

#### SEAMLESS AND CYBERSECURE CONNECTION

Between VirtuoSIS Link and VirtuoSIS-based intercom server



#### UL CERTIFIED PRODUCT

Materials, components and end product are tested in area of product safety



#### LONG LASTING COMPATIBILITY

Stepwise modernisation of classic intercom solutions to Symphony based intercom solutions

# VIRTUOSIS LINK

## CONNECT 2-WIRE TO VIRTUOSIS

VirtuoSIS Link is the ideal connection between classic 2-wire devices and modern VirtuoSIS based servers. It even allows to utilise newest Symphony Cloud based services via Symphony Bridge. As a result, it ensures long-lasting compatibility and enables sustainable expansion of Commend intercom solutions in accordance with Commend's "Evergreen Technology" philosophy.

VirtuoSIS Link not only provides Commend's latest technology, but also helps to save time and money.

## HIGHLIGHTS

- Seamless and cyber-secure connection between VirtuoSIS Link and VirtuoSIS-based intercom server
- Enables easy and stepwise modernisation of classic intercom solutions
- Reduces system costs by reusing existing cable infrastructure
- Compact form factor with high subscriber density (8 subscribers per VirtuoSIS Link)
- Suitable for centralised 19" rack mounting (up to 2 VirtuoSIS Link per RU) as well as decentralised mounting on walls or in cabinets
- Highest availability due to optional redundant power supply and network connection
- Low maintenance, energy-efficient and fanless design

## TECHNICAL DATA

### GENERAL

Article name:	VirtuoSIS Link
Article code:	C-SIS-LINK-8

### CONNECTIONS AND PORTS

Network:	2 RJ45 ports for Ethernet (10/100 Mbit/s)
Cabling:	min. Cat. 5 <sup>1)</sup> , shielded
USB:	USB 2.0 (type A) <sup>2)</sup> , useable only for device update and diagnosis max.: 2.5 W
Connection:	D-SUB subscriber plug for 8 subscribers (2 contacts per subscriber) Subscriber plug with spring-type terminals (2 contacts per subscriber, conductor cross section: 0.2 mm <sup>2</sup> to 1.5 mm <sup>2</sup> /AWG24 to AWG16, stripping length: 10 mm) Power supply with spring-type terminals (conductor cross section: 0.5 mm <sup>2</sup> to 1.5 mm <sup>2</sup> /AWG20 to AWG16, stripping length: 10 mm) <sup>3)</sup>
Outputs:	Supply status solid state relay <sup>3)</sup> max. electric current: 140 mA max. voltage: 30 VDC max. power: 4.2 W

### LINE LENGTH

For line length specifications of connected 2-wire end devices, see the respective device data sheet. Apply line length for GE 300/GE 800 and 30 VDC power supply or external power supply.

### APPROVALS AND COMPLIANCES

Device:	EN 61000-6-2, EN 61000-6-3, EN 55032 Class B, EN 55035, FCC Part 15 Class B, ICEIS-003 Class B, EN 60529 IP20, EN 62368-1, IEC 62368-1 (CB-Scheme), UL 62368-1 (Listed E351589)
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### MECHANICAL PROPERTIES

IP rating:	IP20 (acc. to EN 60529)
Housing:	polycarbonate and metal
Operating temperature:	-10 °C to +55 °C (+14 °F to +131 °F)
Storage temperature:	-40 °C to +70 °C (-40 °F to +158 °F)
Relative humidity:	up to 95%, not condensing

### POWER SUPPLY

External power supply:	typ.: 24 VDC <sup>3)</sup> min.: 20 VDC, max.: 30 VDC
Power consumption:	idle: approx 10 W max.: 30 W

### DIMENSIONS (H × W × D)

Dimensions:	250 × 201 × 43.6 mm (9.84 × 7.91 × 1.72 in)
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### SYSTEM REQUIREMENTS

- VirtuoSIS server (S3, S6 or VirtuoSIS; min. Version 15.1.0)
- VirtuoSIS licence "L-SIS-15" or higher
- Licences for a subscriber ports can be either type, L-SIS-IP or L-SIS-SIP: L-SIS-IP-2B, L-SIS-IP-2D, L-SIS-IP-8B, L-SIS-IP-8D, L-SIS-SIP-2B, L-SIS-SIP-2D, L-SIS-SIP-8B, L-SIS-SIP-8D
- Configuration software CCT 800, min. Version 15.1 Build 1000

