The H3D® H400 is the high-efficiency sibling of the H100. Perform measurements in a third of the time.

The H400 is optimized for identification and localization of gamma-ray sources at nuclear power plants:

- Easy to use
- Highly portable
- Cost effective

Use the H400 for:

- Routine monitoring and maintenance
- Decommissioning operations
- Emergencies, incidents, and outages

Spectroscopic performance competitive with cryogenically cooled detectors and omnidirectional isotope-specific imaging...

at under 8 lbs.

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"All of our technology that we have—that I've worked with for 30 years—doesn't touch what this shows us."

- RPM, U.S. Nuclear Power Plant, describing the H100

10-minute isotope-specific images of an RHR pump room in a U.S. nuclear facility, using the H100
Specifications

Vertical; full color
≤1.1% FWHM at 662 keV (coincident interactions combined)
in <90 s
C (F) or 50 ± C (122 equivalent
Spectrum, gamma image, optical image, composite image
Visualizer software for advanced post processing
- Integrated Class 2 laser; 635 nm; <1 ~30 2 years (includes annual recalibration and software updates)
Audio & visual alarms based on dose rate or accumulated dose
- >3 hours at 23° C (73° F) or 50° C (122° F)
Power Supply: 100–240 V, 47–63 Hz
Startup & Operating Temp.: -20° C to 50° C (-4° F to 122° F)
Storage Temperature: -20° C to 60° C (-4° F to 140° F)
Ingress Protection: IP65 (IP67 with fan replacement)
Tripod Mounts: 1/4”-20 with reinforced thread
3/8”-16 (with add-on exoskeleton only)
System Cooling: Proprietary external heat sink and removable fan
User Service: Removable fan cover; replaceable fan and fuse
Range Finder: Integrated Class 2 laser; 635 nm; <1 mW
Energy Resolution: ≤1.1% FWHM at 662 keV (coincident interactions combined)
Optical Field of View: >162° horizontal, >122° vertical; full color
Optical Registration: ±2° to radiation image in front 90° × 90°
Radiation Field of View: 4π (360°) omnidirectional
Angular Precision: ±1° source localization for all 4π (real time)
Angular Resolution: ~30° FWHM for all 4π (real time)
~20° FWHM for all 4π (post processing)
Sensitivity: Detects 137Cs producing ~3 μR/hr in <16 s (spectroscopy)
Localize point source of 137Cs producing ~3 μR/hr in <90 s
Energy Range: 50 keV to 3 MeV (spectroscopy)
250 keV to 3 MeV (imaging)
Crystal Volume: >19 cm³ CZT (CdZnTe)
Count-Rate Limit: 0.5 rem/hr (5 mSv/hr) bare-137Cs equivalent
Alarms: Audio & visual alarms based on dose rate or accumulated dose
Silence independently & preemptively; adjustable threshold (Sv/h)
Isotope Library: Select from 3573 ENDF isotopes & user defined; unlimited
Startup Time: < 90 s at 23° C (73° F)
Display: 7” 1280x800 HD tablet (mountable to back cover)
Tablet Communication: Peer-to-peer Wifi or Bluetooth, or wired connection
Other Communication: Ethernet RJ45 port; TCP/IP
Views: Spectrum, gamma image, optical image, composite image
Data Storage: Removable USB (16 GB) included
Warranty: 2 years (includes annual recalibration and software updates)
Includes: Visualizer software for advanced post processing
Tablet-mounting bracket
Power/accessory cables, stylus, and tablet
Transport and storage case
Optional Add-Ons: Exoskeleton for drop protection
External battery
4π (360°) omnidirectional camera