GRAETZ Med CoMo-170 & CoMo-170 DL
Contamination monitor & Dose rate meter

Key features Contamination monitor: CoMo-170

- Portable Contamination Monitor with thin-layer plastic scintillation detector for highly sensitive measurement of α-, β- and γ-contamination with only one detector
- Suitable for contamination checks of work areas, protective clothing or body surface
- Thin-layer plastic scintillation detector technology, providing key benefits over gas-filled or gas flow proportional detectors: Reduced operating expenses, lower repair costs etc.
- Automatic detection of the presence of α-radiation; simultaneous, selective measurement of α-, β- and γ-contamination is possible
- User-friendly, menu-driven configuration
- Important measurement parameters protected by pass code number
- Calibrated reference nuclide file with integrated auto calibration
- Integrated storage of measurement data
- Optional software for read-out and processing of measurement data
- Connection option for different external detectors, e.g. for dose rate measurement
- Automatic detector identification
- Optionally also fixed location operation with wall or table mount including inductive charging, controlling of measurement time and switching between background and contamination measurement

CoMo basic unit

CoMo with connected detector
for dose rate measurement

CoMo in optional Wall station

Technical data

Detector type and size:	thin-layer plastic scintillation detector	Measurement time:	continuous, for stationary operation adjustable in s
Background:	α: approx. 0.1 cps α/β: approx. 15 - 25 cps	Display:	large-area, graphical LC display 128 x 64 pixels, with illumination, duration of illumination
Background Subtraction:	with adjustable background measurement time	Temp. range:	- 10° C to 40° C, no condensation special version up to - 20° C
Measurement electronics:	µ-controller supported electronics	Dimensions:	280 x 125 x 135 mm (L (with handle) x W x H)
Keyboard:	foil keyboard, 5 function keys	Weight:	ca. 750 g (including batteries)
Alarm:	separately adjustable for each nuclide, acoustic alarm	Housing:	ergonomically shaped plastic housing
Result display:	either in cps or nuclide-specific in Bq or Bq/cm²	Interfaces:	- serial interface RS 232 - boost charge / line operated - external detectors
Nuclides:	25 nuclides, preset calibration factors, user-specific nuclides may be added,	Power supply:	2 batteries, AA Mignon or corresponding rechargeable batteries, (NiCd, NiMH), can be charged via charge unit, in stationary mode via wall station with inductive charge conservation

Efficiences for various radionuclides
Average values from measurments with 100 cm² compound

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

Make a smear test counter from your mobile contamination monitor CoMo-170…
In daily practice of radiation protection, not only direct contamination monitoring with the mobile contamination monitor is required, but also the indirect contamination monitoring by means of taking a smear test sample, especially to find out if the contamination is sticking. Thanks to the new smear test station you can create a comfortable smear test counter together with the CoMo-170.

Advantages:

- Reproducible geometry of the smear test sample to the detector system
- For α- and β/γ-contamination measurements
- Sample drawer prepared for 60 / 120 mm Ø sample plates and smear test swabs on carrying paper (max. 100 x 130 mm)
- Automatic background measurement and subtraction
- Definable measuring parameters (nuclide, detection surface, smear factor, measuring time, alarm threshold)
- As desired entry of a fixed measuring time or automatic measuring time calculation according to defined statistical error (%)
- Integrated auto-calibration routine, 8 definable nuclides
- Power supply of the smear test counter via adapter, incl. charging of the rechargeable batteries in the CoMo
- Data storage. Stored data can be printed or transferred to a PC for further processing
- Simple operation with user guidance; low-budget solution

Key features Dose rate meter: CoMo-170 DL

- "2 functions - 1 measuring instrument": contamination monitoring combined with dose rate measurement
- Additionally integrated GM-counter tube 18550 in the front surface of CoMo-170, suitable for dose rate measurement from 1 µSv/h till 20 mSv/h
- New dose variable H*(10) according to German radiation protection ordinance
- Energy range approximately 40 keV − 1.3 MeV
- Detector position indicated on front surface
- Simple switch to dose rate measurement in quick menu
- Automatic measuring value display in nSv/h - µSv/h or mSv/h, auto-ranging operation
- Digital and analogue measuring value display
- Definable alarm threshold for dose rate measurement
- Measuring values can be stored. Stored measuring data can be printed or transferred to a PC-system for further processing
- Simple operation with user guidance
- Economical solution − less than 50 % of the price for a separate dose rate meter

Position of the additionally integrated GM-counter tube

Available accessories for CoMo:
Smear test control station, Wall holder, Wall station, Table station, Floor bogey, GM counter tubes 18550 or 18509,
NaI-scintillation detector, Pancake detector, Software, Sr-90-Beta check source

Order numbers
CoMo-170: 10200
CoMo-170 DL: 10201
Accessories: Please contact us.