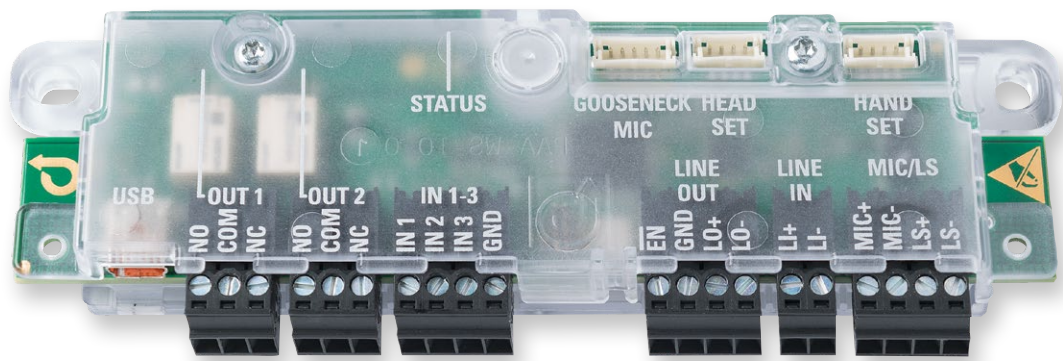


EB3E2A-AUD

Expansion module with three inputs, two outputs and audio interfaces



USB
interface

Compact
size

Easy
installation

Increased connectivity

The expansion module EB3E2A-AUD provides an easy way to expand the inputs and outputs as well as the audio capabilities of an Intercom station.

The expansion module is suitable for any applications where inputs and outputs and additional audio interfaces are required. It supports three inputs and has two relay outputs and is equipped with ports for direct connection of an external loudspeaker, a microphone, a headset and a handset. Line-in and line-out jacks provide additional flexibility.

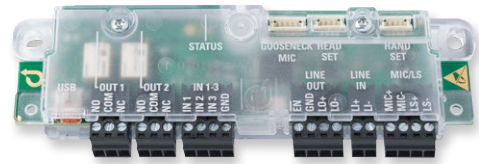
The EB3E2A-AUD provides a secure, cost-efficient way of integrating inputs and outputs directly into the Intercom station. The resulting solution is suitable for implementing additional inputs and outputs for the control of external components. Installation is fast and easy: the expansion module connects to an Intercom station via a USB cable and is immediately ready for use.

Features and highlights

- Three digital inputs (detection of 16 input states)
- Two relay outputs
- Integrated audio amplifier enables direct connection of a loudspeaker
- Versatile options for connecting various different audio devices (e.g. line-in/line-out, microphone, loudspeaker and handset)
- USB interface to the Intercom station
- USB powered (no need for an separate power supply)
- Compact size
- Optimised for use with a Symphony MX Intercom station
- Enhanced audio options for Symphony MX Intercom stations, e.g.:
 - Connection of an analogue handset, headset or gooseneck microphone
 - Use of line-in and line-out instead of the internal loudspeaker and microphone
 - Use of the internal loudspeaker and microphone or an external loudspeaker and microphone for remote audio options
 - Parallel output of audio signals at the line-out as audio interface
 - Output of both audio directions (mixed audio) of calls at the line-out for analogue call recording
 - Output of music feed through the line-in at the Intercom station in the device state "Idle"

