# Baths and Thermoregulators

Techne® invented the "Clip On" thermoregulator in 1948 and now offer four "Clip On" units. Thermoregulators are designed to be used with the Techne® unheated water baths or any other suitable laboratory vessels. They will heat, circulate and safely control the temperature of the liquid in the bath within precise limits.

## TE-10A Tempette

- Temperature range of -20°C* to 95°C
- Excellent temperature stability: ±0.01°C at 40°C
- Simple to use analogue control
- Suitable for most routine laboratory applications
- User adjustable over-temperature cut-out for unbeatable safety


**TE-10A**

## TE-10D Tempette

- Temperature range of -40°C* to 120°C
- Excellent temperature stability: ±0.01°C at 40°C
- 4 digit setting with a bright LED digital temperature display
- Suitable for most routine laboratory applications
- User adjustable over-temperature cut-out
- Low liquid level cut-out as standard

**Technical Specification**

| Specifications to DIN 12876 | TE-10A | TE-10D |
|---|---|---|
| Temperature range* | -20°C to +95°C | -40°C to +120°C |
| Temperature selection | Analogue | Digital |
| Temperature stability using water @ 40°C | ±0.01°C | ±0.01°C |
| Method of control | Proportional | PID |
| Temperature sensor | Thermistor | PRT |
| Adjustable over-temperature cut-out | Yes | Yes |
| Low liquid level cut-out | Yes | Yes |
| **Heating/Pumping** | | |
| Pump capacity litres/minute | 10 | 10 |
| Pump capacity (mbar) | 145 | 145 |
| Nominal heater power at 120V (W) | 1000 | 1000 |
| Nominal heater power at 240V (W) | 1000 | 1000 |
| Extension below base (mm) | 145 | 145 |
| Dimensions L x W x H (mm) | 237 x 124 x 260 | 237 x 124 x 260 |
| Shipping Weight | 3.7kg | 3.9kg |

* Refrigeration or cooling coil required for below ambient cooling (see Techne Flow and Dip Coolers and the cooling coil).


**TE-10D**

**Ordering information**

| Product Code | Description |
|---|---|
| FTE10ADC | TE-10A, analogue thermoregulator, -20°C to 95°C, (supplied with clamp) |
| FTE10DDC | TE-10D, digital thermoregulator, -40°C to 120°C, (supplied with clamp) |


TU-20D

# TU-20D Tempunit®

- A wider temperature range of -40°C* to 200°C
- Excellent temperature stability: ±0.005°C at 40°C
- 1.8kW heater power for fast heat up
- 4 digit setting with a bright LED digital temperature display
- This unit incorporates an RS232 connection
- User adjustable over-temperature cut-out
- Low liquid level cut-out as standard


TU-20HT

# TU-20HT Tempunit®

- This sophisticated Tempunit® covers a wide temperature range of -40°C* to 250°C
- Excellent temperature stability: ±0.005°C at 40°C
- 1.8kW heater power for fast heat up
- 4 digit setting with a bright LED digital temperature display
- RS232 connection supplied with TechneWorks software package and connecting lead as standard
- User adjustable over-temperature cut-out with an audible alarm fitted
- Low liquid level cut-out as standard

**Technical Specification**

| Specifications to DIN 12876 | TU-20D | TU-20HT |
|---|---|---|
| Temperature range* | -40°C to +200°C | -40°C to +250°C |
| Temperature selection | Digital | Digital |
| Temperature stability using water @ 40°C | ±0.005°C | ±0.005°C |
| Method of control | PID | PID |
| Temperature sensor | PRT | PRT |
| Adjustable over-temperature cut-out | Yes | Yes |
| Low liquid level cut-out | Yes | Yes |
| PC Interface | Yes RS232 | Yes RS232 |
| **Heating/Pumping** | | |
| Pump capacity litres/minute | 10 | Internal circulation only |
| Pump capacity (mbar) | 145 | - |
| Nominal heater power at 120V (W) | 1500 | 1500 |
| Nominal heater power at 240V (W) | 1800 | 1800 |
| Cooling coil | No | Option |
| Extension below base (mm) | 145 | 145 |
| Dimensions L x W x H (mm) | 237 x 124 x 260 | 237 x 124 x 260 |
| Shipping Weight | 4.0kg | 4.0kg |

* Refrigeration or cooling coil required for below ambient cooling (see Techne Flow and Dip Coolers and the cooling coil). The TU-20HT can only be used with the Dip Coolers

# Downloadable free of charge from www.techne.com

**Ordering Information**

| Product Code | Description |
|---|---|
| FTU20DDC | TU-20D, advanced thermoregulator with RS232, -40°C to 200°C, (supplied with clamp) |
| FTU20HDC | TU-20HT, advanced high temperature thermoregulator with RS232 and TechneWorks software, -40°C to 250°C, (supplied with clamp) |