### EXTENT OF SUPPLY

- VirtuoSIS Link
- Short reference

<sup>1)</sup> The maximum line length of Cat. 5 cabling in a LAN is 100 m (328 ft) – e.g. from switch to device.  
<sup>2)</sup> All USB and subscriber connectors are declared and proved PS1 ports (according to EN/UL/IEC 62368-1).  
<sup>3)</sup> All connected circuits must meet the following safety requirements:  
1. Safety extra-low voltage (SELV) and limited power supply (LPS) according to IEC/EN 60950-1 or  
2. ES1, PS2 circuits and Annex Q (power-limited power supply) according to IEC/EN/UL 62368-1.  
A PS2 circuit must limit the power supplied to a maximum of 100W.  
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 V DC or 42.4 V ACpeak (30 V ACeff)!

# INSTALLATION INSTRUCTION

## FACTORY RESET

VirtuoSIS Link can be reset to its factory settings, i.e. if access is lost.

1. Disconnect the device from the power supply.
2. Press and hold the button Reset/Update on the front of the device.  
Recommendation: Use a small tool with a max. force of 1.8 N.
3. Connect the device to the power supply. The status LED "Run 1" will light up orange.
4. Wait until the status LED "Run 1" flashes red.
5. Release the button Reset/Update. The status LED "Run 1" will now light up red.
6. Hold the button Reset/Update, until the status LED "Run 1" flashes orange. The reset is in progress.
7. When the status LED "Run 1" lights up orange, the process is complete. The device will restart with factory settings.

## FIRMWARE UPDATE VIA USB

To update the firmware, the update file from cLibrary must be unzipped onto a FAT32-formatted USB stick.

**Note:** The configuration must be performed again after running the firmware update via USB.

1. Disconnect the device from the power supply.
2. Insert the USB stick into the USB port on the front of the device.
3. Press the button Reset/Update on the front of the device.
4. Connect the device to the power supply. After a few seconds, the status LED "Run 1" will light up orange.
5. Release the button Reset/Update.
6. When the status LEDs "Run 1" and "Run 2" flash red, the process is complete.  
This signals that there is no connection to an Intercom server.

# SAFETY INSTRUCTIONS

- This device shall be installed or replaced by trained and qualified personnel only.
- Observe the country-specific standards for installation, mounting and configuration.
- Only use Commend accessories that comply with the technical specifications of the device
- For installing the device in a 19-inch rack, the following mount kits are available separately:  
Rack mount kit PF-RM.
- For installing the device on a wall or desk, the following mount kits are available separately:  
Wall mount and desk kit PF-WM.
- Devices belonging to another earthing network must not be connected to the device's connectors.
- 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/UL 62368-1.
- Disconnect the power supply cable for any maintenance of the device.
- Do not make any modifications to the Intercom device.
- Permanent earthing of the device must be guaranteed.
- 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.

