



# RPC-1000

## Radiation Process Controller

The RPC-1000 is a modern detection processing unit that has been designed to work with a variety of radiation detectors. To date, the primary application of the RPC-1000 has been to interface with the radial Beta/Gamma particulate detector head to ensure continuous airborne radioactivity concentrations are maintained at safe levels (DAC, DAC-hr, etc.) Future development will allow for additional detector heads to be used with the system.

### VALUE PROPOSITION

#### @ DETECTOR VERSATILITY

- Backward Compatibility with Thermo Scientific™ AMS-4 Radial Heads
  - Allows maximum use of existing instrument inventory
  - Easy 'plug and play' legacy Thermo Scientific™ AMS-4 Radial Head with new RPC-1000
- Minimal Training and Operating Procedural Changes required; can use existing AMS-4 Procedures in most cases
- Promotes ALARA Dose Savings; Real-Time Alarm Capability allows for personnel to safely work without respiratory protection
  - Minimizes time in work area, resulting in reduced external dose and minimized risk for internal radionuclide uptakes

#### @ SOFTWARE CAPABILITY

- Addition of large area 7" touchscreen display directly reduces risk of configuration error and erroneous false alarms
- Turn-key wireless interface allows for easy integration to legacy telemetry systems (i.e. Mirion, BHI, etc.)
- Streamlined Calibration Process results in significant time savings



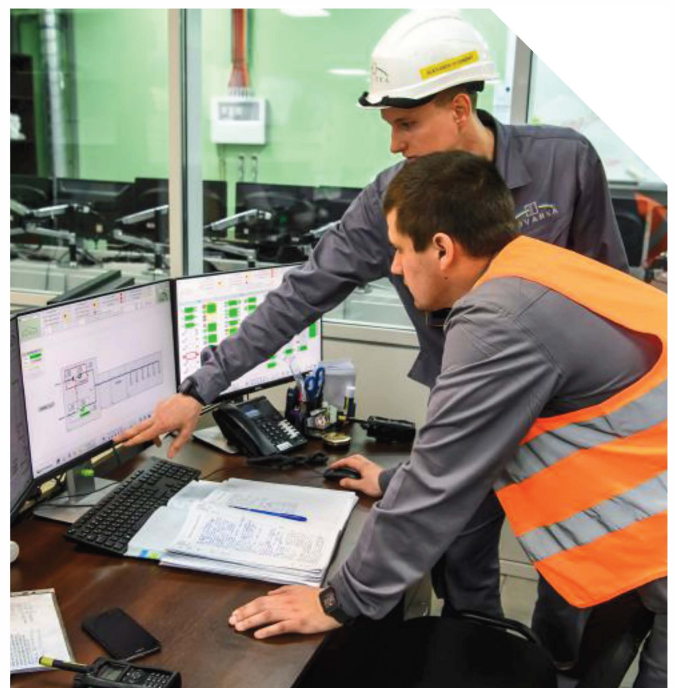
## USER APPLICATIONS

**Real-time Continuous Air Monitor (CAM);  
Ensure worker breathing zone is below  
radioactive airborne contamination levels**

- Job coverage monitoring  
(i.e. outage support, reactor cavity decon,  
general area deconning, rad waste  
activities, etc.)
- Permanent or fixed monitor location  
(i.e. effluent pathways, etc.)

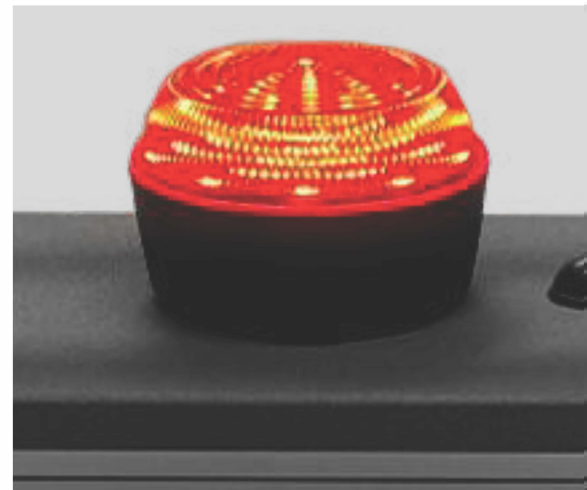
### Emergency Plan Response

- Command and control center monitoring  
(EOF, TSC, etc.)
- Emergency response vehicle; ensure  
response personnel breathing zones are  
below airborne respiratory



**KEY FEATURES**

- Full backward compatibility with Thermo Scientific™ AMS-4 Radial Detector; Plug and Play legacy head functionality
- Compatibility with Charthouse SMART Radial Detector Head;
  - Use of SMART Head provides inter-operability {hot swap capability} between detector heads for easy in-field detector head replacement
- Large 7" Touch Screen Display
  - High visibility display that provides monitor data/readings, alarm parameters, and system configuration parameters
- Highly visible alarm strobe and loud alarm
- Additional display option for gamma area monitoring {mR/hr readout}
- Integrated pump control switch; allows for direct power supply for vacuum pump
- Integrated wireless connectivity
  - 900 MHz and Wi-Fi options
  - compatibility with 3rd Party remote monitoring systems {i.e. Mirian and SHI/Bartlett, etc.}
- Wireless encryption ensures secure data transmission



**PRODUCT INFORMATION**

<b>RPC-1000</b>	CDM74000
<b>Radial Head</b>	CDM91042
<b>Vacuum Pump</b>	CDM91040
<b>AMS-4 SMART Head Upgrade Kit</b>	CDM91015



**PRODUCT SPECIFICATIONS**

<b>POWER REQUIREMENTS</b>	<b>AC Power</b>	120-240 VAC
<b>GENERAL</b>	<b>Dimensions (HxWxL)</b>	32 x 28 x 23 cm
	<b>Weight</b>	5lbs
	<b>Operating Temperature</b>	-20° C to 40° C
<b>DISPLAY</b>	<b>Type</b>	7" LCD touchscreen
	<b>USB</b>	USB configuration port
	<b>DE-9</b>	RS-232/RS-485
	<b>RJ-45</b>	Ethernet
<b>EXTERNAL CONNECTIONS</b>	<b>Control of external devices</b>	4-12mA relay signal, 3-Internal Contacts (Dry or Live)
	<b>Analog Output</b>	4-20mA/0-5V
	<b>Optional Radios can be ordered</b>	None Wi-Fi (worldwide) 900MHz 1W (USA) 900MHz 250mW (USA) 2.4 GHz (CE)
<b>ALARMS</b>	<b>Dual Alarm Set Points</b>	Low-warning, High-Alarm
	<b>Dual Alarm Indications</b>	85 dB (A) siren and high intensity LED strobe
<b>MODULAR DESIGN</b>	<b>Add or remove features as needed</b>	