



## TC-412 Thermal Cycler

Industry Leading Warranty...  
4 years or 80,000 cycles



Barloworld Scientific



# TC412 Thermal Cycler

The **TC-412** is a high performance, high sample throughput instrument at a **highly affordable price.**



## Versatile block format

The truly user-friendly fully interchangeable block system allows blocks to be exchanged in a matter of seconds, without the need of any tools (60 x 0.5ml, 96 x 0.2ml, 384-well or flat plate for in-situ).

## Adjustable heated lid

Defined pressure, programmable heated lid (100°C to 115°C) to accommodate a variety of consumables.

## Intuitive programming

4-line display with intuitive, simple-to-use software with alphanumeric programming, password protection, simple copy/edit functions and much more.

## 8 Peltiers

Building on the innovative Quad Circuit Technology of the TC-512, the TC-412 ensures unsurpassed control accuracy and temperature uniformity.

## Low cost

The TC-412 is one of the most affordable full sized Thermal Cyclers.

## PC networking

The TC-412 can be connected to a PC along with other Techne cyclers for low volume or high throughput applications using Gensoft\*

\* Techne thermal cyclers are PC friendly and can be linked in combination or alone to a PC using Gensoft.

\*\* Available by special order only

## Technical Specification

### Blocks Formats

0.5ml capacity	60
0.2ml capacity	96
384-well block	Yes
In-situ block	Yes
User interchangeable	Yes

### Block Temperature

Maximum ramp rate*	2.6°C/sec
Block uniformity at 50°C*	< ±0.3°C
Temperature range	4°C to 99°C
Temperature set point precision	0.1°C

### Heated Lid

Selectable heated lid temperature	100°C - 115°C
Heated lid enable/disable	Yes
Over temperature cut out	Yes
Regulated lid pressure	Yes
Heated lid only comes on if block is set above 35°C	

### Programming

Number of programs*	80
Password protection	Yes
Programming	4-line alphaN
Incremental/decremental temperature	Yes
Incremental/decremental hold time	Yes
Maximum hold time	18 hrs
Minimum hold time	1 sec
Variable programmable ramp rate	0.1°C/sec steps
Run end time calculation	Yes
Pause and stop facility	Yes
End of program alarm (enable/disable)	Yes
Auto restart on power failure	Yes

### Miscellaneous

Serial port	RS232
Dual Voltage (120/230V)	Yes
Temperature sensor	Thermistor
Peltier elements/block	8
Dimensions L x W x H (in inches)	16.5 x 8.6 x 10.2
Footprint L x W (in inches)	16.5 x 8.6
Connection to PC control program	Yes
Free software upgrades from website	Yes
Power consumption	620 Watts
Frequency	50 - 60 Hz
Net weight (in lbs.)	25

## Ordering information

Code	Description
FTC41S5D	TC-412 60 x 0.5ml microtubes, 230/115V
FTC41H2D	TC-412 96 x 0.2ml microtubes or 96-well plate, 230/115V
FTC4384D**	TC-412 384-well microtitre plate, 230/115V
FTC41FLD**	TC-412 Flat plate for in-situ, 230/115V

### Interchangeable Blocks

FTC41B5D	Block for 60 x 0.5ml microtubes
FTC41BHD	Block for 96 x 0.2ml microtubes or 96-well plate
FTC4B384**	Block for 384-well microtitre plate
FTC41BID**	Flat plate block for in-situ



Thank you for reading this data sheet.

For pricing or for further information, please contact us at our UK Office, using the details below.



**UK Office**

**Keison Products,**

**P.O. Box 2124, Chelmsford, Essex, CM1 3UP, England.**

**Tel: +44 (0)330 088 0560**

**Fax: +44 (0)1245 808399**

**Email: [sales@keison.co.uk](mailto:sales@keison.co.uk)**

Please note - Product designs and specifications are subject to change without notice. The user is responsible for determining the suitability of this product.