



Alpha Spectra, Inc.

Scintillation Detectors

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F.I.D.L.E.R. Data Sheet

Alpha Spectra, Inc. is pleased to announce that Los Alamos National Laboratory has approved our F.I.D.L.E.R. (Field Instrument for the Detection of Low Energy Radiation) probe for use in DOE and EPA field applications. Our detector satisfies strict performance requirements for energy resolution, geometric detection efficiency, and low background.

Our detectors are designed and assembled to achieve optimal performance. Since these detectors are used in rugged field applications, Alpha Spectra's F.I.D.L.E.R. probe features a rugged thick-walled machined aluminum housing which provides added mechanical and thermal protection over a spun aluminum housing. A spun aluminum light shield is used to minimize the overall weight of the detector. An added feature is the inclusion of an aluminum cover that is shipped with every detector. The cover protects the Beryllium or Aluminum entrance window when the detector is not in use.

The standard model has the following features.

- **Model:** 20DT063QB2/5; sales drawing 700556001
- **Crystal description:** 5.0" dia. x .063" thick NaI(Tl) mounted on a quartz light pipe
- **Crystal housing:** Machined aluminum with nickel/chrome plating, .010" thick beryllium entrance window and aluminum protective cap
- **Photomultiplier:** 5" PMT wrapped with magnetic shielding foil, and a spun aluminum light shield
- **Low background configuration:** low background glass and PMT
- **Connector:** 14-pin phenolic base
- **Resolution at 60 KeV (Am 241):** 19% or better on axis.
- **Weight:** 7.1 pounds
- **Test Results:** Data spectrum provided
- **Delivery:** typically 3-4 weeks ARPO

As options we can provide the following:

- Various NaI(Tl) crystal thicknesses or diameters
- Aluminum entrance windows
- Customer selected connectors: SHV and BNC, MHV or C type available
- Low background voltage divider internally or externally decoupled
- Brushed aluminum finish on crystal housing
- Protective cap with Kapton film window

ASI also provides cost-saving F.I.D.L.E.R. repair service. A failed or damaged detector can be repaired to new condition and supplied with a full 2 year warranty at a fraction of the cost of a new detector.

Detectors can be sent to our facility for free evaluation.

You may contact Alpha Spectra by:

- Phone: (800) 231-2545 or (970) 243-4477
- Fax: (970) 244-6947
- Email: fjwxtals@alphaspectra.com
- Visit our home page at www.alphaspectra.com