ORTEC

MPC-900-GFW-2/GFL-2

Manual single-sample alpha/beta counter with gas-flow detector

Benchtop gross alpha/beta counters with a hemispherical gas-flow proportional detector, for health physics such as smears and air filters and for radiochemistry when only alpha counting is of interest. The windowless GFL-2 gives higher efficiencies for alpha emitters and higher-activity low-energy beta emitters. Routines and QC charts are programmed in DUO Express and t ransferred via PIC Link.



Detector type
Hemispherical gas-flow proportional detector, Ø .7 cm; windowed or windowless [1]

Weight
40 lb; shield +50 lb [1]

Specifications

DETECTOR

Detector type	Hemispherical gas-flow proportional detector, Ø5.7 cm; windowed or windowless	[1]
Window	GFW-2: aluminised, 80 µg/cm²; GFL-2: windowless	[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 – with window (GFW): ^{239}Pu 40/32/26/24%, ^{90}Sr/Y 55/48/40/37%, ^{99}Tc 47/37/30/27%; windowless (GFL): ^{239}Pu 47/47/47/47%, ^{90}Sr/Y 60/62/62/62%, ^{99}Tc 58/58/58/58%	[1]
Background rate	Warranted alpha/beta (cpm), both versions: <0.1/<55 without lead; <0.1/<45 with lead	[1]

COOLING

Sample capacity	1 sample (manual)	[1]

SOFTWARE & DATA

Software	DUO Express included; routines and QC charts are programmed on a PC a nd transferred via PIC Link cable	[1]

CONNECTIVITY & INTERFACE

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

POWER & BATTERY

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

MECHANICAL

Dimensions	51.4 × 22.9 × 40.6 cm (H × W × D)	[1]
Weight	40 lb; shield +50 lb	[1]

ENVIRONMENT & RATINGS

perating temperature	10–40 °C	[1]

GENERAL

Count modes	Alpha only; alpha/beta simultaneously; alpha then beta	[1]
Counting gas	P-10, 60 cc/min at 10 psi; Gas-PRO fail-safe monitoring senses breaches i n gas flow	[1]
Use	Health physics such as smears and air filters; radiochemistry when only alpha counting is of interest	[1]

Sources

[1] **ORT-MPC-900-GFW-2/ORT-MPC-900-GFL-2 Manual Single Sample Gross Counter**
RTEC (AMETEK) · product-page · Overview; Specifications – Physical; Specifications; Specifications – Physical · 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.