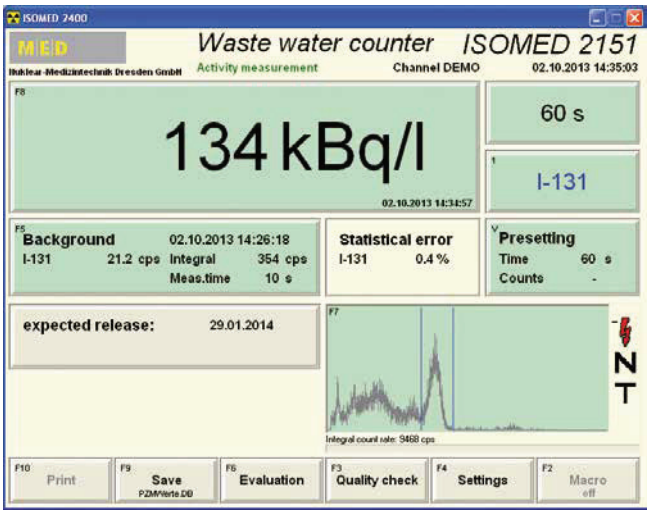
Waste Water Counter ISOMED 2151

The Waste Water Counter ISOMED 2151 is preferably meant for activity determination of I-131 (other nuclides on request) in single samples from waste water decay containers of nuclear-medical institutes. The samples taken from the waste water containers are put into special measuring containers (1l-Marinelli beaker or Roediger-cartridges). The measuring value is displayed in Bq/l. In this way, the limit value prescribed by official regulations (5 Bq/l for I-131) can be reliably proved. Additionally, the time moment when the specific activity of the waste water container falls below the limit value prescribed by official regulations is calculated and displayed. The measuring values can be assigned to the according waste water containers and can be stored together with the energy spectra. The printed protocol contains not only the measuring value tables, but also the last energy spectrum and the user logo.

The Waste Water Counter works on PC-basis as a Windows application with a fast multi-channel analyser and has an automatic dead time and background correction. The used menu technique guarantees a simple operation. The available energy calibration allows a simple setting of the required nuclide-specific isotope windows. The current energy spectrum is displayed in a control window and informs the user continuously about the measuring function. Network integration is possible.

A 3“ x 3“ NaI-scintillation probe is used as detector. It is placed in a 50 mm lead shielding. The measuring beaker is inserted from the top.

The Waste Water Counter ISOMED 2151 can also be used as a well counter or as a foodstuff counter.



Inline-Waste Water Counter ISOMED 2154

The Waste Water Counter ISOMED 2154 is meant for γ-spectrometric inline activity measurement of I-131 (other nuclides on request) from waste water of nuclear-medical institutes, which is stored in decay containers.

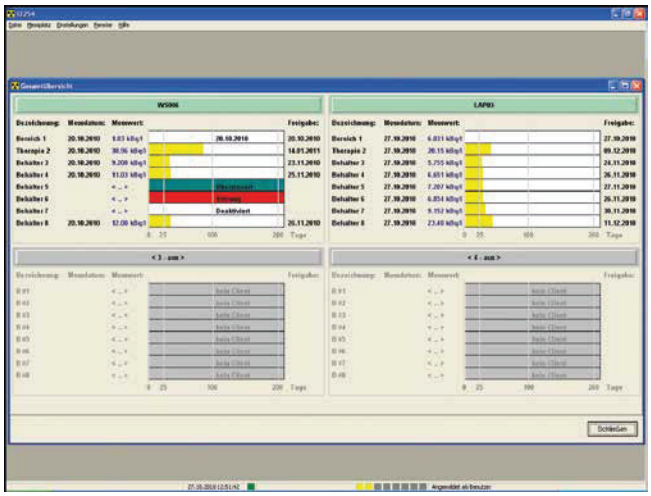
The NaI-scintillation probes which are used as a detector are positioned in an inner pipe in the middle of the storage tank. Up to 8 containers can be monitored simultaneously. The system parameters can be set in various ways according to user requirements. For example, you can set individual limit values, measuring times and reference nuclides for each container. The measuring value is digitally displayed in Bq/l. Simultaneously the program calculates when the specific activity of the waste water container falls below the limit value (prescribed by official regulations) and the waste water can be pumped into the public canalisation. The measurements can be controlled as desired manually, automatically or via control signals. Furthermore it is possible to signalise when the activity falls below the limit value by means of a control signal. A graph shows the required decay time for each container till it can be emptied, together with the according date.

In the automatic mode, the activity of the single containers is automatically measured and stored one by one. Measuring times and measuring distances can be defined individually. The measuring tables assigned to the containers can be displayed as a time diagram. Protocol print and network integration are possible. This makes e.g. the transmission and display of the measuring values in a measuring overview possible. The stored energy spectra can be evaluated by means of spectroscopy.

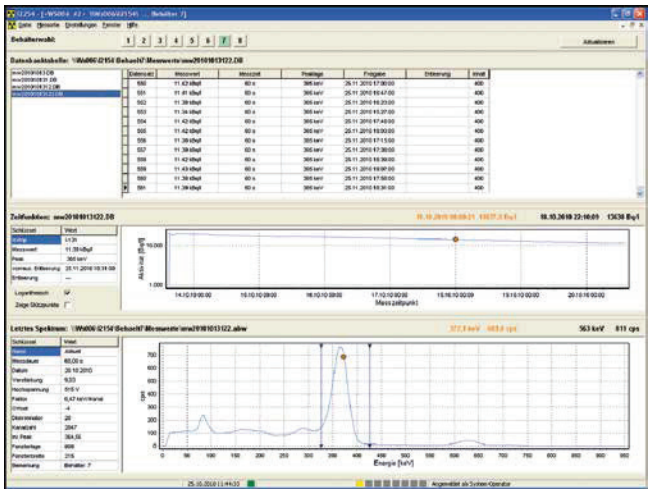
The Waste Water Counter works on PC-basis as a Windows application with a fast MED multi-channel analyser. A combination of the inline-Waste Water Counter ISOMED 2154 with the single probe Waste Water Counter ISOMED 2151 is possible.

Display and evaluation program ISOMED 2254

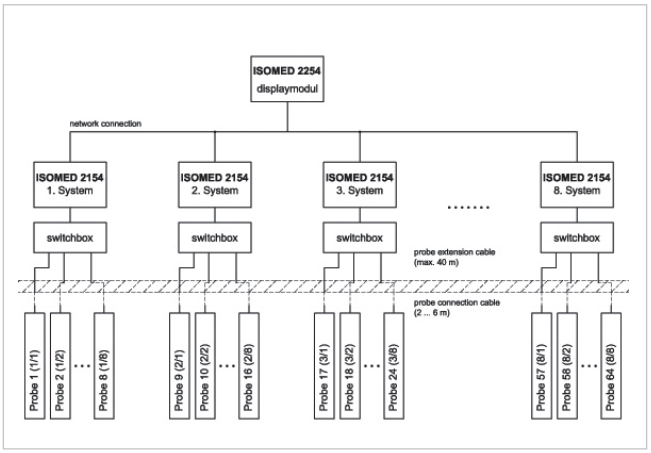
The display and evaluation program ISOMED 2254 makes it possible to combine up to 8 inline-waste water counters ISOMED 2154 in one program. In this way, up to 64 decay containers can be displayed in total. The counters can be displayed individually or simultaneously. By means of the evaluation, the disposal activity and the disposal volume in the public canalisation are calculated.



ISOMED 2254 overall view



ISOMED 2254 single view



Schematic representation of I2154+I2254