

# EthLinx, EthLinx Duo

## Important Safety Precautions & Usage Warnings

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**WARNING: Read this document carefully before connecting or operating the EthLinx (Non-isolated UART) device. Failure to observe these precautions may result in equipment damage, data loss, or personal injury.**

This document provides supplementary safety information and is intended to be used in conjunction with the full User Guide.

### 1. Intended Use and Limitations

- **NOT for Life-Support or Critical Safety Systems: DO NOT** use this device in any application where a failure could lead to death, personal injury, or severe environmental damage. This includes, but is not limited to, medical life-support equipment, nuclear facility controls, or critical avionic systems.
- **NOT for Hazardous Environments: DO NOT** operate the device in explosive, flammable, or corrosive atmospheres unless it is housed within a suitable, certified enclosure for that specific environment.

### 2. Electrical and Connection Safety

- **Verify UART line voltage: NEVER** connect serial ports to the bus without first verifying that the voltage levels correspond to **3.3V**. Connecting to lines with unknown or excessive voltage (typically DC power lines) can result in damage to the device.
- **The TX and RX labels are assigned from the perspective of this device.** Please ensure that the connected device uses a crossover connection: the Converter's TX pin must be connected to the external device's RX pin, and the Converter's RX pin to the external device's TX pin.
- **Use an Appropriate Power Source:** The device must be powered from a standard, compliant USB 2.0 or 3.0 port on a host computer or a powered hub. **DO NOT** use under-powered ports or non-compliant USB chargers, as this can lead to unstable operation or damage.
- **Disconnect During Electrical Storms:** Disconnect the device from both the USB host and the UART lines during lightning or severe electrical storms to prevent damage from power surges.

### 3. Operational Safety

- **Confirm Settings Before Controlling Machinery:** If using the device to control industrial machinery or processes, **ALWAYS** double-check and test your serial configuration (baud rate, parity, etc.) in a safe, offline state first. Incorrect settings can lead to unexpected machine behavior.
- **Maintain Adequate Ventilation:** The aluminum enclosure acts as a heat sink. **DO NOT** cover the device or operate it in a confined space without airflow, as it may overheat under heavy load.
- **No User-Serviceable Parts Inside:** **DO NOT** attempt to open or modify the device's enclosure or circuitry. This will void the warranty and may create a safety hazard. There are no user-serviceable parts inside.
- **Firmware and Software:** Only use official firmware provided by NECOSIN Systems s.r.o. Using third-party or modified firmware can result in unpredictable behavior and voids all warranties.