

# PORTABLE CONTAMINATION MONITOR

## CoMo-170/CoMo-170 F

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

### Product features

- ▲▲ Indication of measured values either in cps or nuclide referred in 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
- ▲▲ 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  $\alpha$ -,  $\beta$ - 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.

### 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 – 20 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 seconds
<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 down to -20°C
<b>Dimensions:</b>	280 mm x 125 mm x 135 mm (with handle)

<b>Weight:</b>	Approx. 800 g (batteries included)
<b>Housing:</b>	Ergonomically shaped plastic housing
<b>Interface:</b>	- 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-cm<sup>2</sup>-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/cm<sup>2</sup>)
- ▲▲ 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



CoMo in a floor control device

stationary use of the CoMo system in an active wall station



CoMo in a smear test measuring station

CoMo with connected detector for dose rate measurement



Further accessories, cases and spare parts on request.