

RD-60 BETA
TA DETECTOR



RD-60 BETA
Original DETECTOR

Particulate, Iodine and Noble Gas Replacement Detectors

For RMS Air Monitors

Models: RD-60 and RD-60HT

Features

- Perfect Form and Fit Replacement
- 3 Detectors
- Particulate - Beta
- Iodine - Gamma
- Noble Gas - Beta
- Exact Replacement Scintillator
- Works With Standard Check Sources
- Complete Calibration and Test Reports Shipped with RD-60
- Easy Installation
- Test Data Packet with Each Probe

Detector Application

- » For use in conjunction with a signal processor in Radiation Monitoring Systems for Nuclear Power Plants.
- » Detector life is much shorter than system life, so detectors requires periodic replacement
- » Replica detectors for RMS systems are manufactured and available from Technical Associates a Division of US Nuclear Corp.

Description

- 3 Scintillation Detectors
 - » **Particulate Detector:**
- Scintillator-photomultiplier assembly & lead plug and handle on cable end
- Filter collects 99% or more of particulate matter greater than 0.3 microns from the sample
- Filter is viewed by a RD-60 Beta scintillator
 - » **Iodine Detector**
- A NaI(Tl) detector photomultiplier assembly & lead plug and handle on cable end
- Sample passes through replaceable charcoal cartridge which absorbs the Iodine
- Iodine is viewed with the RD-60 NaI(Tl) Gamma detector
- A single channel analyzer amplifier (SCA) such as the RM-80, monitors an adjustable typically 10%) window around the I131 photo peak
 - » **Noble Gas Detector**
- Scintillator-photomultiplier assembly & lead plug and handle on cable end
- Sample enters the shield & passes through a fixed volume chamber then exits the shield
- Fixed volume is viewed by RD-60 Beta scintillator that senses Beta particles from gaseous isotopes



**TECHNICAL ASSOCIATES
OVERHOFF TECHNOLOGY**

7051 ETON AVENUE, CANOGA PARK, CA 91303
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DIVISIONS OF



USNUCLEARCORP

OTCQB-UCL

Particulate, Iodine and Noble Gas Replacement Detectors

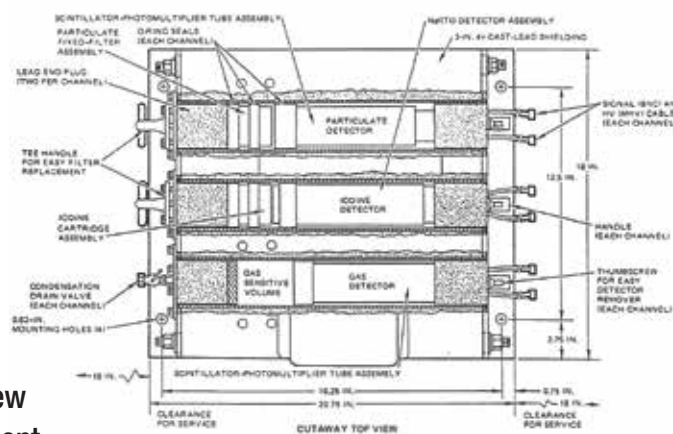
For RMS Air Monitors. Models: RD-60 and RD-60HT

Specifications Detector Dimensions:

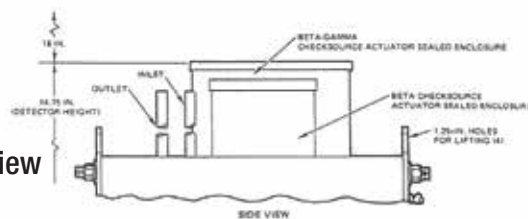
Particulate Beta:	2" Dia. (5 cm) x 0.02" (0.05 cm) thick Beta phosphor coupled to PM Tube
Iodine Gamma:	2" Dia. (5 cm) x 2" (5 cm) thick NaI(Tl) spectrometer grade crystal Optionally doped with Am ²⁴¹ Optically coupled to 2" Dia. photomultiplier tube
Noble Gas Beta:	2" Dia. (5 cm) x 0.02" (0.05 cm) thick Beta phosphor coupled to PM Tube
Sample Temperature:	35° to 120° F (2° to 49° C)
Electrical Connectors:	(1) High voltage – MHV ~ Teflon Insulated Co-axial connector (1) Signal BNC ~ Teflon Insulated Co-axial connector
Output Pulse Rate:	101 to 107 cpm
Operating Voltage:	700 – 2000 VDC
Check Source:	Suitable for use with 0.03 to 0.01 μCi Cl^{36} and $8\mu\text{Ci}$ Ba^{133} check sources
Shielding:	Typical: 3 inch lead follower (or longer if required) at probe handle end
Shield Temperature:	RD-60HT: 150° F (65° C)

Additional RMS System Replacement Parts Supplied By Technical Associates:

Detectors:	RD-2 to RD-72, Including: Scintillators, Ion Chambers, Solid-state and GM Detectors
Filters:	Discs, Charcoal Cartridges, Spools, Filter Drives, etc.
Circuit Cards:	Amplifiers and Others
Pumps	
Power Supplies:	Low Voltage and High Voltage as required



Cut Away Top View
Detector Placement



Cut Away Side View



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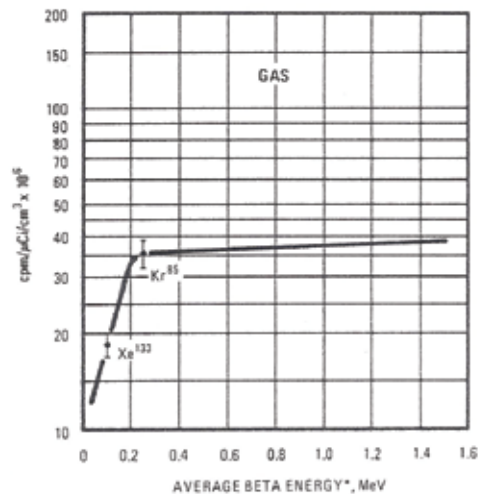
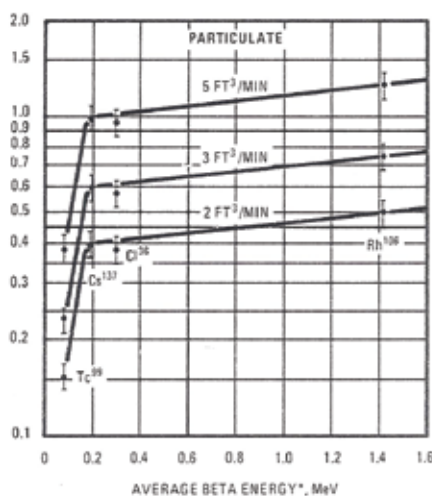


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TA RD-60 Detector Comparison



RD-60 TA etector

Energy Response Curves

Particulate

Noble Gas



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