



## OTi by Presidium



### Overview

OTi by Presidium is a portable diamond verification instrument for loose and mounted stones designed to separate natural diamonds from synthetic diamonds and diamond simulants. OTi has a dual-probe tip that measures thermal conductivity and UV light absorption to determine stone type. OTi is manually operated but gives an automated result on its built-in display.

When using the device, the probe tip should be held at an upright position 90 degrees perpendicular to the table of the gemstone. The user then fully depresses the tip applying constant pressure for the duration of the testing bar shown on the display. User must always ensure the probe tip is kept clean; when necessary it should be cleaned as per the procedure in the supplied User Manual.

The instrument makes a measurement and displays one of the following results:

- i) Diamond (single beep)
- ii) CVD/HPHT/Type IIa (single long beep)
- iii) Moissanite (double beep)
- iv) Simulant (no beep)

### Stone Testing Capabilities

Weight range:	<b><math>\geq 0.06</math> ct*</b> (minimum table width 1.6mm)
Colour range:	<b>D to J</b>
Stone shape:	<b>All</b>
Diamond simulants:	<b>Yes</b>
Mounted stones:	<b>Yes</b>

### Instrument Capabilities

Automated feed:	<b>No</b>
Automated results:	<b>Yes</b>
Automated dispense:	<b>No</b>
Detect or Refer (synthetic diamonds):	<b>Refer*</b>
Detect or Refer (diamond simulants):	<b>Detect</b>
Multiple stones at once:	<b>No</b>
Training required:	<b>No</b>

\* stones classified as CVD/HPHT/Type Iia are considered referrals and should be submitted for further testing.

### ASSURE 2.0 Performance


Key ASSURE 2.0 test results for OTi:


	Primary Loose	Smalls	Primary Mounted
<b>Diamond False Positive Rate</b> (Optimal rate 0%)	<b>0.0% +/- 0%</b>	<b>N/A</b>	<b>0.0%</b>
<b>Diamond Referral Rate</b> (Optimal rate 0%)	<b>7.2% +/- 1.7%</b>	<b>N/A</b>	<b>6.8%</b>
<b>Diamond Accuracy Rate</b> (Optimal rate 100%)	<b>92.8% +/- 1.7%</b>	<b>N/A</b>	<b>93.2%</b>
<b>Test Speed</b> Stones per hour	<b>239 +/- 24</b>		

#### Notes:

Uncertainty ranges (+/-) are based on repeatability testing (three trials) and represent spread of results in absolute terms.  
Test Speed based on time to screen the Primary Loose sample set with minimum table width of 1.6mm. Measurement includes time taken to retest referrals.  
See Laboratory Report for full set of performance results.

### Instrument Specifications

 **7.0 cm (W) x 10.5 cm (D) x 2.5 cm (H)**

 **0.112 kg**

**Price: 1,449 USD** (July 2025)

### Contact

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