MADRIX® USB temperature

MADRIX® I/O products are supplementary input and output devices. External equipment, such as sensors, bring additional automation processes and interaction to any LED project using MADRIX® software.

This small and durable sensor measures the temperature. Incoming temperature values are directly translated into DMX data in the MADRIX® software as well as degree Celsius or degree Fahrenheit. The small unit can simply be connected to any USB 2.0 port.

Example of use: SCE Ticker / Scrolling Text

Quick Start Guide
5th Edition, Last Update: March 2017

Order Number
IA-HARD-001012

Package Contents
- 1x MADRIX® USB temperature
- 1x Quick start guide

Software Requirements
MADRIX I/O requires MADRIX 3.
Please update at least to MADRIX 3.4.

Technical Specifications

Power:	DC 5 V, 500 mA, Power over USB
Power consumption:	< 50 mA during normal operation
USB:	USB 2.0, type A plug, Plug and Play, 2 m cable
Case:	IP57
Dimensions:	40 mm x 25 mm x 15 mm (length x width x height)
Weight:	69 g
Temperature range:	-20 °C to 80 °C (Operating / Storage)
Relative humidity:	0 % to 100 %, non-condensing (Operating / Storage)

Step-By-Step Configuration
1] Connect your device.
2] Enable drivers in MADRIX®.
3] Enable your device.
4] Set up DMX Input.
5] Choose how to use incoming data.

1] Connect Your Device
- Connect your MADRIX® I/O device to a free USB 2.0 port of your computer.
- Make sure that Windows recognizes the device. Windows will automatically install the drivers for the device.

2] Enable Drivers In MADRIX®
- In MADRIX®, go to 'Preferences' > 'Options…' > 'Devices USB'.
- Activate 'MADRIX I/O'.
- Click 'Apply' and 'OK'.

3] Enable Your Device

- Go to 'Preferences' > 'Device Manager…' > 'DMX Devices'.
- Click on the Search button (loupe icon) if your device is not shown in the list.
- Select your device in the list and select 'Enable' in the section 'Settings'. Click 'Apply'. Now, in the list the 'State' will switch to 'On' [indicated by green light].

It is not recommended to change the 'Frame Time (ms)' of your device. Instead, it is highly recommended to use the default settings.

4] Set Up DMX Input

- Go 'Preferences' > 'Device Manager…' > 'DMX Input'.
- Select one entry in the list [e.g., 'Universe 1'] and go to the section 'Device'. Choose your device under 'DMX-IN Device'.
- MADRIX® will now receive data from your device.

5] Choose How To Use Incoming Data

Now, you have several options to choose from:

- A] You can activate 'Remote' and choose a protocol in the section 'Remote Control'. This will allow you to control MADRIX® remotely using your controller.
- B] You can use incoming data in a Script or Macro.
- C] You can monitor incoming DMX data in the DMX Watcher. Select your device in the list and click 'Watch Universe…'. Learn more below.

Close the Device Manager with 'OK'.

Monitoring Incoming DMX Data

To effectively work with incoming DMX data from your device, you can use the DMX Watcher to monitor incoming signals.

- Open the DMX Watcher as explained above or go to 'Tools' > 'DMX Watcher…'.
- Select 'Input'.
- Set up the correct 'Universe'. This is the same number as you have chosen in the list under 'Preferences' > 'Device Manager…' > 'DMX Input' [e.g., 'Universe 1'].

More Information

- The recommended 'Frame Time (ms)' is **1000**.
- Incoming data directly translates into DMX data in MADRIX.
- Data is sent to **DMX channel 1 - DMX channel 10** on your selected .

- **DMX channel 1** represents the temperature in degree Celsius.
  Valid values range from -20 °C to +80 °C.
- **DMX channel 2** represents the decimal place of degree Celsius.
  Valid values range from .0 to .99.
- **DMX channel 3** shows if the temperature values shown on DMX channel 1 are above zero [0] or below zero [255].
- DMX channel 4 is not used.
- **DMX channel 5** represents the temperature in degree Fahrenheit.
  Valid values range from -4 °F to +176 °F.
- **DMX channel 6** represents the temperature decimal place of degree Fahrenheit. Valid values range from .0 to .99.
- **DMX channel 7** shows if the temperature values shown on DMX channel 5 are above zero [0] or below zero [255].
- DMX channel 8 is not used.
- **DMX channel 9** represents the temperature in DMX values.
  Valid values range from 0 to 255.
- **DMX channel 10** represents the decimal place of DMX values.
  Valid values range from 0 to 255.