

High-range waterproof GM probe instrument

AMP-200 Area Monitoring Probe

10 mSv/h to 100 Sv/h (1 R/h to 10,000 R/h).

Radiation Detection Division

Health Physics

The AMP-200, or Area Monitor Probe, is a GM Tube-based rate meter. It has been designed specifically to be used in high dose rate fields.

The AMP-200's detector features linear response from 10 mSv/h to 100 Sv/h (1 R/h to 10,000 R/h).

More importantly, since the probe's sensitive electronics are located far from the high field (25 to 350 feet away), they are not subject to destructive gamma exposure. Thus the probe head may be located near a high dose rate and water logged area to take advantage of waterproof characteristics and longer life expectancy.

The AMP-200 may be used in one of 2 ways: By locally reading the smoothed digital display via the hand-held meter or by connecting the meter to a Remote Monitoring System (e.g. wired DDC 16 or wireless WRMPlus) and TeleMap.



Features

Wide range response from 1 R/h to 10,000 R/h (10 mSv/h to 100 Sv/h)

Probe is waterproof to 20 meters depth.

Ruggedized construction, detector housing and cable

Quick-connect connectors allow customization of cable length and facilitate easy de-contamination

Built-in RS-232 communication connection for use with Area Monitor or wireless transmitter

Smoothed digital display offers accurate, stable readings

User-selectable internal alarm threshold.

Applications

Real-time monitor applications. For example, the probe head may be placed directly into a filter cube or against a resin tank for the purpose of providing survey results.

Replacement of traditionally "difficult to calibrate" underwater instruments

Local readout of hand-held meter allows for use as a portable survey instrument

Provides real-time, remote monitoring in geometries developed for extendable "pole" rate meters (TelePole and other Telescopic Meters.)

Technical Data

Display	LCD readout showing: <ul style="list-style-type: none">- Four digits for accurate and easy readout- Detector failure- Low battery- Overflow- Threshold
Audio	Internally mounted piezo-electric element used for "chirp" and alarm functions
Measuring range	0.01 Sv/h to 100 Sv/h (1.0 R/h to 10,000 R/h)
Display range	1 mSv/h to 100 Sv/h (0.1 R/h to 10,000 R/h)
Controls	<ul style="list-style-type: none">- ON/OFF push-button- RESET push-button- SPEAKER push-button
Power Source	One 9-volt cell battery or external 9V power supply <ul style="list-style-type: none">- 50 hours minimum continuous operation,
Detector	Energy compensated GM tube (4G60M or equivalent)
Sensitivity (137Cs)	17 cps/mR/h
Accuracy	±10% of reading within the measuring range
Energy range	70 keV to 2.0 MeV
Energy dependence	±20% related to 137Cs
Angular dependence	Less than ±20% for 45° from centerline indicator
Temperature range	Operation: -10°C to +50°C (15°F to 122°F)
Humidity range	40% to 95% RH (non condensing)
Casing	Meter: Aluminum Detector: Aluminum, waterproof to 20 meters
Dimensions	Meter: 12 cm x 7.2 cm x 3.4 cm (4.72" x 2.83" x 1.34") Detector: 2.45 cm x 14.3 cm (0.96" x 5.71") without cable
Weight	Meter: 340 g (0.76 lbs) including battery Detector: 131 g (0.29 lbs) without cable
Cable length	Standard: 25 feet Maximum: 350 feet
Part #	AMP-200 (µSv/h) (incl. 9m cable) BAK-0281 AMP-200 (mR/h) (incl. 9m cable) BAK-0271

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