

# Thermo Scientific iPCM12

## Installed personnel contamination monitor

The Thermo Scientific™ iPCM12 takes personnel contamination monitoring to a new level. The unique sculpted geometry utilized in the Thermo Scientific PCM2 is combined with the serviceability of the Thermo Scientific IPM9 and the breakthrough electronics of the Thermo Scientific Series 12 monitors.

### Key Features:

- Excellent geometry for alpha and low energy beta detection
- Improved sensitivity due to smaller detector size
- Sum zones for distributed contamination
- Detectors easily accessible from front panel
- QuickScan technology to reduce count times
- PC-controlled, with Windows™ operating system
- Ability to monitor changing background
- Poisson statistics for accurate assessment of alarm probabilities
- Thermo Scientific™ ViewPoint™ compatible
- Gamma option kit
- Optional ingress/egress doors

### Excellent Performance

Thermo Scientific iPCM12 utilizes 21 detectors in monitoring the body, head, hands, and feet. The detectors are split into four detection zones to minimize the background during monitoring, and achieve the best detection limits. Three optional detectors can be mounted to monitor the side of



the foot, the shoulder, and the top of the head. The very best geometry is ensured, with sprung detectors making contact with the arm and the top of the shoe. Sum zones may be applied across all detectors, providing at least 250 zones per measurement and counting channel.

Multi-language voice prompts provide verbal instructions during monitoring to ensure correct positioning and actions required following an alarm. In the event of an alarm, a large touchscreen monitors displays the location of the contamination. The USB security dongle allows supervisors access to diagnostic modes to further investigate the results.

The software is based on the 12 Series instruments. Results are stored in a database, providing both local and remote access. A QuickScan algorithm allows for faster beta and gamma contamination monitoring, particularly useful when the required monitoring time for beta and/or gamma would be longer than for alpha.

A gamma option provides up to nine scintillation detectors, monitoring the body, head, and feet. With this option, users can set both gross and  $^{60}\text{CO}$  alarms.

## iPCM12 Specifications

### General Specifications

Monitor has up to 24 identically-sized detectors plus an optional purged spare

Outer Dimensions (Open Frame Unit, iPCM12A): 28.5 x 37.0 x 86.6 inches (725 x 940 x 2220 mm)

Weight (Open Frame Version, iPCM12A): Approx. 660 lbs (300 kg)

### Features

- Excellent alpha and low energy beta detection geometry, building on the proven PCM2 design
- Coverage area greater than PCM2 with almost 17,000 cm<sup>2</sup> detection area
- Beta contamination detection limits improved by one-third compared to PCM2
- Alarms may be set on single detectors, or sum zones, leading to very low detection limits for distributed contamination
- Quickscan may be used, significantly reducing counting time, without compromising the statistical probabilities of detection or false alarm
- Changing background indication signal will highlight significant changes in background radiation
- Rapid recovery from background changes with a dynamic background counting time
- Changing conditions alarm indicates if there is a significant change in the count rate during the monitoring period, invalidating the measurement
- All background, measurement, source checking, event log, voltage scanning is stored to an SQL database within the monitor
- Each Measurement result may be stored against a personnel identifier
- Set-up, configuration and diagnostic information is accessed via a touchscreen LCD
- User screens and voice prompts in user-selectable language
- Dongle security, with three security levels
- Calibration Integrity checking
- Windows operating system and Series 12 Software based upon that in SAM12 and PM12
- USB and Ethernet connectivity



862

0.977 7.95 3.98 44.5

0.977 4.98 3 8.33

2.91 0.465 0.884 2.12 29.2 34.9

7.21 1.74 0.442 0.605

0.744

0.326 0.628 33900

Detector System:  Gas Flow  Scintillation

Average Over (s): 100

Continuous

Show Details As:  Thresholds  Windows

Threshold:  T1  T2  T3  T4  T5

Detector	T1	T2	T3	T4	T5
TH-A	91.7	0.023	0	0	0
TH-B	479	0.047	0	0	0
TH-C	160	0	0	0	0
TH-D	132	0.023	0	0	0

All count rates in cps

Save To File Start Stop

Find out more at [thermofisher.com/radiationmeasurement](http://thermofisher.com/radiationmeasurement)