NUVIATECH INSTRUMENTS

DATA SHEET

DolMo-Telescope

With lightweight carbon fiber telescopic pole

Our new DolMo-Telescope expands our DolMo product line as well as the versatile NUVIATech probe range. It enables precise measurements from a safe distance.
It is compatible with our Geiger-Müller detectors, high-sensitivity NaI detectors, and α+β/γ contamination probes.
As a display unit, you choose between the DolMo 0 and the DolMo I or II with integrated Geiger-Müller tube.

Benefits

- Stepless extendable telescope made of carbon fiber-reinforced plastic (CFRP)
- Length with handle (without probe): 400 cm
- Internally guided, shielded probe cable
- Comfortable handling with a wide shoulder strap
- Flexible arrangement of strap mounts
- Operation possible even with protective gloves
- Resource-efficient design: DIY repairs or replacement of individual components (e.g., telescope elements, probe cable, probe, etc.) possible

Key figures

400 cm
➥ *length with handle*

1.6 kg
➥ *weight*

3 probe types
➥ *available (NaI, GM, plastic)*

The DolMo-Telescope features a stepless extendable design with five elements, reaching a total length of 4 meters.

Constructed with fiberglass elements, it is exceptionally lightweight, while its resource-efficient design allows for simple repair or replacement of individual components.

Features DolMo-Telescope

- Stepless extendable telescope made of carbon fiber-reinforced plastic (CFRP)
- Retracted length (without handle and probe): 107 cm
- Retracted length with handle (without probe): 168 cm
- Extended length with handle (without probe): 400 cm
- Weight (without DolMo and probe): 1.6 kg
- Weight with DolMo (without probe): 1.9 kg
- Internally guided, shielded probe cable
- Comfortable handling with a wide shoulder strap
- Flexible arrangement of strap mounts
- Operation possible even with protective gloves
- Resource-efficient design: repairs or replacement of individual components (e.g., telescope elements, probe cable, probe, etc.) possible
- Inspection and monitoring of areas with restricted radio transmission

Features DolMo

- The DolMo product line consists of the DolMo 0 display unit and the DolMo I/II dose and dose rate meters.
- The DolMo 0 functions as a pure display unit.
- The DolMo I, equipped with an integrated Geiger-Müller tube, is designed for low-dose rate measurements ranging from 1 µSv/h to 100 mSv/h (45 keV - 1.3 MeV). It displays both dose rate and accumulated dose.
- The DolMo II is intended for higher dose rate measurements, covering a range of 10 µSv/h to 1 Sv/h (55 keV - 1.3 MeV).
- The measurement ranges can be extended by using external probes.
- Compact instrument with 270 g, including two AA or rechargeable batteries.
- Compact dimensions (110 x 68 x 30 mm)
- Ergonomic housing design with a large, backlit graphic LCD display (128 x 64 pixels)
- Measurement display options:
  - Dose rate (Sv/h or rem/h)
  - Dose rate + cumulative dose (Sv/h + Sv or rem/h + rem)
  - Counts per time (cps or cpm)
  - Activity display in Becquerel (Bq, Bq/cm^2), Curie (Ci, Ci/cm^2, Ci/In^2), or decays per minute (dpm, dpm/cm^2, dpm/In^2) when using an external contamination probe
- Customizable warning thresholds, e.g.:
  - Two adjustable dose rate alarm thresholds,
  - Two adjustable count rate alarm thresholds, adjustable dose alarm threshold
- Code-protected settings and measurement parameters for enhanced security

DolMo-Telescope

With lightweight carbon fiber telescopic pole

The DolMo-Telescope has been specifically designed for flexible use with the versatile NUVIATech probe program:

Scenarios with Geiger-Müller probes

The DolMo-Telescope can be used in conjunction with Geiger-Müller probes to measure the ambient equivalent dose H*(10). Geiger-Müller probes are often cost-effective and, depending on the type, can also be used in areas with high dose rates.

The DolMo-Telescope enables safe measurements at a distance, for example, from a protected position. Thanks to the inverse square law, the dose rate at the operator's location, when standing 4 meters away from the source, is reduced to only 1/16 of the dose rate that would be measured at the tip of the probe or without using the telescope.

