Graetz
Strahlungsmeßtechnik

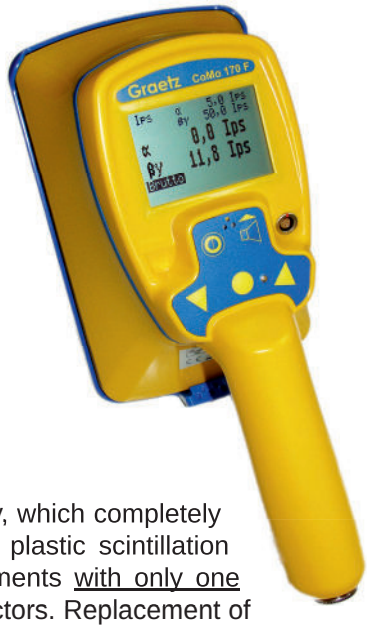
PRODUCT DATA SHEET

05-2022
Subject to change

PORTABLE CONTAMINATION MONITOR CoMo-170/CoMo-170 F

with thin-layer plastic scintillation detector for highly sensitive measurement of α-, β- and γ-contaminations

Product features



- Indication of measured values either in cps or nuclide referred in Bq and Bq/cm², digital and analog (bargraph) indication of measured values
- The measuring system automatically identifies the existence of α-radiation.
- Calibrated nuclide file, free extensible (user-specific nuclides can be added)
- Settings and important measurement parameters are secured by a code word.
- Data storage
- Integrated calibration software
- Possibility to connect external detectors, e.g. for dose rate measurement, automatic detector identification
- USB and RS-232 interface for PC system
- Stationary use of CoMo-170 in wall station (option) with power supply

An essential advantage of the CoMo-170/CoMo-170 F is the detector technology, which completely works without gas filled or gas flow proportional detectors, using a thin-layer plastic scintillation detector with ZnS-coating. So it is possible to perform α-, β- and γ-measurements with only one detector. No expensive costs for consumable gas or for the repair of Xenon detectors. Replacement of a defective foil can be effected by the user himself.

Technical Data

Detector type:	Thin-layer plastic scintillation detector with ZnS-coating
Detector size:	170 cm², detector surface mechanically sheltered by a protective grid
Background counts:	α: approx. 0.1 cps β/γ: approx. 15 – 20 cps
Background counts subtraction:	With adjustable measuring time
Keyboard:	5 function keys
Alarm:	For each nuclide separately adjustable, acoustic alarm
Indication of measured values:	Either in cps or nuclide referred in Bq or Bq/cm²
Nuclides:	25 nuclides, preset calibration factors, variable acc. to user requirements (user-specific nuclides can be added), integrated auto-calibration
Measuring time:	Continuous (adjustable attenuation), for stationary use adjustable in seconds
Display:	Large graphic LC-display (128 x 64 pixels), with illumination, illumination time adjustable
Power supply:	2 batteries, AA Mignon or corresponding accumulators (NiCd, NiMH), rechargeable by recharger unit (option) or by wall station (option) during stationary use
Temperature range:	-10°C up to +40°C special version down to -20°C
Dimensions:	280 mm x 125 mm x 135 mm (with handle)

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Weight: Approx. 800 g (batteries included)
Housing: Ergonomically shaped plastic housing
Interface:
- USB and RS-232 interface
- Charge/mains supply
- External detectors, wall station and smear test station

Efficiencies for various radionuclides
average values of measurements with 100-cm²-substances

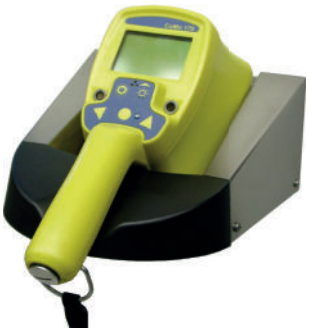
C 14	approx. 14 %	In 111	approx. 8 %
F 18	approx. 18 %	I 123	approx. 7 %
P 32	approx. 25 %	I 125	approx. 12 %
S 35	approx. 5 %	I 131	approx. 21 %
Cl 36	approx. 42 %	Cs 137	approx. 35 %
K 40	approx. 30 %	Au 198	approx. 23 %
Co 57	approx. 7 %	Tl 204	approx. 43 %
Co 60	approx. 27 %	Am 241 α	approx. 22 %
Sr 89	approx. 27 %	Pu 238 α	approx. 12 %
Sr 90/Y 90 (referred to Sr 90)	approx. 42 %	U 238 α	approx. 26 %
Tc 99m	approx. 3 %		

CoMo-170 F especially for the use in NBC units, at fire brigades or civil protection.

Different technical data:

- Indication of measured values in cps (not nuclide referred in Bq or Bq/cm²)
- Software: fire brigades specific adaption
- All functions secured by a code word
- Additional alarm threshold for triple background count
- No external detectors
- No charging function

Optional accessories



stationary use of the CoMo
system in an active wall station

CoMo in a floor control device

CoMo in a
smear test measuring station

CoMo with connected detector
for dose rate measurement

Further accessories, cases and spare parts on request.

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