



Temperature Controller

TC01 and TC02

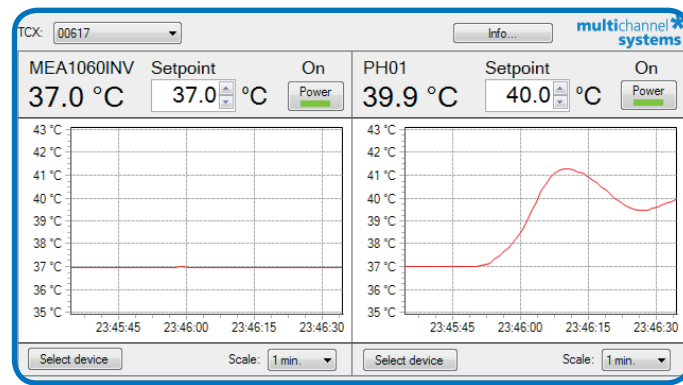
- General purpose temperature controller
- One or two output channels
- PI-based technology
- High accuracy
- Temperature tracking

Flexible control options

When operating the Multi Channel Systems (MCS) temperature controller, you can decide whether to use the buttons on the device itself or the TCX_Control software.

Through the quick USB interface of the software, you can adjust and control all settings of the temperature controller online. Moreover, the program tracks the temperature and saves the data, so you can come back to it anytime.

The screenshot on the left shows the stability of the temperature controller on channel 1 and the quick reaction on a setpoint temperature change on channel 2.



In vitro applications

The MCS temperature controller is the perfect addition to your *in vitro* set-up. Connect it to the amplifier of your MEA-system as well as to the perfusion cannula and control the temperature of both devices independently.

MCS temperature controllers are highly accurate (0.01°C) because of their proportional-integrator based technology. Apart from the accuracy, the PI controller also guarantees that the setpoint temperature is reached quickly.

Warming plate

The MCS temperature controller can also be used to control a warming plate, which is available from MCS as well.

During your *in vivo* experiments, you can keep narcotized rats or mice warm. When working *in vitro*, you can heat up slices or cell cultures on microelectrode arrays (MEAs).

The Pt100 sensor, which is used in the warming plate as well as in the temperature controller, guarantees a stable and precise temperature control over a wide temperature range. You can adjust the temperature accurately from ambient temperature up to 105°C.

Technical specifications

Operating temperature	10 °C to 40 °C
Storage temperature	0 °C to 50 °C
Dimensions (W x D x H)	170 mm x 224 mm x 66 mm
Weight	1.5 kg
Main fuse	800 mA slow blow
Supply voltage and current	24 V and 4 A
Desktop AC Power Adapter	85 VAC to 264 VAC @ 47 HZ to 440 Hz
Sensor type	Pt100
Measuring method	Four wire measuring bridge
Measuring temperature range	0 °C to 105 °C
Resolution	0.01 °C
Number of output channels	1 (TC01), 2 (TC02)
Output voltage	max. 24 V
Output current	max. 2.5 A per channel
Output power	max. 30 W per channel
Resistance of heating element	5 to 100 Ω
Control range	Ambient temperature (min. 5 °C) to 105 °C
Control interface	USB 2.0

● Made
● in
● Germany

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