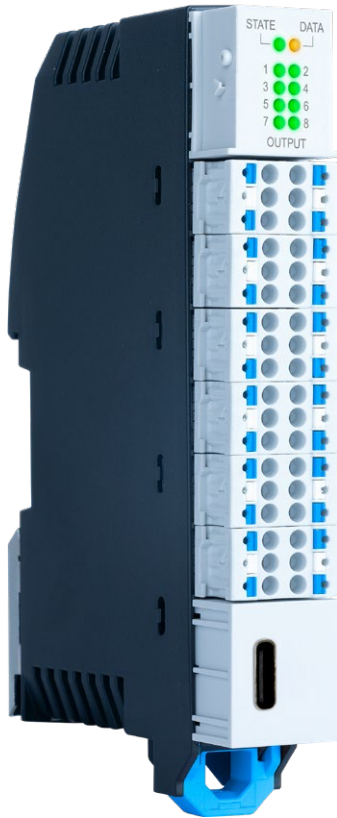


# EB8E8A

USB I/O module with 8 inputs and 8 outputs



8 inputs

8 outputs

Fully integrated

## Simple extension

With the USB I/O module EB8E8A, a Symphony MX device can easily be expanded with additional connections. Thanks to its 8 inputs and 8 outputs, the EB8E8A is an easily scalable solution. The connection to the Symphony MX device is made using USB.

Switching outputs, for example to open doors and barriers, is a security-critical operation. This is why the EB8E8A complies with Commend's strict cyber security guidelines.

## Features and highlights

- 8 relay outputs (changeover contact)
- 8 inputs (detection of up to 128 input states)
- Relay state indication
- Module state indication
- I/O plug with spring-type terminals
- Lock-and-release system for easy installation and deinstallation of the connectors
- Top-hat rail mounting
- Easy connection using USB

# EB8E8A

## Technical specifications



### Technical data

<b>IP rating:</b>	IP20 (acc. to EN 60529)
<b>Mechanical impact resistance:</b>	IK08 (acc. to EN 62262)
<b>Inputs:</b>	8 digital inputs for floating contacts (switches, push buttons, relay outputs, etc.) <sup>1)</sup> input states: Short, 560, 1k, 1k5, 2k2, 2k7, 3k3, 4k7, 6k8, 8k2, 10k, 15k, 22k, 33k, 56k, Open
<b>Outputs:</b>	8 relay outputs (changeover contact) max. switching voltage: 60 VDC, 30 VAC max. switching current (per output): 2 A <sup>2)</sup> max. switching power (per output): 60 W (DC), 37.5 VA (AC) expected electrical life: min. 10 <sup>5</sup> (30 VDC/2 A), min. 5 x 10 <sup>5</sup> (30 VDC/1 A)
<b>Operating temperature range:</b>	-40 °C to +70 °C (-40 °F to +158 °F)
<b>Storage temperature range:</b>	-40 °C to +70 °C (-40 °F to +158 °F)
<b>Relative humidity:</b>	up to 95%, not condensing (acc. to EN 60068-2-61, 55 °C/131 °F)
<b>Connection:</b>	USB 2.0 (type C) I/O plug with spring-type terminals (conductor cross section: 0.2 mm <sup>2</sup> to 1.5 mm <sup>2</sup> / AWG24 to AWG16, stripping length: 8 mm)
<b>Power supply:</b>	5 VDC through the USB C cable <sup>3)</sup>
<b>Power consumption:</b>	idle: 0.12 W (no output switched) max.: 1.3 W (all outputs switched)
<b>Approvals and compliances:</b>	EN 61000-6-2, EN 61000-6-4, EN 55032 Class B, EN 55035, FCC Part 15 Class B, ICES-003 Class B, EN 60529 IP20, EN 62262 IK08 IEC/EN/UL 62368-1, CB-Scheme (by UL), UL LISTED
<b>Dimensions (W x H x D):</b>	19 x 125 x 77 mm (0.75 x 4.92 x 3.03 in; without USB cable)
<b>Weight incl. package:</b>	approx. 250 g (0.6 lbs)
<b>Optional accessories:</b>	DINRAIL150 (15 cm/5.9 in top-hat rail) ASKHSLINK-05 (50 cm/19.7 in USB C cable) ASKHSLINK-10 (100 cm/39.4 in USB C cable) ASKHSLINK-30 (300 cm/118.1 in USB C cable)

<sup>1)</sup> For the input state "Short", the switch resistance has to be < 280 Ω.

