Perfection in Detection

High-range waterproof GM probe instrument

AMP-100 Area Monitoring Probe

50 uSv/h to 10 Sv/h (5 mR/h to 1,000 R/h).

Radiation Detection Division

Health Physics

The AMP-100, 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-100's detector features linear response from 50 µSv/h to 10 Sv/h (5 mR/h to 1,000 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 filter cube, rad waste stream, resin tank, or even inside the fuel pool (to take advantage of waterproof characteristics) having a longer life expectancy.
The AMP-100 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

High range response from 50 µSv/h to 10 Sv/h (5 mR/h to 1,000 R/h).
Ruggedized construction, waterproof detector housing and cable
Quick-connect connectors allow customization of cable length and facilitate easy de-contamination
Built-in RS-232 connection for use with Area Monitor or WRM 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
Provides real-time, remote monitoring in geometries developed for extendible "pole" rate meters (TelePole, Teletector,etc.)
Local readout of hand-held meter allows for use as a portable survey instrument

Technical Data

Display	**LCD readout showing:** - Four digits for accurate and - Detector failure - Low battery - Overflow - Threshold	
Audio	Internally mounted piezo-electric element used for "chirp" and alarm functions	
Measuring range	0.05 mSv/h to 10 Sv/h (0.005 R/h to 1000 R/h)	
Display range	10 nSv/h to 10 Sv/h (0.001 R/h to 1000 R/h)	
Controls	- ON/OFF push-button - RESET push-button - SPEAKER push-button	
Power Source	One 9-volt cell battery or external 9V power suppl Providing 50 hours minimum continuous operation and automatic battery check under full load	
Detector	Energy compensated GM tube (ZP1301 or equivalent)	
Sensitivity (137Cs)	300 cps/R/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) Storage: -20°C to +60°C (-5°F to 140°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-100 (µSv/h) (incl. 9m cable)	BAK-0171
	AMP-100 (mR/h) (incl. 9m cable)	BAK-0161

ROTEM INDUSTRIES reserves the right to change specifications without advance notice

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