

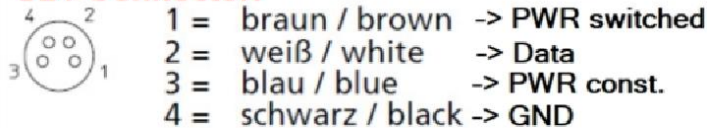
# LTX Bus Datalogger Quickstart

## 1. Connecting sensors

### SDI 12 Sensors:

Use a 4-pole M8 male-connector with the following pin-association:

#### **SDI-Connector:**



- ➔ Connecting “PWR const.” is not recommended for a battery powered LTX device (“LTX Battery-Extension”).

### 2-Wire Sensors (Thermistorstring):

See “2 Wire Bus Extension” ordering option.

## 2. Connecting Antennas

### LTE mobile antenna:

Use the SMA(rp)-connector on the small side of the housing.

### Near-field antenna (only with “LTX 433/915 MHz Radio-Extension”):

Use the SMA connector on the long side of the housing.

## 3. Powering the device

### Devices equipped with “LTX Battery-Extension”:

Choose the correct battery-type for your Battery-Extension, “6 x 1.5 Volt AA or 3 x 3.6 Volt C-Cell”, and load them with the **correct polarity**.

- ➔ Lithium batteries are highly recommended!

### Devices with power cable:

Brown: +12 Volt supply line

Black: Ground line (-)

## 4. BlueShell (Configuration)

Download and install the BlueShell Software for Windows:

<https://joembedded.de/x3/blueshell/>

Follow the instructions on the website to connect to your device.

### Supported Terminal- or SDI-Commands:

- Click “Help and Support” for further information.
- Visit <https://joembedded.de/x3/blueshell/help.php>

➔ By ordering the LTX device in combination with a **Wireless Datalogger** or a **Thermistor-String**, it is already fully configured!

After powering the LTX, it will automatically acquire data every 1 hour and transfer them periodically to the LTX Cloud Server!

### Configure the LTX 2W-Bus Extension:

- Refer to: [https://joembedded.de/x3/ltx\\_firmware/index.php?dir=./Open-SDI12-Blue-Sensors/0410\\_W2\\_Wire](https://joembedded.de/x3/ltx_firmware/index.php?dir=./Open-SDI12-Blue-Sensors/0410_W2_Wire)
- Some additional Terminal-Commands for the BlueShell are required:  
<https://joembedded.de/x3/blueshell/help.php>

### Configure the LTX 433/915 MHz Radio-Extension:

- Refer to “Doku\_Wireless-SDI-Converter“:  
<https://www.thermistor-string.com/additional-string-information/documentation-thermistor-string/category/3-documentation>
- The **Wireless Datalogger** itself has to be prepared for wireless data-transfer, see documentation above. This requires the **FG2-Shell** software and **Wireless USB-Dongle**.

## 5. LTX Cloud Server

To view and download your data, visit:

[https://flexgate.org/ltx\\_server/sw/login.php](https://flexgate.org/ltx_server/sw/login.php)

### Login

Username

Password

Show Password

Remember me (using Cookie)

Login →

Register User

Forgot Password?

For the first time you have to select “Register User”:

- Fill in all required information.
- Use the “Server Ticket”, provided with your device.

Afterwards you can easily use your E-Mail and password to log in.

- The device is equipped with a pre-charged SIM-Card for 5 years worldwide mobile data-transfer!<sup>1</sup>
- Free data retention on flexgate.org LTX Cloud for 1 month.<sup>2</sup>

<sup>1</sup> 500 MByte roaming data-volume. The complete flash memory of the LTX device can be transferred more than 60 times.

<sup>2</sup> Data older than one month will be deleted automatically.

## 6. LTX Extensions /Ordering-Options

### LTX 2W-Bus Extension:

- Allows you to connect Thermistor-Strings directly to your device.
- Up to 48 sensors.
- The housing has an additional 3-pole M8 female-connector with the pin-association shown below.



- Brown (1): Data  
Black (4): Ground (GND)  
Blue (3): not connected

### LTX 433/915 MHz Radio-Extension:

Receive and record measurements via wireless-connection from GeoPrecision Wireless-Dataloggers.

- Up to 50 meter distance in range of sight.
- Receive 48 values over the air.
- Maximum 20 values per single Wireless-Datalogger.

### LTX Battery Extension:

6 x 1.5 Volt AA or 3 x 3.6 Volt C-Cell (Lithium-) batteries, instead of 12 Volt power-cord.

**For more information, documentation and software please refer to:**

<https://www.thermistor-string.com/additional-string-information/downloads>