

# Portable Contamination Monitor

## CoMo-170/CoMo-170 F

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-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  $\alpha$ -,  $\beta$ - 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 USB for PC system
- stationary use in wall station (option) with power supply

### Technical Data

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



**GRAETZ Strahlungsmesstechnik GmbH**  
Westiger Straße 172 • 58762 ALTENA • GERMANY  
P.O. Box 81 00 • 58754 ALTENA • GERMANY

**Active Radsys**  
W: [www.activeradsys.it](http://www.activeradsys.it) Tel: 0544 408071  
E: [info@activeradsys.it](mailto:info@activeradsys.it) Fax: 0544 201477

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## optional accessories:



stationary use of the  
CoMo system in an active  
wall station



CoMo in a floor control device



CoMo with connected detector for  
dose rate measurement

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<b>Weight:</b>	approx. 750 g (batteries included)
<b>Housing:</b>	ergonomically shaped plastic housing
<b>Interface:</b>	- serial interface USB - 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%

## CoMo-170 F or CoMo-170 ZS especially for use in NBC crews at fire brigades or civil protection

### 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

Further accessories and spare parts on request.



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