Automation und Messtechnik GmbH

- **Detector: end window GM counter pancake type**
- **Each probe gets all the benefits from the 6150AD:**
  - **Automatic range selection**
  - **Smart time constant**
  - **Simultaneously measures current value, average value, and maximum value of pulse rate, as well as total pulse number**
  - **Alarm thresholds for both pulse rate and pulse number including one freely programmable threshold each**
- **Power supply through probe cable, does not require a battery of its own, low current consumption**

Contamination Monitoring Probe „Pancake“ 6150AD-p

External Probe for the Dose Rate Meter 6150AD® for the Detection of Surface Contamination

6150AD® is our trademark (German registration number 303 55 582)

The probe serves to detect surface contamination in conjunction with any 6150AD model. If connected to the 6150AD, the 6150AD automatically selects the unit S^{-1} (pulses per second, counts per second). All functions as described in the 6150AD's data sheet remain available, where pulse rate and pulse number take the place of dose rate and dose, respectively. The indication in S^{-1} needs to be multiplied by a calibration factor to convert it into surface related activity (Bq/cm^2). The calibration factor depends on the type of radionuclide. The radionuclide needs to be known or assumed. The probes cannot serve to determine the radionuclide. Calibration factors for some radionnuclides can be found in the technical data table, and many others are specified in the detailed operating manual.

The detector of the probe 6150AD-p is a GM counter pancake type. With the protective cap removed, it is sensitive to alpha, beta, and gamma radiation thereby allowing to monitor surface contamination including wipe surveys. The protective cap has a built in energy compensation which enables the probe to detect photon radiation at low dose rates. Low energies (e.g., »soft« X-rays) down to a few keV are possible.

Please note that the probe 6150AD-p requires a probe cable which is not included and has to be ordered separately. The following standard cable lengths are available: 1.25m / 3m / 5m / 10m / 20m / 75m / 100m.

Technical Data:

Detector	End window tube LND 7312, not energy compensated, gamma sensitivity at Cs-137 approximately 19000 pulses per µSv
Tube window	Dimensions: diameter 4.45 cm, that is 15.6 cm^2 in area. Material: mica, areal density 1.5 - 2 mg/cm^2
Range	0.01 S^{-1} to approx. 20 kS^{-1}
Indication at natural background	Approx. 0.74 S^{-1}
Calibration factors for some selected radionuclide	Am-241: 0.34 $(Bq/cm^2)/S^{-1}$ C-14: 0.64 $(Bq/cm^2)/S^{-1}$ Sr-90(/Y-90): 0.07 $(Bq/cm^2)/S^{-1}$
Detection limits for some selected radionuclide	Am-241: 0.18 Bq/cm^2 Co-60: 0.21 Bq/cm^2
Temperature range (test conditions)	-30°C to +60°C (Cs-137 gamma radiation free in air)
Humidity & pressure	0 to 95% relative humidity, atmospheric pressure 60 to 130 kPa (600 to 1300 mbar)
Geotropism	None (no change of response as a result of gravitational effects)
Power supply	4.75 Volt out of Dose Rate Meter 6150AD
Battery life including the 6150AD	Approx. 1500 hours at low count rates, with the 6150AD's illumination off, with alkaline battery 6LR61
Dimensions	330 x 65 x 40 mm^3 without protective cap
Weight	Approx. 450 g without protective cap
Probe cable	Max. 100 m

- SUBJECT TO CHANGE WITHOUT NOTICE -