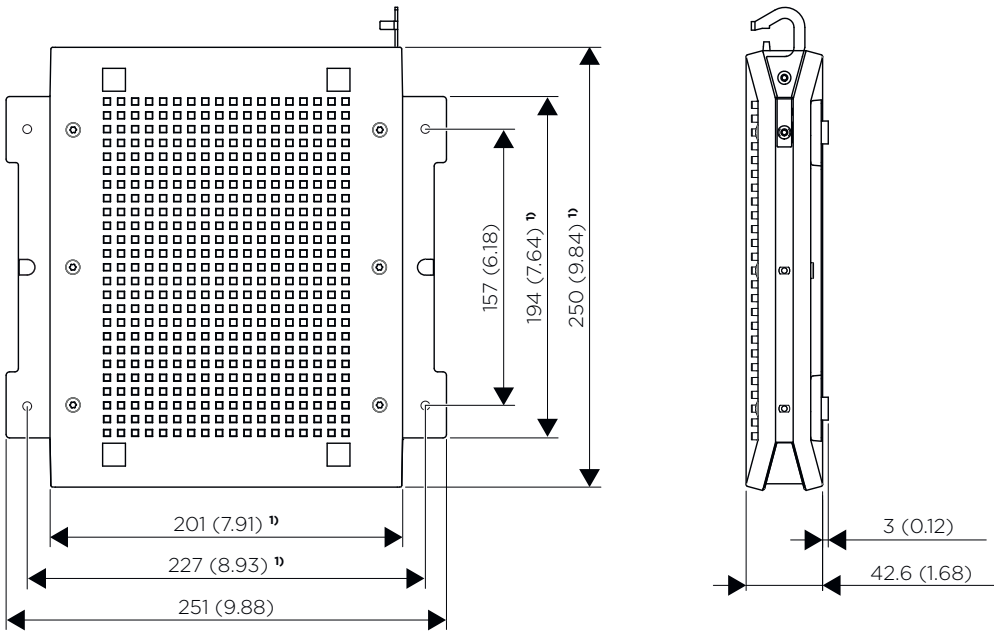
# RACK MOUNT INSTRUCTIONS

- Operating Ambient Temperature: If installed in a closed or multi-unit rack assembly, the operating ambient temperature of the rack environment may be greater than room ambient. Therefore, consideration should be given to installing the equipment in an environment compatible with the maximum ambient temperature (T<sub>ma</sub>) specified by the manufacturer.
- Air Flow: Rack installed components require constant air flow for safe operation (e.g. natural convection).
- Mechanical Loading: Mounting of the equipment in the rack must not lead to uneven mechanical loading to prevent hazardous situations.
- Circuit Overloading: Power supply circuit must have an overcurrent protection. Appropriate consideration of equipment nameplate ratings should be used when addressing this concern.
- Reliable Earthing: Reliable earthing of rack-mounted equipment must be ensured. Particular attention should be given to supply connections other than direct connections to the branch circuit (e.g. use of power strips).

