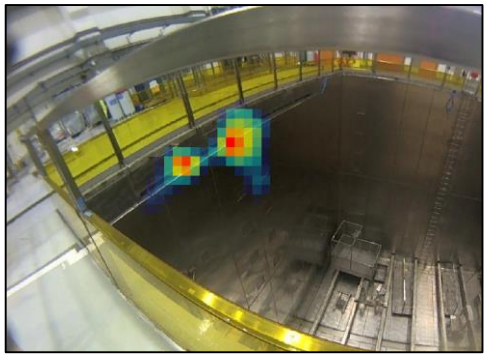
P100

Directional Imaging Spectrometer

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
- ✓ 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
- ✓ Includes collimator optimized for your applications
- ✓ Ready to use in only 2 minutes
- ✓ Air/water tight for easy decontamination
- ✓ Precision overlay of gamma-ray and optical images
- ✓ Images both point and distributed sources
- ✓ Operates at high dose rates
- ✓ Automatic report generation
- ✓ Tripod mount
- ✓ Annual recalibration and software updates included



Radiation image of ^{60}Co in a pipe

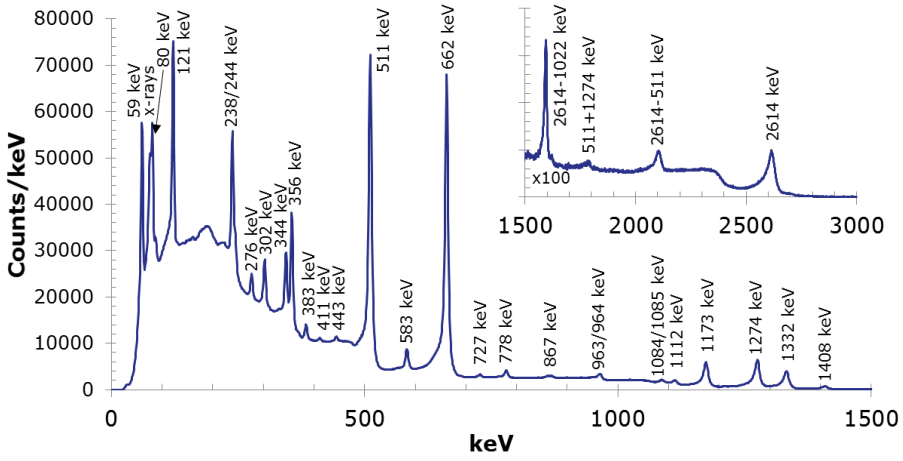
The H3D® P100 is your solution for the identification and quantification of gamma-ray sources in the presence of strong gamma-ray sources:

- ❑ 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

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

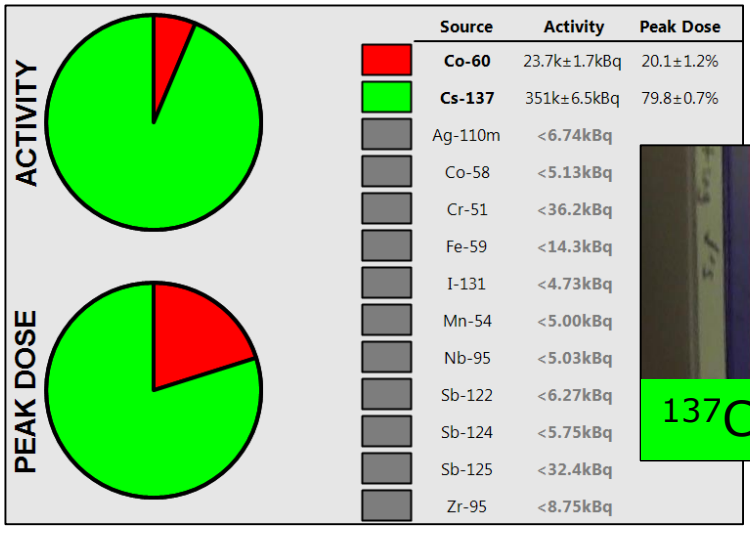


P100 Specifications

Dimensions:	12.3 in x 5.5 in x 8.9 in (31.2 cm x 13.8 cm x 22.6 cm)
Weight:	20 lbs to 35 lbs (9.1 kg to 15.9 kg) depending on configuration
Battery Life:	>10 hours at 23° C (73° F) >5 hours at -20° C (-4° F) or 50° C (122° F)
Power Supply:	100-240 V, 47-63 Hz
Operating Temperature:	-20° C to 50° C (-4° F to 122° F)
Startup Temperature:	4° C to 38° C (40° F to 100° F)
Storage Temperature:	-20° C to 60° C (-4° F to 140° F)
Ingress Protection:	IP65 (IP67 with fan replacement)
Tripod Mount:	3/8”-16
System Cooling:	Proprietary external heat sink and removable fan
Range Finder:	Integrated Class 2 laser; 635 nm; <1 mW
Energy Resolution:	≤ 1.1% FWHM at 662 keV
Optical Field of View:	78° horizontal, 54° vertical
Optical Registration:	±2° to radiation image
Radiation Field of View:	60°
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 ^{137}Cs producing ~3 µR/hr in < 1 min (spectroscopy) Localize point source of ^{137}Cs producing ~3 µR/hr in < 5 min
Energy Range:	50 keV to 3 MeV (spectroscopy) 250 keV to 3 MeV (imaging)
Crystal Volume:	>4.5 cm^3 CZT (CdZnTe)
Count-Rate Limit:	0.5 rem/hr (5 mSv/hr) from front bare-^{137}Cs equivalent
Isotope Library:	Select from 3573 ENDF isotopes & user defined; unlimited
Startup Time:	2 min
User Interface:	7” 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 (16 GB) flash drive
Warranty:	2 years (includes annual recalibration and software updates)
Includes:	Visualizer 2.1 software for advanced post processing Power/accessory cables, stylus, tablet, and collimator Pelican™ Storm iM1650 Case

Low-Energy-Imaging Option (P110)

Add a pinhole to extend imaging:
Energy Range: 50 keV and 250 keV
Radiation Field of View: 60°
Angular Resolution: ~8° FWHM



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