ORTEC

WPC-1050-GFW-2

Automatic low-background alpha/beta counter, 50 or 100 samples

General-purpose low-background counter for health physics and radiochemistry, with automatic sample changer and barcode reader. The pancake gas-flow detector sits in 10 cm of lead with a cosmic guard detector, the window is easy to replace and Gas-PRO monitors the gas flow. An improved design of the W PC-9550.



Detector type

Pancake-style gas-flow proportional detector, Ø .7 cm [1]

Weight

50 samples: 195 kg; 100 samples: 200 kg [1]

Specifications

DETECTOR

Detector type	Pancake-style gas-flow proportional detector, Ø5.7 cm	[1]
Window	Aluminised, 80 µg/cm²; easy to replace	[1]
Guard detector	1 gas-flow proportional detector (cosmic guard)	[1]
Sample geometry	Planchets Ø5.1 cm (2 in), 1/8, 1/4 or 5/16 in deep (3.2, 6.3 or 7.9 mm)	[1]

PERFORMANCE

Typical detection efficiency	Top / 1/8″ / 1/4″ / 5/16″ bottom: ^{239}Pu 35/31/25/24%, ^{90}Sr/Y 51/47/40/39%, ^{99}Tc 39/33/28/26%; with optional dual-anode detector: ^{239}Pu 38%, ^{90}Sr/Y 53%, ^{99}Tc 35%, ^{63}Ni 15%	[1]
Background rate	With lead and guard: warranted alpha <0.1 cpm, beta <0.9 cpm (typical 0.05 and 0.7); with dual-anode detector beta <1.0 cpm warranted	[1]

COOLING

Sample capacity	Automatic changer for 50 samples (100 optional) with barcode reader, sample range 1–999	[1]

SOFTWARE & DATA

Software	DUO Express for programming, data management and control charts; Vista 2 000 (radiochemistry) and Vista FC (health physics) as options	[1]

CONNECTIVITY & INTERFACE

Communication	Data export via USB PIC Link and USB flash drive	[1]
User interface	Touch screen	[1]

POWER & BATTERY

Power supply	110–240 V AC, 50–60 Hz	[1]

MECHANICAL

Dimensions	50 samples: 83.8 × 81.3 × 63.5 cm; 100 samples: 129.5 × 81.3 × 63.5 cm (H × W × D)	[1]
Weight	50 samples: 195 kg; 100 samples: 200 kg	[1]

GENERAL

Counting gas	P-10, 60 cc/min at 10 psi; Gas-PRO fail-safe monitoring senses breaches i n gas flow	[1]
Lead shielding	10.2 cm (4 in) lead	[1]
Count modes	Alpha only; alpha/beta simultaneously; alpha then beta	[1]
Use	Health physics and radiochemistry, for example smears and air filters	[1]

Sources

[1] **ORT-WPC-1050-GFW-2 Automatic Sample Changer**
RTEC (AMETEK) · product-page · Instrument Specifications; Specifications; Overview; Instrument Specifications · checked 2026-10-16
https://web.archive.org/web/20261016000000/https://www.ortec-online.com/products/systems/gross-alpha-beta-me...

Every value is taken from the manufacturer's own document; the number after the value refers to the source list. Always check against the latest datasheet before ordering.

The data comes from the manufacturer's published documents. Manufacturers may change specifications; the current configuration and performance are confirmed in the quotation.