

A400

Handheld Radiation Identifier

The H3D® A400 is the new standard in radioisotope identification devices (RIIDs). Designed to meet your needs, experience:

- High energy resolution.
- High efficiency.
- Directionality.
- Compact and ergonomic design.

The most advanced semiconductor technology available to achieve spectroscopic performance competitive with cryogenically cooled detectors for:

- Border security.
- First responders.
- Military and defence.
- Environmental radiation measurements.

Features

- Practical, high-performance radioisotope identifier.
- Compact and portable.
- Independent 3 rd party test results for passing ANSI N42.34 and DND0 TCS standards available by request.
- Option for $\leq 0.8\%$ FWHM energy resolution at 662 keV.
- Real time 360° isotope specific directionality.
- Ready to use in under 90 s.
- Industry leading efficiency with over 19 cm³ pixelated CZT.
- No cryogenic cooling required.
- Energy range covers isotopes of interest up to 3 MeV
- Real time isotope detection and identification.
- Embedded user interface with one handed operation.
- Storage case included.
- Removable battery.
- Software updates included.
- Wireless connectivity option.
- Network webpage interface for mobile devices.



High-Resolution Option (A100+, A400+, A401+)

Improved energy resolution of $\leq 0.8\%$ FWHM at 662 keV (coincident interactions combined)

Neutron-Detector Option (A401)

Add 6.35 cm x 1.14 cm Ø 20-atm ³He Tube
Neutron Sensitivity: 5.1 cps/nv (thermal)

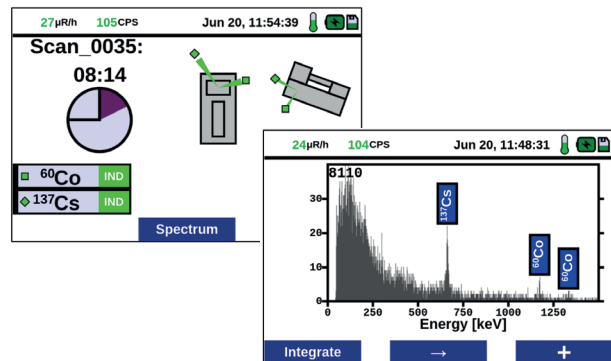
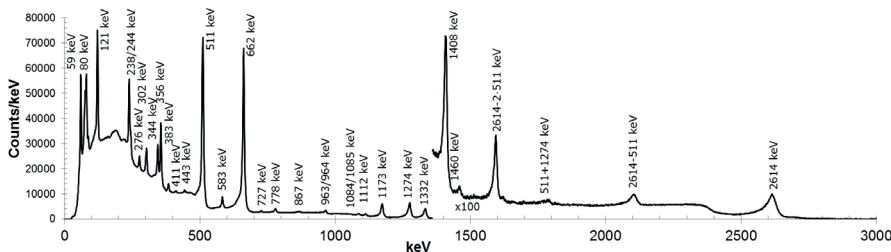
Lower-Efficiency Option (A100)

Reduce CZT Volume

Weight: 2.2 kg

Sensitivity: Detection and localisation times increased by 4 x.

Crystal Volume: >4.5 cm³ CZT.



Representative Embedded-Screen Views

Specifications

Dimensions	14 cm x 28 cm x 10 cm
Weight	2.4 kg
Battery Life	9 hours at 23° C (73° F)
Power Supply	100-240 V, 47-63 Hz
Operating Temperature	-20° C to 50° C (-4° F to 122° F)
Operating Humidity	Up to 93% at 35° C (95° F)
Ingress Protection	IP67
Energy Resolution	≤1.0% FWHM at 662 keV (gamma; coincident interactions combined)
Sensitivity	Detects 10 µCi ¹³⁷ Cs at 1 m (~3 µR hr) in < 22 s (in natural background) Localise 10 µCi ¹³⁷ Cs point source at 1 m (~3 µR hr) in < 90 s to ± 3°
Energy Range	50 keV to 3 MeV (spectroscopy) 250 keV to 3 MeV (imaging)
Gamma-Ray Detector	>19 cm ³ CZT (CdZnTe) GM-Tube for high dose rate
Count Rate Limit	0.5 rem/hr (5 mSv/hr) bare ¹³⁷ Cs equivalent for spectroscopy 10 rem/hr bare ¹³⁷ Cs equivalent for dose rate
Start Up Time	< 90 s at 23° C (73° F) < 6 minutes at -20° C or 50° C (-4° F or 122° F)
Isotope Library	Selectable from manufacturer provisioned master library

User Interface	3.5" embedded screen with 3 button control. Also viewable on any internet browser
Views	Spectrum, identifications, dose, count rate history, status information
Communication	Wifi and Bluetooth compatible
Data Storage	32 GB internal (> 1 million measurements)
Data Stored	ANSI N42.42 xml file
GPS	Embedded
Certifications	ANSI N42.34 and DND0 TCS test reports available by request UL (predicted)
Warranty	2 years (includes annual recalibration and software updates)
Includes	Power cables Watertight iM2100 Pelican™ Storage Case with custom foam

Specifications are subject to change without notice.
For the most up-to-date specifications, please visit www.hd3gamma.com



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