# DIMENSIONS

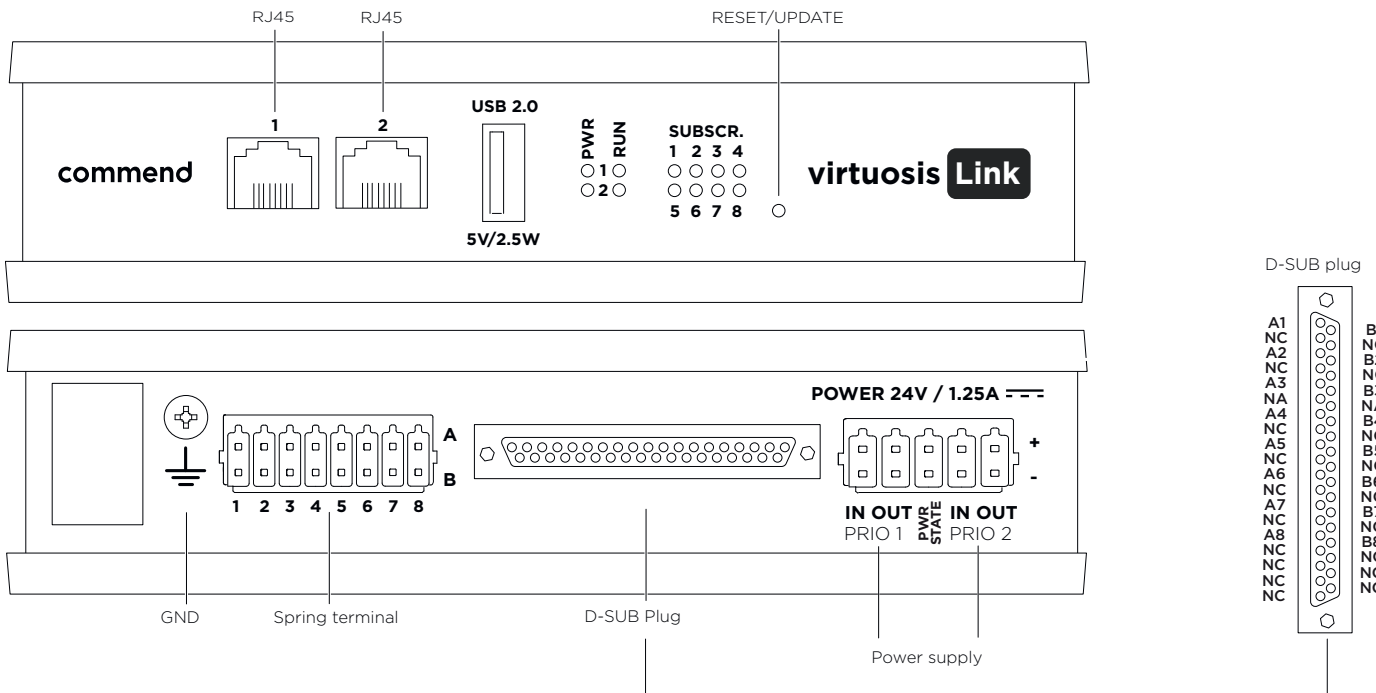
## VIRTUOSISLINK WITH PF-WM

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



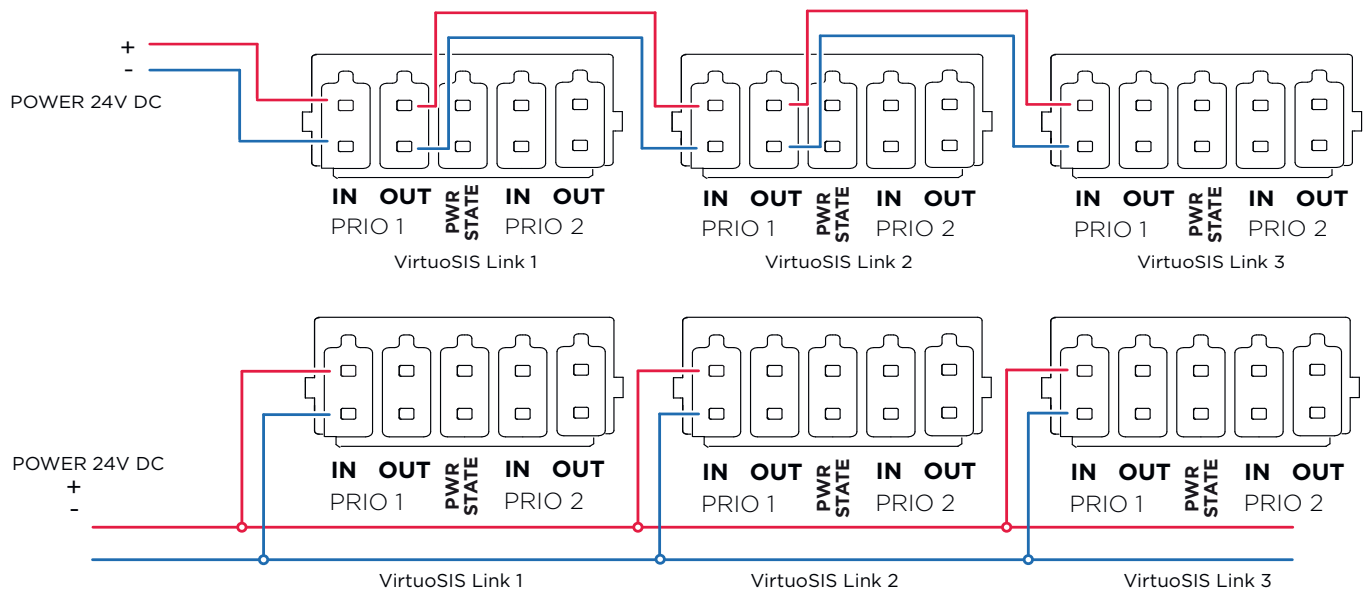
# CONNECTIONS

The second RJ45 connection can be used for redundant network connection or as a network switch, to connect up to 4 VirtuoSIS Link devices in series.