The DolMo 0 display unit shows the dose rate directly at the probe head by default. Alternatively, the internal dose rate can be displayed from the DolMo I/II dose rate meter. Switching between the dose rate of the probe or the internal Geiger-Müller's is simple with a button press on the DolMo I/II. The display will automatically return to the default view when the button is released.

In combination with the 70 014 A probe, the DolMo-Telescope is ideally suited for checking the transport index of packages when in the retracted position. In this configuration, the integrated counter tube in the DolMo I/II is positioned exactly one meter away from the package.

Currently available Geiger-Müller probes

70 031A (0.1 µSv/h – 1 mSv/h)

70 013A (0.3 µSv/h – 10 mSv/h)

70 019A (1 µSv/h – 100 mSv/h)

70 014A (10 µSv/h – 1 Sv/h)

Other probes available upon request.

Scenarios with NaI probes

Detecting radioactivity is essential in many work environments. In customs and goods inspection, the introduction of scrap into the recycling loop, the work of first responders, and in nuclear technology, the search for dose rate sources is crucial. The DolMo-Telescope with NaI detector is a very user-friendly, highly sensitive measurement instrument. Equipped with a NaI scintillation detector, the DolMo-Telescope is one of the fastest and most sensitive measurement devices, being approximately 500 to 1000 times more sensitive than a conventional Geiger-Müller counter. Measurement and detection of radiation in the fluctuation range of the background is thus reliably possible.

Available NaI probes

25B38 (Background - 200 µSv/h)

38B51 (Background - 100 µSv/h)

Scenarios with α+β/γ-contamination measurement probes

When handling open radioactive materials, contamination of people, equipment, and surfaces can occur. For direct contamination measurements, our contamination measurement probes are used, equipped with a plastic scintillation detector, enabling α and/or β/γ measurements. For special tasks, our end-window probes OW 5 and OW 20 can be used. These allow α and/or β/γ measurements at a distance. For internal inspection of pipes, our pipe detectors can be pulled through a pipe using the probe cable or pushed inside using our telescope. The pipe detectors are available in sizes 32 x 200 mm and 43 x 150 mm (Ø x length). A guiding element ensures a consistent distance to the inner surface of the pipe. The PD 43 G pipe detector is a pure gamma detector and offers higher efficiency.

Available α+β/γ-contamination measurement probes

OW 5 (25.0 mm Ø, area approx. 4.8 cm²)
OW 20 (50.0 mm Ø, area approx. 19.6 cm²)
Pipe detector PD32 and PD32 G (32 mm Ø)
Pipe detector PD43 and PD43 G (43 mm Ø)

Optional accessories Transport and storage case

- Waterproof protective case
- Dimensions: approx. 120 x 40 x 17 cm
- Weight with insert: approx. 13 kg
- Equipped with handles and 2 wheels

Optional accessories Transport and storage bag

- Dimensions: approx. 126 x 22 x 22 cm, black
- Padded with foam
- Water-resistant surface

Test source holder

Used for the radiological inspection of DolMos and external Geiger-Müller probes. Alternatively, a factory inspection by NUVIA is also available.

Training devices

A DolMo simulation device for realistic exercises without radioactive materials is also available (DolMo SIM).

ITEM NUMBERS

Main device		Geiger-Müller probes	
DolMo 0	11001025	70 013A (32 mm Ø)	11050021
DolMo I	11001028	70 014A (22 mm Ø)	11010225
DolMo II	11001027	70 019A (22 mm Ø)	11010224
DolMo F	11001026	70 031A (32 mm Ø)	11050019
DolMo-Telescope	11030046		
probe adapter (22 mm)	12035141	Other Geiger-Müller Probes available upon request.	
probe adapter (32 mm)	12035142		
Optional accessories		**NaI probes (32 mm Ø)**	
case	31730017	25B38	11050024
bag	31530086	38B51	11050018
protective cap 70 019A	31430105	**Contamination measurement probes (32 mm Ø)**	
protective cap 70 014A	31430139	OW 5	11050002
-	-	OW 20	11010189
-	-	pipe detector PD32	11050005
-	-	pipe detector PD43	11050006