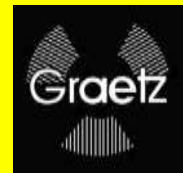


# Portable Contamination Monitor CoMo 170 / CoMo 170F

with thin-layer plastic scintillation detector for highly sensitive measurement of  $\alpha$ -,  $\beta$ - and  $\gamma$ -contaminations



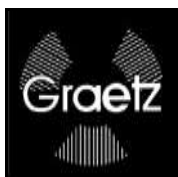
## Technical features

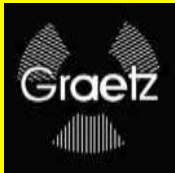
An essential advantage of the CoMo 170 / CoMo 170F is the detector technology, which completely works without gas filled or gas flow proportional detectors, using a thin-layer plastic scintillation detector with ZnS-coating. So it is possible to perform  $\alpha$ -,  $\beta$ - and  $\gamma$ -measurements 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.

- Indication of measured values either in cps or nuclide referred Bq and Bq/cm<sup>2</sup>, digital and analog ( bargraph) indication of measured values
- the measuring system automatically identifies the existence of  $\alpha$ -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
- serial interface RS232 for PC system
- stationary use in wall station (option) with power supply

## Technical Data

Detector type:	thin-layer plastic scintillation detector with ZnS-coating
Detector size:	170 cm <sup>2</sup> , detector surface mechanically sheltered by a protective grid
Background counts:	$\alpha$ : approx. 0,1 cps $\beta / \gamma$ : approx. 15 - 25 cps
Background subtraction:	counts 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/cm <sup>2</sup>





stationary use of the CoMo-system in an active wall station



CoMo with connected detector for dose rate measurement



CoMo in a floor control device

- 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 s
- 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 up to -20 °C
- Dimensions: 280 mm x 125 mm x 135 mm (with handle)
- Weight: approx. 750 g (batteries included)
- Housing: ergonomically shaped plastic housing
- Interface:
  - serial interface RS232
  - recharge / mains supply
  - external detectors

Efficiencies for various radionuclides average values of measurements with 100 cm <sup>2</sup> substances	
C-14	ca. 14%
F-18	ca. 18%
P-32	ca. 25%
S-35	ca. 5%
Cl-36	ca. 42%
K-40	ca. 30%
Co-57	ca. 7%
Co-60	ca. 27%
Sr-89	ca. 27%
Sr-90 / Y-90 (referred to Sr-90)	ca. 42%
Tc-99m	ca. 3%
In-111	ca. 8%
I-123	ca. 7%
I-125	ca. 12%
I-131	ca. 21%
Cs-137	ca. 35%
Au-198	ca. 23%
Tl-204	ca. 43%
Am-241 α	ca. 22%
P-238 α	ca. 12%
U-238 α	ca. 26%

### Special edition CoMo 170F for nuclear operations at fire brigades.

Different technical data:

- indication of measured values: cps, not nuclide referred in Bq and Bq/cm<sup>2</sup>
- alarm: acoustic warning
- software: fire brigades specific adaption
- all functions secured by a password
- additional alarm threshold for triple background count
- no external detectors



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