

## Specifications

Dimensions	Base—13 cm × 15 cm × 1.5 cm, Body—9 cm × 9 cm × 24 cm
Weight	1.0 kg (2.2 lbs.) Melt Station + AC adapter weight: 1.2 kg (2.6 lbs.)
Range	Ambient to 260°C
Resolution	0.10°C
Accuracy	±0.31 + 0.0006T, where T is the temperature in Celsius
Typical	±0.4°C (<200°C); ± 0.5 deg C (>200°C)
Safety shut down	The heating block is automatically powered down after approximately sixty minutes of heating.
Capillary tubes	1.4–1.8 mm outside diameter, 100 mm length
Capillary tube slots	3
Viewing lens	27 mm diameter (functional), 30 mm (actual)
Lighting of capillary slots	3 white LEDs
Lighting of control dial	Red LED (indicates heating mode), Blue LED (indicates cooling mode with cooling fan running), Yellow LED (safety shut off activated)
Temperature sensor	Class A, Platinum Resistance Temperature Detector (RTD)
Calibration	Factory calibrated
Power	24VDC to unit, universal AC adapter 100–240 VAC 50–60 Hz input
Power consumption	40W max., < 0.5A @ 110V

## How the Sensor Works

The Melt Station contains an aluminum heating block. There are three slots for capillary tubes in the heating block. A capillary tube containing a solid substance is placed in the heating block and the block is heated by an embedded element. An RTD-based temperature sensor, also embedded in the heating block, measures the temperature of the heating block and therefore the capillary tube of substance. The temperature sensor connects to Vernier data-collection software. The substance to be melted is viewed through a 6X lens.

The temperature control on the Melt Station is divided into three regions.

- The first area, next to the Off position, is for cooling the heating block after you have completed a melting temperature run. When you turn the control knob to the cooling position, the fan and the blue LED will come on.
- The second area is divided into specific temperature settings. These temperatures correspond to the expected melting temperature of the substance. You will choose one of these settings when the Melt Station has warmed to within about 10°C of the expected melting temperature of your solid sample. The warming rate will slow to ~1.5°C/min at each of these settings.
- The third area is Rapid Heat. In Rapid Heat, the Melt Station will warm at a rate of >10°C/min.

## Calibration

The temperature sensor embedded in the aluminum heating block of the Melt Station will never need to be calibrated. The sensor is carefully calibrated before it ships, and this unique calibration is stored on a smart chip in the sensor.

**Note:** There is no method to perform a calibration of this sensor in any of our software programs.

## Troubleshooting

For troubleshooting and FAQs, see [www.vernier.com/tit/3852](http://www.vernier.com/tit/3852)

## Repair Information

If you have followed the troubleshooting steps and are still having trouble with your Go Direct Melt Station, contact Vernier Technical Support at [support@vernier.com](mailto:support@vernier.com) or call 888-837-6437. Support specialists will work with you to determine if the unit needs to be sent in for repair. At that time, a Return Merchandise Authorization (RMA) number will be issued and instructions will be communicated on how to return the unit for repair.

## Accessories/Replacements

Accessory	
Item	Order Code
Mini USB Cable	CB-USB-C-MINI
Melt Station Capillary Tubes (package of 100)	MLT-TUBE
Replacement Part	
Item	Order Code
Micro USB Cable	CB-USB-MICRO
Replacement Melt Station Power Supply	MLT-PS

## Warranty

Warranty information for this product can be found on the Support tab at [www.vernier.com/gdx-mlt](http://www.vernier.com/gdx-mlt)

General warranty information can be found at [www.vernier.com/warranty](http://www.vernier.com/warranty)