

# RIIDEye X & M

## Handheld Radiation Isotope Identifiers



**RIIDEye M**  
multiple configurations



**RIIDEye X**  
for extreme conditions

### FEATURES/BENEFITS

- Patented QCC algorithm enables faster and more accurate IDs
- Color coded peaks provide more source data during and after completion of ID
- Continuous gain stabilization with natural potassium enables accurate results in changing environment
- RIIDEye X - All-in-One, Extremely Rugged for demanding environments
- RIIDEye M - Multi-purpose, 2 or 1 hand operation and ability to utilize multiple detectors with a single RIIDEye M controller
- No Cs-137 source means higher sensitivity to Cs-137 and shielded Am241, and less false IDs
- No Na-22 source means lower cost of ownership
- Integrated non He-3 neutron scintillation detector (Ce doped Cs2LiYCl6 (CLYC) crystal)
- High-resolution LaBr<sub>3</sub> detector option
- Ethernet and removable memory card

**New Thermo Scientific Radiation Isotope Identifiers for real-time detection, location and identification.**

The Thermo Scientific™ RIIDEye™ detects and identifies radiation present in the environment and gives users feedback on where the radiation is, what type and how much.

It is the only RIID with real time spectra build to allow users to optimize identification during the scan which leads to faster scans, more confidence that measurement was accurate and the ability to add scan time based on real time results.

The RIIDEye offers identification speed with high accuracy. Allowing more scans, faster results in situations where rapid decisions need to be made.

With patented QCC technology, it provides real time gamma source identification and improved quality of isotopic IDs.

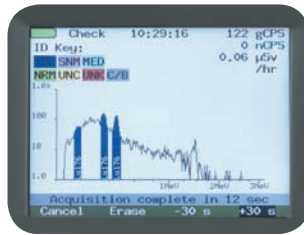
The RIIDEye is ergonomically engineered for single-grip operation and weight balanced for comfortable usage, even in long-term use scenarios. The RIIDEye is an intuitive instrument to operate. With a large, illuminated color interface and simple, raised button design, it can easily be used by personnel with little experience in radiation measurement - providing identification "at a glance."



### ANALYSIS SOFTWARE

To analyze your RIIDEye spectra data, please download the free analysis software package from:

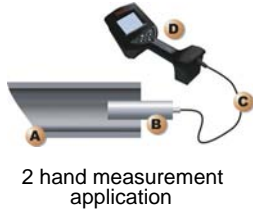
<https://hekili.ca.sandia.gov/Cambio>



Color peak display enables more clear information for reachback and further conops steps

Thermo Scientific Test Adapters made of natural Lutetium oxide can be used for precise verification of the detector linearity and are ideally suited for training purpose:

- ConOps execution upon occurrence of unknown isotopes (photo peaks indicated in red) using a standard search library
- Identification using a secondary library containing Lu-176
- Tutorial demonstration of sum-peak occurrence as function of detector spacing and source shielding



2 hand measurement application

One or two hand operation is possible for the best ergonomics for each monitoring situation. The probe can be easily detached by the operation of a single clip:

- A) Cavity
- B) Detector
- C) Extended spare cable
- D) RIIDEye electronics



While taking a gamma spectrum the RIIDEye can be complemented with the gamma neutron pager RadEye GN for the highest detection performance for both fast and moderated neutrons.

## SPECIFICATIONS

<b>Detector</b>	2" x 2" NaI Scintillator, 1.5" x 1.5" LaBr offered in both models. Optional 3" x 3" offered with RIIDEye M
<b>Energy Range</b>	20 keV to 3 MeV
<b>Display</b>	320 x 240 high brightness 32000-color 3.5 inch LCD
<b>I/O</b>	Removable memory card
<b>Battery Life</b>	8 hours nominal with standard battery pack
<b>Weight</b>	RIIDEye X: 2.6 kg (5.7 lbs); RIIDEye M: 2.3 kg (5.1 lbs), both with 2" x 2" NaI detector
<b>Dimensions (with 2" x 2" NaI)</b>	32 cm x 25 cm x 15 cm (12.6 inch x 9.8 inch x 5.8 inch)
<b>Temperature</b>	-20 °C to 50 °C (-4 °F to 122 °F)
<b>Controls</b>	Well spaced 7-key pad for simple menu use with protective gloves
<b>Alarms</b>	Audio and visual on screen
<b>Stabilization</b>	Continuous with natural potassium requiring no periodic source replacement or licensing
<b>Library</b>	Standard ANSI, security, medical, industrial or user defined
<b>Neutron Detector</b>	Optional dual scintillator with imbedded Lithium (NaI detectors only) or Ce doped Cs2LiYCl6 (CLYC) crystal
<b>Functions</b>	Isotope identification, spectral analysis, dose rate meter, source locator

## RIIDEye VERSIONS

RIIDEye M-G	2"x2" NaI(Tl)	4250860
RIIDEye M-GN	2"x2" NaI(Tl) and CLYC neutron detector	4250865
RIIDEye M-G3	3"x3" NaI(Tl)	4250863
RIIDEye M-H	1.5"x1.5" LaBr detector	4250862
RIIDEye M-HN	1.5"x1.5" LaBr and CLYC neutron detector	4250866
RIIDEye X-G	2"x2" NaI(Tl)	4250880
RIIDEye X-GN	2"x2" NaI(Tl) and CLYC neutron detector	4250885
RIIDEye X-H	1.5"x1.5" LaBr detector	4250882
RIIDEye X-HN	1.5"x1.5" LaBr and CLYC neutron detector	4250886



Each version comes with an accessory kit, comprising: 1 foam insulated hard carrying case, 1 extended spare cable for 2 hand operation, 1 backup battery holder, 1 memory card reader, 1 shoulder strap, 1 A/C power supply, 1 battery charger.

Optional components: 1. Serial communication cable (# PG-111406) enables RIIDEye to interface direct with PC serial port. 2. GPS. 3. Spare rechargeable battery pack. 4. Backup memory card (# PG-110796).