<sup>2)</sup> For the North American market (UL 62368-1 compliance), the max. supported current is limited to 1 A (AC)/0.6 A (DC). For all other areas (non-UL-compliant use), the current of 2 A applies only to an ambient temperature of -40 °C to +60 °C, followed by a linear derating to 1 A (AC)/0.6 A (DC) at +70 °C.

<sup>3)</sup> Only use the USB C cable included in the extent of supply or a recommended USB C cable.

### Extent of supply

- USB I/O module with integrated top-hat rail clamp
- USB C cable ASKHSLINK-03 (30 cm/11.8 in)
- Short reference

### System requirements

- Symphony MX device (min. version 03.04.01)

# EB8E8A

## Installation instructions

### Installation instructions

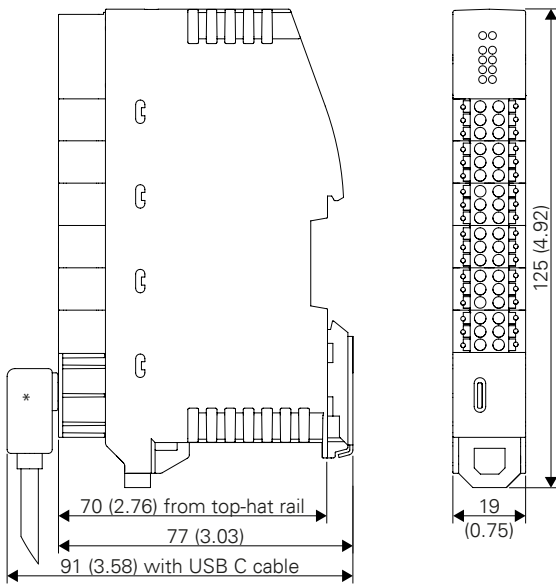
- Observe the country-specific standards for installation, mounting and configuration.
- Install or store this device out of the reach of children and do not allow persons unfamiliar with the device and these instructions to handle and operate the device.
- Do not install the device in locations where it may be wet or damp. Also avoid locations with increased dust formation, high humidity or high ambient temperature.
- Regardless of the installation position (cabinet, wall or rack), ensure the correct orientation (cable outlet on the underside) of the device.
- Install the device with a distance of min. 10 mm downwards to allow access to the top-hat rail holder and, if necessary, to release the locking of the I/O connector via the lock-and-release system.
- For wall mounting, the top-hat rail DINRAIL150 is required (available separately).
- Longer USB C cables of 50 cm (ASKHSLINK-05), 1 m (ASKHSLINK-10) and 3 m (ASKHSLINK-30) are available for mounting (available separately).
- Before using the device, ensure all cables are connected correctly and are not damaged.
- To avoid mechanical stress on the USB jack, it is recommended to provide strain relief for the USB cable close to the USB jack.
- Use USB cables from Commend only.

### Safety instructions

- This device shall be installed or replaced by instructed personnel only.
- The top-hat rail DINRAIL150 shall be installed or replaced by skilled personnel only.
- This device may only be connected to and used with compatible devices from Commend (see "System requirements").
- All connected circuits shall fulfill 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/UL 62368-1.
- Do not make any modifications to the device.
- 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.

