

ICE BLOC[®]

ICE BLOC TC

Temperature controller



BUILD A BETTER LAB WITH ICE BLOC

High performance laser instrumentation with state-of-the-art connectivity and modern accessible interfaces. The new Ice Bloc range has been designed to help you capture, extract and view important experimental data with the aim of making your experiments easier to set up, manage and measure. Choose from a range of laser diode drivers, quantum cascade laser and actuator drivers as well as temperature controllers and digital timers.



INTRODUCING ICE BLOC TC

Ice Bloc TC is a high-power, precision temperature controller - available with a choice of 1 to 4 independent channels.

Ice Bloc TC performs closed loop control with a temperature sensor and thermoelectric cooler/resistive heater to maintain and set the temperature of laser diodes, reference cavities, non-linear crystals, gratings and other temperature sensitive photonic devices. Capable of controlling up to four TECs or heaters with set points in the range -70°C to -200°C with a set point resolution of 1mK, Ice Bloc TC is optimised for T25 values from $10\text{k}\Omega$ - $100\text{k}\Omega$ but can be configured with a wider range. Control and monitor devices and performance, via a standard Web/LAN connection and web browser. This can be network interlocked to any other Ice Bloc.

Available with 1 to 4 independent channels

High temperature resolution

User defined thermistor parameters

Ethernet connectivity

Web interface



ICE BLOC FEATURES

SIMPLE WEB BASED CONTROL

Configure and run experiments from a modern web interface which provides easy access to all features and provides rich data visualization. Ice Bloc has a built-in web server, so there is no software to install or dedicated software drivers to download.

FULL SPEED AHEAD - IT'S CONNECTED BY ETHERNET

Ice Bloc is more secure, faster and works over a longer range than other connection technologies. The built-in 2-port Ethernet router makes it easy to connect to your lab's network for fast, secure, local and remote access. This set up means you'll be able to easily control, monitor, diagnose, even upgrade your system, from any computer.

ENGINEERED FOR HIGH PERFORMANCE AND LOW NOISE

Ice Bloc's high-end design and engineering strikes the optimum balance between noise, power and efficiency. All our components and electronics are fully optimised and highly sensitive ensuring you get the precision and power you need in your experiments.

CUSTOM CONTROL, WHENEVER YOU NEED IT

Control Ice Bloc with your own custom software or use any third-party packages including MATLAB, Python and LabVIEW. You can record internal and external measurement values for display or download.

HIGHLY CUSTOMISABLE

We're no strangers to customising devices to meet the exacting experimental requirements of our customers. If you need something different, for example reduced output noise, or a higher output current, we'll create an Ice Bloc to suit you.



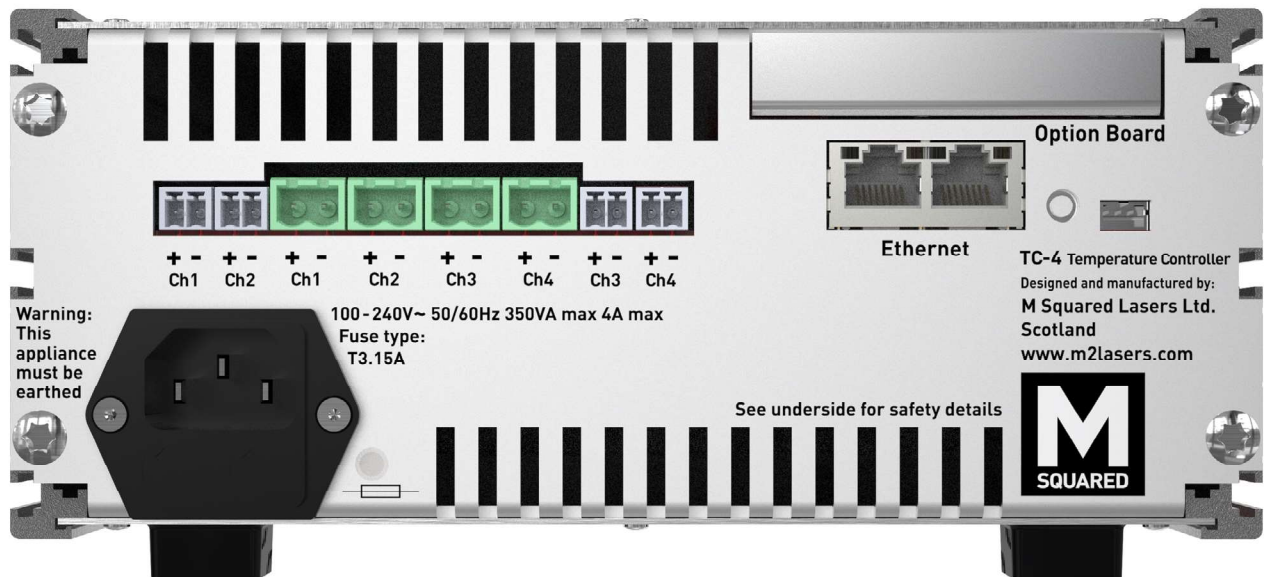
SPECIFICATIONS

TEMPERATURE CONTROLLER

Output voltage per channel	± 21.6 V
Output type	Bi-directional, linear
Output current per channel (single channel use)	± 8 A
Output current per channel (two channel use)	± 7 A
Output current per channel (four channel use)	± 5 A
Maximum output power	300 W across all four channels
Temperature set point resolution	0.001 °K - typical value, steady state
Temperature controll stability	<1 mK
Set point temperature coefficient	< 5 ppm/°K
Temperature set point range	-20.15 °C to +79.85 °C
NTC thermistor range	10 k Ω - 100 k Ω
Extended thermistor range	1 k Ω - 1M Ω (slightly lower resolution)

GENERAL

Mains input voltage	100 - 240 V AC, 50/60 Hz, 350 VA (typical power: 15 W)
Size (W x H x D)	Half rack (203 mm) x 2U (89 mm) x 345 mm (8" x 3.5" x 13.6")
Weight	4.1 kg
Operating temperature	0 °C to 70 °C
Storage temperature	-20 °C to 85 °C
Relative humidity	<90 % humidity, non-condensing
Indoor/outdoor use	Indoor use only
Altitude	<2000 m



Ice Bloc rear view: Industrial-grade connectors give quick, solder-free connection to photonic system components.

ICE BLOC®

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