

Accessories for CoMo and DoMo

EXTERNAL CONTAMINATION DETECTORS AND DOSE-RATE PROBES FOR COMO AND DOLMO



The contamination detector CoMo and the dose-rate monitor DoMo are widely used instruments in radiation protection. Using NUVIA's range of accessories can further expand their flexibility for tackling different tasks with unique challenges. For example, contamination measurements can be taken from the inside of pipes, hard-to-access areas, very large or very small areas. Both the DoMo and the CoMo can be set up to measure task-specific dose-rate ranges. Additionally, the DoMo could be used as a contamination detector and the CoMo as a dose-rate probe or even a wipe-test station.

Highlights

- Floor bogey (available for 1, 2 or 3 CoMo's)
- Wall station
- Wipe-test counter
- Pipe detector
- Lantern detector
- End-window detector
- Large-area detector (shielding optional)
- Flat detector
- Different GM counter tubes and NaI-probes with different measurement ranges

Key Figures

10 ➔ Different dose-rate probes

10 ➔ Different types of contamination detectors

>25 ➔ Different accessories

Contamination measurements

The CoMo 170 and the CoMo 300 allow both selective and simultaneous measurement of α -, β - and γ -radiation and therefore protection of humans from any contamination that could be situated in the area in which they are working. The large variety of accessories allows the device to be used in numerous applications. The measurement mode and display switch automatically when an external detector is connected.

Floor Bogey

1-3 CoMos can be placed in the floor bogey for quickly measuring large floor areas. This is an easy and comfortable way for both indoor and outdoor measurements to be made by using existing devices. The data can be transferred wirelessly to a tablet.



Wall station

With a CoMo wall station an automatic and safe measurement of the hands can be done easily and quickly. A light-barrier starts the measurement for a user-defined period. On top of this, the wall station charges the internal batteries of the CoMo.

Wipe-test counter

The wipe-test counter allows to check smears of various sizes (60, 120 mm, as well as std air sampler filter papers) for contamination. A custom wipe-factor can also be included. The CoMo will automatically change the measurement mode, settings and the calibration factors when connected to the wipe-test counter.



Corner detector

The special design of the corner detector eliminates dead zones at the edges. This allows measurements to be taken without any blind spots. The corner detector has also been proven useful for release measurements of covering panels as well as beaded metal plates.

Pipe detectors

The pipe detectors have a 360° field of measurement which means they can check the inside of piping systems for contamination. Pipe detectors are available in the following dimensions: 32 x 200 mm and 43 x 150 mm (Ø x L). Guide elements ensure a constant distance from the detector to the wall of the pipe. The plastic-scintillation detectors allow an α - and β/γ -measurement. With the PD 43 G a pure γ -detector is also available.



Lantern detector

The 4 detection planes of the lantern detector are perfectly suited to securely check storage shafts for contamination, e.g. in fuel element transportation.



Flat detector

Due to the height of the detector housing of the standard CoMo some surfaces might not be accessible due to space constraints. With a height of only 75 mm instead of the usual 135 mm the flat detector can be used as an alternative. For example, behind or under furniture or in small gaps. The flat detector is a robust option for various tasks.

End-window detectors

End-window and pancake detectors are ideally suited for the precise localisation of very small hotspots because of their small detector surface. Additionally, they can be used for searching within unevenly formed surfaces for contamination, for example, the inside of respirators. There is a choice of either plastic-scintillation detectors or GM counter tube. The detection of extremely low activities is possible with a shielded NaI detector that is also available.



Large-area contamination detectors

Connecting an external large-area contamination detector is especially useful for an instrument such as the DoIMo, because it converts it from a dose-rate monitor to a contamination measurement device. The surface areas of the four different detectors are 170 cm² (flat detector), 300 cm² (PVT 300), 410 cm² (PVT 410) and 525 cm² (PL 525). While the flat detector and the PVT-devices are using thin-layer plastic-scintillation detectors and can thus measure α - and β/γ -radiation selectively and simultaneously, the PL 525 is a large-volume plastic-scintillation detector for pure γ -measurements. This, together with the optional additional shielding, makes the PL 525 especially sensitive.



Dose-rate probes

The base units DoIMo I and DoIMo II have integrated GM counters with different measurement ranges. The CoMo contamination monitors also have an integrated dose-rate probe as an option. External dose-rate probes allow the user to choose a task-specific measuring range and sensitivity. Measurements in environments with high background radiation, e.g. in controlled areas or for plant monitoring, might make an extension of the range towards higher dose-rates necessary. Likewise, an extension to lower dose-rates – down to monitoring background variations – is useful for many applications.

Available detectors

Name	Detector type	Measuring Range
DoIMo I	Integrated: GM	1 μ Sv/h – 100 mSv/h
DoIMo II	Integrated: GM	10 μ Sv/h – 1 Sv/h
18550 CE	GM	10 μ Sv/h – 20 mSv/h
18509 CE	GM	50 μ Sv/h – 1 Sv/h
18529 CE	GM	500 μ Sv/h – 10 Sv/h
70 031A	GM	0.1 μ Sv/h – 1 mSv/h
70 013A	GM	0.3 μ Sv/h – 10 mSv/h
70 019A	GM	1 μ Sv/h – 100 mSv/h
70 014A	GM	10 μ Sv/h – 1 Sv/h
25B38	Nal	Bkgr – 200 μ Sv/h
38B51	Nal	Bkgr – 100 μ Sv/h
76B76	Nal	Bkgr – 50 μ Sv/h