EB3E2A-AUD

Technical specifications



Technical data

Microphone input:	for electret condenser microphones or dynamic microphones sensitivity: -43 dBV/Pa, nominal feeding voltage: 2.5 V at 3.3 k Ω
Loudspeaker output:	class-D amplifier power: 2.5 W at 4 Ω , 1.25 W at 8 Ω max. 3.2 V _{eff}
Line-in ¹⁾:	sensitivity: 0 dBu (775 mV _{eff}) input resistance: 10 k Ω symmetrically
Line-out:	nominal level: 500 mV, Ri = 100 Ω MUTE output (open collector): 100 mA (low = active)
Handset connection:	for electret condenser microphones or dynamic microphones EM input, feeding voltage: 2.5 V at 3,3 k Ω EP output: max. 500 mV _{eff} , Ri = 100 Ω
Headset connection:	for electret condenser microphones or dynamic microphones EM input, feeding voltage: 2.5 V at 3,3 k Ω EP output: max. 500 mV _{eff} , Ri = 100 Ω
Inputs:	3 digital inputs for floating contacts, input states: short, 560, 1k, 1k5, 2k2, 2k7, 3k3, 4k7, 6k8, 8k2, 10k, 15k, 22k, 33k, 56k, open (switches, push buttons, relay outputs etc.) ²⁾
Outputs:	2 relay outputs max. switching voltage: 60 VDC, 30 VAC _{eff} max. switching current (per output): 2 A max. switching power (per output): 60 W (DC), 37.5 (VA AC) electrical expected life: min. 10 ⁵ (30 VDC/2 A), min. 5 x 10 ⁵ (30 VDC/1 A)
Cabling	conductor cross-section: min. 0.08 mm ² (AWG 28), max. 1.5 mm ² (AWG 16)
Power supply:	via USB (5 V, max. 500 mA)
Interface:	USB 2.0 (type Mini-B)
Status indicators:	1 LED for power, 2 LEDs for relay output state
Operating temperature range:	-40 °C to +65 °C (-40 °F to +149 °F)
Storage temperature range:	-40 °C to +65 °C (-40 °F to +149 °F)
Relative humidity:	up to 95 %, not condensing
Approvals and compliances:	EN 61000-6-2, EN 61000-6-3, EN 55032 Class B, EN 55035 IEC/EN 60950-1
Dimensions (W x H x D):	135 x 37 x 17 mm (5.32 x 1.46 x 0.67 in)
Weight incl. package:	155 g (0.34 lbs)

Extent of supply

- Expansion module
- USB cable (Type A/Type Mini-B, 300 mm)
- Short reference

System requirements

- Symphony MX (audio functionalities are supported from firmware version 03.01)

¹⁾ The line-in is not muted if no signal is transmitted. For best audio transmission, it is recommended to ground the device and to use only short, high-quality cables.

²⁾ For the input value "Short", the switch resistance has to be less than 280 Ω .

