Product Datasheet

A400

Handheld Radiation Identifier

H3D®'s Next Generation ASeries is the new standard in radioisotope identification devices (RIIDs). Designed to meet your needs, experience:

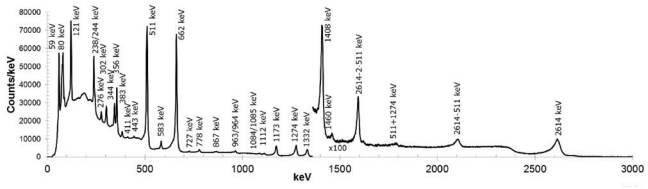
- **High energy resolution.**
- **High efficiency.**
- **Directionality.**
- **Compact and ergonomic design.**

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 highperformance radioisotope identifier.
- Compact and portable.
- 3rd party test results for ANSI N42.34 and DNDO TCS standards available by request.
- Option for ≤0.8% FWHM energy resolution at 662 keV and interactionbyinteraction resolution of ≤0.65% FWHM.
- Realtime 360° isotopespecific directionality.
- Ready to use in less than 60 s.
- Industry leading efficiency with over 19 cm^3 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 onehanded operation.
- MFK/ATAK CBRN plugin compatible.
- Software updates included.
- Wireless connectivity option.
- Network webpage interface for mobile devices.



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Specifications

A400	
Dimensions (L x W x H)	30.5 cm x 7.6 cm x 9.5 cm
Weight	1.2 kg
Battery Life	>8 hours
Power	110 - 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	IP65
Energy Resolution at 25°C	1.1% FWHM at 662 keV (gamma; coincident interactions combined) ≤0.9% FWHM at 662 keV (gamma; coincident interactions separated)
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 (directionality)
Gamma-Ray Detector	>19 cm^3 CZT (CdZnTe)
Count Rate Limit	1 rem/hr (10 mSv/hr) bare ^{137}Cs equivalent for spectroscopy
Startup Time	<60 s
Isotope Library	Selectable from manufacturer-provisioned master library
User Interface	3.5" embedded screen with button control Also viewable on any internet browser
Views	Spectrum, identifications, dose, count-rate history, status information
Communication	WiFi, Bluetooth, USB-C, RJ45 Ethernet through adapter
Data Storage	32 GB internal (>1 million measurements)
Data Stored	NSI N42.42 xml file
Certifications	NSI N42.34 and DNDO TCS test reports available by request UL (predicted)
Warranty	2 years (includes annual recalibration and software updates)
Includes	Power cables Watertight Pelican Storage Case with custom foam

High-Resolution Option (A400+)	
Energy Resolution	Improved energy resolution of ≤0.8% FWHM at 662 keV (coincident interactions combined) and ≤0.65% FWHM at 662 keV (coincident interactions separated)

Neutron-Detector Option (A401)	
Add 16 cm² Micro-Structured Neutron Detector (MSND)	
Neutron Sensitivity	4.8 cps/nv (thermal)

Lower Efficiency Option (A200)	
Weight	1.2 kg
Sensitivity	Detection and localisation times increased by 2x
Crystal Volume	>9 cm^3 CZT

Lower Efficiency Option (A100)	
Weight	1.1 kg
Sensitivity	Detection and localisation times increased by 4x
Crystal Volume	>4.5 cm^3 CZT

Any options can be combined, except as noted above.

Specifications are subject to change without notice.
For the most up-to-date specifications, please visit www.h3dgamma.com

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