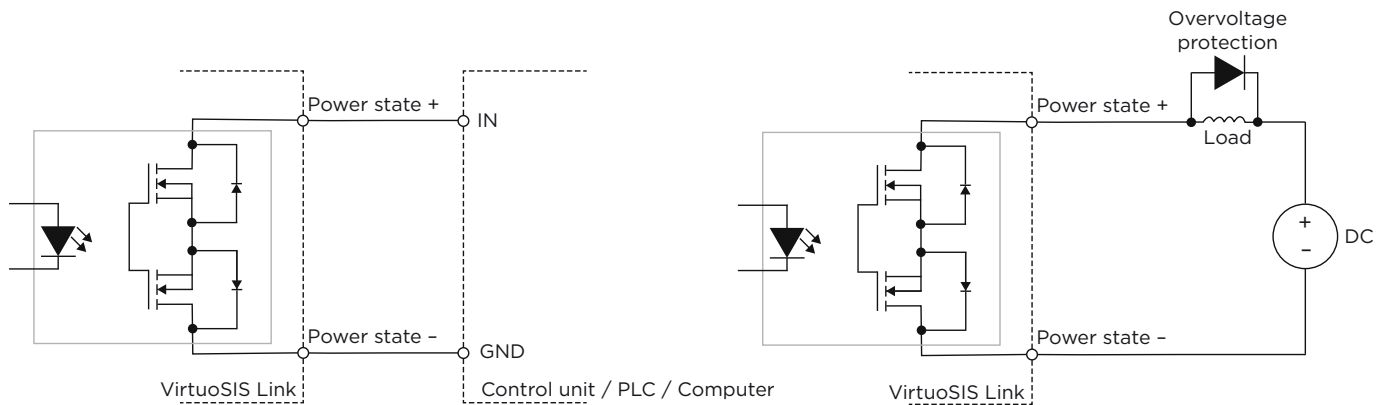
## POWER SUPPLY

A 100 W power supply can be used to connect up to 3 VirtuoSIS Link devices in series, via a daisy-chain connection. Alternatively, VirtuoSIS Link can also be powered with a parallel connection. Be aware of the power requirements for each device.



Note: The same configuration can also be applied to the PRIO 2, for a redundant power supply.

## POWER STATE OUTPUT CIRCUIT



Note: It is recommended to integrate external overvoltage protection (especially for inductive loads).

The Power State connection is a solid state relay, indicating the current state of the PRIO 1 and PRIO 2 power supply, for external monitoring. A closed contact (low impedance) indicates both PRIO 1 and PRIO 2 power supply working. This is also signaled by the two PWR LEDs on the front of the device.

## ACCESSORIES



**PF-RM-1HE** - 19" rack mounting kit for 1 or 2 VirtuoSIS Link side-by-side or for rack mounting one VirtuoSIS Link. Height: 1 RU.



**PF-WM** - Wall mount kit and desktop kit for 1 VirtuoSIS Link.



**PA30W24V-EU** - 30 Watts plug-in power supply, input: 100-240 VAC with solid EU plug, output: 24 VDC with open cable tails. Cable length: 1.5 m. Attention: not compliant to UL 62368-1 (cULus)



**PA30W24V-CA** - 30 Watts plug-in power supply, input: 100-240 VAC with interchangeable plugs (AU/UK/US), output: 24 VDC with open cable tails. Cable length: 1.5 m. Attention: not compliant to UL 62368-1 (cULus)



**PA60W24V** - 60 Watt Desktop power supply, input: 100-240 VAC with IEC-60320-C14 connection, output: 24 VDC with open cable tails - cable length: 1.5 m (IEC cable KAB-C13 not included). Attention: not compliant to UL 62368-1 (cULus)



**ASK 32-5** - 32-stranded connection cable with D-Sub connector, suitable for direct installation on LSA Plus connection modules. Length: 5.0 m.



**ASK 32-10** - 32-stranded connection cable with D-Sub connector, suitable for direct installation on LSA Plus connection modules. Length: 10.0 m.



**ASK 32-20** - 32-stranded connection cable with D-Sub connector, suitable for direct installation on LSA Plus connection modules. Length: 20.0 m.

Commend products are developed and manufactured by Commend International in Salzburg, Austria. Our development and manufacturing processes are **certified** in accordance with **EN ISO 9001:2015**. Since mid-2020 Commend International GmbH has been **EN ISO 27001:2013 certified** throughout.

For reasons of technical further development, the design and/or specifications of products are subject to change without prior notice. All errors excepted.