EB3E2A-AUD

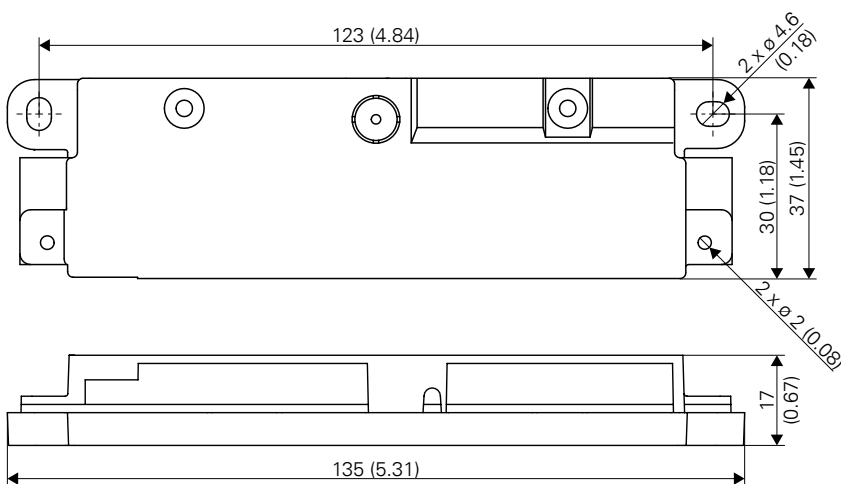
Installation instructions

Safety instructions

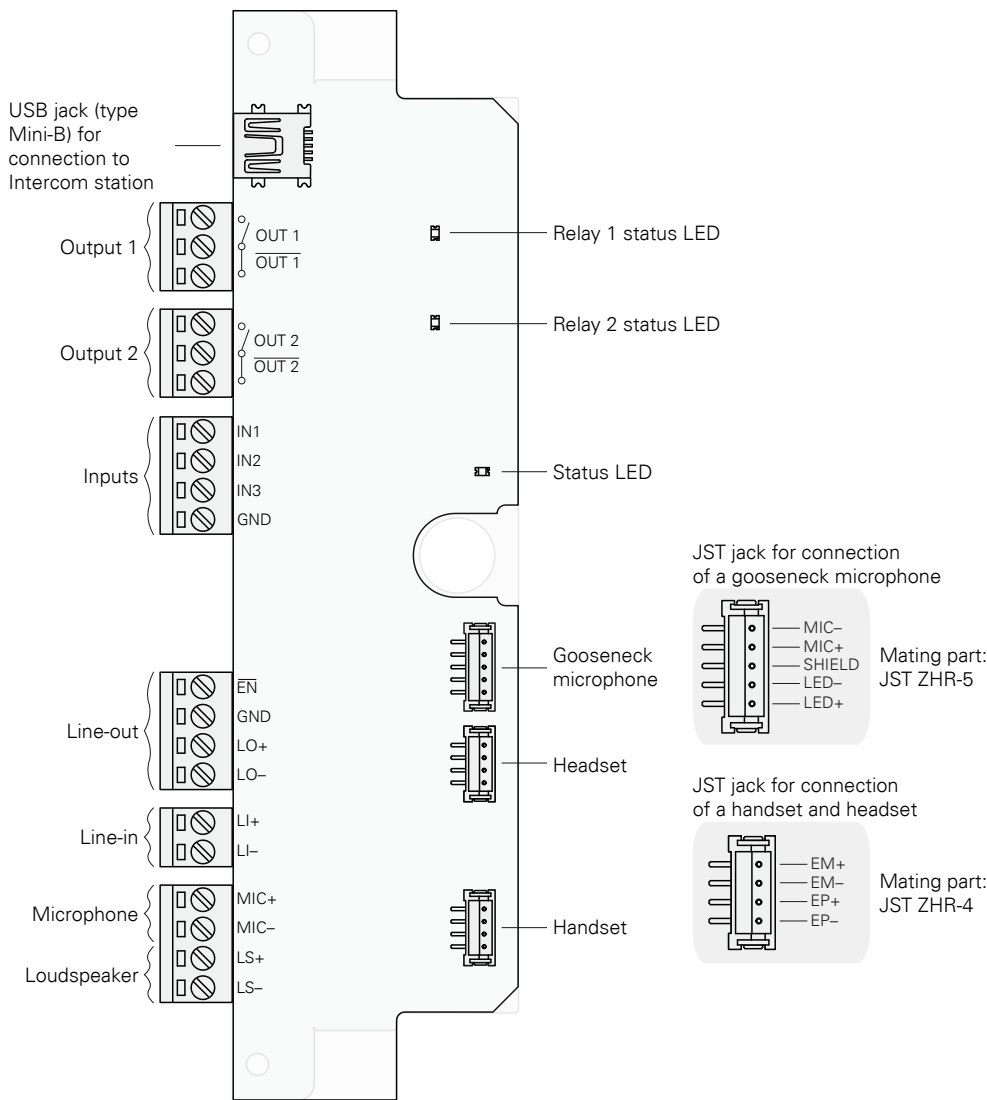
- This device shall be installed or replaced by trained and qualified personnel only.
- Only use recommended tools when installing the device.
- Do not place the device in locations where it may be wet or damp. Also avoid locations with increased dust formation, high humidity or high ambient temperature.
- All connected circuits shall fulfil the following requirements:
 - Safety Extra Low Voltage (SELV) and Limited Power Source (LPS) according to IEC/EN 60950-1 or
 - ES1, PS2 circuits and Annex Q (Limited Power Source) according to IEC/EN 62368-1.
- Only Intercom stations that comply with the device's technical specifications shall be used.
- Do not make any unauthorised modifications to the device.
- Max. permitted length of cables on inputs and outputs is 30 m (98.423 ft).
- Before using the device, ensure all cables are correctly connected and not damaged.
- For mounting within the flush mount kit WFSB 50V or surface mount kit WSSH 50V, the back cover must be removed. The screws for the back cover can be used to mount the expansion module into the flush mount box.
- This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:
 - Reorient or relocate the receiving antenna.
 - Increase the separation between the equipment and receiver.
 - Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
 - Consult the dealer or an experienced radio/TV technician for help.

Dimensions

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



Connections



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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