

Thermo Fisher Scientific offers an inexpensive Area Monitor designed to meet all of the requirements of dose rate area monitoring.

RMS-3

Area Monitor



The Model RMS-3 utilizes a highly integrated electronics package that promotes low start up costs, operator friendliness, easy setup and quick calibration. This system supports a variety of different detector types including:

- HP-270 energy compensated GM tube to cover a dynamic detection range beginning at a few $\mu\text{R/h}$ to 3 R/h (30 mSv/h).
- HP-290 allows the RMS-3 to be used up to 60 R/h.
- SPA8 or SPA3 NaI(Tl) for increased sensitivity.
- DA1-1 (0.01 to 100 mR/h), DA1-6 (0.1 to 10,000 mR/h), DA1-6C (criticality detector), and the DA1-8 detectors when an operating range of up to 10,000 R/h (100 Sv/h) or remote detector placement is required. Automated check sourcing is supported with these DA1-1 and DA1-6 detectors.
- SWENDI 2 or the NRD for neutron monitoring. Alarms may be set anywhere over the

entire operating range of the detector. An alpha-numeric, high visibility LED display gives continuous update of current conditions. Visual indicators for High Alarm, Alert Alarm, and Normal present the operational status of the entire instrument. A Sonalert built into the monitor provides audible warning any time the alarm set point has been exceeded. An alarm acknowledgment button located on the front panel allows users to silence the speaker.

The detector and electronics are enclosed in a resilient, splash proof enclosure that is designed to take up a minimum amount of wall space. Installation is as simple as hanging it on the wall and connecting AC power. Facilities using the optional relay or analog output capability of the RMS-3 will require additional wiring connections via a terminal block strip conveniently located inside the bottom of the monitor.

The RMS-3 area monitor uses an RS-232C communication port to permit connection to a PC running a Windows™-based setup/calibration program. This program permits technicians to fully setup, calibrate and diagnose problems. Program features include automatic generation of high voltage plateaus, alarm set point selection, three levels of password protection, and complete control over all operating parameters.

- Inexpensive, fully featured area monitor
- Radnet compliant
- Supports most detector types
- Optional integrated HP-270 or HP-290 probe
- Networked (RS-485 and/or Ethernet)
- Windows™-based calibration

The RMS-3 can easily be networked onto an existing Ethernet system with the use of a small serial-to-Ethernet converter. The Windows™ 98-based network PC Client software uses UDP/IP communications and the new industry standard RadNet networking protocol, allowing multiple area monitors as well as contamination and air monitors to be viewed by a client anywhere on the LAN. There is no limit to the number of clients that can play the current status of the monitor as well as the current reading. Multiple RMS-3's may also be networked via RS-485 to a Windows™-based network enabled PC using optional RadNet Server software that places the information onto the LAN for access by RadNet clients.

RMS-3 Specifications

Specification	Benefit
Range:	Background levels to 10,000 R/h (0.1 µSv/h to 100 Sv/h) over any four decades using various standard Thermo Scientific detectors.
Linearity:	± 10% (using dead-time compensation).
High Voltage:	From 450 to 2,500 V dc.
Thresholds:	Upper and Lower Thresholds computer controlled (0.3 to 60 mV).
Alarm Range:	User-selectable over entire operating range (both Alert and High Alarm).
Units:	Measurement units are specified as text during calibration.
Temperature:	-40° to 60° C (-40° to 140° F).
Size:	241 H x 158.7 W x 127 mm D (9.5" x 6.25" x 5").
Weight:	Nominally 2.3 kg (5 lbs) without the detector.
Power:	100 to 240 V ac, 50/60 Hz, 15 W max.
PC Support:	Switch selectable RS-232 or RS-485 serial port using a DB-9 connector.
Relay Contacts:	240 V ac @ 8 A resistive, normally open and normally closed available.
Speaker:	Sonalert rated at 70 dB @ 60 cm.
Display:	6.86 mm (0.27") high twelve segment high visibility LED.
Visual Indicators:	LED's for High Alarm (Red), Alert Alarm (Amber), and Normal (Green).
Push Buttons:	Alarm Acknowledge.
Analog Output:	Optional 0 or 4 to 20 mA Logarithmic (jumper selectable).
Also Available:	Check Source Activation.

Options

- RMS3 OPT2 TTL Logic level input (Required for use with DA series detectors)
- RMS3 OPT3 4 to 20 mA or 0 to 20 V Logarithmic Analog Output
- RMS3 OPT4 High Alarm Flashing Strobe (Red)
- RMS3 OPT6 Wall Bracket with Handle
- RMS3 OPT6A Wall Bracket for use with DA1-X
- RMS3 OPT7 Windows™ Calibration Software Also Available: RadNet Networking Software and Hardware.

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