

Features

- ✓ Sensing and imaging over collimated directions, using an embedded tungsten collimator
- ✓ Isotopic quantification of gamma-ray sources
- ✓ Real-time spectroscopy, ID, and imaging
- ✓ Better than 1.1% FWHM energy resolution at 662 keV and interaction-by-interaction resolution of $\leq 0.9\%$ FWHM
- ✓ No cryogenic cooling required
- ✓ Energy range covers isotopes of interest up to 3 MeV
- ✓ Rangefinder for detector-to-source distance estimation
- ✓ Wireless or wired tablet operation
- ✓ Ready to use in less than 60 s
- ✓ Air/water tight for easy decontamination
- ✓ Images both point and distributed sources
- ✓ Easily exchangeable tungsten plug
- ✓ Operates at high dose rates
- ✓ Tripod mount
- ✓ Annual recalibration and software updates included

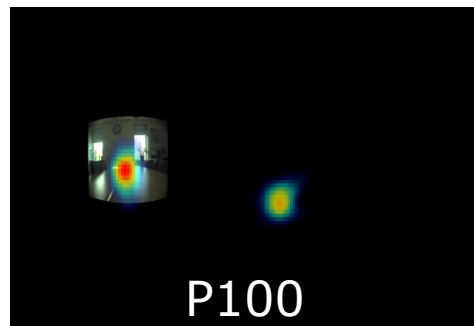
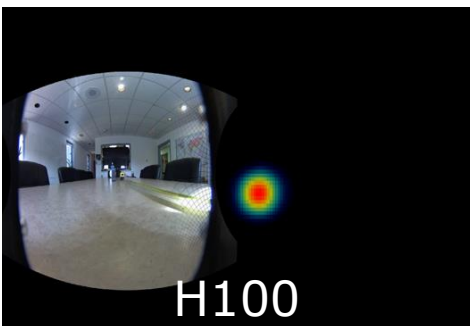
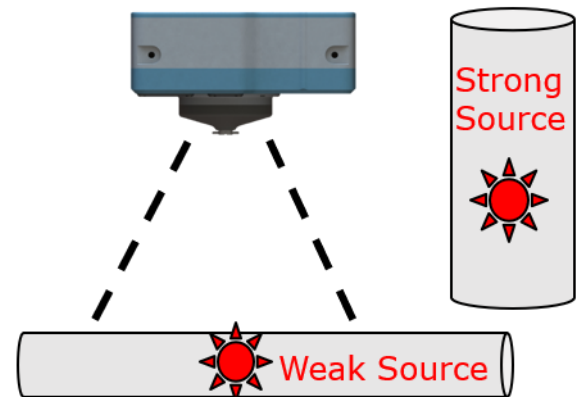
The H3D® P100 is your solution for the identification and quantification of gamma-ray sources in the presence of strong gamma-ray sources:

- ❑ Easy to use
- ❑ Portable
- ❑ Cost effective

20 years of development and 5+ years of application-specific engineering to the exacting standards of nuclear power plant operators to support:

- ❑ Isotopic characterization
- ❑ Quantitative analysis of radiation in pipes and ducts
- ❑ Emergencies, incidents, and outages
- ❑ Compatibility with SourceTerm software for advanced quantification with user-defined geometries

Spectroscopic performance competitive with cryogenically cooled detectors and directional isotope-specific gamma-ray imaging using a tungsten collimator.



When imaging a weak source in the presence of a strong source, the H100 sees only the strong source, but the P100 can see the weak source because of the P100's collimator.

P100 Specifications

Dimensions: 8.9 in x 4.9 in x 6.3 in (22.6 cm x 12.4 cm x 16 cm)
Weight: 25 lbs (11.3 kg)
Collimator Thickness: 1 in (2.54 cm) with removable plug
Battery Life: >7 hours at 23° C (73° F)
 >3 hours at -20° C (-4° F) or 50° C (122° F)
Power Supply: 100-240 V, 47-63 Hz
Startup & Operating Temp.: -20° C to 45° C (-4° F to 113° F)
Storage Temperature: -20° C to 60° C (-4° F to 140° F)
Ingress Protection: IP65 with fan replacement
Tripod Mount: 1/4"-20
System Cooling: Proprietary external heat sink and removable fan
Rangefinder: Integrated Class 2 laser; 635 nm; <1 mW
Energy Resolution: ≤1.1% FWHM at 662 keV (coincident interactions combined)
 ≤0.9% FWHM at 662 keV (coincident interactions separated)
Optical Field of View: 90° horizontal, 90° vertical; full color
Optical Registration: ±2° to radiation image
Radiation Field of View: 4n ; collimated to 90°
Angular Precision: ±1° source localization for all 4n (real time)
Angular Resolution: ~30° FWHM for all 4n (real time)
 ~20° FWHM for all 4n (post processing)
Sensitivity: Detects ¹³⁷Cs producing ~3 µR/hr in < 1 min (spectroscopy)
 Localize point source of ¹³⁷Cs producing ~3 µR/hr in < 5 min
Energy Range: 50 keV to 3 MeV (spectroscopy)
 250 keV to 3 MeV (imaging)
Crystal Volume: >6 cm³ CZT (CdZnTe)
Count-Rate Limit: 1 rem/hr (10 mSv/hr), front bare-¹³⁷Cs equivalent, without plug
 20 rem/hr (200 mSv/hr), front bare-¹³⁷Cs equivalent, with plug
Isotope Library: Select from 3573 ENDF isotopes & user defined; unlimited
Startup Time: <60 s at 23° C (73° F)
User Interface: 8" 1280x800 HD tablet
Tablet Communication: Peer-to-peer Wifi or Bluetooth, or wired connection
Other Communication: Ethernet RJ45 port; TCP/IP
Data Storage: Removable USB (64 GB) flash drive
Warranty: 2 years (includes annual recalibration and software updates)
Includes: Visualizer software with SourceTerm for advanced post processing
 Power/accessory cables, stylus, tablet, tripod, and collimator
 Transport and storage case

**High-Resolution
Option (P100+)**

Receive a unit with the best energy resolution in our inventory.

