

Temperature (-10 to 110°C) DT241

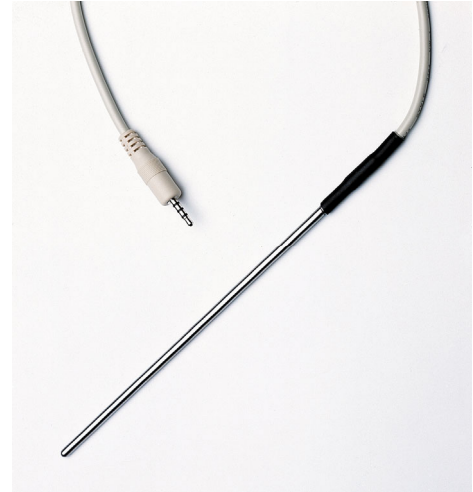
Type: Thermistor NTC	Dual range: -10°C to 110°C (14°F to 230°F) -10°C to 50°C (14°F to 122°F)
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Sensor description

The DT241 is a simple, durable, temperature sensor. It connects directly to EcoLog XL. The temperature probe is covered with isolating material ensuring protection. The DT241 measures temperature between -10°C and 110°C, and has an accuracy of $\pm 1^\circ\text{C}$. It is mostly suitable for water and other chemical solution temperature measurements.

How it works

The DT241 connects directly to the Data Logger. The temperature sensing element receives an input voltage of 5V and returns output voltage between 0 to 5 Volts, which is the range accepted by the MultiLog analog-digital converter. The data logger then records the value into its memory.



To select the range in EcoLog XL:


1. Hold down both The **Stop**  and **Go**  buttons for three seconds until the display shows:

Built-in
Light

2. Use the Scroll button to select Plug-in Temperature:

Plug-in
Temperature


3. Press **Go**  to confirm

4. Use the **Scroll**  button to select the desired range, for example:



Select range
-10 to 50 °c

5. Press **Go**  to confirm, the display will show:

Range set to
-10 to 50 °c

EcoLog XL will set the new range, and return to the main menu. You can exit the range section anytime by pressing the **Stop**  button.

To change temperature units in EcoLog XL:

1. Hold down both the **Stop**  and **Go**  buttons for three seconds until the display shows:

Built-in
Light

2. Use the **Scroll**  button to select temperature units:

Temperature
units

3. Press **Go**  to confirm

4. Use the **Scroll**  button to toggle between units:

Select units
°C

or


Select units
°F

5. Press **Go** to confirm, the display will show:

Units set to
°C

or

Units set to
°F

EcoLog XL will set the new units, and return to the main menu. You can exit the units section anytime by pressing the **Stop**  button.

Notes:

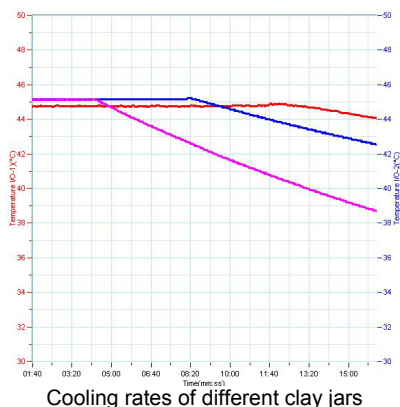
- EcoLog XL saves the new settings and will use them until the next time you will change the range.
- Changing the temperature range will affect both external inputs.
- Changing the temperature units will affect both external and internal Temperature sensors

Calibration

The DT241 ships fully calibrated. No further calibration is needed.

What is it used for:

The DT241 sensor can be used in various experiments such as endothermic reactions or the combined gas law. The DT241 is furthermore recommended for long-term measurements on bodies, in water or outdoor temperature due to its durability.



Specifications:

- Dual range:
 - 10°C to +110°C (14°F to 230°F)
 - 10°C to +50°C (14°F to 122°F)
- Resolution: 0.2°C
- Accuracy: $\pm 1^\circ\text{C}$
- resistant to mild chemical solutions