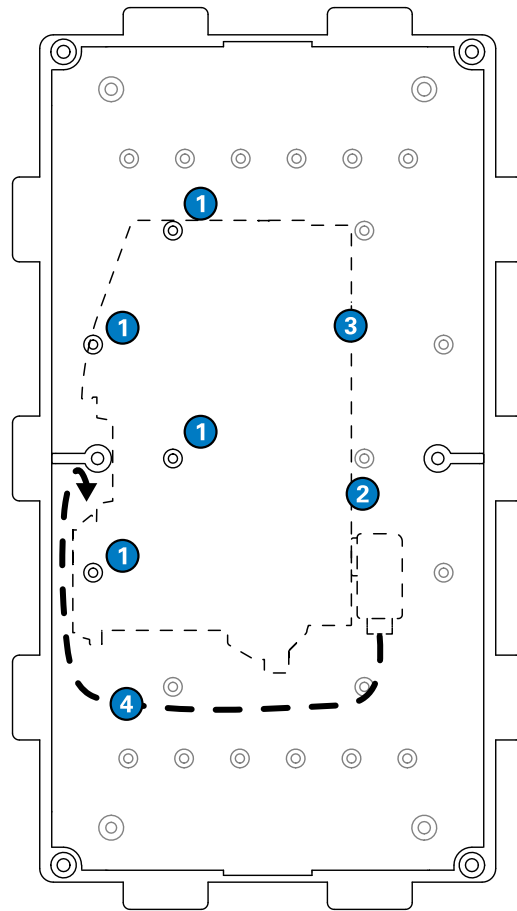
## Dimensions front panel

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



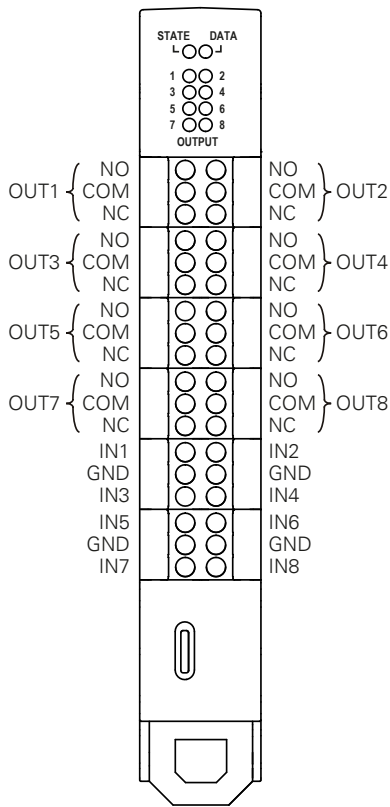
\* USB C cable

## Installation in a WSFB 50V

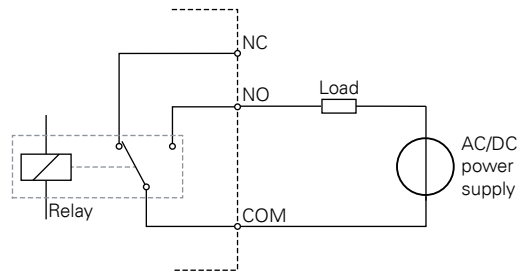


- 1 Cut the four domes in the mounting box WSFB 50V shown in the illustration above flat (e.g. with an electronic side cutter) and rework them with a file if necessary.
- 2 Connect the USB cable and the I/O cables to the EB8E8A (see also "Connections").
- 3 Position the EB8E8A so that the connectors face right. Attach the EB8E8A to the centre left of the mounting box using double-sided tape as shown in the illustration above.
- 4 Guide the USB cable below the EB8E8A to the left side and connect it to the WS 300V. Install the Intercom station so that the USB cable is not between the EB8E8A and the Intercom station.

## Connections

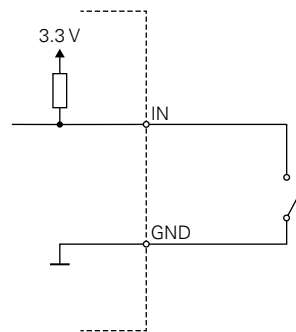


## Output circuit

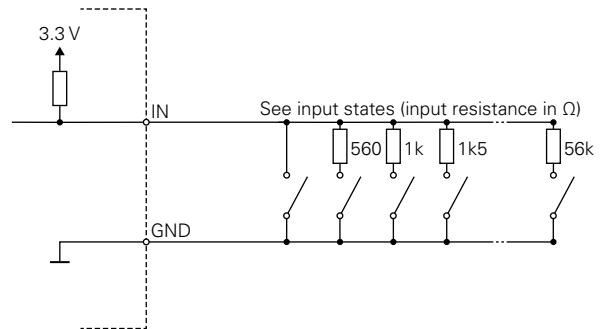


## Input circuit

### Connection example: one button per input



### Connection example: multiple buttons (max. 15 buttons per input)



## 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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