

PYCKO SCIENTIFIC LIMITED

31 London Road, Grantham, NG31 6EX
Telephone 01476 401992
e-mail: bill@pycko.co.uk
www.pycko.co.uk

Your Alternative
To The Obvious

AMP-50 Area Monitor

The AMP-50 is a GM tube-based low range Area Monitor. It has been designed specifically to be used in low dose rate fields using a very sensitive GM tube. The AMP-50's detector features a linear response from 0.1 $\mu\text{Sv/h}$ to 40 mSv/h . 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). The AMP-50 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 WRMPPlus) and TeleMap or connected directly to RS-232 computer input (using the RS-232 cable)



Features

- Wide range response from 0.1 $\mu\text{Sv/h}$ to 40 mSv/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 communication connection for use with Area Monitor or WRM transmitter
- "Smoothed" digital display offers accurate, stable readings
- User-selectable internal alarm threshold

Applications

- Area monitoring of low dose rate areas (ISFSI -Independent Spent Fuel Storage Installations)
- Low-level radioactive waste material surveillance
- Facility & site boundary surveillance
- Emergency Response surveillance
- Control shipping of radioactive material
- Environmental monitoring
- Outdoor area monitoring
- Underwater surveys
- Alara waiting areas

Technical Description

The Area Monitor Probe (AMP-50) is a low-range GM tube-based detector designed to be continuously used in areas where exposure levels are required to be monitored.

The instrument consists of three parts: the Meter box, which includes the display unit, operating pushbuttons and detector's electronics; The probe head, which contains the GM Tube; and the connecting cable, which is fitted with quick-connect-type connectors at each end. The AMP-50's connections and probe head feature watertight sealing to allow for use in underwater applications.

Specifications

Detector:	(ZP-1201, or equivalent)
Energy Range:	50 KeV to 2 MeV.
Measuring Range:	0.1 μ Sv/h to 40 mSv/h
Sensitivity (^{137}Cs):	17 cps per mR/hr
Accuracy:	$\pm 10\%$ of reading within measuring range
Units:	mR/h and mR or m Sv/h and m Sv
Controls:	Four key keypad with positive feedback. Key combinations for programming operating parameters.
Power Source:	One 9-volt cell battery or external 9V power supply, 50 hours minimum continuous operation, using an alkaline battery (speaker off) Automatic battery check under full load (without backlighting)
Display :	LCD Display showing: Detector failure, Low battery, Overflow, Threshold
Temperature Range:	Operation: -10°C to $+50^{\circ}\text{C}$
Storage:	-20°C to $+60^{\circ}\text{C}$
Humidity Range	40% to 95% RH (non condensing)
Casing Material:	Meter: Aluminium
Detector:	Aluminium, waterproof
Dimensions:	Meter: 2.7" wide, 4.7" high, 1.25" deep
Detector: Length:	6.2", diameter:1.3"
Weight:	Meter: 340 g including battery
Detector:	131 g without cable
Std. Cable Length:	25 ft.
Max. Cable Length:	350 ft.
Expected detector lifetime:	250 h at 1000 R/h

Accuracy, range and sensitivity details are related to ^{137}Cs