

ORTEC

High Performance & Low Cost Alpha/beta Counting on a Budget



MPC-2000

Ideal for:

- Emergency response teams
- Security surveys
- Plant training programs
- Educational institutions
- Remote locations
- Portal surveys
- Mobile Laboratories
- Rapid screening
- Odd sample counting

Highlights:

- Compact Desktop size
- Multiple detector options:
 - Ultra thin window gas flow proportional
 - Windowless gas flow proportional
 - GM detector (*no P-10 required*)
 - ZnS + Plastic detector (*no P-10 required*)
- Keypad control and full PC control with data transfer
- Direct graphical printer support
- Same user interface as Protean WPC-9550

Ideal for:

- Emergency response teams
- Security surveys
- Educational institutions
- In-house support labs
- Site training programs
- Sealed source surveys
- Portal surveys
- Mobile Laboratories
- Odd sample counting

Highlights:

- Ultra-low level counting performance
- Single sample design
- Gas flow proportional detector
- Window or windowless operation
- Full direct printer support
- Lightest weight, highest performance system



MPC-9300

Manufactured by:



For:

ORTEC

AMETEK
ADVANCED MEASUREMENT
TECHNOLOGY

No Compromise Alpha/Beta Counting

High Performance - Rapid Response - Low Cost

Protean Instrument Corporation's MPC-2000 and MPC-9300 models are ideal for rapid responders, universities, small in house labs, or any application where the sample load is normally low, but fast turnaround and quality data are a must. Both counters deliver laboratory grade performance at a fraction of the cost and size of traditional laboratory grade systems with Protean's legendary quality, reliability and ease of maintenance.



The **MPC-2000** is based on Protean's widely accepted WPC-9550. It has the same control interface, electronics, and operating features. A gas flow proportional detector gives laboratory performance, while dual phosphor (DP) and GM detector options provide complete independence from P-10 counting gas. With either the GM or DP detector installed the MPC-2000 can be left on the shelf for long periods, yet be ready to count at any time. Operation of the MPC-2000 is nearly identical to the WPC-9550 automatic system, making it a perfect and inexpensive training system for WPC-9550 users.



The **MPC-9300** is a compact single detector manual counter. The system is simple, rugged, and extremely reliable. It allows easy changeover between window and windowless modes and front access for all maintenance. The system will accommodate samples up to two inches in diameter and up to 5/16 inch in depth. The MPC-9300 is unique in providing true ultra-low background counting performance in a single sample design. The system is light enough with shielding to place easily in a mobile laboratory. Emergency response teams can deploy onsite with a no compromise counting system at hand.

Condensed Specifications

	MPC-9300		MPC-2000			
	P-10 Required		P-10 Required		P-10 Not Required	
	GFP + Window	GFP Windowless	GFP + Window	GFP Windowless	GM	ZnS+ Plastic
Alpha Bkg. (Typical/Warranted)	.05/.05		.05/.05	.05/.1	< 25 CPM total bkg. --- 3350 cpm/mR/h for Cs137 gamma --- 0.42 length x 1.8 diameter (effective inches)	.05/.07
Beta Bkg. (Typical/Warranted)	4/.5		40/60	40/60		45/55
Alpha Efficiency	Po ²¹⁰ - 42% Th ²³⁰ - 42% Am ²⁴¹ - 42%	Po ²¹⁰ - 49% Th ²³⁰ - 49% Am ²⁴¹ - 50%	Po ²¹⁰ - 42% Th ²³⁰ - 42% Am ²⁴¹ - 42%	Po ²¹⁰ - 49% Th ²³⁰ - 49% Am ²⁴¹ - 50%		Th ²³⁰ - 32% Am ²⁴¹ - 26%
Beta Efficiency	H ³ - NA C ¹⁴ - 12% Ni ⁶³ - 17% Sr ⁹⁰ - 55% Tc ⁹⁹ - 43% Cs ¹³⁷ - 42%	H ³ - 25% C ¹⁴ - 30% Ni ⁶³ - 48% Sr ⁹⁰ - 65% Tc ⁹⁹ - 57% Cs ¹³⁷ - 50%	H ³ - NA C ¹⁴ - 12% Ni ⁶³ - 17% Sr ⁹⁰ - 55% Tc ⁹⁹ - 43% Cs ¹³⁷ - 42%	H ³ - 25% C ¹⁴ - 30% Ni ⁶³ - 48% Sr ⁹⁰ - 65% Tc ⁹⁹ - 57% Cs ¹³⁷ - 50%		Sr ⁹⁰ => 45% Tc ⁹⁹ => 16% in 1/8 inch planchet
Spillover/Crosstalk	0% Alpha into Beta, 0% Beta into Alpha		0% Alpha into Beta 0% Beta into Alpha		NA	
Plateau Slope	$\alpha < 1.5\%/100V$ - $\beta < 2.5\%/100V$		$\alpha < 1.5\%/100V$ - $\beta < 2.5\%/100V$		<= 10%/100V Minimum plateau length 150 volts	NA
Detector non-uniformity	< +/- 5% over 95% active area		< +/- 5% over 95% active area		NA	NA
Cosmic Rejection Efficiency	>99%		NA - The MPC-2000 does not have a guard detector.			
Sample Size	2 inch maximum diameter with depths of 1/8, 1/4, or 5/16 inch selected by planchet carrier					
Weight	380 pounds / 172 kg		35 pounds / 16 kg			
Footprint W x D	23 x 24 inches 58 x 61 cm		9 x 16 inches 23 x 41 cm			
Height	16 inches / 36 cm		17 inches / 43 cm			

Specifications subject to change without notice

Protean Instrument Corporation is the only company in the world 100% dedicated to the design and manufacture of alpha/beta counting systems. The Protean range of alpha/beta counters covers nearly every application and customer requirement. Information on our complete product range is available on our web site:

www.proteaninstrument.com

or through **ORTEC**, our exclusive distributor. Contact Protean or your local **ORTEC** sales agent for more information.

Manufactured by:



Performance - Innovation - Commitment

ORTEC

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