



Trusted
radiation
protection.

848-8 Series

Field Test Sources

The 848-8 Series of field test sources are portable, self-contained fixtures for on-site testing of area monitors. A sealed radiation source, combined with repeatable location of source and detector in the fixture, assures the consistency of the results. The source is encapsulated in welded stainless steel and secured inside a rotating section of the source shield. By rotating the section, one can bring the source to a position where radiation from the source passes through an exit hole in the shield to irradiate the detector. The rotating section is spring loaded to return to the closed position, and the mechanical interlocks prevent removal of the detector until the rotating section is in the closed position. These safeguards help to minimize the operator's exposure to radiation.

Applications

The 848-8 Series of field test sources are designed to be used as field checks of detector functionality. They can be used with the following detector models:

- The 977 Series Wide Range Ion Chamber Detectors
- The 857A Series GM Detectors (requires the 848-8-105 adapter) For stainless steel versions, use the 848-8-400 adapter
- The 897A Series GM Detectors (requires the 848-8-105 adapter) For stainless steel versions, use the 848-8-400 adapter



Key features

- Field calibration check device
- For use with the 945A and the 955A area monitor channels and other area detectors
- Shield spring-loaded, closed by redundant helical springs
- Interlock prevents locking shield open
- Interlock prevents the removal of the detector with the field test source in the open position
- Shielding lead encased in steel and brass
- Radioactive source mounted in steel
- Shield locked in closed position by key lock
- Key assembly locks detector in place until the shield is closed and locked

Technical specifications

Dimensions (*w x d x h*)

8.88 in x 13.25 in x 6.63 in
(22.5 cm x 33.6 cm x 16.8 cm)

Weight

24 lb (11 kg)

Source

Nominal values of ^{137}Cs sealed in welded stainless steel capsule

Available models

Four field test source sizes available:

- Model 848-8 100 mCi
- Model 848-8A 10 mCi
- Model 848-8B 20 mCi
- Model 848-8D 1 mCi

Options

May be adapted for use with other types of area detectors.

Radiation levels— external (in front of calibrator without detector in place)

Listed levels apply to 100 mCi source. Levels of other sources are proportional.

Closed position

< 5 mR/h at a distance of 1 ft
(0.3 m)

Open position

100 mR/h at 2 ft (0.61 m) 5
mR/h at 10 ft (3.04 m)

Radiation levels— internal (mounting hole)

Listed levels apply to 100 mCi source. Levels of other sources are proportional.

Closed position

50 mR/h*

Intermediate position

500 mR/h*

Open position

5000 mR/h*

* Actual levels supplied with each field test source United States Nuclear Regulatory Commission (USNRC) or Agreement State License required

Compatible detectors

- 977 Series Wide Range Ion Chamber Detectors
- 897A Series GM Detectors
- 857A Series GM Detectors

Ordering information

Model

848-8: Field Test Source 100 mCi

848-8A: Field Test Source 10 mCi

848-8B: Field Test Source 20 mCi

848-8D: Field Test Source 1 mCi

848-8 Series: 848-8 Series Field Test Sources



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