

489-110D

GM Pancake Probe



Designed for use in conjunction with the ASM-990 Series and other standard GM survey meters, the 489-110D can detect alpha, beta, and gamma radiation. It is configured for operating convenience in table-top and floor surveys as well as surveys of personnel and equipment. Prime applications for this probe include nuclear medicine counter tops and frisker stations, leakage detection for low energy diagnostic x-ray machines, geological and environmental surveys or any place where there exists the suspicion that some form of radiation is present, especially emergency response teams.

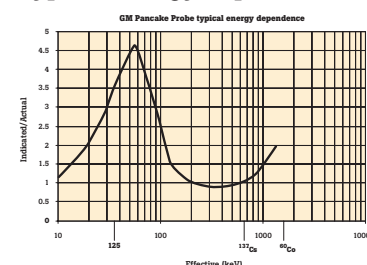
For storage and carrying ease, the probe fits into the standard handle clip on a survey meter.

The GM probe comes in two configurations: 489-110D with an ABS plastic housing, MHV connector, and foam grip, or 489-110E with a BNC connector. This selection of connectors provides the ability to attach the GM probe to most GM survey meters on the market. Replacement foam grip handles are available: 489-130-44. This same probe design is available in a rugged metal housing as 489-110C.

Key features

- All purpose GM Pancake Probe detects alpha, beta, gamma, and x-ray radiations
- High detection efficiency
- Lightweight, ergonomic design
- Detachable probe cable
- BNC or MHV connector
- Easy to decontaminate

Typical energy dependence



Efficiency

489-110D GM Pancake Probe efficiency is shown below. In a recent performance check, the numbers shown represent typical results obtained:

Isotope	%Efficiency
¹⁴ C	5
⁹⁹ Tc	12
¹³⁷ Cs	24
⁹⁰ Sr	59
³⁶ Cl	26
²⁴¹ Am	8
¹²⁹ I	2
²³⁰ Th	15
²³⁹ Pu	12

Note: The efficiency formula used to calculate the % Efficiency is: Eff. % = (CPM x 100)/DPM

Specifications

Detector	Halogen-quenched "Pancake" GM tube
Radiation detected	Alpha above 3.5 MeV, beta above 35 keV and gamma above 6 keV
Operating voltage	900 V; compatible with all GM survey meters
Window	15 cm ² (1.75 in Ø) mica, 1.4 to 2 mg/cm ² thick
Typical background	30 CPM
Sensitivity	3500 CPM/mR/hr
Protective screen	Stainless steel, hexagonal pattern providing 86 % open area
Housing material	ABS plastic housing and foam grip handle
Cable	Shielded cord; approximately 4.5 ft long MHV coaxial connector or BNC connector
Dimensions	Detector housing (WxDxH): 6.36 cm x 2.2 cm x 10.8 cm (2.50 in x 0.875 in x 4.25 in) Handle (excluding connector): 2.5 cm Ø x 16.5 cm dia. (1 in Ø x 6.25 in dia.)
Weight (pancake probe only)	0.28 kg (0.625 lb)

Replacement parts

489-130-44 Foam Grip Handle

Ordering information

489-110D GM Pancake Probe with ABS plastic housing, MHV connector, and foam grip handle
489-110E GM Pancake Probe with ABS plastic housing, BNC connector, and foam grip handle
489-110C GM Pancake Probe with metal housing, MHV connector, and foam grip handle